



Prepared for

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**2023 SEMIANNUAL GROUNDWATER
MONITORING & CORRECTIVE ACTION
REPORT
PLANT BRANCH ASH POND E**

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CERTIFICATION STATEMENT

This *2023 Semiannual Groundwater Monitoring and Corrective Action Report, Plant Branch Ash Pond E* has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.



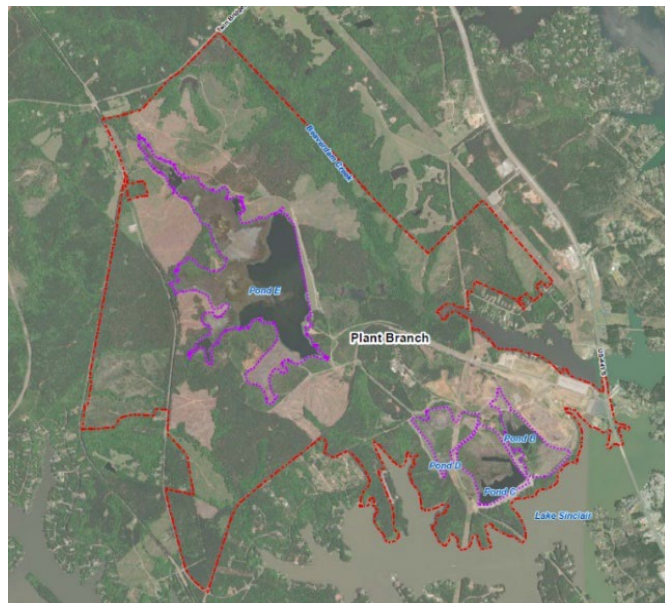
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SUMMARY

This summary of the *2023 Semiannual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective action program for the reporting period of July 2023 through December 2023 (referred herein as the “semiannual reporting period”) at the Georgia Power Company (Georgia Power) Plant Branch Ash Pond E (AP-E) (the Site). This summary was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Georgia Power to meet the requirements listed in Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, and by reference, Part A, Section 6¹ of the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Branch is located at 1100 Milledgeville Road, approximately 8 miles north of Milledgeville in Putnam County, Georgia. Plant Branch formerly operated as a coal-fired electric generating facility until its decommissioning in July 2015, at which point it ceased producing electricity. CCR materials resulting from power generation were historically transferred and stored at five on-property ash ponds (AP-) (i.e., A, B, C, D, and E). Ash Pond A was taken out of service in the late 1960s and was closed by the removal of CCR materials in April 2016. Ash Ponds B, C, D, and E are inactive,



Plant Branch and the Site

and will be closed by removal and relocation of its stored CCR to a fully lined and permitted landfill located on the plant property. As required in the CCR Rule, this Semiannual Report describes the status of the groundwater monitoring program, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and presents projected key activities for the upcoming year for AP-E. The other CCR unit (AP-BCD) at Plant Branch is reported separately.

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

Groundwater at the Site is monitored using a comprehensive well network that meets federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater conditions at the Site, an assessment monitoring program was established on November 13, 2019. The Site entered into an assessment of corrective measures on July 21, 2022. During the semiannual reporting period, the Site remained in assessment monitoring as corrective measures are being evaluated.

Site groundwater elevation measurements were recorded at monitoring wells and piezometers prior to the semiannual assessment monitoring event. The elevation data were used to confirm the groundwater flow direction, and to confirm that the groundwater monitoring well network for the CCR units remains sufficient to monitor groundwater downgradient of the unit.

During this semiannual reporting period, the semiannual assessment monitoring event for AP-E was conducted by Atlantic Coast Consulting (ACC) in August 2023. In order to meet the requirements of GA EPD Rule 391-3-4-.10(6) and 40 CFR 257.95 (b) and (d)(1), the semiannual assessment monitoring event included sampling and analysis of all Appendix III and Appendix IV constituents. Samples were collected and submitted to GEL Laboratories, LLC (GEL Laboratories), for analysis. Per the CCR Rule, groundwater results from these sampling events were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III² and Appendix IV³ constituents in wells listed in the tables below.

Appendix III Parameter	August 2023
Boron	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Calcium	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Chloride	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Fluoride	BRGWC-17S, BRGWC-35S, BRGWC-36S, BRGWC-38S
pH (lower limit)	BRGWC-33S, BRGWC-38S
Sulfate	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

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

TDS	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Appendix IV Parameter	August 2023
Beryllium	BRGWC-38S
Cobalt	BRGWC-33S, BRGWC-38S

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from July 2023 through December 2023, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power’s CCR Rule Compliance website and provided to GA EPD semiannually.

TABLE OF CONTENTS

SUMMARY..... i

1.0 INTRODUCTION 1

 1.1 Site Description and Background 2

 1.2 Regional Geology and Hydrogeologic Setting 3

 1.2.1 Regional and Site Geology 3

 1.2.2 Hydrogeologic Setting 3

 1.3 Groundwater Monitoring Well Network 4

2.0 GROUNDWATER MONITORING ACTIVITIES 5

 2.1 Monitoring Well Installation and Maintenance 5

 2.2 Assessment Monitoring 5

 2.3 Additional Sampling 6

3.0 SAMPLING METHODOLOGY AND ANALYSES 7

 3.1 Groundwater Level Measurement 7

 3.2 Groundwater Gradient and Flow Velocity 7

 3.3 Groundwater Sampling Procedures 8

 3.4 Laboratory Analyses 9

 3.5 Quality Assurance and Quality Control Summary 10

4.0 STATISTICAL ANALYSIS 11

 4.1 Statistical Methods 11

 4.1.1 Appendix III Statistical Methods 11

 4.1.2 Appendix IV Statistical Methods 12

 4.2 Statistical Analyses Results 13

 4.2.1 August 2023 Data 13

 4.2.3 Summary of Statistical Analyses 13

5.0 NATURE AND EXTENT 13

6.0 MONITORING PROGRAM STATUS 15

 6.1 Assessment Monitoring Status 15

 6.2 Assessment of Corrective Measures 15

7.0	CONCLUSIONS AND FUTURE ACTIONS.....	16
8.0	REFERENCES	17

LIST OF TABLES

Table 1	Monitoring Well Network Summary
Table 2	Groundwater Sampling Event Summary
Table 3	Summary of Groundwater Elevations
Table 4	Horizontal Gradient and Flow Velocity Calculations
Table 5	Summary of Groundwater Analytical Data
Table 6	Summary of Background Concentrations and Groundwater Protection Standards

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Monitoring Well Network Map
Figure 3	Potentiometric Surface Contour Map – August 2023

LIST OF APPENDICES

Appendix A	Well Maintenance and Repair Documentation Memoranda
Appendix B	Analytical Laboratory Results and Field Sampling Forms
Appendix C	Semiannual Remedy Selection and Design Progress Report
Appendix D	Statistical Analysis Reports

LIST OF ACRONYMS

ACC	Atlantic Coast Consulting, Inc.
ACM	Assessment of Corrective Measures
AP	ash pond
ASD	Alternate Source Demonstration
CCR	coal combustion residuals
CFR	Code of Federal Regulations
DO	dissolved oxygen
ft/day	feet per day
ft/ft	feet per foot
GA EPD	Georgia Environmental Protection Division
GEL Laboratories	GEL Laboratories, LLC.
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GSC	Groundwater Stats Consulting
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
K_h	horizontal hydraulic conductivity
MCL	Maximum Contaminant Level
mg/L	milligram per liter
NELAP	National Environmental Laboratory Accreditation Program
NTU	Nephelometric turbidity units
ORP	oxidation-reduction potential
PL	prediction limit
PWR	partially weathered rock
QA/QC	Quality Assurance/Quality Control
SSI	statistically significant increase
SSL	statistically significant level
s.u.	standard unit
TDS	total dissolved solids
TWR	transitionally weathered rock
Unified Guidance	Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) (40 Code of Federal Regulations [CFR] Part 257, Subpart D) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Geosyntec Consultants, Inc. (Geosyntec) has prepared this *2023 Semiannual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power) Plant Branch (Site) Ash Pond E (AP-E) for the reporting period of July 2023 through December 2023 (referred to herein as the “semiannual reporting period”).

Groundwater monitoring and reporting for AP-E are performed in accordance with the monitoring requirements of the GA EPD Rules for Solid Waste Management 391-3-4-.10(6), but also in accordance with the CCR Rule, specifically § 257.90 through § 257.95. This report documents the activities completed to establish the groundwater monitoring program in accordance with GA EPD Rule 391-3-4-.10(6)(a). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the CCR Rule. For ease of reference, the CCR Rule regulations are cited within this report, in lieu of citing both sets of regulations.

Plant Branch ceased producing electricity prior to April 2015, and therefore, AP-E is not subject to the federal monitoring requirements, though GA EPD rule 391-3-4-.10(6)(a) promulgates the groundwater monitoring and corrective action regulations stipulated in the federal CCR Rule § 257.90 through § 257.95. A CCR Unit Solid Waste Handling Permit application for AP-BCD was submitted to GA EPD in November 2018 and is under review.

Due to statistically significant increases (SSIs) of Appendix III parameters identified in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2019), Georgia Power initiated an assessment monitoring program for AP-E on November 13, 2019. Statistically significant levels (SSLs) of Appendix IV parameters beryllium (Be) and cobalt (Co) were identified during the initial assessment monitoring event. Pursuant to § 257.95 as adopted by 391-3-4-.10, an Alternate Source Demonstration (ASD) was prepared in July 2020 in response to the SSLs identified for beryllium and cobalt in groundwater monitoring wells (Golder 2020a). GA EPD issued a letter of non-concurrence associated with the ASD submittal in April 2022 and Georgia Power subsequently initiated an assessment of corrective measures (ACM) program for AP-E on July 21, 2022. Pursuant to § 257.96(b), Georgia Power continues to monitor groundwater associated with AP-E in accordance with the assessment monitoring

program established for the unit in 2019, including semiannual monitoring and reporting pursuant to § 257.90 through § 257.95 of the CCR Rule.

SSLs of beryllium in BRGWC-38S and cobalt in BRGWC-33S and BRGWC-38S have been identified for each assessment monitoring event subsequent to the November 2019 initiation, and documented in the associated groundwater monitoring and corrective action reports. The groundwater quality data for the current semiannual reporting period indicate the SSLs have been horizontally and vertically delineated to below the established Groundwater Protection Standards (GWPS) and are contained within the property boundary.

1.1 Site Description and Background

Plant Branch is located in Putnam County, Georgia, approximately 8 miles north of Milledgeville. The property occupies approximately 3,200 acres and is bordered on the south and east by Lake Sinclair and by sparsely populated, forested, rural land on the north and west. Lake Sinclair is an approximately 15,330-acre hydroelectric reservoir that was created in 1953 by the impoundment of the Oconee River. Ash pond E (AP-E) is a valley-fill containment area formed by the construction of an earthen embankment dike at the eastern portion of the ash pond. AP-E is located on the northwest corner of the Site surrounded by rural land on each side (**Figure 1**). The physical address of the Site is 1100 Milledgeville Road, Milledgeville, Georgia, 31024.

The Site formerly operated as a coal-fired power plant that commenced power generation in 1965. Over the course of power generation at the facility, five CCR surface impoundments (ash ponds), identified as Ash Ponds A, B, C, D, and E, were utilized. The location of each ash pond is shown on **Figure 1**. The former AP-A, the first ash pond constructed at the facility, was taken out of service in the late 1960s and was closed in April 2016 by the removal and relocation of its stored CCR to AP-E. AP-BCD and AP-E are currently not active and will be closed by removal, specifically, by relocation of the CCR stored in those ash ponds to a new, permitted, on-site CCR landfill.

This report documents the groundwater monitoring program at AP-E. As previously noted, groundwater monitoring activities completed at the multi-unit AP-BCD are reported separately.

1.2 Regional Geology and Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at AP-E as described in the *Hydrogeologic Assessment Report Revision 01 – AP-E* (HAR Rev 01) submitted to GA EPD in April 2020 to provide information regarding the hydrogeologic conditions and the groundwater monitoring well network at the Site (Geosyntec, 2020).

1.2.1 Regional and Site Geology

The Site is located within the Piedmont Physiographic Province of central Georgia, which is characterized by gently rolling hills and narrow valleys, with locally pronounced linear ridges. Generally, the property slopes gently east and south toward Beaverdam Creek and Lake Sinclair. The metamorphic and igneous rocks that underlie the area have been subjected to physical and chemical weathering which has created a landscape dissected by creeks and streams. Bedrock is typically overlain by a variably thick blanket of residual soils and saprolite. The overall depth of weathering in the Piedmont/Blue Ridge is generally about 20 to 60 feet; however, the depth of weathering along discontinuities and/or very mafic rock units may extend to depths greater than 100 feet. Because of such variations in rock types and structure, the depth of weathering can vary significantly over short horizontal distances. The bedrock underlying the saprolite is fine- to medium-grained, poorly jointed biotite-quartz-feldspar gneiss.

Based on our review of available data, micaceous, locally saprolitic soils, consisting primarily of clay, silty clay, silt, and sandy clay occur as a variably thick blanket of residuum overlying bedrock across most of the Site. The thickness of the residual soil encountered in AP-E borings is variable, ranging from a few feet to as much as 90 feet. Between the residual soil/saprolite zone and the underlying bedrock there is a zone of transitionally weathered rock (TWR) or partially weathered rock (PWR), as defined by standard penetration test data, where available. Material overlying the top of rock surface, including residual soil/saprolite and TWR/PWR, is collectively referred to as overburden.

1.2.2 Hydrogeologic Setting

The uppermost aquifer at the Site is an unconfined regional groundwater aquifer that occurs primarily in the saprolite, PWR, and fractured bedrock. While the aquifer characteristics of each unit may vary, the groundwater is interpreted to be interconnected between these units, and they effectively act as one, unconfined aquifer. Generally, the water table surface at the Site is a subdued reflection of topography, with groundwater generally flowing east, west, and south. Downward hydraulic gradients dominate in the

topographically high areas, while upward gradients are observed in topographic lows. Recharge to the fractured bedrock aquifer system comes primarily from precipitation that is stored in the overburden and slowly infiltrates to the bedrock through areas of enhanced permeability. Interconnected fractures are the primary conduit for groundwater flow through bedrock since the rock lacks primary porosity.

1.3 Groundwater Monitoring Well Network

In accordance with § 257.91, a groundwater monitoring system was installed at AP-E that consists of a sufficient number of wells installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer to represent the groundwater quality both upgradient of the unit (i.e., background conditions) and passing the waste boundary of the unit. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site-specific hydrogeologic conditions.

Based on the Site hydrogeology, the monitoring well system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock as a single interconnected aquifer system. Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates TWR/PWR and the upper fractured mantle of bedrock (transition zone), and “D” indicates a screened zone in the deeper bedrock. Construction details for the wells and piezometers associated with evaluating groundwater flow and/or quality conditions in vicinity of AP-E are listed in **Table 1**. The locations of the detection monitoring wells and assessment monitoring wells are shown on **Figure 2**. Pursuant to § 257.195(g)(1)(iv), assessment monitoring wells will continue to be sampled concurrently with the detection monitoring well network 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 and to understand potential changes related to seasonal fluctuations or site activities. The piezometers may be sampled as needed to support the AP-E ACM program. The piezometer locations are shown on the potentiometric surface map generated for this semiannual reporting period (**Figure 3**, discussed in detail in Section 3).

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with § 257.90(e), the following describes monitoring-related activities performed during this reporting period and discusses any change in status of the monitoring program. Groundwater sampling was performed in accordance with § 257.93.

2.1 Monitoring Well Installation and Maintenance

No new monitoring wells or piezometers (specific for water level collection) were installed at AP-E during the semiannual reporting period. The well and piezometer networks are inspected semiannually to evaluate 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 August 2023, the networks were inspected and no corrective actions were required, as documented in **Appendix A**. This documentation was prepared under the direction of a professional geologist or engineer registered in the State of Georgia.

2.2 Assessment Monitoring

Pursuant to § 257.94(e)(3), an assessment monitoring program was initiated for AP-E based on SSIs of Appendix III constituents documented in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2019). A notice of assessment monitoring was placed in the operating record on November 13, 2019. Georgia Power submitted an Alternate Source Demonstration (ASD) to GA EPD for the observed SSLs (Golder, 2020) that was not accepted by GA EPD in April 2022. Within 90 days of receiving GA EPD's nonconurrence letter, Georgia Power initiated the ACM program for AP-E on July 21, 2022. Georgia Power completed the *Assessment of Corrective Measures Report* (ACM Report) (Geosyntec, 2022) for AP-E at Plant Branch on December 16, 2022. In accordance with § 257.96(b), groundwater continues to be monitored at AP-E under the assessment monitoring program while the ACM phase is implemented.

In support of the routine assessment monitoring program, a semiannual assessment monitoring event was conducted in August 2023. The wells sampled during the event and the dates associated with the event are summarized in **Table 2**. The collected groundwater samples were analyzed for the complete list of Appendix III and Appendix IV constituents.

Field data, field calibration forms, well inspection logs, laboratory analytical results, and data validation reports associated with these sampling events are provided in **Appendix B**. Details of the event and analytical results are discussed in Section 3.

2.3 Additional Sampling

Supplemental sampling was conducted during the reporting period in support of the ACM program and in continuing to evaluate the nature and extent of impacts resulting from AP-E. Supplemental groundwater samples were collected from the monitoring well network during the August 2023 assessment monitoring event and were analyzed for major cations (calcium, magnesium, potassium, and sodium), major anions (chloride, nitrate, sulfate), and alkalinity (i.e., bicarbonate, carbonate, total) as well as iron manganese, and sulfide. The laboratory reports associated with the data are provided in **Appendix B**. The data were collected in support of evaluating the geochemical composition of the groundwater and are discussed in the ACM progress update report provided in **Appendix C**.

3.0 SAMPLING METHODOLOGY AND ANALYSES

The following section presents a summary of the field sampling procedures that were implemented, and the groundwater sampling results that were obtained in connection with the assessment monitoring program conducted at AP-E during this semiannual reporting period.

3.1 Groundwater Level Measurement

Prior to the semiannual assessment monitoring event, a synoptic round of depth-to-groundwater-level measurements were recorded from all the wells and piezometers (including those associated with AP-BCD and the proposed new CCR landfill area) and used to calculate the corresponding groundwater elevations. The calculated groundwater elevations obtained in August 2023 at AP-BCD and AP-E are presented in **Table 3**. The surface water elevations for Lake Sinclair are obtained from Georgia Power.

The groundwater and surface water elevation data were used to prepare a potentiometric surface map for the August 2023 event, which is presented on **Figure 3**. The general direction of groundwater flow across AP-E is to the east-southeast. This groundwater flow pattern is consistent with previous observations.

3.2 Groundwater Gradient and Flow Velocity

The horizontal groundwater hydraulic gradients within the uppermost aquifer beneath AP-E were calculated using the groundwater elevation data from the August 2023 event. Horizontal hydraulic gradients were calculated along the flow paths between BGWA-5S and BRGWC-33S along the northern extent of AP-E, and between PZ-4S and BRGWC-38S along the southern extent of AP-E. The supporting calculations are presented in **Table 4**. The calculated hydraulic gradients associated with these well pairs for the semiannual reporting period are 0.005 feet per foot (ft/ft) and 0.011 ft/ft, respectively (**Table 4**). The general trajectory of the flow paths used in the calculations and associated potentiometric contour lines are shown on **Figure 3**.

Groundwater flow rates at the Site were calculated based on the above hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon.

The horizontal hydraulic conductivity (K_h) value used in flow calculations is 2.21 feet per day (ft/day) and was based on slug test data presented in the 2020 *Hydrogeologic Assessment Report Revision 01* (Geosyntec, 2020) and collected subsequently. The

average observed K_h estimates from the well pairs were used to produce a representative estimate of groundwater flow velocity. An estimated effective porosity of 0.20 is used to represent average conditions at AP-E which was derived based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996). With these variables determined, horizontal flow velocities were calculated as below.

The approximate horizontal flow velocities associated with AP-E were calculated using the following derivative of Darcy's Law. The supporting calculations for the August 2023 semiannual event are presented in **Table 4**.

$$V = \text{linear velocity} = \frac{K_h * i}{n_e}$$

where:

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

$$K_h = \text{Horizontal Hydraulic Conductivity} \left(\frac{\text{feet}}{\text{day}} \right)$$

$$i = \text{Horizontal hydraulic gradient} \left(\frac{\text{feet}}{\text{foot}} \right) = \frac{h_1 - h_2}{L}$$

$$h_1 \text{ and } h_2 = \text{Groundwater elevation at location 1 and 2}$$

$$L = \text{Distance between location 1 and 2}$$

$$n_e = \text{Effective porosity}$$

The average groundwater flow velocity at the Site for this semiannual reporting period is approximately 0.09 ft/day across AP-E. The observed groundwater flow velocities are generally consistent with expected velocities, are consistent with historical observations, and confirm the groundwater monitoring system as properly located to monitor the uppermost aquifer for AP-E at Plant Branch.

3.3 Groundwater Sampling Procedures

Groundwater samples were collected using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using dedicated bladder pumps with dedicated tubing, non-dedicated bladder pumps, and peristaltic pumps. For wells sampled with non-dedicated bladder and peristaltic pumps, the pump intake was lowered to the midpoint of the well screen (or as appropriate based on the groundwater level).

Non-dedicated bladder pump and peristaltic pump samples were collected using new disposable polyethylene tubing; all non-dedicated tubing was disposed of following the sampling event. All non-disposable equipment was decontaminated before use and between well locations.

An AquaTROLL[®] (In-Situ field instrument) was used to monitor and record field water quality parameters [i.e., 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) portable turbidity meter. Groundwater samples were collected once the following stabilization criteria were met:

- pH \pm 0.1 Standard Units (s.u.).
- Conductivity \pm 5%.
- \pm 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 measured less than 5 nephelometric turbidity units (NTU) or measured between 5 and 10 NTU following three hours of purging.

Following purging, and once stabilization was achieved, unfiltered samples were collected into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to GEL Laboratories, LLC. (GEL Laboratories) in Charleston, South Carolina, following chain-of-custody protocol. The field sampling and equipment calibration forms generated during the August 2023 assessment monitoring event are provided in **Appendix B**.

During the August 2023 event, one low yielding well was encountered. PZ-52D purged dry and required sample collection the following day due to low recharge rates.

3.4 Laboratory Analyses

Laboratory analyses were performed by GEL Laboratories, which is accredited by the National Environmental Laboratory Accreditation Program (NELAP). GEL Laboratories maintains a NELAP certification for the Appendix III and Appendix IV constituents and the geochemical parameters analyzed for this project. Analytical methods used for groundwater and surface water sample analyses are listed in the analytical laboratory reports included in **Appendix B**. The groundwater quality results from the August 2023

monitoring event are summarized in **Table 5**; surface water analytical results are summarized in **Table 6**.

3.5 Quality Assurance and Quality Control Summary

Quality assurance/quality control (QA/QC) samples were collected during each sampling event at the minimum rate of one QA/QC sample per 10 groundwater samples and included the following: field duplicates, equipment blanks, and field blank samples. QA/QC samples were collected in appropriately preserved laboratory-provided sample containers and submitted under the same chain of custody as the primary samples for analysis of the same constituents by GEL Laboratories.

In addition to collecting QA/QC samples, the data were validated based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and applicable federal guidance documents (USEPA, 2011; USEPA, 2017). Where necessary, the data were qualified with supporting documentation and justifications. The data are considered usable for meeting project objectives, and the results are considered valid. The associated data validation reports are provided in **Appendix B** with the laboratory reports.

4.0 STATISTICAL ANALYSIS

The following section summarizes the statistical analysis of Appendix III groundwater monitoring data performed pursuant to § 257.93. In addition, pursuant to § 257.95(d)(2), Georgia Power established GWPS for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the August 2023 assessment monitoring event. The data were analyzed by Groundwater Stats Consulting (GSC); the report generated from the analyses are provided in **Appendix D**.

4.1 Statistical Methods

The selected statistical method for AP-E was developed in accordance with § 257.93(f) using methodology presented in Statistical Analysis of Groundwater Data at USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 2009). The Sanitas[™] groundwater statistical software was used to perform the statistical analyses. Sanitas[™] is a decision-support software package, which incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the Unified Guidance.

Appendix III statistical analysis was performed to assess if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to assess if concentrations statistically exceeded the established GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in the statistical analysis report provided in **Appendix D** and summarized in Sections 4.1.1 and 4.1.2. The GWPS were finalized pursuant to § 257.95(d)(2) and presented in **Table 6**.

4.1.1 Appendix III Statistical Methods

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix III parameters. Upgradient well data were pooled to establish a background limit for an individual constituent, and the most recent sample from each downgradient well was compared to the statistical limit for each parameter to determine if concentrations exceeded background levels. The most recent sample from each downgradient well is compared to the background limit to assess whether there are SSIs. An "initial exceedance" occurs when an Appendix III constituent reported in the groundwater of a downgradient detection monitoring well exceeds the constituent's associated PL. The 1-of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample confirms the initial

exceedance by also exceeding the statistical limit. If the resample falls within its respective PL, no exceedance is declared. The Sen's Slope/Mann Kendall trend test was used to statistically evaluate concentration levels over time and determine if concentrations are increasing, decreasing, or stabilizing.

4.1.2 Appendix IV Statistical Methods

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 previous non-routine 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 CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in § 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 §141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L;
 - (ii) Lead 0.015 mg/L;
 - (iii) Lithium 0.040 mg/L; and
 - (iv) Molybdenum 0.1 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents and are presented in **Table 6**.

4.2 Statistical Analyses Results

Based on review of the Appendix III statistical analysis of August 2023 data presented in **Appendix D**, groundwater conditions have not returned to background and assessment monitoring should continue pursuant to § 257.95(f). A detailed list of the noted exceedances is provided in **Appendix D**.

Based on the statistical analysis of Appendix IV constituents, the following constituents exceeded the corresponding GWPS for the assessment monitoring event:

4.2.1 August 2023 Data

- Beryllium: BRGWC-38S
- Cobalt: BRGWC-33S and BRGWC-38S

Wells with SSLs were further evaluated using the Sen's Slope/Mann Kendall trend test (**Appendix D**). Statistically significant decreasing trends of beryllium and cobalt were identified during this reporting period in BRGWC-38S. A statistically significant decreasing trend of cobalt was identified during this reporting period in BRGWC-33S. The statistical trends reflect steadily decreasing concentrations of beryllium and cobalt in these wells over several years of monitoring.

4.2.2 Summary of Statistical Analyses

The SSLs identified for the semiannual reporting period are consistent with the previous annual reporting period with no new SSLs or statistically significant trends identified. The statistically decreasing concentration trends for beryllium and cobalt (**Appendix D**) have been consistent with the previous reporting events and reflects ongoing natural attenuation of these constituents in the aquifer media at AP-E.

5.0 NATURE AND EXTENT

Based on the groundwater data presented herein, the SSLs for wells and constituents identified in Section 4.2 have been horizontally and vertically delineated to below the established GWPS and are contained within the property boundary. Delineation is determined by confidence intervals (statistical analysis) prepared for the assessment wells discussed below. Results of the statistical analyses are provided in **Appendix D**.

The identified SSLs of beryllium and cobalt in BRGWC-38S are horizontally and vertically delineated to below the GWPS by PZ-70I and PZ-53D, respectively. Similarly, the SSL of cobalt in BRGWC-33S is horizontally and vertically delineated by PZ-13S and PZ-52D, respectively. Additional details regarding the delineation status and data are discussed in the *Semiannual Remedy Selection and Design Progress Report (Appendix C)*.

6.0 MONITORING PROGRAM STATUS

6.1 Assessment Monitoring Status

Pursuant to § 257.96(b), Georgia Power will continue to monitor the groundwater at AP-E in accordance with the assessment monitoring program regulations of § 257.95 while ACM efforts are implemented to address SSL concentrations of beryllium and cobalt in BRGWC-38S and cobalt in BRGWC-33S. Pursuant to § 257.195(g)(1)(iv), the additional assessment wells will continue to be sampled as part of the ongoing assessment groundwater monitoring program.

6.2 Assessment of Corrective Measures

The ACM efforts completed during the semiannual reporting period are presented in the *Semiannual Remedy Selection and Design Progress Report* provided in **Appendix C**. The semiannual progress report summarizes:

- i) The current conceptual site model (CSM) applicable to evaluating groundwater corrective measures proposed in the ACM Report (Geosyntec, 2022).
- ii) Summary of work completed to date to achieve delineation of constituents exceeding GWPS and a summary of data collected to date to support remedy selection.
- iii) The status of evaluating applicable corrective measures at the Site.
- iv) The planned activities and anticipated schedule for the following semiannual reporting period.

In accordance with § 257.97(a), Georgia Power will include future semiannual progress reports with each groundwater monitoring and corrective action report to document results associated with additional data collection, and present progress toward selection and design of a groundwater remedy.

7.0 CONCLUSIONS AND FUTURE ACTIONS

This *2023 Semiannual Groundwater Monitoring and Corrective Action Report* for Plant Branch AP-E was prepared to fulfill the requirements of the CCR Rule and GA EPD Rules for Solid Waste Management 391-3-4-.10. The groundwater flow direction and rate interpreted during the August 2023 monitoring event are generally consistent with historical evaluations. Statistical analysis of the groundwater monitoring data for the AP-E well network confirmed the continued presence of SSLs of beryllium and cobalt in BRGWC-38S and cobalt in BRGWC-33S above corresponding GWPS. Based on the most current groundwater quality and flow data from this reporting period, as described in Section 5, the SSLs of beryllium and cobalt are vertically and horizontally delineated downgradient to below the GWPS and are contained within the property boundary. In accordance with GA EPD Rule 391-3-4-.10(6) and § 257.96, the Site is in an assessment of corrective measures program for the identified SSLs.

Georgia Power will continue to monitor AP-E groundwater under the assessment monitoring program and evaluate the remedies presented in the ACM Report (Geosyntec, 2022). The next routine semiannual assessment monitoring event for AP-E is scheduled for January 2024.

8.0 REFERENCES

- Geosyntec Consultants, 2020. *Hydrogeologic Assessment Report Revision 01, Georgia Power - Plant Branch, Putnam County, Georgia*. Submitted to Southern Company Services in November 2020.
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TABLES

Table 1
Monitoring Well Network Summary
Plant Branch AP-E, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting ⁽¹⁾	Northing ⁽¹⁾	Ground Surface Elevation (ft)	Top of Casing Elevation ⁽²⁾ (ft)	Top of Screen Elevation ⁽²⁾ (ft)	Bottom of Screen Elevation ⁽²⁾ (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
AP-BCD Detection Monitoring Well Network										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWA-23S	Upgradient BCD	7/26/2016	2557868.25	1162971.84	425.5	428.24	394.7	384.7	40.8	10
BRGWC-25I	Downgradient B	7/25/2016	2561315.08	1160583.67	355.0	357.37	344.5	334.5	20.5	10
BRGWC-27I	Downgradient C	7/22/2016	2559712.12	1159695.33	364.0	366.86	350.0	340.0	24.0	10
BRGWC-29I	Downgradient C	7/23/2016	2561050.03	1160297.65	350.6	353.23	340.6	330.6	20.0	10
BRGWC-30I	Downgradient D	7/18/2016	2557691.84	1161607.69	350.0	352.61	340.0	330.0	20.3	10
BRGWC-32S	Downgradient D	7/20/2016	2558497.97	1160677.67	403.6	406.39	368.6	358.6	45.0	10
BRGWC-45	Downgradient B	2/3/2018	2561075.38	1162229.68	381.6	384.58	335.0	325.0	57.0	10
BRGWC-47	Downgradient D	1/25/2018	2559456.75	1162700.66	408.8	411.20	327.2	317.2	92.0	10
BRGWC-50	Downgradient B	1/31/2018	2562372.96	1161593.45	378.8	381.35	324.2	314.2	65.0	10
BRGWC-52I	Downgradient B	8/6/2018	2562145.22	1161274.99	381.2	383.87	317.3	307.3	73.9	10
AP-E Detection Monitoring Well Network										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWC-17S	Downgradient E	3/13/2014	2554687.84	1166301.32	362.2	365.32	360.5	355.5	7.1	5
BRGWC-33S	Downgradient E	7/26/2016	2554064.97	1168057.09	414.2	416.68	398.2	388.2	26.4	10
BRGWC-34S	Downgradient E	7/25/2016	2554231.28	1167384.17	389.2	391.96	376.2	366.2	23.0	10
BRGWC-35S	Downgradient E	7/23/2016	2554476.13	1166646.02	363.7	366.31	346.7	336.7	27.4	10
BRGWC-36S	Downgradient E	7/26/2016	2554693.26	1165742.82	383.1	389.84	364.4	354.4	28.7	10
BRGWC-37S	Downgradient E	7/24/2016	2554979.63	1165093.07	444.4	447.05	390.8	380.8	63.6	10
BRGWC-38S	Downgradient E	7/22/2016	2555016.50	1164391.82	429.8	432.24	402.0	392.0	38.2	10
AP-BCD Assessment Monitoring Well Network										
PZ-44	Downgradient B	2/2/2018	2561587.42	1161724.48	380.5	383.04	333.9	323.9	57.0	10
PZ-50D	Downgradient B	10/8/2020	2562380.34	1161589.51	378.3	380.86	282.3	272.3	106.0	10
PZ-51I	Downgradient B	8/1/2018	2562439.35	1161631.12	378.0	380.52	323.1	313.1	65.0	10
PZ-51D	Downgradient B	10/9/2020	2562433.15	1161640.16	378.1	380.75	282.1	272.1	106.0	10
PZ-58I	Downgradient B	3/27/2021	2562297.82	1161579.00	379.3	382.27	325.7	315.7	63.9	10
PZ-60I	Downgradient B	3/29/2021	2562330.79	1161588.01	379.5	382.61	329.0	319.0	60.8	10
PZ-61I	Downgradient B	3/30/2021	2562429.63	1161621.94	377.7	380.64	312.0	302.0	76.0	10
PZ-63I	Downgradient B	1/5/2022	2562233.10	1161371.20	378.6	381.31	332.1	322.1	56.5	10
PZ-64I	Downgradient B	9/10/2022	2562404.29	1161787.72	379.4	381.94	320.6	310.6	69.3	10
PZ-68D	Downgradient D	9/06/2022	2558512.90	1160690.48	402.5	405.25	328.8	318.8	84.3	10
PZ-74I	Downgradient D	5/24/2023	2557970.94	1160189.30	368.3	371.13	330.5	320.5	48.0	10
PZ-75I	Downgradient D	6/27/2023	2558343.03	1160009.37	354.9	357.86	337.9	327.9	27.4	10
AP-E Assessment Monitoring Well Network										
PZ-13S	Downgradient E	3/19/2014	2555276.64	1168011.19	406.5	409.97	382.2	372.2	34.7	10
PZ-52D	Downgradient E	5/14/2020	2554051.53	1168053.71	414.3	417.03	364.8	354.8	59.5	10
PZ-53D	Downgradient E	5/17/2020	2554984.36	1164393.74	431.6	434.68	302.2	292.2	139.4	10
PZ-70I	Downgradient E	8/16/2022	2555374.08	1164326.66	422.9	425.70	363.4	373.4	52.9	10
Piezometers										
PZ-1D	Upgradient BCD & E	4/4/2014	2551598.09	1171999.19	462.9	463.41	397.4	302.9	160.0	94.5
PZ-1I	Upgradient BCD & E	3/10/2014	2551577.63	1171995.75	461.9	464.71	392.8	382.8	79.5	10
PZ-1S	Upgradient BCD & E	3/20/2014	2551588.02	1171996.20	462.4	465.07	407.8	397.8	65.0	10
PZ-3D	Upgradient BCD & E	3/27/2014	2550275.05	1165474.25	486.7	487.50	438.7	358.6	130.0	82
PZ-3I	Upgradient BCD & E	3/11/2014	2550273.05	1165494.61	486.5	489.49	442.3	432.3	54.6	10
PZ-3S	Upgradient BCD & E	3/11/2014	2550274.66	1165484.43	487.0	490.53	457.5	447.5	39.9	10

Table 1
Monitoring Well Network Summary
Plant Branch AP-E, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting ⁽¹⁾	Northing ⁽¹⁾	Ground Surface Elevation (ft)	Top of Casing Elevation ⁽²⁾ (ft)	Top of Screen Elevation ⁽²⁾ (ft)	Bottom of Screen Elevation ⁽²⁾ (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
PZ-4I	Upgradient BCD & E	3/11/2014	2551282.08	1163246.61	479.9	482.98	443.5	433.5	46.8	10
PZ-4S	Upgradient BCD & E	3/10/2014	2551270.14	1163247.97	479.9	482.87	460.3	450.3	30.0	10
PZ-7S	Upgradient BCD & E	4/1/2014	2553055.64	1169419.33	449.0	451.57	414.9	404.9	44.5	10
PZ-8S	Upgradient BCD & E	4/1/2014	2551188.94	1167801.20	450.5	453.08	411.4	401.4	49.5	10
PZ-9S	Upgradient BCD & E	3/5/2014	2553089.53	1162633.36	466.1	469.28	428.5	418.5	48.0	10
PZ-10S	Downgradient E	3/5/2014	2554990.43	1164021.55	431.0	433.85	402.4	392.4	39.0	10
PZ-14I	Downgradient E	3/20/2014	2554365.65	1168398.28	419.9	422.71	376.5	366.5	53.8	10
PZ-14S	Downgradient E	3/20/2014	2554359.23	1168398.59	420.2	423.31	393.0	383.0	37.6	10
PZ-15I	Downgradient E	3/25/2014	2554399.25	1167721.02	400.2	403.06	321.9	311.9	88.7	10
PZ-15S	Downgradient E	3/27/2014	2554394.06	1167720.25	400.1	402.90	370.2	360.2	39.9	10
PZ-16I	Downgradient E	3/14/2014	2554587.53	1166980.59	379.5	382.45	351.3	341.3	38.6	10
PZ-16S	Downgradient E	3/18/2014	2554581.44	1166977.63	379.3	382.52	370.6	360.6	19.1	10
PZ-17I	Downgradient E	3/17/2014	2554702.42	1166313.81	362.3	365.33	329.2	319.2	43.5	10
PZ-18I	Downgradient D	2/26/2014	2557745.51	1160766.13	359.6	362.55	331.3	321.3	38.4	10
PZ-18S	Downgradient D	3/26/2014	2557747.42	1160757.41	359.7	362.82	345.0	335.0	24.2	10
PZ-19I	Downgradient C	3/4/2014	2558899.87	1159797.10	368.9	371.74	335.6	325.6	43.7	10
PZ-19S	Downgradient C	3/4/2014	2558894.60	1159805.43	368.4	371.42	350.8	340.8	28.0	10
PZ-20I	Downgradient C	3/5/2014	2560160.17	1159495.25	362.2	365.34	343.1	333.1	29.5	10
PZ-20S	Downgradient C	3/5/2014	2560157.16	1159490.13	362.2	365.41	357.3	347.3	15.3	10
PZ-21I	Downgradient B	3/10/2014	2561328.17	1160591.42	355.8	358.92	341.8	331.8	24.4	10
PZ-21S	Downgradient B	3/11/2014	2561321.43	1160592.45	355.5	358.52	351.1	346.1	9.8	5
PZ-23I	Upgradient BCD	7/29/2016	2557877.71	1162975.56	425.1	427.74	368.6	358.6	66.5	10
PZ-24S	Downgradient A	7/27/2016	2562862.19	1162400.95	351.4	354.10	319.9	309.9	42.0	10
PZ-26I	Downgradient B	7/26/2016	2561626.45	1160669.20	368.0	370.63	347.5	337.5	30.5	10
PZ-28I	Downgradient C	7/24/2016	2560151.53	1159505.00	362.5	364.81	348.5	338.5	24.0	10
PZ-31S	Downgradient D	7/26/2016	2557971.75	1160936.81	374.3	376.77	344.8	334.8	39.5	10
PZ-40S	Downgradient A	2/14/2017	2562807.61	1162415.06	353.2	355.96	324.4	314.4	40.2	10
PZ-41S	Downgradient A	2/14/2017	2562759.44	1162431.76	354.3	357.17	320.5	310.5	44.2	10
PZ-42S	Upgradient A	2/9/2017	2562734.89	1162845.64	359.0	361.66	337.2	327.2	32.2	10
PZ-43	Downgradient B	2/7/2018	2562031.42	1162159.72	381.0	383.71	351.0	341.0	40.4	10
PZ-46	Downgradient B	2/5/2018	2560558.89	1162756.31	382.1	384.64	346.5	336.5	45.6	10
PZ-48	Downgradient D	1/24/2018	2558444.63	1163046.78	418.3	420.90	361.7	351.7	67.0	10
PZ-49	Downgradient B	1/30/2018	2561125.71	1163321.35	382.2	384.99	375.6	365.6	17.0	10
PZ-51S	Downgradient B	8/1/2018	2562433.07	1161613.24	377.9	380.27	337.9	327.9	45.4	5
PZ-54	Downgradient E	5/15/2020	2555458.38	1164828.76	440.8	443.86	398.8	388.8	52.0	10
PZ-55	Downgradient E	5/19/2020	2554783.76	1163208.08	450.2	453.07	410.9	400.9	49.3	10
PZ-56	Downgradient E	5/20/2020	2554086.36	1162965.21	416.2	418.84	396.9	386.9	29.3	10
PZ-57I	Downgradient B	3/24/2021	2562170.21	1161582.31	379.4	382.50	313.8	303.8	75.9	10
PZ-59I	Downgradient B	3/31/2021	2562329.80	1161654.90	379.9	383.49	323.5	313.5	66.0	10
PZ-62I	Downgradient B	1/6/2022	2562336.00	1161478.90	378.1	380.95	318.1	308.1	70.0	10
PZ-65I	Downgradient B	9/09/2022	2562240.57	1161692.72	379.6	382.06	320.9	310.9	69.3	10
PZ-66I	Downgradient B	9/08/2022	2562134.65	1161747.91	380.9	383.52	323.1	313.1	68.3	10
PZ-67	Downgradient B	9/07/2022	2561919.76	1161831.98	378.8	381.48	351.0	341.0	38.3	10
PZ-69I	Downgradient D	8/31/2022	2558447.46	1160311.39	377.0	379.36	348.2	338.2	39.3	10
PZ-71I	Downgradient D	5/2/2023	2558230.83	1160295.35	382.6	385.34	352.8	342.8	40.0	10
PZ-72I	Downgradient D	5/9/2023	2558394.65	1160133.29	365.9	368.57	342.0	332.0	34.2	10
PZ-73I	Downgradient D	5/10/2023	2558559.30	1160226.37	349.9	352.63	334.9	324.9	25.3	10

- Notes:
ft = feet
ft BGS = feet below ground surface
(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.
(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

Table 2
 Groundwater Sampling Event Summary
 Plant Branch AP-E, Putnam County, Georgia

Well ID	Hydraulic Location	Aug. 22-24, 2023	Status of Monitoring Well
Purpose of Sampling Event:		Assessment	
<i>Detection Monitoring Well Network</i>			
BRGWA-2S	Upgradient	X	Assessment
BRGWA-2I	Upgradient	X	Assessment
BRGWA-5S	Upgradient	X	Assessment
BRGWA-5I	Upgradient	X	Assessment
BRGWA-6S	Upgradient	X	Assessment
BRGWC-17S	Downgradient	X	Assessment
BRGWC-33S	Downgradient	X	Assessment
BRGWC-34S	Downgradient	X	Assessment
BRGWC-35S	Downgradient	X	Assessment
BRGWC-36S	Downgradient	X	Assessment
BRGWC-37S	Downgradient	X	Assessment
BRGWC-38S	Downgradient	X	Assessment
<i>Assessment Monitoring Well Network</i>			
PZ-13S	Downgradient	X	Assessment
PZ-52D	Downgradient	X	Assessment
PZ-53D	Downgradient	X	Assessment
PZ-70I	Downgradient	X	Assessment

Table 3
 Summary of Groundwater Elevations
 Plant Branch AP-E, Putnam County, Georgia

Well ID	Top of Casing Elevation ⁽¹⁾ (ft)	August 21, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)
AP-BCD Detection Monitoring Well Network			
BRGWA-2S	443.20	12.27	430.93
BRGWA-2I	443.14	12.07	431.07
BRGWA-5S	443.86	12.94	430.92
BRGWA-5I	443.79	12.85	430.94
BRGWA-6S	458.96	26.46	432.50
BRGWA-23S	428.24	38.69	389.55
BRGWC-25I	357.37	11.08	346.29
BRGWC-27I	366.86	10.98	355.88
BRGWC-29I	353.23	10.88	342.35
BRGWC-30I	352.61	4.88	347.73
BRGWC-32S	406.39	40.50	365.89
BRGWC-45	384.58	15.20	369.38
BRGWC-47	411.20	27.42	383.78
BRGWC-50	381.35	38.23	343.12
BRGWC-52I	383.87	39.68	344.19
AP-E Detection Monitoring Well Network			
BRGWA-2S	443.20	12.27	430.93
BRGWA-2I	443.14	12.07	431.07
BRGWA-5S	443.86	12.94	430.92
BRGWA-5I	443.79	12.85	430.94
BRGWA-6S	458.96	26.46	432.50
BRGWC-17S	365.32	6.03	359.29
BRGWC-33S	416.68	12.31	404.37
BRGWC-34S	391.96	3.45	388.51
BRGWC-35S	366.31	2.20	364.11
BRGWC-36S	389.84	4.98	384.86
BRGWC-37S	447.05	53.22	393.83
BRGWC-38S	432.24	23.30	408.94
AP-BCD Assessment Monitoring Well Network			
PZ-44	383.04	27.66	355.38
PZ-50D	380.86	38.42	342.44
PZ-51S	380.27	38.25	342.02
PZ-51I	380.52	38.38	342.14
PZ-51D	380.75	38.11	342.64
PZ-57I	382.50	36.29	346.21
PZ-58I	382.27	37.41	344.86
PZ-59I	383.49	38.73	344.76
PZ-60I	382.61	38.19	344.42
PZ-61I	380.64	40.66	339.98
PZ-62I	380.95	39.17	341.78
PZ-63I	381.31	39.47	341.84
PZ-64I	381.94	38.53	343.41
PZ-65I	382.06	36.08	345.98
PZ-66I	383.52	35.75	347.77
PZ-68D	405.25	40.75	364.50
PZ-74I	371.13	28.17	342.96
PZ-75I	357.86	17.86	340.00
AP-E Assessment Monitoring Well Network			
PZ-13S	409.97	27.85	382.12
PZ-52D	417.03	24.93	392.10
PZ-53D	434.68	24.07	410.61
PZ-70I	425.70	28.62	397.08
AP-E Assessment Monitoring Well Network			
PZ-13S	409.97	27.85	382.12
PZ-52D	417.03	24.93	392.10
PZ-53D	434.68	24.07	410.61
PZ-70I	425.70	28.62	397.08

Table 3
 Summary of Groundwater Elevations
 Plant Branch AP-E, Putnam County, Georgia

Well ID	Top of Casing Elevation ⁽¹⁾ (ft)	August 21, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)
<i>Piezometers</i>			
PZ-1D	463.41	39.89	423.52
PZ-1I	464.71	41.53	423.18
PZ-1S	465.07	39.69	425.38
PZ-3D	487.50	49.44	438.06
PZ-3I	489.49	51.06	438.43
PZ-3S	490.53	--	--
PZ-4I	482.98	33.98	449.00
PZ-4S	482.87	32.21	450.66
PZ-7S	451.57	28.60	422.97
PZ-8S	453.08	27.06	426.02
PZ-9S	469.28	35.90	433.38
PZ-10S	433.85	27.75	406.10
PZ-14I	422.71	19.95	402.76
PZ-14S	423.31	23.84	399.47
PZ-15I	403.06	11.12	391.94
PZ-15S	402.90	11.38	391.52
PZ-16I	382.45	12.43	370.02
PZ-16S	382.52	12.59	369.93
PZ-17I	365.33	3.56	361.77
PZ-18I	362.55	20.68	341.87
PZ-18S	362.82	20.87	341.95
PZ-19I	371.74	15.13	356.61
PZ-19S	371.42	14.85	356.57
PZ-20I	365.34	17.14	348.20
PZ-20S	365.41	17.28	348.13
PZ-21I	358.92	12.58	346.34
PZ-21S	358.52	12.09	346.43
PZ-23I	427.74	38.14	389.60
PZ-24S	354.10	14.21	339.89
PZ-26I	370.63	22.92	347.71
PZ-28I	364.81	16.62	348.19
PZ-31S	376.77	27.07	349.70
PZ-40S	355.96	15.79	340.17
PZ-41S	357.17	16.98	340.19
PZ-42S	361.66	20.14	341.52
PZ-43	383.71	29.72	353.99
PZ-46	384.64	11.69	372.95
PZ-48	420.90	31.82	389.08
PZ-49	384.99	9.47	375.52
PZ-54	443.86	49.29	394.57
PZ-55	453.07	55.51	397.56
PZ-56	418.84	9.21	409.63
PZ-67	381.48	30.41	351.07
PZ-69I	379.36	21.95	357.41
PZ-71I	385.34	34.14	351.20
PZ-72I	368.57	25.87	342.70
PZ-73I	352.63	7.57	345.06

Notes:

-- = Dry well, groundwater depth not measured

ft = feet

ft BTOC = feet below top of casing

(1) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

Table 4
Horizontal Gradient and Flow Velocity Calculations
Plant Branch AP-E, Putnam County, Georgia

August 21, 2023				
Flow Path Direction ⁽¹⁾	h ₁ (ft)	h ₂ (ft)	L (ft)	i (ft/ft)
BRGWA-5S/BRGWC-33S	430.92	404.37	5108	0.005
PZ-4S/BRGWC-38S	450.66	408.94	3917	0.011

					Average
Flow Path Direction ⁽¹⁾	K _h (ft/day)	n _e	i (ft/ft)	V (ft/day) ⁽²⁾	V (ft/day) ⁽³⁾
BRGWA-5S/BRGWC-33S	2.21	0.20	0.005	0.06	0.09
PZ-4S/BRGWC-38S	2.21	0.20	0.011	0.12	

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h₁ and h₂ = groundwater elevation at location 1 and 2

i = h₁-h₂/L = horizontal hydraulic gradient

K_h = horizontal hydraulic conductivity

L = distance between location 1 and 2 along the flow path

n_e = effective porosity

V = groundwater flow velocity

(1) Flow path direction relative to the orientation of AP-E and illustrated on Figure 3 of associated report.

(2) Groundwater flow velocity equation: $V = [K_h * i] / n_e$

(3) Average groundwater flow velocity for unit.

Table 5
Summary of Groundwater Analytical Data
Plant Branch AP-E, Putnam County, Georgia

Well ID:	BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-52D	PZ-53D	PZ-70I		
Sample Date:	08/22/23	08/22/23	08/22/23	08/22/23	08/22/23	08/23/23	08/22/23	08/22/23	08/22/23	08/23/23	08/23/23	08/22/23	08/23/23	08/23/23	08/24/23	08/23/23		
Parameter ^(1,2,3)																		
APPENDIX III	Boron	0.00738 J	0.00649 J	0.00764 J	0.00730 J	0.00611 J	0.0601	0.946	1.90	2.36	1.04	0.00802 J	1.37	0.00855 J	0.0668	1.06	1.01	
	Calcium	5.02	12.6	14.9	14.3	3.79	47.9	135	83.4	71.4	43.4	3.47	28.7	8.74	46.7	74.4	31.4	
	Chloride	2.14	1.90	3.37	3.53	2.34	5.18	32.7	13.2	6.21	8.26	1.89	6.44	2.73	6.90	4.43	5.75	
	Fluoride	0.229	0.267	0.277	0.289	0.0787 J	0.484	0.123	0.0816 J	0.347	0.301	0.0445 J	0.748	< 0.033	1.94	0.334	0.229	
	pH	5.97	6.91	6.09	6.36	6.27	6.16	4.58	5.72	5.90	5.26	5.42	3.91	5.37	6.99	6.54	5.36	
	Sulfate	0.526	6.85	0.540	1.83	0.467	180	466	299	269	223	0.355 J	274	46.2	112	293	139	
	TDS	36	81	73	80	30	391	778	495	485	398	42	459	112	372	499	252	
APPENDIX IV	Antimony	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
	Arsenic	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	
	Barium	0.0135	0.0068	0.0352	0.0245	0.0143	0.0445	0.0357	0.0268	0.0286	0.0243	0.0266	0.0134	0.0683	0.0163	0.0485	0.0196	
	Beryllium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00190	< 0.0002	0.000200 J	< 0.0002	< 0.0002	0.00680	0.000259 J	< 0.0002	< 0.0002	0.000325 J	
	Cadmium	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.000533 J	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.000410 J	< 0.0003	< 0.0003	< 0.0003	< 0.0003	
	Chromium	0.00921 J	< 0.003	0.00472 J	0.00701 J	0.0132	0.0115	< 0.003	< 0.003	0.00592 J	0.00649 J	< 0.003	0.00338 J	0.0111	< 0.003	< 0.003	< 0.003	
	Cobalt	0.000707 J	0.000707 J	0.000327 J	0.000474 J	< 0.0003	< 0.0003	0.0659	0.00384	< 0.0003	< 0.0003	< 0.0003	0.139	< 0.0003	0.000307 J	< 0.0003	0.000784 J	
	Fluoride	0.229	0.267	0.277	0.289	0.0787 J	0.484	0.123	0.0816 J	0.347	0.301	0.0445 J	0.748	< 0.033	1.94	0.334	0.229	
	Lead	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	
	Lithium	< 0.003	0.0209	< 0.003	< 0.003	< 0.003	< 0.003	0.00967 J	< 0.003	< 0.003	< 0.003	< 0.003	0.0195	< 0.003	0.0182	0.0185	0.00385 J	
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	
	Molybdenum	< 0.0002	0.00169	< 0.0002	0.000953 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0154	0.00211	< 0.0002
	Comb. Radium 226/228	0.592 U	0.857 U	1.31 U	1.36	1.89 U	1.92 U	0.521 U	1.06 U	3.33	3.87	0.578 U	5.98	0.823 U	1.14 U	3.67	4.35	
Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00214 J	0.00572	< 0.0015	< 0.0015	0.00173 J	< 0.0015	0.0186	< 0.0015	< 0.0015	< 0.0015	0.00829		
Thallium	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006		
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	37.1	71.7	68.4	77.2	36.8	71.8	1.40 J	28.9	52.7	20.6	21.9	< 0.725	21.0	180	50.9	14.5	
	Alkalinity (Carbonate as CaCO3)	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	
	Alkalinity (total) as CaCO3	37.1	71.7	68.4	77.2	36.8	71.8	1.40 J	28.9	52.7	20.6	21.9	< 0.725	21.0	180	50.9	14.5	
	Ferrous Iron	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Iron	0.0513 J	0.0904 J	0.263	0.0953 J	< 0.033	0.0446 J	0.0388 J	< 0.033	0.100	0.0387 J	< 0.033	0.0343 J	< 0.033	0.0556 J	0.327	0.105	
	Magnesium	4.66	7.27	6.25	9.41	3.48	24.7	19.5	18.9	32	17.2	1.16	30.4	5.04	10.7	17.3	11.1	
	Manganese	0.0283	0.0145	0.0105	0.00104 J	0.00120 J	< 0.001	3.14	3.33	0.0108	0.00167 J	< 0.001	1.43	0.00237 J	0.00623	0.503	0.291	
	Nitrate	0.218	< 0.033	0.203	0.266	0.646	0.0940 J	0.0707 J	0.0431 J	< 0.033	0.136	0.294	0.123	0.0695 J	< 0.033	0.0807 J	0.175	
	Potassium	0.415	5.25	0.435	0.933	0.607	1.19	14.4	3.52	3.93	3.40	1.79	5.28	3.58	7.47	5.84	3.91	
	Sodium	3.09	5.26	3.48	4.69	2.11	24.3	39.9	20.7	18.5	36.9	4.23	36.3	11.4	68.2	42.8	19.5	
Sulfide	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033		

Notes:
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).
 J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).
 TDS = total dissolved solids
 U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)
 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.
 (3) The pH value presented was recorded at the time of sample collection in the field.

Table 6
Summary of Background Concentrations and Groundwater Protection Standards
Plant Branch AP-E, Putnam County, Georgia

Analyte	Units	MCL	CCR-Rule Specified	Background ⁽¹⁾	GWPS ⁽²⁾⁽³⁾
				August 2023	
Antimony	mg/L	0.006		0.003	0.006
Arsenic	mg/L	0.01		0.005	0.01
Barium	mg/L	2		0.063	2
Beryllium	mg/L	0.004		0.0005	0.004
Cadmium	mg/L	0.005		0.001	0.005
Chromium	mg/L	0.1		0.016	0.1
Cobalt	mg/L	n/a	0.006	0.0034	0.006
Fluoride	mg/L	4		0.19	4
Lead	mg/L	n/a	0.015	0.002	0.015
Lithium	mg/L	n/a	0.040	0.089	0.089
Mercury	mg/L	0.002		0.00021	0.002
Molybdenum	mg/L	n/a	0.1	0.008	0.1
Selenium	mg/L	0.05		0.005	0.05
Thallium	mg/L	0.002		0.002	0.002
Combined Radium-226/228	pCi/L	5		1.65	5

Notes:

CCR = Coal Combustion Residuals

GWPS = Groundwater Protection Standard

MCL = Maximum Contaminant Level

mg/L = milligrams per liter

n/a = not applicable

pCi/L = picocuries per liter

Statistical analyses were performed per semiannual assessment monitoring event conducted during the reporting period.

Background limits and groundwater protection standards (GWPS) are applicable to the August 2023 event.

(1) The background limits were used when determining the GWPS under 40 CFR 257.95(h) and Georgia Environmental Protection Division (GA EPD) Rule 391-3-4-.10(6)(a).

(2) Under 40 CFR 257.95(h)(1-3) the Federal GWPS is: (i) the maximum contaminant level (MCL) established under 141.62 and 141.66 of this title; (ii) where an MCL has not been established a rule-specific GWPS is used; or (iii) background concentrations for constituents where the background level is higher than the MCL or rule-specific GWPS.

(3) On February 22, 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPSs where an MCL has not been established, except when site-specific background concentrations of constituents is higher.

FIGURES



LEGEND
 - - - Plant Branch Property Boundary
 - - - Approximate Ash Pond Boundary



Notes:
 1. Coordinate System: NAD 1983 State Plane Georgia West_FIPS (U.S. Feet).
 2. Property Boundary Provided by Southern Company Services.
 3. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



SITE LOCATION MAP

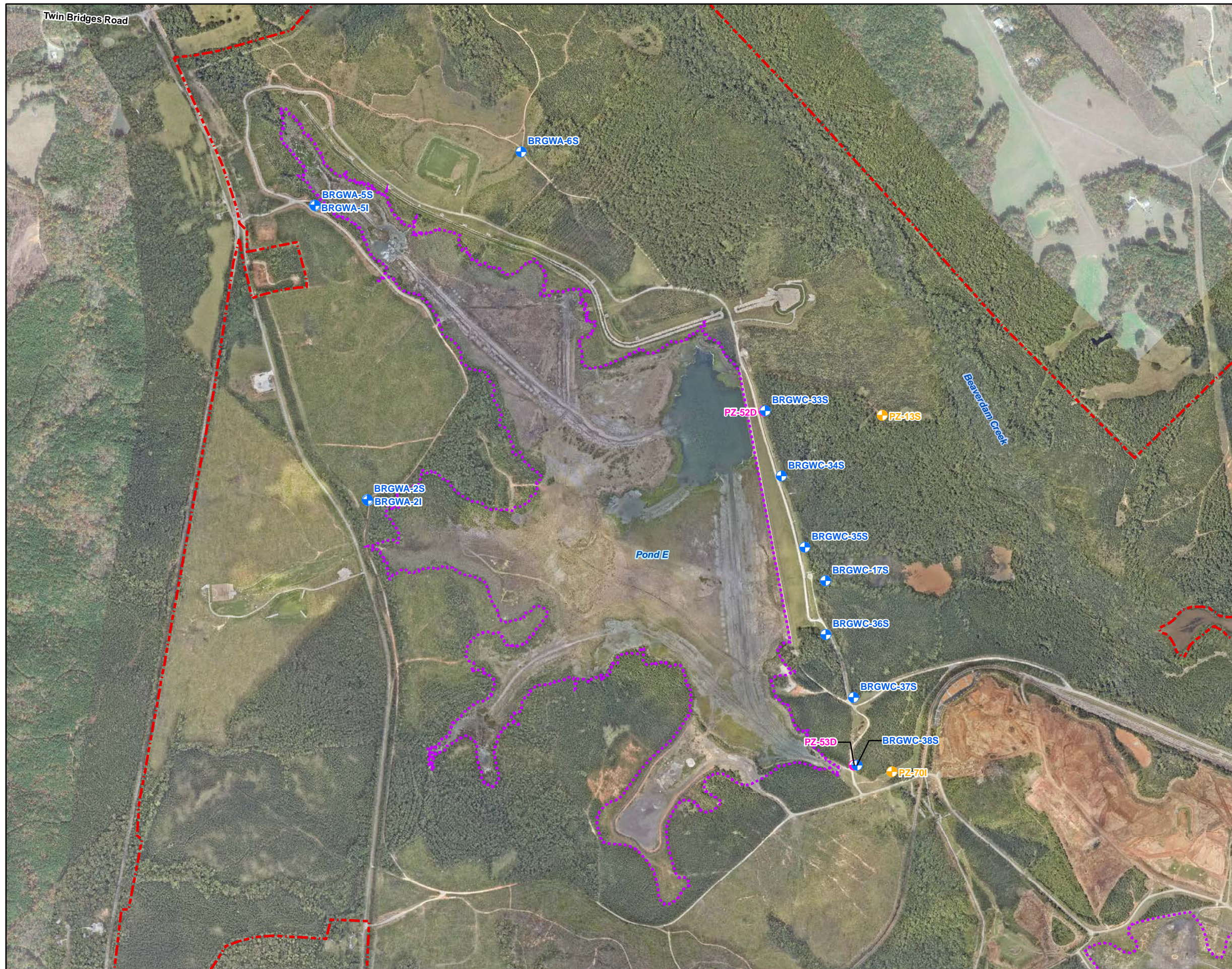
GEORGIA POWER COMPANY
 PLANT BRANCH AP-E
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec
 consultants

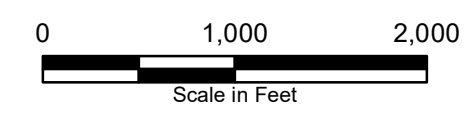
KENNESAW, GA FEBRUARY 2024

FIGURE
1



- LEGEND**
- + Detection Monitoring Well
 - + Horizontal Assessment Monitoring Well
 - + Vertical Assessment Monitoring Well
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

Notes:
 1. Property Boundary Provided by Southern Company Services.
 2. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



MONITORING WELL NETWORK MAP

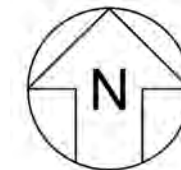
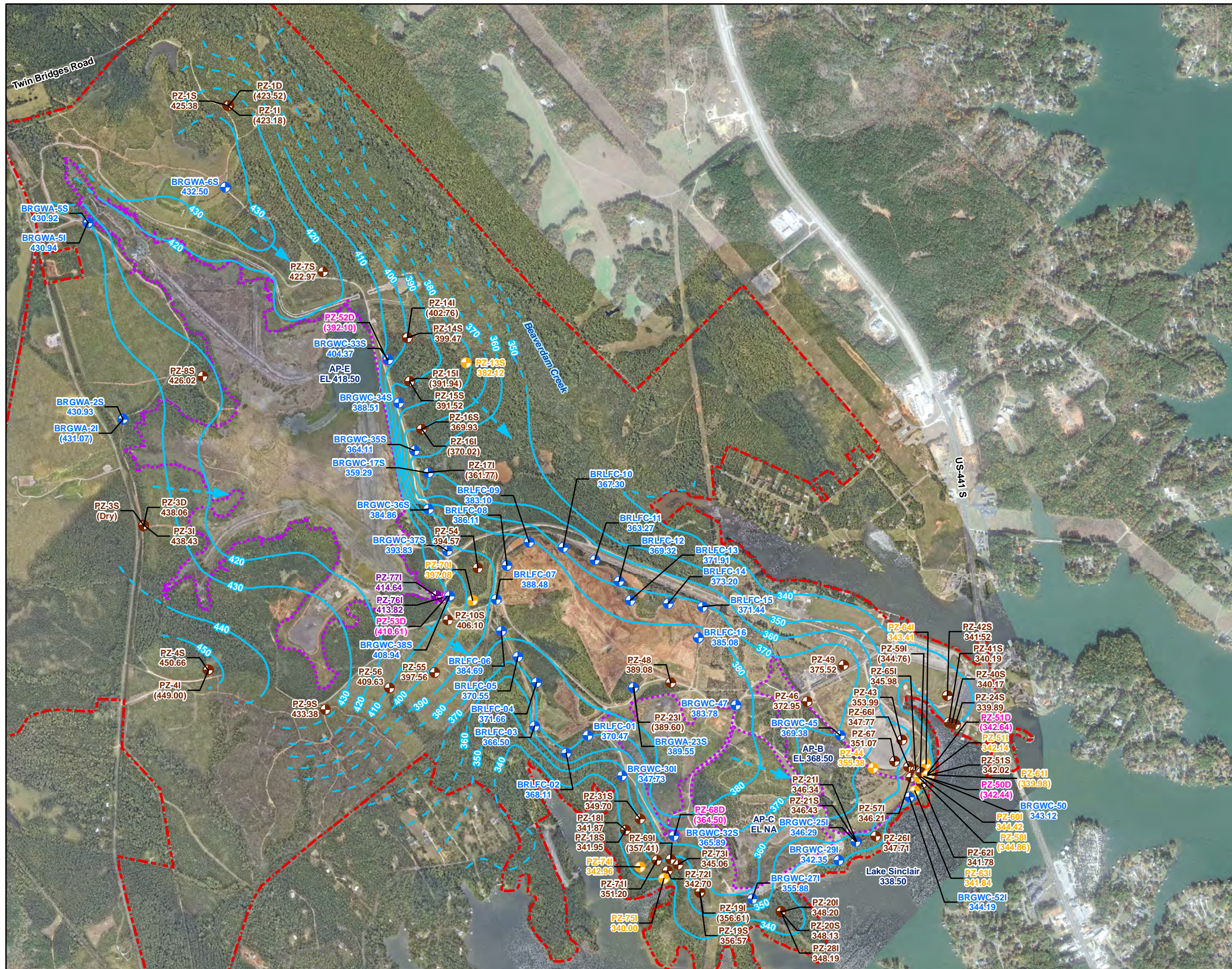
GEORGIA POWER COMPANY
 PLANT BRANCH AP-E
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec
 consultants

KENNESAW, GA FEBRUARY 2024

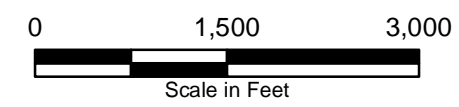
FIGURE
2



- LEGEND**
- Detection Monitoring Well
 - Horizontal Assessment Monitoring Well
 - Vertical Assessment Monitoring Well
 - Piezometer
 - Angled Well Screen
 - Temporary Piezometer
 - Groundwater Elevation Iso-Contour
 - - Groundwater Elevation Iso-Contour (Inferred)
 - ▶ Approximate Groundwater Flow Direction
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary



- Notes:**
1. Water level elevation recorded on August 21, 2023, for semiannual groundwater event.
 2. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
 3. Groundwater iso-contours based on linear interpolation and extrapolation from known groundwater elevation data, and topographic elevations.
 4. Groundwater elevations in parentheses were not used to make the groundwater contours because these wells are screened at a different elevation in the formation/aquifer.
 5. Coordinate System: NAD 1983 State Plane Georgia West_FIPS (U.S. Feet).
 6. Property Boundary Provided by Southern Company Services.
 7. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



**POTENTIOMETRIC SURFACE CONTOUR
MAP - AUGUST 2023**

GEORGIA POWER COMPANY
PLANT BRANCH AP-E
PUTNAM COUNTY, GEORGIA

Prepared For:		FIGURE 3
Prepared By:		
KENNESAW, GA	FEBRUARY 2024	

APPENDIX A

Well Maintenance and Repair Documentation Memoranda



ATLANTIC COAST
CONSULTING, INC.

*Our work helps produce
a cleaner environment for all.*

Memorandum

To: Joju Abraham, Southern Company Services
Ben Hodges, Georgia Power Company
Regina Linch, Plant Branch

From: Atlantic Coast Consulting

Date: November 13, 2023

Subject: Plant Branch Unit AP-BCD and AP-E
Well Maintenance and Repair Documentation
Plant Branch, Putnam County, Georgia

Atlantic Coast Consulting (ACC) has prepared this memorandum to provide documentation of any groundwater monitoring well maintenance and/or repairs performed at Plant Branch Ash Ponds during the 2023 Annual Groundwater Monitoring reporting period. The groundwater monitoring well network (including associated piezometers) for Ash Ponds B, C, and D (AP-BCD) and Ash Pond E (AP-E) at Plant Branch were inspected on 8/21/2023. The groundwater monitoring well network was observed to be well maintained and in good condition; no deficiencies requiring maintenance or repair were identified.

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	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)
Well ID:				
BRGWA-2S	Yes	Yes	No	Yes
BRGWA-2I	Yes	Yes	No	Yes
BRGWA-5S	Yes	Yes	No	Yes
BRGWA-5I	Yes	Yes	No	Yes
BRGWA-6S	Yes	Yes	No	Yes
BRGWA-23S	Yes	Yes	No	Yes
BRGWC-25I	Yes	Yes	No	Yes
BRGWC-27I	Yes	Yes	No	Yes
BRGWC-29I	Yes	Yes	No	Yes
BRGWC-30I	Yes	Yes	No	Yes
BRGWC-32S	Yes	Yes	No	Yes
BRGWC-45	Yes	Yes	No	Yes
BRGWC-47	Yes	Yes	No	Yes
BRGWC-50	Yes	Yes	No	Yes
BRGWC-52I	Yes	Yes	No	Yes
BRGWC-17S	Yes	Yes	No	Yes
BRGWC-33S	Yes	Yes	No	Yes
BRGWC-34S	Yes	Yes	No	Yes
BRGWC-35S	Yes	Yes	No	Yes
BRGWC-36S	Yes	Yes	No	Yes
BRGWC-37S	Yes	Yes	No	Yes
BRGWC-38S	Yes	Yes	No	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	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
Well ID:					
BRGWA-2S	Yes	Yes	Yes	Yes	Yes
BRGWA-2I	Yes	Yes	Yes	Yes	Yes
BRGWA-5S	Yes	Yes	Yes	Yes	Yes
BRGWA-5I	Yes	Yes	Yes	Yes	Yes
BRGWA-6S	Yes	Yes	Yes	Yes	Yes
BRGWA-23S	Yes	Yes	Yes	Yes	Yes
BRGWC-25I	Yes	Yes	Yes	Yes	Yes
BRGWC-27I	Yes	Yes	Yes	Yes	Yes
BRGWC-29I	Yes	Yes	Yes	Yes	Yes
BRGWC-30I	Yes	Yes	Yes	Yes	Yes
BRGWC-32S	Yes	Yes	Yes	Yes	Yes
BRGWC-45	Yes	Yes	Yes	Yes	Yes
BRGWC-47	Yes	Yes	Yes	Yes	Yes
BRGWC-50	Yes	Yes	Yes	Yes	Yes
BRGWC-52I	Yes	Yes	Yes	Yes	Yes
BRGWC-17S	Yes	Yes	Yes	Yes	Yes
BRGWC-33S	Yes	Yes	Yes	Yes	Yes
BRGWC-34S	Yes	Yes	Yes	Yes	Yes
BRGWC-35S	Yes	Yes	Yes	Yes	Yes
BRGWC-36S	Yes	Yes	Yes	Yes	Yes
BRGWC-37S	Yes	Yes	Yes	Yes	Yes
BRGWC-38S	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	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
Well ID:						
BRGWA-2S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWA-2I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWA-5S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWA-5I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWA-6S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWA-23S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-25I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-27I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-29I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-30I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-32S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-45	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-47	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-50	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-52I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-17S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-33S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-34S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-35S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-36S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-37S	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-38S	Yes	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	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)
Well ID:				
PZ-44	Yes	Yes	No	Yes
PZ-50D	Yes	Yes	No	Yes
PZ-51S	Yes	Yes	No	Yes
PZ-51I	Yes	Yes	No	Yes
PZ-51D	Yes	Yes	No	Yes
PZ-57I	Yes	Yes	No	Yes
PZ-58I	Yes	Yes	No	Yes
PZ-59I	Yes	Yes	No	Yes
PZ-60I	Yes	Yes	No	Yes
PZ-61I	Yes	Yes	No	Yes
PZ-62I	Yes	Yes	No	Yes
PZ-63I	Yes	Yes	No	Yes
PZ-64I	Yes	Yes	No	Yes
PZ-65I	Yes	Yes	No	Yes
PZ-66I	Yes	Yes	No	Yes
PZ-68D	Yes	Yes	No	Yes
PZ-74I	Yes	Yes	No	Yes
PZ-75I	Yes	Yes	No	Yes
PZ-79I	Yes	Yes	No	Yes
PZ-13S	Yes	Yes	No	Yes
PZ-52D	Yes	Yes	No	Yes
PZ-53D	Yes	Yes	No	Yes
PZ-70I	Yes	Yes	No	Yes
PZ-76I	Yes	Yes	No	Yes
PZ-77I	Yes	Yes	No	Yes
PZ-79	Yes	Yes	No	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

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
PZ-44	Yes	Yes	Yes	Yes	Yes
PZ-50D	Yes	Yes	Yes	Yes	Yes
PZ-51S	Yes	Yes	Yes	Yes	Yes
PZ-51I	Yes	Yes	Yes	Yes	Yes
PZ-51D	Yes	Yes	Yes	Yes	Yes
PZ-57I	Yes	Yes	Yes	Yes	Yes
PZ-58I	Yes	Yes	Yes	Yes	Yes
PZ-59I	Yes	Yes	Yes	Yes	Yes
PZ-60I	Yes	Yes	Yes	Yes	Yes
PZ-61I	Yes	Yes	Yes	Yes	Yes
PZ-62I	Yes	Yes	Yes	Yes	Yes
PZ-63I	Yes	Yes	Yes	Yes	Yes
PZ-64I	Yes	Yes	Yes	Yes	Yes
PZ-65I	Yes	Yes	Yes	Yes	Yes
PZ-66I	Yes	Yes	Yes	Yes	Yes
PZ-68D	Yes	Yes	Yes	Yes	Yes
PZ-74I	Yes	Yes	Yes	Yes	Yes
PZ-75I	Yes	Yes	Yes	Yes	Yes
PZ-79I	Yes	Yes	Yes	Yes	Yes
PZ-13S	Yes	Yes	Yes	Yes	Yes
PZ-52D	Yes	Yes	Yes	Yes	Yes
PZ-53D	Yes	Yes	Yes	Yes	Yes
PZ-70I	Yes	Yes	Yes	Yes	Yes
PZ-76I	Yes	Yes	Yes	Yes	Yes
PZ-77I	Yes	Yes	Yes	Yes	Yes
PZ-79	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

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
PZ-44	Yes	Yes	Yes	Yes	Yes	Yes
PZ-50D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-51S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-51I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-51D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-57I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-58I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-59I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-60I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-61I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-62I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-63I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-64I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-65I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-66I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-68D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-74I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-75I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-79I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-13S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-52D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-53D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-70I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-76I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-77I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-79	Yes	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	Corrective actions as needed, by date:
Well ID:	
PZ-44	
PZ-50D	
PZ-51S	
PZ-51I	
PZ-51D	
PZ-57I	
PZ-58I	
PZ-59I	
PZ-60I	
PZ-61I	
PZ-62I	
PZ-63I	
PZ-64I	
PZ-65I	
PZ-66I	
PZ-68D	
PZ-74I	
PZ-75I	
PZ-79I	
PZ-13S	
PZ-52D	
PZ-53D	
PZ-70I	
PZ-76I	
PZ-77I	
PZ-79	

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

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)
PZ-1S	Yes	Yes	No	Yes
PZ-1I	Yes	Yes	No	Yes
PZ-1D	Yes	Yes	No	Yes
PZ-3S	Yes	Yes	No	Yes
PZ-3I	Yes	Yes	No	Yes
PZ-3D	Yes	Yes	No	Yes
PZ-4S	Yes	Yes	No	Yes
PZ-4I	Yes	Yes	No	Yes
PZ-7S	Yes	Yes	No	Yes
PZ-8S	Yes	Yes	No	Yes
PZ-9S	Yes	Yes	No	Yes
PZ-10S	Yes	Yes	No	Yes
PZ-14S	Yes	Yes	No	Yes
PZ-14I	Yes	Yes	No	Yes
PZ-15S	Yes	Yes	No	Yes
PZ-15I	Yes	Yes	No	Yes
PZ-16S	Yes	Yes	No	Yes
PZ-16I	Yes	Yes	No	Yes
PZ-17I	Yes	Yes	No	Yes
PZ-18S	Yes	Yes	No	Yes
PZ-18I	Yes	Yes	No	Yes
PZ-19S	Yes	Yes	No	Yes
PZ-19I	Yes	Yes	No	Yes
PZ-20S	Yes	Yes	No	Yes
PZ-20I	Yes	Yes	No	Yes
PZ-21S	Yes	Yes	No	Yes
PZ-21I	Yes	Yes	No	Yes
PZ-23I	Yes	Yes	No	Yes
BRGWC-24S	Yes	Yes	No	Yes
PZ-26I	Yes	Yes	No	Yes
PZ-28I	Yes	Yes	No	Yes
PZ-31S	Yes	Yes	No	Yes
PZ-40S	Yes	Yes	No	Yes
PZ-41S	Yes	Yes	No	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

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
PZ-1S	Yes	Yes	Yes	Yes	Yes
PZ-1I	Yes	Yes	Yes	Yes	Yes
PZ-1D	Yes	Yes	Yes	Yes	Yes
PZ-3S	Yes	Yes	Yes	Yes	Yes
PZ-3I	Yes	Yes	Yes	Yes	Yes
PZ-3D	Yes	Yes	Yes	Yes	Yes
PZ-4S	Yes	Yes	Yes	Yes	Yes
PZ-4I	Yes	Yes	Yes	Yes	Yes
PZ-7S	Yes	Yes	Yes	Yes	Yes
PZ-8S	Yes	Yes	Yes	Yes	Yes
PZ-9S	Yes	Yes	Yes	Yes	Yes
PZ-10S	Yes	Yes	Yes	Yes	Yes
PZ-14S	Yes	Yes	Yes	Yes	Yes
PZ-14I	Yes	Yes	Yes	Yes	Yes
PZ-15S	Yes	Yes	Yes	Yes	Yes
PZ-15I	Yes	Yes	Yes	Yes	Yes
PZ-16S	Yes	Yes	Yes	Yes	Yes
PZ-16I	Yes	Yes	Yes	Yes	Yes
PZ-17I	Yes	Yes	Yes	Yes	Yes
PZ-18S	Yes	Yes	Yes	Yes	Yes
PZ-18I	Yes	Yes	Yes	Yes	Yes
PZ-19S	Yes	Yes	Yes	Yes	Yes
PZ-19I	Yes	Yes	Yes	Yes	Yes
PZ-20S	Yes	Yes	Yes	Yes	Yes
PZ-20I	Yes	Yes	Yes	Yes	Yes
PZ-21S	Yes	Yes	Yes	Yes	Yes
PZ-21I	Yes	Yes	Yes	Yes	Yes
PZ-23I	Yes	Yes	Yes	Yes	Yes
BRGWC-24S	Yes	Yes	Yes	Yes	Yes
PZ-26I	Yes	Yes	Yes	Yes	Yes
PZ-28I	Yes	Yes	Yes	Yes	Yes
PZ-31S	Yes	Yes	Yes	Yes	Yes
PZ-40S	Yes	Yes	Yes	Yes	Yes
PZ-41S	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

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
PZ-1S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-1I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-1D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-3S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-3I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-3D	Yes	Yes	Yes	Yes	Yes	Yes
PZ-4S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-4I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-7S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-8S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-9S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-10S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-14S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-14I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-15S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-15I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-16S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-16I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-17I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-18S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-18I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-19S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-19I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-20S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-20I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-21S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-21I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-23I	Yes	Yes	Yes	Yes	Yes	Yes
BRGWC-24S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-26I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-28I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-31S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-40S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-41S	Yes	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

Well ID:	Corrective actions as needed, by date:
PZ-1S	
PZ-1I	
PZ-1D	
PZ-3S	
PZ-3I	
PZ-3D	
PZ-4S	
PZ-4I	
PZ-7S	
PZ-8S	
PZ-9S	
PZ-10S	
PZ-14S	
PZ-14I	
PZ-15S	
PZ-15I	
PZ-16S	
PZ-16I	
PZ-17I	
PZ-18S	
PZ-18I	
PZ-19S	
PZ-19I	
PZ-20S	
PZ-20I	
PZ-21S	
PZ-21I	
PZ-23I	
BRGWC-24S	
PZ-26I	
PZ-28I	
PZ-31S	
PZ-40S	
PZ-41S	

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	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)
Well ID:				
PZ-42S	Yes	Yes	No	Yes
PZ-43	Yes	Yes	No	Yes
PZ-46	Yes	Yes	No	Yes
PZ-48	Yes	Yes	No	Yes
PZ-49	Yes	Yes	No	Yes
PZ-54	Yes	Yes	No	Yes
PZ-55	Yes	Yes	No	Yes
PZ-56	Yes	Yes	No	Yes
PZ-67	Yes	Yes	No	Yes
PZ-69I	Yes	Yes	No	Yes
PZ-71I	Yes	Yes	No	Yes
PZ-72I	Yes	Yes	No	Yes
PZ-73I	Yes	Yes	No	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

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
PZ-42S	Yes	Yes	Yes	Yes	Yes
PZ-43	Yes	Yes	Yes	Yes	Yes
PZ-46	Yes	Yes	Yes	Yes	Yes
PZ-48	Yes	Yes	Yes	Yes	Yes
PZ-49	Yes	Yes	Yes	Yes	Yes
PZ-54	Yes	Yes	Yes	Yes	Yes
PZ-55	Yes	Yes	Yes	Yes	Yes
PZ-56	Yes	Yes	Yes	Yes	Yes
PZ-67	Yes	Yes	Yes	Yes	Yes
PZ-69I	Yes	Yes	Yes	Yes	Yes
PZ-71I	Yes	Yes	Yes	Yes	Yes
PZ-72I	Yes	Yes	Yes	Yes	Yes
PZ-73I	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

	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
Well ID:						
PZ-42S	Yes	Yes	Yes	Yes	Yes	Yes
PZ-43	Yes	Yes	Yes	Yes	Yes	Yes
PZ-46	Yes	Yes	Yes	Yes	Yes	Yes
PZ-48	Yes	Yes	Yes	Yes	Yes	Yes
PZ-49	Yes	Yes	Yes	Yes	Yes	Yes
PZ-54	Yes	Yes	Yes	Yes	Yes	Yes
PZ-55	Yes	Yes	Yes	Yes	Yes	Yes
PZ-56	Yes	Yes	Yes	Yes	Yes	Yes
PZ-67	Yes	Yes	Yes	Yes	Yes	Yes
PZ-69I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-71I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-72I	Yes	Yes	Yes	Yes	Yes	Yes
PZ-73I	Yes	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Branch

Date: 08/21/2023

Permit Number: APL1171, APL1172

Field Conditions: Sunny, Dry

Well ID:	Corrective actions as needed, by date:
PZ-42S	
PZ-43	
PZ-46	
PZ-48	
PZ-49	
PZ-54	
PZ-55	
PZ-56	
PZ-67	
PZ-69I	
PZ-71I	
PZ-72I	
PZ-73I	

APPENDIX B

Analytical Laboratory Results and Field Sampling Forms

September 07, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APE
Work Orders: 634615 and 634441

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 2023 and August 24, 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. Samples "BRA-BRGWC-35S" "BRA-BRGWC-36S" "BRA-APE-FB-08" "BRA-BRGWC-38S" "BRA-APE-FD-05" containers for sodium hydroxide/zinc acetate did not hold preservation. Samples were preserved upon receipt and placed on a 24 hour preservation hold. 634615002(BRA-BRGWC-35S), 634615003(BRA-BRGWC-36S), 634615004(BRA-BRGWC-38S), 634615007(BRA-APE-FD-05), 634615008(BRA-APE-FB-08). 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>
634441001	BRA-BRGWC-33S	Ground Water	22/08/23 12:10	23/08/23 13:00
634441002	BRA-APE-FD-04	Ground Water	22/08/23 12:00	23/08/23 13:00
634441003	BRA-BRGWC-34S	Ground Water	22/08/23 14:35	23/08/23 13:00
634441004	BRA-APE-FB-07	Water	22/08/23 15:10	23/08/23 13:00
634441005	BRA-BRGWC-37S	Ground Water	22/08/23 16:51	23/08/23 13:00
634441006	BRA-PZ-13S	Ground Water	22/08/23 16:47	23/08/23 13:00
634615001	BRA-BRGWC-17S	Ground Water	23/08/23 14:05	24/08/23 12:43
634615002	BRA-BRGWC-35S	Ground Water	23/08/23 12:01	24/08/23 12:43
634615003	BRA-BRGWC-36S	Ground Water	23/08/23 15:56	24/08/23 12:43
634615004	BRA-BRGWC-38S	Ground Water	23/08/23 12:12	24/08/23 12:43
634615005	BRA-PZ-52D	Ground Water	23/08/23 13:46	24/08/23 12:43
634615006	BRA-PZ-70I	Ground Water	23/08/23 16:12	24/08/23 12:43
634615007	BRA-APE-FD-05	Ground Water	23/08/23 12:00	24/08/23 12:43
634615008	BRA-APE-FB-08	Water	23/08/23 16:30	24/08/23 12:43



634615009	BRA-APE-EB-09	Water	23/08/23 16:45	24/08/23 12:43
634615010	BRA-APE-EB-10	Water	23/08/23 13:15	24/08/23 12:43

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

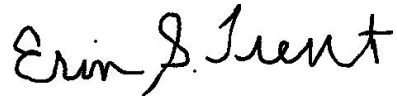
<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	25-AUG-2023
SW846 7470A Prep	24-AUG-2023
SW846 7470A Prep	25-AUG-2023

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-AUG-2023
EPA 300.0	24-AUG-2023
EPA 300.0	25-AUG-2023
SM 2320B	24-AUG-2023
SM 2320B	29-AUG-2023
SM 2540C	25-AUG-2023
SM 2540C	28-AUG-2023
SM 2540C	29-AUG-2023
SM 4500-S (2-) D	24-AUG-2023
SM 4500-S (2-) D	25-AUG-2023
SM 4500-S (2-) D	28-AUG-2023
SW846 3005A/6020B	01-SEP-2023
SW846 3005A/6020B	06-SEP-2023
SW846 3005A/6020B	07-SEP-2023
SW846 3005A/6020B	31-AUG-2023
SW846 7470A	25-AUG-2023
SW846 7470A	28-AUG-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 initial "E".

Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634615 GEL Work Order: 634615

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 for

GPCC001 Georgia Power Company

Client SDG: 634441 GEL Work Order: 634441

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-17S Project: GPCC00101
Sample ID: 634615001 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 14:05
Receive Date: 24-AUG-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		5.18	0.0670	0.200	mg/L		1	HXC1	08/24/23	1915	2482580	1
Fluoride		0.484	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0940	0.0330	0.100	mg/L		1					
Sulfate		180	2.66	8.00	mg/L		20	HXC1	08/25/23	0430	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0927	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2105	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0445	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0601	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium		0.0115	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0446	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					
Magnesium		24.7	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		1.19	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00214	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		47.9	0.400	1.00	mg/L	1.00	5	PRB	09/07/23	0958	2482705	5
Sodium		24.3	0.400	1.25	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		391	2.38	10.0	mg/L			CH6	08/28/23	1550	2483702	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1052	2482961	7

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-17S	Project: GPCC00101
Sample ID: 634615001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		71.8	0.725	2.00	mg/L			JW2	08/29/23	1156	2484392	8
Bicarbonate alkalinity (CaCO3)		71.8	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-35S Project: GPCC00101
Sample ID: 634615002 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:01
Receive Date: 24-AUG-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		6.21	0.0670	0.200	mg/L		1	HXC1	08/24/23	1712	2482580	1
Fluoride		0.347	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		269	5.32	16.0	mg/L		40	HXC1	08/25/23	0603	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0929	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2130	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0286	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00592	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.100	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		32.0	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0108	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.93	0.0800	0.300	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		2.36	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1013	2482705	5
Calcium		71.4	1.60	4.00	mg/L	1.00	20					
Beryllium	J	0.000200	0.000200	0.000500	mg/L	1.00	1	PRB	09/06/23	2355	2482705	6
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		18.5	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		485	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1254	2483779	8

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Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-35S
Sample ID: 634615002

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		52.7	0.725	2.00	mg/L			JW2	08/29/23	1159	2484392	9
Bicarbonate alkalinity (CaCO ₃)		52.7	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-36S Project: GPCC00101
Sample ID: 634615003 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 15:56
Receive Date: 24-AUG-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		223	2.66	8.00	mg/L		20	HXC1	08/25/23	0735	2482580	1
Fluoride		0.301	0.0660	0.200	mg/L		2	HXC1	08/25/23	0806	2482580	2
Chloride		8.26	0.0670	0.200	mg/L		1	HXC1	08/24/23	1946	2482580	3
Nitrate-N		0.136	0.0330	0.100	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	08/28/23	0930	2482668	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2134	2482705	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0243	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00649	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0387	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		17.2	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00167	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.40	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00173	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	PRB	09/06/23	2359	2482705	6
Calcium		43.4	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		36.9	0.0800	0.250	mg/L	1.00	1					
Boron		1.04	0.0520	0.150	mg/L	1.00	10	PRB	09/07/23	1015	2482705	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		398	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1256	2483779	9

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-36S Project: GPCC00101
Sample ID: 634615003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		20.6	0.725	2.00	mg/L			JW2	08/29/23	1200	2484392	10
Bicarbonate alkalinity (CaCO ₃)		20.6	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

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, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-38S Project: GPCC00101
Sample ID: 634615004 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:12
Receive Date: 24-AUG-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		6.44	0.0670	0.200	mg/L		1	HXC1	08/24/23	2017	2482580	1
Fluoride		0.748	0.0330	0.100	mg/L		1					
Nitrate-N		0.123	0.0330	0.100	mg/L		1					
Sulfate		274	5.32	16.0	mg/L		40	HXC1	08/25/23	0837	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0932	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2138	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0134	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000410	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00338	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.139	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0343	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		30.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.28	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0186	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00680	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0002	2482705	5
Calcium		28.7	0.0800	0.200	mg/L	1.00	1					
Lithium		0.0195	0.00300	0.0100	mg/L	1.00	1					
Sodium		36.3	0.0800	0.250	mg/L	1.00	1					
Boron		1.37	0.0520	0.150	mg/L	1.00	10	PRB	09/07/23	1017	2482705	6
Manganese		1.43	0.0100	0.0500	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		459	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1256	2483779	8

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Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-38S
Sample ID: 634615004

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1202	2484392	9
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-PZ-52D Project: GPCC00101
Sample ID: 634615005 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 13:46
Receive Date: 24-AUG-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		6.90	0.0670	0.200	mg/L		1	HXC1	08/24/23	2047	2482580	1
Fluoride		1.94	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		112	1.33	4.00	mg/L		10	HXC1	08/25/23	0908	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0934	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0006	2482705	4
Boron		0.0668	0.00520	0.0150	mg/L	1.00	1					
Calcium		46.7	0.0800	0.200	mg/L	1.00	1					
Lithium		0.0182	0.00300	0.0100	mg/L	1.00	1					
Sodium		68.2	0.800	2.50	mg/L	1.00	10	PRB	09/07/23	1019	2482705	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2141	2482705	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0163	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	J	0.000307	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0556	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		10.7	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.00623	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.0154	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.47	0.0800	0.300	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		372	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1052	2482961	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-PZ-52D Project: GPCC00101
Sample ID: 634615005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		180	0.725	2.00	mg/L			JW2	08/29/23	1204	2484392	9
Bicarbonate alkalinity (CaCO ₃)		180	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-70I Project: GPCC00101
Sample ID: 634615006 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 16:12
Receive Date: 24-AUG-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		139	1.33	4.00	mg/L		10	HXC1	08/25/23	0939	2482580	1
Chloride		5.75	0.0670	0.200	mg/L		1	HXC1	08/24/23	2118	2482580	2
Nitrate-N		0.175	0.0330	0.100	mg/L		1					
Fluoride		0.229	0.0660	0.200	mg/L		2	HXC1	08/25/23	1010	2482580	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury		0.00322	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0939	2482668	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000325	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0010	2482705	5
Calcium		31.4	0.0800	0.200	mg/L	1.00	1					
Lithium	J	0.00385	0.00300	0.0100	mg/L	1.00	1					
Sodium		19.5	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2145	2482705	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0196	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	J	0.000784	0.000300	0.00100	mg/L	1.00	1					
Iron		0.105	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		11.1	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.291	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.91	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00829	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.01	0.0520	0.150	mg/L	1.00	10	PRB	09/07/23	1021	2482705	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		252	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1052	2482961	9

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-70I	Project: GPCC00101
Sample ID: 634615006	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		14.5	0.725	2.00	mg/L			JW2	08/29/23	1207	2484392	10
Bicarbonate alkalinity (CaCO3)		14.5	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 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-05	Project: GPCC00101
Sample ID: 634615007	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-23 12:00	
Receive Date: 24-AUG-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		6.34	0.0670	0.200	mg/L		1	HXC1	08/24/23	2149	2482580	1
Fluoride		0.341	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		273	3.33	10.0	mg/L		25	HXC1	08/25/23	1041	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0940	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2148	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0269	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00564	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0804	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		31.7	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.00976	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.84	0.0800	0.300	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		2.22	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1023	2482705	5
Calcium		66.3	1.60	4.00	mg/L	1.00	20					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0013	2482705	6
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		18.3	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		505	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1256	2483779	8

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-05 Project: GPCC00101
Sample ID: 634615007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		53.0	0.725	2.00	mg/L			JW2	08/29/23	1209	2484392	9
Bicarbonate alkalinity (CaCO ₃)		53.0	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-08 Project: GPCC00101
Sample ID: 634615008 Client ID: GPCC001
Matrix: WQ
Collect Date: 23-AUG-23 16:30
Receive Date: 24-AUG-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	HXC1	08/24/23	2220	2482580	1
Fluoride		0.340	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	08/28/23	0942	2482668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2152	2482705	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	J	0.000714	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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	J	0.0147	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	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	PRB	09/07/23	0017	2482705	4
Boron		0.0205	0.00520	0.0150	mg/L	1.00	1					
Calcium	J	0.0850	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		0.282	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	08/29/23	1603	2484234	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1257	2483779	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-08 Project: GPCC00101
Sample ID: 634615008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1211	2484392	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-09	Project: GPCC00101
Sample ID: 634615009	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-23 16:45	
Receive Date: 24-AUG-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	HXC1	08/24/23	2251	2482580	1
Fluoride	J	0.0531	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	08/28/23	0944	2482668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0028	2482705	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2203	2482705	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					
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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	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	08/29/23	1603	2484234	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1053	2482961	6

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-09 Project: GPCC00101
Sample ID: 634615009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1213	2484392	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-10 Project: GPCC00101
Sample ID: 634615010 Client ID: GPCC001
Matrix: WQ
Collect Date: 23-AUG-23 13:15
Receive Date: 24-AUG-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		0.581	0.0670	0.200	mg/L		1	HXC1	08/24/23	2322	2482580	1
Fluoride		0.302	0.0330	0.100	mg/L		1					
Nitrate-N		0.470	0.0330	0.100	mg/L		1					
Sulfate	J	0.329	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	08/28/23	0945	2482668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0031	2482705	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium		0.361	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		0.289	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2207	2482705	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					
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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	J	0.0142	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	J	0.110	0.0800	0.300	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	08/29/23	1603	2484234	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1054	2482961	6

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-10 Project: GPCC00101
Sample ID: 634615010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1214	2484392	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-33S	Project: GPCC00101
Sample ID: 634441001	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 12:10	
Receive Date: 23-AUG-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		32.7	3.35	10.0	mg/L		50	JLD1	08/24/23	0117	2481584	1
Sulfate		466	6.65	20.0	mg/L		50					
Fluoride		0.123	0.0330	0.100	mg/L		1	JLD1	08/23/23	1647	2481584	2
Nitrate-N	J	0.0707	0.0330	0.100	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	08/25/23	1159	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2225	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0357	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00190	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000533	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0659	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0388	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00967	0.00300	0.0100	mg/L	1.00	1					
Magnesium		19.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.4	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00572	0.00150	0.00500	mg/L	1.00	1					
Sodium		39.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.946	0.0520	0.150	mg/L	1.00	10	PRB	09/01/23	0854	2482703	5
Calcium		135	0.800	2.00	mg/L	1.00	10					
Manganese		3.14	0.0100	0.0500	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		778	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1736	2481696	7

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Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-33S Project: GPCC00101
Sample ID: 634441001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	1.40	0.725	2.00	mg/L			JW2	08/24/23	1558	2482476	8
Bicarbonate alkalinity (CaCO3)	J	1.40	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 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-04 Project: GPCC00101
Sample ID: 634441002 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 12:00
Receive Date: 23-AUG-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		0.119	0.0330	0.100	mg/L		1	JLD1	08/23/23	1719	2481584	1
Nitrate-N	J	0.0630	0.0330	0.100	mg/L		1					
Chloride		33.4	3.35	10.0	mg/L		50	JLD1	08/24/23	0253	2481584	2
Sulfate		472	6.65	20.0	mg/L		50					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/25/23	1201	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2228	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0379	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00199	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000586	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0696	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0416	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0100	0.00300	0.0100	mg/L	1.00	1					
Magnesium		20.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		15.3	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00628	0.00150	0.00500	mg/L	1.00	1					
Sodium		42.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.988	0.0520	0.150	mg/L	1.00	10	PRB	09/01/23	0856	2482703	5
Calcium		143	0.800	2.00	mg/L	1.00	10					
Manganese		3.29	0.0100	0.0500	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		766	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1738	2481696	7

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-04 Project: GPCC00101
Sample ID: 634441002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	J	1.20	0.725	2.00	mg/L			JW2	08/24/23	1601	2482476	8
Bicarbonate alkalinity (CaCO ₃)	J	1.20	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-34S	Project: GPCC00101
Sample ID: 634441003	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 14:35	
Receive Date: 23-AUG-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		299	3.33	10.0	mg/L		25	JLD1	08/24/23	0357	2481584	1
Chloride		13.2	0.134	0.400	mg/L		2	JLD1	08/24/23	0325	2481584	2
Fluoride	J	0.0816	0.0660	0.200	mg/L		2					
Nitrate-N	J	0.0431	0.0330	0.100	mg/L		1	JLD1	08/23/23	1751	2481584	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/25/23	1203	2482624	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2232	2482703	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0268	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		0.00384	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					
Magnesium		18.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.52	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		20.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.90	0.104	0.300	mg/L	1.00	20	PRB	09/01/23	0858	2482703	6
Calcium		83.4	1.60	4.00	mg/L	1.00	20					
Manganese		3.33	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		495	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1739	2481696	8

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-34S Project: GPCC00101
Sample ID: 634441003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		28.9	0.725	2.00	mg/L			JW2	08/24/23	1603	2482476	9
Bicarbonate alkalinity (CaCO ₃)		28.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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

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

Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-07	Project: GPCC00101
Sample ID: 634441004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 22-AUG-23 15:10	
Receive Date: 23-AUG-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		0.206	0.0670	0.200	mg/L		1	JLD1	08/23/23	1823	2481584	1
Fluoride	J	0.0478	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0430	0.0330	0.100	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	08/25/23	1204	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2257	2482703	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	0.00844	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					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0910	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1740	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-07 Project: GPCC00101
Sample ID: 634441004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/24/23	1605	2482476	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-37S Project: GPCC00101
Sample ID: 634441005 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 16:51
Receive Date: 23-AUG-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		1.89	0.0670	0.200	mg/L		1	JLD1	08/23/23	1855	2481584	1
Fluoride	J	0.0445	0.0330	0.100	mg/L		1					
Nitrate-N		0.294	0.0330	0.100	mg/L		1					
Sulfate	J	0.355	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	08/25/23	1206	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2301	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0266	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00802	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.47	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					
Magnesium		1.16	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		1.79	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.23	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0912	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		42.0	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1740	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-37S Project: GPCC00101
Sample ID: 634441005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		21.9	0.725	2.00	mg/L			JW2	08/24/23	1607	2482476	7
Bicarbonate alkalinity (CaCO ₃)		21.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-13S Project: GPCC00101
Sample ID: 634441006 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 16:47
Receive Date: 23-AUG-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		46.2	0.665	2.00	mg/L		5	JLD1	08/24/23	1046	2481584	1
Chloride		2.73	0.0670	0.200	mg/L		1	JLD1	08/23/23	1927	2481584	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0695	0.0330	0.100	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	08/25/23	1208	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00237	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0914	2482703	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2304	2482703	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0683	0.000670	0.00400	mg/L	1.00	1					
Beryllium	J	0.000259	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00855	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		8.74	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0111	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					
Magnesium		5.04	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.58	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.4	0.0800	0.250	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		112	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1741	2481696	7

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-PZ-13S Project: GPCC00101
Sample ID: 634441006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		21.0	0.725	2.00	mg/L			JW2	08/24/23	1609	2482476	8
Bicarbonate alkalinity (CaCO ₃)		21.0	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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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QC Summary

Report Date: September 7, 2023

Page 1 of 12

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

Contact: Joju Abraham

Workorder: 634615

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482580										
QC1205499015	634615001	DUP									
Chloride		5.18		5.20	mg/L	0.566		(0%-20%)	HXC1	08/25/23	03:29
Fluoride		0.484		0.453	mg/L	6.49	^	(+/-0.100)			
Nitrate-N	J	0.0940	J	0.0939	mg/L	0.106	^	(+/-0.100)			
Sulfate		180		180	mg/L	0.133		(0%-20%)		08/25/23	05:01
QC1205499014	LCS										
Chloride	5.00			4.79	mg/L			95.8 (90%-110%)		08/25/23	01:56
Fluoride	2.50			2.47	mg/L			98.9 (90%-110%)			
Nitrate-N	2.50			2.37	mg/L			94.9 (90%-110%)			
Sulfate	10.0			9.81	mg/L			98.1 (90%-110%)			
QC1205499013	MB										
Chloride			U	ND	mg/L					08/25/23	01:25
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499016	634615001	PS									
Chloride	5.00	5.18		10.7	mg/L			111* (90%-110%)		08/25/23	03:59

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QC Summary

Workorder: 634615

Page 2 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482580										
Fluoride	2.50	0.484		2.91	mg/L		97	(90%-110%)	HXC1	08/25/23	03:59
Nitrate-N	2.50	J 0.0940		2.43	mg/L		93.5	(90%-110%)			
Sulfate	10.0	9.00		19.6	mg/L		106	(90%-110%)		08/25/23	05:32
Metals Analysis - ICPMS											
Batch	2482705										
QC1205499170	LCS										
Antimony	0.0500			0.0501	mg/L		100	(80%-120%)	PRB	09/06/23	21:01
Arsenic	0.0500			0.0502	mg/L		100	(80%-120%)			
Barium	0.0500			0.0473	mg/L		94.6	(80%-120%)			
Beryllium	0.0500			0.0598	mg/L		120	(80%-120%)			
Boron	0.100			0.111	mg/L		111	(80%-120%)			
Cadmium	0.0500			0.0509	mg/L		102	(80%-120%)			
Calcium	2.00			2.11	mg/L		105	(80%-120%)		09/07/23	09:49
Chromium	0.0500			0.0514	mg/L		103	(80%-120%)		09/06/23	21:01
Cobalt	0.0500			0.0511	mg/L		102	(80%-120%)			
Iron	2.00			2.05	mg/L		102	(80%-120%)			
Lead	0.0500			0.0517	mg/L		103	(80%-120%)			

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QC Summary

Workorder: 634615

Page 3 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Lithium	0.0500			0.0576	mg/L		115	(80%-120%)	PRB	09/06/23	21:01
Magnesium	2.00			2.09	mg/L		104	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Molybdenum	0.0500			0.0517	mg/L		103	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Selenium	0.0500			0.0478	mg/L		95.7	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)		09/07/23	09:49
Thallium	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/06/23	21:01
QC1205499169	MB										
Antimony			U	ND	mg/L					09/06/23	20:58
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					09/07/23	09:47

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QC Summary

Workorder: 634615

Page 4 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Chromium			U	ND	mg/L				PRB	09/06/23	20:58
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L					09/07/23	09:47
Thallium			U	ND	mg/L					09/06/23	20:58
QC1205499171 634615001 MS											
Antimony	0.0500	U	ND	0.0514	mg/L		103	(75%-125%)		09/06/23	21:09
Arsenic	0.0500	U	ND	0.0505	mg/L		98.8	(75%-125%)			
Barium	0.0500		0.0445	0.0929	mg/L		96.9	(75%-125%)			

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QC Summary

Workorder: 634615

Page 5 of 12

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2482705											
Beryllium	0.0500	U	ND		0.0595	mg/L		119	(75%-125%)	PRB	09/06/23	21:09
Boron	0.100		0.0601		0.170	mg/L		110	(75%-125%)			
Cadmium	0.0500	U	ND		0.0509	mg/L		102	(75%-125%)			
Calcium	2.00		47.9		49.7	mg/L		N/A	(75%-125%)		09/07/23	10:00
Chromium	0.0500		0.0115		0.0621	mg/L		101	(75%-125%)		09/06/23	21:09
Cobalt	0.0500	U	ND		0.0495	mg/L		99	(75%-125%)			
Iron	2.00	J	0.0446		2.04	mg/L		99.9	(75%-125%)			
Lead	0.0500	U	ND		0.0508	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND		0.0584	mg/L		114	(75%-125%)			
Magnesium	2.00		24.7		27.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500	U	ND		0.0498	mg/L		99	(75%-125%)			
Molybdenum	0.0500	U	ND		0.0537	mg/L		107	(75%-125%)			
Potassium	2.00		1.19		3.21	mg/L		101	(75%-125%)			
Selenium	0.0500	J	0.00214		0.0529	mg/L		102	(75%-125%)			
Sodium	2.00		24.3		26.5	mg/L		N/A	(75%-125%)		09/07/23	10:00

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QC Summary

Workorder: 634615

Page 6 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Thallium	0.0500	U	ND	0.0486	mg/L		97.1	(75%-125%)	PRB	09/06/23	21:09
QC1205499172	634615001 MSD										
Antimony	0.0500	U	ND	0.0505	mg/L	1.68	101	(0%-20%)		09/06/23	21:12
Arsenic	0.0500	U	ND	0.0503	mg/L	0.359	98.4	(0%-20%)			
Barium	0.0500		0.0445	0.0900	mg/L	3.18	91.1	(0%-20%)			
Beryllium	0.0500	U	ND	0.0597	mg/L	0.435	119	(0%-20%)			
Boron	0.100		0.0601	0.169	mg/L	0.597	109	(0%-20%)			
Cadmium	0.0500	U	ND	0.0501	mg/L	1.62	100	(0%-20%)			
Calcium	2.00		47.9	47.5	mg/L	4.48	N/A	(0%-20%)		09/07/23	10:02
Chromium	0.0500		0.0115	0.0609	mg/L	1.91	98.8	(0%-20%)		09/06/23	21:12
Cobalt	0.0500	U	ND	0.0488	mg/L	1.57	97.5	(0%-20%)			
Iron	2.00	J	0.0446	2.02	mg/L	0.88	99	(0%-20%)			
Lead	0.0500	U	ND	0.0491	mg/L	3.4	98.3	(0%-20%)			
Lithium	0.0500	U	ND	0.0572	mg/L	2.02	112	(0%-20%)			
Magnesium	2.00		24.7	26.1	mg/L	4.35	N/A	(0%-20%)			
Manganese	0.0500	U	ND	0.0491	mg/L	1.28	97.7	(0%-20%)			

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QC Summary

Workorder: 634615

Page 7 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Molybdenum	0.0500	U	ND	0.0522	mg/L	2.82	104	(0%-20%)	PRB	09/06/23	21:12
Potassium	2.00		1.19	3.12	mg/L	2.62	96.9	(0%-20%)			
Selenium	0.0500	J	0.00214	0.0511	mg/L	3.51	97.9	(0%-20%)			
Sodium	2.00		24.3	25.2	mg/L	4.79	N/A	(0%-20%)		09/07/23	10:02
Thallium	0.0500	U	ND	0.0480	mg/L	1.1	96	(0%-20%)		09/06/23	21:12
QC1205499173 634615001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			44.5	9.45	ug/L	6.18		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			60.1	J	12.2	ug/L	1.49	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			9580	1920	ug/L	.186		(0%-20%)		09/07/23	10:07
Chromium			11.5	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	44.6	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634615

Page 8 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	09/06/23	21:20
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		24700		5300	ug/L	7.32		(0%-20%)			
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1190	J	231	ug/L	2.54		(0%-20%)			
Selenium	J	2.14	U	ND	ug/L	N/A		(0%-20%)			
Sodium		4860		988	ug/L	1.66		(0%-20%)		09/07/23	10:07
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/06/23	21:20
Metals Analysis-Mercury											
Batch	2482668										
QC1205499097	634513006 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/28/23	09:09
QC1205499096	LCS										
Mercury		0.00200		0.00205	mg/L		103	(80%-120%)		08/28/23	09:01
QC1205499095	MB										
Mercury			U	ND	mg/L					08/28/23	08:59
QC1205499098	634513006 MS										
Mercury		0.00200	U	ND	0.00197	mg/L	98.5	(75%-125%)		08/28/23	09:11

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QC Summary

Workorder: 634615

Page 9 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482668										
QC1205499099	634513006	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	08/28/23	09:12
Solids Analysis											
Batch	2483702										
QC1205501048	634610003	DUP									
Total Dissolved Solids		5050		5870	mg/L	15*		(0%-5%)	CH6	08/28/23	15:50
QC1205501047	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/28/23	15:50
QC1205501046	MB										
Total Dissolved Solids			U	ND	mg/L					08/28/23	15:50
Batch	2484233										
QC1205502071	634810010	DUP									
Total Dissolved Solids		184		187	mg/L	1.62		(0%-5%)	CH6	08/29/23	15:39
QC1205502070	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	15:39
QC1205502069	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	15:39
Batch	2484234										
QC1205502076	634643001	DUP									
Total Dissolved Solids		1270		1280	mg/L	0.94		(0%-5%)	CH6	08/29/23	16:03
QC1205502074	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	16:03
QC1205502073	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	16:03

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QC Summary

Workorder: 634615

Page 10 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2482961										
QC1205499656		LCS									
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	08/25/23	10:42
QC1205499655		MB									
Total Sulfide			U	ND	mg/L					08/25/23	10:42
QC1205499657		634513005	PS								
Total Sulfide	0.400	U	ND	0.389	mg/L		96.4	(75%-125%)		08/25/23	10:48
QC1205499658		634513005	PSD								
Total Sulfide	0.400	U	ND	0.391	mg/L	0.511	96.9	(0%-15%)		08/25/23	10:48
Batch	2483779										
QC1205501209		LCS									
Total Sulfide	0.400			0.398	mg/L		99.4	(85%-115%)	JW2	08/28/23	12:54
QC1205501208		MB									
Total Sulfide			U	ND	mg/L					08/28/23	12:54
QC1205501210		634615002	PS								
Total Sulfide	0.400	U	ND	0.118	mg/L		29.4*	(75%-125%)		08/28/23	12:55
QC1205501212		634650011	PS								
Total Sulfide	0.400	U	ND	0.111	mg/L		27.7*	(75%-125%)		08/28/23	12:59
QC1205501211		634615002	PSD								
Total Sulfide	0.400	U	ND	0.113	mg/L	3.73	28.3*	(0%-15%)		08/28/23	12:55
QC1205501213		634650011	PSD								
Total Sulfide	0.400	U	ND	0.109	mg/L	1.96	27.2*	(0%-15%)		08/28/23	13:00

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QC Summary

Workorder: 634615

Page 11 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2484392										
QC1205502340	634448001	DUP									
Alkalinity, Total as CaCO3		65.8		65.5	mg/L	0.457		(0%-20%)	JW2	08/29/23	11:54
Bicarbonate alkalinity (CaCO3)		65.8		65.5	mg/L	0.457		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205502342	634643001	DUP									
Alkalinity, Total as CaCO3		80.2		80.4	mg/L	0.249		(0%-20%)		08/29/23	12:16
Bicarbonate alkalinity (CaCO3)		80.2		80.4	mg/L	0.249		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205502339	LCS										
Alkalinity, Total as CaCO3	50.0			51.8	mg/L		104	(90%-110%)		08/29/23	11:37
QC1205502344	LCS										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L		98.7	(90%-110%)		08/29/23	11:38
QC1205502341	634448001	MS									
Alkalinity, Total as CaCO3	50.0	65.8		118	mg/L		104	(80%-120%)		08/29/23	11:54
QC1205502343	634643001	MS									
Alkalinity, Total as CaCO3	50.0	80.2		132	mg/L		103	(80%-120%)		08/29/23	12:17

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

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

QC Summary

Workorder: 634615

Page 12 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<	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.

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QC Summary

Report Date: September 6, 2023

Page 1 of 11

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

Contact: Joju Abraham

Workorder: 634441

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481584										
QC1205497354	634441001	DUP									
Chloride		32.7		32.5	mg/L	0.522	^	(+/-10.0)	JLD1	08/24/23	01:49
Fluoride		0.123		0.124	mg/L	1.13	^	(+/-0.100)		08/24/23	00:14
Nitrate-N	J	0.0707	J	0.0739	mg/L	4.43	^	(+/-0.100)			
Sulfate		466		474	mg/L	1.69		(0%-20%)		08/24/23	01:49
QC1205497353	LCS										
Chloride	5.00			4.64	mg/L			92.8 (90%-110%)		08/23/23	23:42
Fluoride	2.50			2.37	mg/L			94.6 (90%-110%)			
Nitrate-N	2.50			2.27	mg/L			91 (90%-110%)			
Sulfate	10.0			9.48	mg/L			94.8 (90%-110%)			
QC1205497352	MB										
Chloride			U	ND	mg/L					08/23/23	23:10
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205497355	634441001	PS									
Chloride	5.00	0.654		5.10	mg/L			88.9* (90%-110%)		08/24/23	02:21

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

QC Summary

Workorder: 634441

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481584										
Fluoride	2.50	0.123		2.56	mg/L		97.3	(90%-110%)	JLD1	08/24/23	00:45
Nitrate-N	2.50	J 0.0707		2.29	mg/L		88.7*	(90%-110%)			
Sulfate	10.0	9.32		18.8	mg/L		94.3	(90%-110%)		08/24/23	02:21
Metals Analysis - ICPMS											
Batch	2482703										
QC1205499165	LCS										
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	08/31/23	22:21
Arsenic	0.0500			0.0500	mg/L		99.9	(80%-120%)			
Barium	0.0500			0.0522	mg/L		104	(80%-120%)			
Beryllium	0.0500			0.0527	mg/L		105	(80%-120%)			
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0502	mg/L		100	(80%-120%)			
Calcium	2.00			1.96	mg/L		98	(80%-120%)			
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0518	mg/L		104	(80%-120%)			

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

QC Summary

Workorder: 634441

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lithium	0.0500			0.0506	mg/L		101	(80%-120%)	PRB	08/31/23	22:21
Magnesium	2.00			1.97	mg/L		98.4	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/01/23	08:52
Molybdenum	0.0500			0.0499	mg/L		99.8	(80%-120%)		08/31/23	22:21
Potassium	2.00			1.94	mg/L		97	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.7	(80%-120%)			
Sodium	2.00			1.95	mg/L		97.6	(80%-120%)			
Thallium	0.0500			0.0507	mg/L		101	(80%-120%)			
QC1205499164	MB										
Antimony			U	ND	mg/L					08/31/23	22:18
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						

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QC Summary

Workorder: 634441

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Chromium			U	ND	mg/L				PRB	08/31/23	22:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/01/23	08:50
Molybdenum			U	ND	mg/L					08/31/23	22:18
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205499166 634441003 MS											
Antimony	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Arsenic	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)			
Barium	0.0500		0.0268	0.0800	mg/L		106	(75%-125%)			

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QC Summary

Workorder: 634441

Page 5 of 11

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2482703											
Beryllium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)	PRB	08/31/23	22:36
Boron	0.100		1.90		2.08	mg/L		N/A	(75%-125%)		09/01/23	09:00
Cadmium	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Calcium	2.00		83.4		88.8	mg/L		N/A	(75%-125%)		09/01/23	09:00
Chromium	0.0500	U	ND		0.0518	mg/L		103	(75%-125%)		08/31/23	22:36
Cobalt	0.0500		0.00384		0.0554	mg/L		103	(75%-125%)			
Iron	2.00	U	ND		2.06	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND		0.0521	mg/L		102	(75%-125%)			
Magnesium	2.00		18.9		21.3	mg/L		N/A	(75%-125%)			
Manganese	0.0500		3.33		3.48	mg/L		N/A	(75%-125%)		09/01/23	09:00
Molybdenum	0.0500	U	ND		0.0527	mg/L		105	(75%-125%)		08/31/23	22:36
Potassium	2.00		3.52		5.59	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)			
Sodium	2.00		20.7		23.1	mg/L		N/A	(75%-125%)			

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QC Summary

Workorder: 634441

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Thallium	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)	PRB	08/31/23	22:36
QC1205499167 634441003 MSD											
Antimony	0.0500	U	ND	0.0491	mg/L	4.07	98.1	(0%-20%)		08/31/23	22:39
Arsenic	0.0500	U	ND	0.0508	mg/L	3.79	101	(0%-20%)			
Barium	0.0500		0.0268	0.0757	mg/L	5.49	97.8	(0%-20%)			
Beryllium	0.0500	U	ND	0.0506	mg/L	4.96	101	(0%-20%)			
Boron	0.100		1.90	2.00	mg/L	4.07	N/A	(0%-20%)		09/01/23	09:02
Cadmium	0.0500	U	ND	0.0496	mg/L	2.97	98.7	(0%-20%)		08/31/23	22:39
Calcium	2.00		83.4	84.1	mg/L	5.45	N/A	(0%-20%)		09/01/23	09:02
Chromium	0.0500	U	ND	0.0504	mg/L	2.88	101	(0%-20%)		08/31/23	22:39
Cobalt	0.0500		0.00384	0.0540	mg/L	2.65	100	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	2.95	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0493	mg/L	3.6	98.5	(0%-20%)			
Lithium	0.0500	U	ND	0.0509	mg/L	2.35	99.9	(0%-20%)			
Magnesium	2.00		18.9	20.7	mg/L	2.55	N/A	(0%-20%)			
Manganese	0.0500		3.33	3.35	mg/L	3.62	N/A	(0%-20%)		09/01/23	09:02

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QC Summary

Workorder: 634441

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Molybdenum	0.0500	U	ND	0.0512	mg/L	2.82	102	(0%-20%)	PRB	08/31/23	22:39
Potassium	2.00		3.52	5.37	mg/L	4.12	92.4	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	3.53	102	(0%-20%)			
Sodium	2.00		20.7	22.6	mg/L	2.28	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0488	mg/L	3.06	97.5	(0%-20%)			
QC1205499168 634441003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			26.8	5.04	ug/L	6.03		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			95.1	20.6	ug/L	8.16		(0%-20%)		09/01/23	09:04
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Calcium			4170	869	ug/L	4.2		(0%-20%)		09/01/23	09:04
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Cobalt			3.84	J	0.796	ug/L	3.56	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634441

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	08/31/23	22:46
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		18900		3500	ug/L	7.29		(0%-20%)			
Manganese		167		33.7	ug/L	1.09		(0%-20%)		09/01/23	09:04
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/23	22:46
Potassium		3520		680	ug/L	3.4		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		20700		3830	ug/L	7.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2482624										
QC1205499046	634447002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/25/23	12:24
QC1205499045	LCS										
Mercury		0.00200		0.00199	mg/L		99.5	(80%-120%)		08/25/23	11:58
QC1205499044	MB										
Mercury			U	ND	mg/L					08/25/23	11:56
QC1205499047	634447002 MS										
Mercury		0.00200	U	ND	mg/L		99.5	(75%-125%)		08/25/23	12:26

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QC Summary

Workorder: 634441

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482624										
QC1205499048	634447002	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	08/25/23	12:27
Solids Analysis											
Batch	2482652										
QC1205499070	634323005	DUP									
Total Dissolved Solids		219		217	mg/L	0.917		(0%-5%)	CH6	08/25/23	09:38
QC1205499068	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/25/23	09:38
QC1205499067	MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23	09:38
Batch	2482655										
QC1205499078	634530001	DUP									
Total Dissolved Solids		360		364	mg/L	1.1		(0%-5%)	CH6	08/25/23	10:10
QC1205499076	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/25/23	10:10
QC1205499075	MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23	10:10
Spectrometric Analysis											
Batch	2481696										
QC1205497560	LCS										
Total Sulfide	0.400			0.398	mg/L		99.6	(85%-115%)	JW2	08/24/23	17:36
QC1205497559	MB										
Total Sulfide			U	ND	mg/L					08/24/23	17:36
QC1205497561	634441001	PS									
Total Sulfide	0.400	U	ND	0.363	mg/L		90.8	(75%-125%)		08/24/23	17:37

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QC Summary

Workorder: 634441

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2481696										
QC1205497563	634447001	PS									
Total Sulfide	0.400	U	ND	0.420	mg/L		105	(75%-125%)	JW2	08/24/23	17:46
QC1205497562	634441001	PSD									
Total Sulfide	0.400	U	ND	0.367	mg/L	1.09	91.8	(0%-15%)		08/24/23	17:38
QC1205497564	634447001	PSD									
Total Sulfide	0.400	U	ND	0.412	mg/L	1.92	103	(0%-15%)		08/24/23	17:47
Titration and Ion Analysis											
Batch	2482476										
QC1205498938	LCS										
Alkalinity, Total as CaCO3	50.0			50.2	mg/L		100	(90%-110%)	JW2	08/24/23	15:56
QC1205499028	LCSD										
Alkalinity, Total as CaCO3	50.0			50.7	mg/L	0.991	101	(0%-20%)		08/24/23	15:57

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
- 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

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QC Summary

Workorder: 634441

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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 #: 634615**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482705

Preparation Method: SW846 3005A

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

Preparation Batch: 2482704

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499169	Method Blank (MB) ICP-MS
1205499170	Laboratory Control Sample (LCS)
1205499173	634615001(BRA-BRGWC-17SL) Serial Dilution (SD)
1205499171	634615001(BRA-BRGWC-17SS) Matrix Spike (MS)
1205499172	634615001(BRA-BRGWC-17SSD) 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 634615001 (BRA-BRGWC-17S),

634615002 (BRA-BRGWC-35S), 634615003 (BRA-BRGWC-36S), 634615004 (BRA-BRGWC-38S), 634615005 (BRA-PZ-52D), 634615006 (BRA-PZ-70I) and 634615007 (BRA-APE-FD-05) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634615						
	001	002	003	004	005	006	007
Boron	1X	20X	10X	10X	1X	10X	20X
Calcium	5X	20X	1X	1X	1X	1X	20X
Manganese	1X	1X	1X	10X	1X	1X	1X
Sodium	5X	1X	1X	1X	10X	1X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2482668

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482660

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499095	Method Blank (MB)CVAA
1205499096	Laboratory Control Sample (LCS)
1205499099	634513006(NonSDGL) Serial Dilution (SD)
1205499097	634513006(NonSDGD) Sample Duplicate (DUP)
1205499098	634513006(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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2482580

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499013	Method Blank (MB)
1205499014	Laboratory Control Sample (LCS)
1205499015	634615001(BRA-BRGWC-17S) Sample Duplicate (DUP)
1205499016	634615001(BRA-BRGWC-17S) 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
Chloride	1205499016 (BRA-BRGWC-17SPS)	111* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205499015 (BRA-BRGWC-17SDUP), 1205499016 (BRA-BRGWC-17SPS), 634615001 (BRA-BRGWC-17S), 634615002 (BRA-BRGWC-35S), 634615003 (BRA-BRGWC-36S), 634615004 (BRA-BRGWC-38S), 634615005 (BRA-PZ-52D), 634615006 (BRA-PZ-70I) and 634615007 (BRA-APE-FD-05) were diluted because target analyte concentrations exceeded the calibration range. The following samples 634615003 (BRA-BRGWC-36S) and 634615006 (BRA-PZ-70I) in this sample group were diluted due to matrix interference. 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	634615						
	001	002	003	004	005	006	007
Fluoride	1X	1X	2X	1X	1X	2X	1X
Sulfate	20X	40X	20X	40X	10X	10X	25X

Miscellaneous Information

Manual Integrations

Samples 1205499015 (BRA-BRGWC-17SDUP), 634615003 (BRA-BRGWC-36S) and 634615006 (BRA-PZ-70I) 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: 2483702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
1205501046	Method Blank (MB)
1205501047	Laboratory Control Sample (LCS)
1205501048	634610003(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	1205501048 (Non SDG 634610003DUP)	15* (0%-5%)

Miscellaneous Information

Additional Comments

A TDS meter was used to check the sample for interference prior to analysis. 1205501048 (Non SDG 634610003DUP).

Product: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 21
Analytical Batch: 2484233

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
1205502069	Method Blank (MB)
1205502070	Laboratory Control Sample (LCS)
1205502071	634810010(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: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 21
Analytical Batch: 2484234

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205502073	Method Blank (MB)
1205502074	Laboratory Control Sample (LCS)
1205502076	634643001(BRA-PZ-79) 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 sample for interference prior to analysis. 1205502076 (BRA-PZ-79DUP).

Product: Sulfide, Total

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

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

Analytical Batch: 2482961

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499655	Method Blank (MB)
1205499656	Laboratory Control Sample (LCS)
1205499657	634513005(NonSDG) Post Spike (PS)
1205499658	634513005(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.

Product: Sulfide, Total

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

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

Analytical Batch: 2483779

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
1205501208	Method Blank (MB)
1205501209	Laboratory Control Sample (LCS)
1205501210	634615002(BRA-BRGWC-35S) Post Spike (PS)
1205501211	634615002(BRA-BRGWC-35S) Post Spike Duplicate (PSD)
1205501212	634650011(BRA-BRGWC-50) Post Spike (PS)
1205501213	634650011(BRA-BRGWC-50) Post Spike Duplicate (PSD)

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
Total Sulfide	1205501210 (BRA-BRGWC-35SPS)	29.4* (75%-125%)
	1205501211 (BRA-BRGWC-35SPSD)	28.3* (75%-125%)
	1205501212 (BRA-BRGWC-50PS)	27.7* (75%-125%)
	1205501213 (BRA-BRGWC-50PSD)	27.2* (75%-125%)

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2484392

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205502339	Laboratory Control Sample (LCS)
1205502340	634448001(BRA-PZ-79) Sample Duplicate (DUP)
1205502341	634448001(BRA-PZ-79) Matrix Spike (MS)
1205502342	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205502343	634643001(BRA-PZ-79) Matrix Spike (MS)
1205502344	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.

**Technical Case Narrative
Georgia Power Company
SDG #: 634441**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482703

Preparation Method: SW846 3005A

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

Preparation Batch: 2482702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205499164	Method Blank (MB) ICP-MS
1205499165	Laboratory Control Sample (LCS)
1205499168	634441003(BRA-BRGWC-34SL) Serial Dilution (SD)
1205499166	634441003(BRA-BRGWC-34SS) Matrix Spike (MS)
1205499167	634441003(BRA-BRGWC-34SSD) 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 634441001 (BRA-BRGWC-33S), 634441002 (BRA-APE-FD-04) and 634441003 (BRA-BRGWC-34S) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634441		
	001	002	003
Boron	10X	10X	20X
Calcium	10X	10X	20X
Manganese	10X	10X	20X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2482624

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482623

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205499044	Method Blank (MB) CVAA
1205499045	Laboratory Control Sample (LCS)
1205499048	634447002(BRA-BRGWA-5SL) Serial Dilution (SD)
1205499046	634447002(BRA-BRGWA-5SD) Sample Duplicate (DUP)
1205499047	634447002(BRA-BRGWA-5SS) 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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 32

Analytical Batch: 2481584

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2481584

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205497352	Method Blank (MB)
1205497353	Laboratory Control Sample (LCS)
1205497354	634441001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205497355	634441001(BRA-BRGWC-33S) 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
Chloride	1205497355 (BRA-BRGWC-33SPS)	88.9* (90%-110%)
Nitrate-N	1205497355 (BRA-BRGWC-33SPS)	88.7* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205497354 (BRA-BRGWC-33SDUP), 1205497355 (BRA-BRGWC-33SPS), 634441001 (BRA-BRGWC-33S), 634441002 (BRA-APE-FD-04), 634441003 (BRA-BRGWC-34S) and 634441006 (BRA-PZ-13S) were diluted because target analyte concentrations exceeded the calibration range. The following sample 634441003 (BRA-BRGWC-34S) in this sample group was diluted due to matrix interference. 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	634441			
	001	002	003	006
Chloride	50X	50X	2X	1X
Fluoride	1X	1X	2X	1X
Sulfate	50X	50X	25X	5X

Miscellaneous Information

Manual Integrations

Samples 634441002 (BRA-APE-FD-04), 634441005 (BRA-BRGWC-37S) and 634441006 (BRA-PZ-13S) 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: 2482652

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
1205499067	Method Blank (MB)
1205499068	Laboratory Control Sample (LCS)
1205499070	634323005(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: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2482655

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441006	BRA-PZ-13S
1205499075	Method Blank (MB)
1205499076	Laboratory Control Sample (LCS)
1205499078	634530001(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: 2481696

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205497559	Method Blank (MB)
1205497560	Laboratory Control Sample (LCS)
1205497561	634441001(BRA-BRGWC-33S) Post Spike (PS)
1205497562	634441001(BRA-BRGWC-33S) Post Spike Duplicate (PSD)
1205497563	634447001(BRA-BRGWA-2S) Post Spike (PS)
1205497564	634447001(BRA-BRGWA-2S) 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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2482476

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205498938	Laboratory Control Sample (LCS)
1205499028	Laboratory Control Sample Duplicate (LCSD)

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**Laboratory Control Sample Duplicate (LCSD)**

An LCSD was used in place of matrix QC due to limited sample volume. 634441001 (BRA-BRGWC-33S), 634441002 (BRA-APE-FD-04), 634441003 (BRA-BRGWC-34S), 634441004 (BRA-APE-FB-07), 634441005 (BRA-BRGWC-37S) and 634441006 (BRA-PZ-13S).

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.

634648

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

GEL Laboratories LLC
Chemistry | Radiochemistry | Radioassay | Specialty Analytics
Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent

Project # _____
GEL Quote #: _____
COC Number (1): _____
PO Number: _____
Client Name: GA Power
Project/Site Name: Plant Branch Ash Ponds - E
Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
Collected By: T. Goale
D. Johnson

GEL Work Order Number: _____
Phone # 404-506-7116
Fax # _____
Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments	
						Yes please supply isotopic info.	Known or possible Hazards	Total number of containers	CI, F, SO4, TDS, NO3 EPA 300, SM 2540C	Total, Carb, & Benth Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320		Sulfide SM 4500
BRA- BDCGWC-175	08/23/23	1405	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- BDCGWC-355	08/23/23	1201	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- BDCGWC-365	08/23/23	1556	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- BDCGWC-385	08/23/23	1212	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- PZ-52D	08/23/23	1346	G	N	WG	N	N	5	✓	✓	✓	✓		
BRA- PZ-70I	08/23/23	1612	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- APE-FD-05	08/23/23	-	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- APE-FB-06	08/23/23	1630	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- APE-EB-09	08/23/23	1645	G	N	WG	N	N	8	✓	✓	✓	✓		
BRA- APE-ED-10	08/23/23	1315	G	N	WG	N	N	8	✓	✓	✓	✓		

Chain of Custody Signatures
Relinquished By (Signed) _____ Date _____ Time _____
Received by (signed) _____ Date _____ Time _____
1. Total GEL 8-24-23/0740
2. Total GEL 8/24/23 1243
3. Total GEL 8/24/23 1243

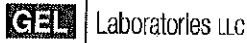
TAT Requested: Normal: Rush: _____ Specify: _____ (Subject to Surcharge)
Fax Results: Yes No
Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg
For Lab Receiving Use Only: Custody Seal Intact? Yes 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, EF = 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
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, NT = 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):	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.)

634448 634443
 634652 634650
 634649
 634648 634615



SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>EG</u>		Date Received: <u>8.24.23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3°</u> <u>cooler 3-3°</u> <u>cooler 2-3°</u> <u>cooler 4-2°</u> <u>cooler 5-3°</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <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?	Yes <input type="checkbox"/> No <input checked="" 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	COC notation on radioactive coolers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>CPM</u> mR/hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	COC notation on hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Plammable Foreign Soil RCRA Asbestos Beryllium Other:	
Sample Receipt Criteria		Yes <input type="checkbox"/> NA <input type="checkbox"/> No <input type="checkbox"/>	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 None Other: *all temperatures are recorded in Celsius
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR6-23</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#: <u>see continuation form</u>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encorus 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"/>	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 GBL 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): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>			

TEMP: See coolers above & below for temps

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EC Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-S11
- BRA-P2-591
- BRA-BRGWC-355
- BRA-BRGWC-365
- BRA-APE-FB-0V
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-385
- BRA-P2-641
- BRA-P2-68D
- BRA-APBCD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

634441 634443

Page: 1 of 1
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
GEL Work Order Number: _____
GEL Project Manager: Erin Trent
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: T. Cobble / D. J. ACC
 Send Results To: SCS & Geosyntec Contacts

Phone # 404-506-7116
 Fax # _____
 GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
						Radioactive (if yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	Metals *	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	
BRA-GWC-335	08/22/23	1210	G	N	WG	N	N	8	✓	✓		
BRA-APE-FD-04	08/22/23	—	G	N	WG	N	N	8	✓	✓		
BRA-GWC-345	08/22/23	1435	G	N	WG	N	N	8	✓	✓		
BRA-APE-FB-07	08/22/23	1510	G	N	WB	N	N	8	✓	✓		
BRA-BRGWC-375	08/22/23	1651	G	N	WG	N	N	8	✓	✓		
BRA-PZ-135	08/22/23	1647	G	N	WG	N	N	8	✓	✓		
BRA-												
BRA-												
BRA-												
BRA-												

Chain of Custody Signatures				TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: _____ Specify: _____ (Subject to Surcharge)	
Relinquished By (Signed)	Date	Received by (signed)	Date	Time	Fax Results: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<i>[Signature]</i>	8-23-23 10:25	<i>[Signature]</i>	8/23/23	0825	Select Deliverable: <input type="checkbox"/> C of A <input type="checkbox"/> QC Summary <input type="checkbox"/> Level 1 <input checked="" type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4
<i>[Signature]</i>	8/23/23 0832	<i>[Signature]</i>	8/23/23	0832	Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Ph,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg
<i>[Signature]</i>	8/23/23 100	<i>[Signature]</i>	8/23/23	1300	For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: _____ °C
* For sample shipping and delivery details, see Sample Receipt & Review form (SRR)					
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:					

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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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, BX = 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.)

63444 63443
 63448 63447
 63443 634450
 63444 63444
 63444

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: EXPP		SDG/AR/COC/Work Order: ET			
Received By: MVH		Date Received: 8/23/2023			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other COOLER 2-3^c COOLER 4-1^c COOLER 6-1^c COOLER 1-2^c COOLER 3-1^c COOLER 5-2^c			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/> Yes			
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> Yes			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 00 CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> Yes			
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 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"/>	<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"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	Sample IDs and Containers Affected: VOA-P2-G11, BRA-BRGWA-SI, BRA-BRGWA-23S, If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input 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 IDs and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<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"/>	<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"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): BRA-P2-13S, BRA-BRGWA-2S, BRA-BRGWA-6S, BRA-BRGWC-32S, BRA-BRGWA-2I, BRA-BRGWC-37S, BRA-BRGWC-34S, BRA-BRGWC-30I Sulfide Samples didnt hold proper preservation.					

PM (or PMA) review: Initials **AT** Date **8/25/23** Page **1** of **1**

Amanda Turner

From: Amanda Turner
Sent: Tuesday, August 29, 2023 10:04 AM
To: JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM;
MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com
Cc: Team Trent
Subject: Preservation issues (634652, 634650, 634648, 634615)
Attachments: 634648 634615.pdf; 634652 634650.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning!

I wanted to notify you of the following preservation issues. The samples containers for sodium hydroxide/zinc acetate listed below did not hold preservation. The samples were preserved upon receipt and placed on a 24-hour preservation hold.

"BRA-PZ-51I" "BRA-PZ-60I" "BRA-PZ-58I" "BRA-PZ-63I" "BRA-PZ-64I" "BRA-PZ-68D" "BRA-APBCD-FD-02" "BRA-PZ-50D"
"BRA-BRGWC-50" for work orders 634652 and 634650

"BRA-PZ-59I" for work order 634650

"BRA-BRGWC-35S" "BRA-BRGWC-36S" "BRA-APE-FB-08" "BRA-BRGWC-38S" "BRA-APE-FD-05" for work orders 634648
and 634615

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com

Analytical Testing



Amanda Turner

From: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>
Sent: Friday, August 25, 2023 8:52 AM
To: Amanda Turner; Jurinko, Kristen Nichole; Smilley, Michael Jay; Gangi, Noelia S.; Midkiff, Laura B.
Cc: Team Trent
Subject: RE: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re-preserve and analyze for sulfide in all samples.

JA

From: Amanda Turner <Amanda.Turner@gel.com>
Sent: Friday, August 25, 2023 8:29 AM
To: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Gangi, Noelia S. <NSMUSKUS@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>
Cc: Team Trent <Team.Trent@gel.com>
Subject: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

Good morning,

I wanted to notify you of the following preservation issues. These samples did not hold proper sulfide preservation. Please advise.

"BRA-GWC-34S" "BRA-BRGWC-37S" "BRA-PZ-13S" on work orders 634441 and 634443
"BRA-BRGWC-32S" "BRA-BRGWC-30I" "BRA-PZ-61I" "BRA-BRGWA-23S" on work orders 634444 and 634446
"BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRGWA-2I" "BRA-BRAW-5I" on work orders 634447 and 634450

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com [gel.com]

Analytical Testing



[gellaboratories.com]



[linkedin.com]

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List of current GEL Certifications as of 07 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 06, 2023

Joju Abraham
 Georgia Power Company, Southern Company
 241 Ralph McGill Blvd NE, Bin 10160
 Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance Upgradient
 Work Order: 634447

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 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. Samples "BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRAW-5I" and "BRA-BRGWA-2I" did not hold sulfide preservation. 634447001(BRA-BRGWA-2S), 634447003(BRA-BRGWA-5I), 634447004(BRA-BRGWA-6S), 634447005(BRA-BRGWA-2I). 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>
634447001	BRA-BRGWA-2S	Ground Water	22/08/23 10:06	23/08/23 13:00
634447002	BRA-BRGWA-5S	Ground Water	22/08/23 10:05	23/08/23 13:00
634447003	BRA-BRGWA-5I	Ground Water	22/08/23 10:10	23/08/23 13:00
634447004	BRA-BRGWA-6S	Ground Water	22/08/23 10:15	23/08/23 13:00
634447005	BRA-BRGWA-2I	Ground Water	22/08/23 10:12	23/08/23 13:00

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	25-AUG-2023
SW846 7470A Prep	24-AUG-2023


Analysis Methods and Analysis Dates



<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-AUG-2023
SM 2320B	29-AUG-2023
SM 2540C	25-AUG-2023
SM 2540C	28-AUG-2023
SM 4500-S (2-) D	24-AUG-2023
SW846 3005A/6020B	01-SEP-2023
SW846 3005A/6020B	31-AUG-2023
SW846 7470A	25-AUG-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,



Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634447 GEL Work Order: 634447

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-2S Project: GPCC00101
Sample ID: 634447001 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:06
Receive Date: 23-AUG-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		2.14	0.0670	0.200	mg/L		1	HXC1	08/23/23	1637	2481608	1
Fluoride		0.229	0.0330	0.100	mg/L		1					
Nitrate-N		0.218	0.0330	0.100	mg/L		1					
Sulfate		0.526	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	08/25/23	1221	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2333	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0135	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00738	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	J	0.00921	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000707	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0513	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					
Magnesium		4.66	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.415	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		3.09	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.0283	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0936	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		36.0	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1745	2481696	6

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-2S Project: GPCC00101
Sample ID: 634447001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		37.1	0.725	2.00	mg/L			JW2	08/29/23	1140	2484392	7
Bicarbonate alkalinity (CaCO3)		37.1	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-5S	Project: GPCC00101
Sample ID: 634447002	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 10:05	
Receive Date: 23-AUG-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		3.37	0.0670	0.200	mg/L		1	HXC1	08/23/23	1707	2481608	1
Fluoride		0.277	0.0330	0.100	mg/L		1					
Nitrate-N		0.203	0.0330	0.100	mg/L		1					
Sulfate		0.540	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	08/25/23	1222	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2337	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0352	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00764	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		14.9	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00472	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000327	0.000300	0.00100	mg/L	1.00	1					
Iron		0.263	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					
Magnesium		6.25	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.435	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		3.48	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.0105	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0939	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		73.0	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1747	2481696	6

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-5S Project: GPCC00101
Sample ID: 634447002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		68.4	0.725	2.00	mg/L			JW2	08/29/23	1142	2484392	7
Bicarbonate alkalinity (CaCO ₃)		68.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-51 Project: GPCC00101
Sample ID: 634447003 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:10
Receive Date: 23-AUG-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		3.53	0.0670	0.200	mg/L		1	HXC1	08/23/23	1738	2481608	1
Fluoride		0.289	0.0330	0.100	mg/L		1					
Nitrate-N		0.266	0.0330	0.100	mg/L		1					
Sulfate		1.83	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	08/25/23	1231	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2340	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0245	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00730	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		14.3	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00701	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000474	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0953	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					
Magnesium		9.41	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000953	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.933	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.69	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	J	0.00104	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0941	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		80.0	2.38	10.0	mg/L			CH6	08/28/23	1403	2482658	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1748	2481696	6

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-5I Project: GPCC00101
Sample ID: 634447003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		77.2	0.725	2.00	mg/L			JW2	08/29/23	1144	2484392	7
Bicarbonate alkalinity (CaCO3)		77.2	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-6S Project: GPCC00101
Sample ID: 634447004 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:15
Receive Date: 23-AUG-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		2.34	0.0670	0.200	mg/L		1	HXC1	08/23/23	1809	2481608	1
Fluoride	J	0.0787	0.0330	0.100	mg/L		1					
Nitrate-N		0.646	0.0330	0.100	mg/L		1					
Sulfate		0.467	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	08/25/23	1236	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00120	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0943	2482703	3
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2344	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0143	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00611	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.79	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0132	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					
Magnesium		3.48	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.607	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		2.11	0.0800	0.250	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		30.0	2.38	10.0	mg/L			CH6	08/28/23	1403	2482658	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1748	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-6S Project: GPCC00101
Sample ID: 634447004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		36.8	0.725	2.00	mg/L			JW2	08/29/23	1147	2484392	7
Bicarbonate alkalinity (CaCO ₃)		36.8	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance Upgradient

Client Sample ID: BRA-BRGWA-21 Project: GPCC00101
Sample ID: 634447005 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:12
Receive Date: 23-AUG-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		1.90	0.0670	0.200	mg/L		1	HXC1	08/23/23	1840	2481608	1
Fluoride		0.267	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		6.85	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	08/25/23	1237	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2348	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.00680	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00649	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		12.6	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000707	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0904	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0209	0.00300	0.0100	mg/L	1.00	1					
Magnesium		7.27	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00169	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.25	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		5.26	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.0145	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0945	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		81.0	2.38	10.0	mg/L			CH6	08/28/23	1403	2482658	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1749	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-2I	Project: GPCC00101
Sample ID: 634447005	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		71.7	0.725	2.00	mg/L			JW2	08/29/23	1149	2484392	7
Bicarbonate alkalinity (CaCO3)		71.7	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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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QC Summary

Report Date: September 6, 2023

Page 1 of 12

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

Contact: Joju Abraham

Workorder: 634447

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481608										
QC1205497371	634145003	DUP									
Chloride		78.8		79.7	mg/L	1.1		(0%-20%)	HXC1	08/24/23	15:05
Fluoride		0.719		0.719	mg/L	0.0417		(0%-20%)		08/23/23	20:43
Nitrate-N		10.9		11.0	mg/L	0.894	^	(+/-2.50)		08/24/23	15:05
Sulfate		37.6		37.5	mg/L	0.306	^	(+/-10.0)			
QC1205497369	LCS										
Chloride	5.00			4.78	mg/L			95.6 (90%-110%)		08/23/23	23:18
Fluoride	2.50			2.46	mg/L			98.3 (90%-110%)			
Nitrate-N	2.50			2.36	mg/L			94.3 (90%-110%)			
Sulfate	10.0			9.76	mg/L			97.6 (90%-110%)			
QC1205497368	MB										
Chloride			U	ND	mg/L					08/23/23	22:47
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205497373	634145003	PS									
Chloride	5.00	3.15		8.45	mg/L			106 (90%-110%)		08/24/23	15:36

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QC Summary

Workorder: 634447

Page 2 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481608										
Fluoride	2.50	0.719		3.17	mg/L		98	(90%-110%)	HXC1	08/23/23	21:14
Nitrate-N	2.50	0.434		2.85	mg/L		96.5	(90%-110%)		08/24/23	15:36
Sulfate	10.0	1.51		11.3	mg/L		98.4	(90%-110%)			
Metals Analysis - ICPMS											
Batch	2482703										
QC1205499165	LCS										
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	08/31/23	22:21
Arsenic	0.0500			0.0500	mg/L		99.9	(80%-120%)			
Barium	0.0500			0.0522	mg/L		104	(80%-120%)			
Beryllium	0.0500			0.0527	mg/L		105	(80%-120%)			
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0502	mg/L		100	(80%-120%)			
Calcium	2.00			1.96	mg/L		98	(80%-120%)			
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0518	mg/L		104	(80%-120%)			

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QC Summary

Workorder: 634447

Page 3 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lithium	0.0500			0.0506	mg/L		101	(80%-120%)	PRB	08/31/23	22:21
Magnesium	2.00			1.97	mg/L		98.4	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/01/23	08:52
Molybdenum	0.0500			0.0499	mg/L		99.8	(80%-120%)		08/31/23	22:21
Potassium	2.00			1.94	mg/L		97	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.7	(80%-120%)			
Sodium	2.00			1.95	mg/L		97.6	(80%-120%)			
Thallium	0.0500			0.0507	mg/L		101	(80%-120%)			
QC1205499164	MB										
Antimony			U	ND	mg/L					08/31/23	22:18
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						

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QC Summary

Workorder: 634447

Page 4 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Chromium			U	ND	mg/L				PRB	08/31/23	22:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/01/23	08:50
Molybdenum			U	ND	mg/L					08/31/23	22:18
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205499166 634441003 MS											
Antimony	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Arsenic	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)			
Barium	0.0500		0.0268	0.0800	mg/L		106	(75%-125%)			

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QC Summary

Workorder: 634447

Page 5 of 12

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2482703											
Beryllium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)	PRB	08/31/23	22:36
Boron	0.100		1.90		2.08	mg/L		N/A	(75%-125%)		09/01/23	09:00
Cadmium	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Calcium	2.00		83.4		88.8	mg/L		N/A	(75%-125%)		09/01/23	09:00
Chromium	0.0500	U	ND		0.0518	mg/L		103	(75%-125%)		08/31/23	22:36
Cobalt	0.0500		0.00384		0.0554	mg/L		103	(75%-125%)			
Iron	2.00	U	ND		2.06	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND		0.0521	mg/L		102	(75%-125%)			
Magnesium	2.00		18.9		21.3	mg/L		N/A	(75%-125%)			
Manganese	0.0500		3.33		3.48	mg/L		N/A	(75%-125%)		09/01/23	09:00
Molybdenum	0.0500	U	ND		0.0527	mg/L		105	(75%-125%)		08/31/23	22:36
Potassium	2.00		3.52		5.59	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)			
Sodium	2.00		20.7		23.1	mg/L		N/A	(75%-125%)			

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QC Summary

Workorder: 634447

Page 6 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Thallium	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)	PRB	08/31/23	22:36
QC1205499167	634441003 MSD										
Antimony	0.0500	U	ND	0.0491	mg/L	4.07	98.1	(0%-20%)		08/31/23	22:39
Arsenic	0.0500	U	ND	0.0508	mg/L	3.79	101	(0%-20%)			
Barium	0.0500		0.0268	0.0757	mg/L	5.49	97.8	(0%-20%)			
Beryllium	0.0500	U	ND	0.0506	mg/L	4.96	101	(0%-20%)			
Boron	0.100		1.90	2.00	mg/L	4.07	N/A	(0%-20%)		09/01/23	09:02
Cadmium	0.0500	U	ND	0.0496	mg/L	2.97	98.7	(0%-20%)		08/31/23	22:39
Calcium	2.00		83.4	84.1	mg/L	5.45	N/A	(0%-20%)		09/01/23	09:02
Chromium	0.0500	U	ND	0.0504	mg/L	2.88	101	(0%-20%)		08/31/23	22:39
Cobalt	0.0500		0.00384	0.0540	mg/L	2.65	100	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	2.95	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0493	mg/L	3.6	98.5	(0%-20%)			
Lithium	0.0500	U	ND	0.0509	mg/L	2.35	99.9	(0%-20%)			
Magnesium	2.00		18.9	20.7	mg/L	2.55	N/A	(0%-20%)			
Manganese	0.0500		3.33	3.35	mg/L	3.62	N/A	(0%-20%)		09/01/23	09:02

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QC Summary

Workorder: 634447

Page 7 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Molybdenum	0.0500	U	ND	0.0512	mg/L	2.82	102	(0%-20%)	PRB	08/31/23	22:39
Potassium	2.00		3.52	5.37	mg/L	4.12	92.4	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	3.53	102	(0%-20%)			
Sodium	2.00		20.7	22.6	mg/L	2.28	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0488	mg/L	3.06	97.5	(0%-20%)			
QC1205499168 634441003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			26.8	5.04	ug/L	6.03		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			95.1	20.6	ug/L	8.16		(0%-20%)		09/01/23	09:04
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Calcium			4170	869	ug/L	4.2		(0%-20%)		09/01/23	09:04
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Cobalt			3.84	J	0.796	ug/L	3.56	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634447

Page 8 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	08/31/23	22:46
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		18900		3500	ug/L	7.29		(0%-20%)			
Manganese		167		33.7	ug/L	1.09		(0%-20%)		09/01/23	09:04
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/23	22:46
Potassium		3520		680	ug/L	3.4		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		20700		3830	ug/L	7.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2482624										
QC1205499046	634447002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/25/23	12:24
QC1205499045	LCS										
Mercury		0.00200		0.00199	mg/L		99.5	(80%-120%)		08/25/23	11:58
QC1205499044	MB										
Mercury			U	ND	mg/L					08/25/23	11:56
QC1205499047	634447002 MS										
Mercury		0.00200	U	ND	mg/L		99.5	(75%-125%)		08/25/23	12:26

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QC Summary

Workorder: 634447

Page 9 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482624										
QC1205499048	634447002	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	08/25/23	12:27
Solids Analysis											
Batch	2482655										
QC1205499077	634352015	DUP									
Total Dissolved Solids	U	ND	U	ND	mg/L	N/A			CH6	08/25/23	10:10
QC1205499076	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/25/23	10:10
QC1205499075	MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23	10:10
Batch	2482658										
QC1205499081	634205010	DUP									
Total Dissolved Solids		400		390	mg/L	2.53		(0%-5%)	CH6	08/28/23	14:03
QC1205499080	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/28/23	14:03
QC1205499079	MB										
Total Dissolved Solids			U	ND	mg/L					08/28/23	14:03
Spectrometric Analysis											
Batch	2481696										
QC1205497560	LCS										
Total Sulfide	0.400			0.398	mg/L		99.6	(85%-115%)	JW2	08/24/23	17:36
QC1205497559	MB										
Total Sulfide			U	ND	mg/L					08/24/23	17:36
QC1205497561	634441001	PS									
Total Sulfide	0.400	U	ND	0.363	mg/L		90.8	(75%-125%)		08/24/23	17:37

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QC Summary

Workorder: 634447

Page 10 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2481696										
QC1205497563	634447001	PS									
Total Sulfide	0.400	U	ND	0.420	mg/L		105	(75%-125%)	JW2	08/24/23	17:46
QC1205497562	634441001	PSD									
Total Sulfide	0.400	U	ND	0.367	mg/L	1.09	91.8	(0%-15%)		08/24/23	17:38
QC1205497564	634447001	PSD									
Total Sulfide	0.400	U	ND	0.412	mg/L	1.92	103	(0%-15%)		08/24/23	17:47
Titration and Ion Analysis											
Batch	2484392										
QC1205502340	634448001	DUP									
Alkalinity, Total as CaCO3			65.8	65.5	mg/L	0.457		(0%-20%)	JW2	08/29/23	11:54
Bicarbonate alkalinity (CaCO3)			65.8	65.5	mg/L	0.457		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502342	634643001	DUP									
Alkalinity, Total as CaCO3			80.2	80.4	mg/L	0.249		(0%-20%)		08/29/23	12:16
Bicarbonate alkalinity (CaCO3)			80.2	80.4	mg/L	0.249		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502339	LCS										
Alkalinity, Total as CaCO3	50.0			51.8	mg/L		104	(90%-110%)		08/29/23	11:37
QC1205502344	LCS										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L		98.7	(90%-110%)		08/29/23	11:38
QC1205502341	634448001	MS									
Alkalinity, Total as CaCO3	50.0		65.8	118	mg/L		104	(80%-120%)		08/29/23	11:54

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QC Summary

Workorder: 634447

Page 11 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2484392										
QC1205502343	634643001	MS									
Alkalinity, Total as CaCO3	50.0	80.2		132	mg/L		103	(80%-120%)	JW2	08/29/23	12:17

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
- 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

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QC Summary

Workorder: 634447

Page 12 of 12

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	--------------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

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 #: 634447**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482703

Preparation Method: SW846 3005A

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

Preparation Batch: 2482702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205499164	Method Blank (MB) ICP-MS
1205499165	Laboratory Control Sample (LCS)
1205499168	634441003(BRA-BRGWC-34SL) Serial Dilution (SD)
1205499166	634441003(BRA-BRGWC-34SS) Matrix Spike (MS)
1205499167	634441003(BRA-BRGWC-34SSD) 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.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2482624

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482623

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205499044	Method Blank (MB)CVAA
1205499045	Laboratory Control Sample (LCS)
1205499048	634447002(BRA-BRGWA-5SL) Serial Dilution (SD)
1205499046	634447002(BRA-BRGWA-5SD) Sample Duplicate (DUP)
1205499047	634447002(BRA-BRGWA-5SS) 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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 32

Analytical Batch: 2481608

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205497368	Method Blank (MB)
1205497369	Laboratory Control Sample (LCS)
1205497371	634145003(NonSDG) Sample Duplicate (DUP)
1205497373	634145003(NonSDG) 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 1205497371 (Non SDG 634145003DUP) and 1205497373 (Non SDG 634145003PS) were diluted because target analyte concentrations exceeded the calibration range. 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.

Product: Solids, Total Dissolved**Analytical Method:** SM 2540C**Analytical Procedure:** GL-GC-E-001 REV# 21**Analytical Batch:** 2482655

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
1205499075	Method Blank (MB)
1205499076	Laboratory Control Sample (LCS)
1205499077	634352015(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: Solids, Total Dissolved**Analytical Method:** SM 2540C**Analytical Procedure:** GL-GC-E-001 REV# 21**Analytical Batch:** 2482658

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205499079	Method Blank (MB)
1205499080	Laboratory Control Sample (LCS)
1205499081	634205010(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: 2481696

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205497559	Method Blank (MB)
1205497560	Laboratory Control Sample (LCS)
1205497561	634441001(BRA-BRGWC-33S) Post Spike (PS)
1205497562	634441001(BRA-BRGWC-33S) Post Spike Duplicate (PSD)
1205497563	634447001(BRA-BRGWA-2S) Post Spike (PS)
1205497564	634447001(BRA-BRGWA-2S) 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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2484392

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205502339	Laboratory Control Sample (LCS)
1205502340	634448001(BRA-PZ-79) Sample Duplicate (DUP)
1205502341	634448001(BRA-PZ-79) Matrix Spike (MS)
1205502342	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205502343	634643001(BRA-PZ-79) Matrix Spike (MS)
1205502344	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.

63447 634450

Page: _____ of _____

Project # _____

GEL Quote #: _____

COC Number (1): _____

PO Number: _____

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: *Erin Trent*

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

GEL Work Order Number: _____

Client Name: GA Power
 Phone # 404-506-7116
 Fax # _____

Project/Site Name: Plant Branch Ash Ponds - Upgradient
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *J. Braswell* ACC

Send Results To: SCS & Geosyntec Contacts

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (1)	Field Filtered (2)	Sample Matrix (6)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2	
						Yes, please supply isotopic info.	(7) Known or possible Hazards		NI	NI	NI	NI		NI
BRA-BRGWA-2S	08/22/23	1006	G	N	WG			8	✓	✓	✓	✓	✓	
BRA-BR6WA-5S	08/22/23	1005	G	N	WG			8	✓	✓	✓	✓	✓	
BRA-BR6WA-5I	08/22/23	1010	G	N	WG			8	✓	✓	✓	✓	✓	
BRA-BR6WA-6S	08/22/23	1015	G	N	WG			8	✓	✓	✓	✓	✓	
BRA-BR6WA-2I	08/22/23	1012	G	N	WG			8	✓	✓	✓	✓	✓	
BRA-														
BRA-														
BRA-														
BRA-														
BRA-														

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	8/23/23	6:32	<i>[Signature]</i>	8/23/23	8:38
<i>[Signature]</i>	8/23/23	1:00	<i>[Signature]</i>	8/23/23	1:30

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

Fax Results: Yes No

Select Deliverable: Level 1 Level 2 Level 3 Level 4

Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Bi,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

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.)

SAMPLE RECEIPT & REVIEW FORM

63444 634643
 634448 634447
 634443 634450
 634441 634444
 634446

Client: EXPP		SDG/AR/COC/Work Order:				
Received By: MVH		Date Received: 08-23-2023				
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other COOLER 2-3°C COOLER 4-1°C COOLER 6-1°C COOLER 1-2°C COOLER 3-1°C COOLERS 5-2°C				
Suspected Hazard Information		*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"/> 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): 0 CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3				
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> 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 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 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 type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____	
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable):	
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: MOZA-P2-G11, BRA-BREWA-S1, BRA-BREWA-23S,	
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<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) Are 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 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 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 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>		
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)	
Comments (Use Continuation Form if needed): BRA-P2-13S, BRA-BREWA-2S, BRA-BREWA-6S, BRA-BREWC-32S, BRA-BRAWA-2I, BRA-BREWC-37S, BRA-BRWL-34S, BRA-BRWL-30I Sulfide Samples didnt hold proper preservation.						

PM (or PMA) review: Initials **AT** Date **8/25/23** Page **1** of **1**

Amanda Turner

From: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>
Sent: Friday, August 25, 2023 8:52 AM
To: Amanda Turner; Jurinko, Kristen Nichole; Smilley, Michael Jay; Gangi, Noelia S.; Midkiff, Laura B.
Cc: Team Trent
Subject: RE: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re-preserve and analyze for sulfide in all samples.

JA

From: Amanda Turner <Amanda.Turner@gel.com>
Sent: Friday, August 25, 2023 8:29 AM
To: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Gangi, Noelia S. <NSMUSKUS@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>
Cc: Team Trent <Team.Trent@gel.com>
Subject: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

Good morning,

I wanted to notify you of the following preservation issues. These samples did not hold proper sulfide preservation. Please advise.

"BRA-GWC-34S" "BRA-BRGWC-37S" "BRA-PZ-13S" on work orders 634441 and 634443
"BRA-BRGWC-32S" "BRA-BRGWC-30I" "BRA-PZ-61I" "BRA-BRGWA-23S" on work orders 634444 and 634446
"BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRGWA-2I" "BRA-BRAW-5I" on work orders 634447 and 634450

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com [[gel.com](http://www.gel.com)]

Analytical Testing



[gellaboratories.com]



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List of current GEL Certifications as of 06 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 07, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance PZ
Work Order: 634649

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 24, 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>
634649001	BRA-PZ-76I	Ground Water	23/08/23 10:37	24/08/23 12:43
634649002	BRA-PZ-77I	Ground Water	23/08/23 10:26	24/08/23 12:43

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	25-AUG-2023

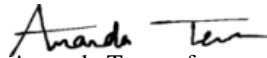
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	24-AUG-2023
EPA 300.0	25-AUG-2023
SM 2320B	29-AUG-2023
SM 2540C	29-AUG-2023
SM 4500-S (2-) D	25-AUG-2023
SW846 3005A/6020B	06-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 "Amanda Turner". The signature is written in a cursive style with a horizontal line extending from the end.

Amanda Turner for
Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634649 GEL Work Order: 634649

The Qualifiers in this report are defined as follows:

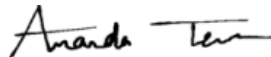
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits 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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-76I	Project: GPCC00101
Sample ID: 634649001	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-23 10:37	
Receive Date: 24-AUG-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		5.28	0.0670	0.200	mg/L		1	LXA2	08/24/23	1728	2482641	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		158	2.66	8.00	mg/L		20	LXA2	08/25/23	1640	2482641	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum		0.0505	0.0193	0.0500	mg/L	1.00	1	PRB	09/06/23	2214	2482705	3
Cobalt		0.00587	0.000300	0.00100	mg/L	1.00	1					
Iron		0.194	0.0330	0.100	mg/L	1.00	1					
Magnesium		5.68	0.0100	0.0300	mg/L	1.00	1					
Potassium		6.83	0.0800	0.300	mg/L	1.00	1					
Boron		2.10	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1027	2482705	4
Calcium		141	1.60	4.00	mg/L	1.00	20					
Manganese		4.65	0.0200	0.100	mg/L	1.00	20					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0039	2482705	5
Sodium		19.7	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		304	2.38	10.0	mg/L			CH6	08/29/23	1603	2484234	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1055	2482961	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		23.1	0.725	2.00	mg/L			JW2	08/29/23	1219	2484392	8
Bicarbonate alkalinity (CaCO3)		23.1	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	CD3	08/25/23	0735	2482704

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-76I
Sample ID: 634649001

Project: GPCC00101
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 3005A/6020B										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SM 2540C										
7	SM 4500-S (2-) D										
8	SM 2320B										

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-771 Project: GPCC00101
Sample ID: 634649002 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 10:26
Receive Date: 24-AUG-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		12.1	1.34	4.00	mg/L		20	LXA2	08/25/23	1711	2482641	1
Sulfate		269	2.66	8.00	mg/L		20					
Nitrate-N		0.151	0.0330	0.100	mg/L		1	LXA2	08/24/23	1759	2482641	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000318	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0042	2482705	3
Sodium		27.9	0.0800	0.250	mg/L	1.00	1					
Aluminum		0.122	0.0193	0.0500	mg/L	1.00	1	PRB	09/06/23	2217	2482705	4
Cobalt		0.0332	0.000300	0.00100	mg/L	1.00	1					
Iron		0.402	0.0330	0.100	mg/L	1.00	1					
Magnesium		10.6	0.0100	0.0300	mg/L	1.00	1					
Potassium		13.6	0.0800	0.300	mg/L	1.00	1					
Boron		0.936	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1029	2482705	5
Calcium		86.8	1.60	4.00	mg/L	1.00	20					
Manganese		3.51	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		466	2.38	10.0	mg/L			CH6	08/29/23	1603	2484234	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1056	2482961	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		21.9	0.725	2.00	mg/L			JW2	08/29/23	1221	2484392	8
Bicarbonate alkalinity (CaCO3)		21.9	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	CD3	08/25/23	0735	2482704

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-77I
Sample ID: 634649002

Project: GPCC00101
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 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 7, 2023

Page 1 of 7

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

Contact: Joju Abraham

Workorder: 634649

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482641										
QC1205499056	634643001	DUP									
Chloride		2.56		2.56	mg/L	0.235		(0%-20%)	LXA2	08/24/23	23:40
Nitrate-N	J	0.0737	J	0.0724	mg/L	1.78	^	(+/-0.100)			
Sulfate		761		761	mg/L	0.0329		(0%-20%)		08/25/23	15:38
QC1205499055	LCS										
Chloride	5.00			4.61	mg/L			92.3 (90%-110%)		08/24/23	22:06
Nitrate-N	2.50			2.31	mg/L			92.4 (90%-110%)			
Sulfate	10.0			9.50	mg/L			95 (90%-110%)			
QC1205499054	MB										
Chloride			U	ND	mg/L					08/24/23	23:09
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499057	634643001	PS									
Chloride	5.00	2.56		7.48	mg/L			98.4 (90%-110%)		08/25/23	00:11
Nitrate-N	2.50	J 0.0737		2.40	mg/L			92.9 (90%-110%)			
Sulfate	10.0	7.61		17.7	mg/L			101 (90%-110%)		08/25/23	16:09

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QC Summary

Workorder: 634649

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
QC1205499170	LCS										
Aluminum	2.00			2.04	mg/L		102	(80%-120%)	PRB	09/06/23	21:01
Beryllium	0.0500			0.0598	mg/L		120	(80%-120%)			
Boron	0.100			0.111	mg/L		111	(80%-120%)			
Calcium	2.00			2.11	mg/L		105	(80%-120%)		09/07/23	09:49
Cobalt	0.0500			0.0511	mg/L		102	(80%-120%)		09/06/23	21:01
Iron	2.00			2.05	mg/L		102	(80%-120%)			
Magnesium	2.00			2.09	mg/L		104	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)		09/07/23	09:49
QC1205499169	MB										
Aluminum			U	ND	mg/L					09/06/23	20:58
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						
Calcium			U	ND	mg/L					09/07/23	09:47
Cobalt			U	ND	mg/L					09/06/23	20:58

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QC Summary

Workorder: 634649

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Iron			U	ND	mg/L				PRB	09/06/23	20:58
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L					09/07/23	09:47
QC1205499171 634615001 MS											
Aluminum	2.00	U	ND	2.06	mg/L		102	(75%-125%)		09/06/23	21:09
Beryllium	0.0500	U	ND	0.0595	mg/L		119	(75%-125%)			
Boron	0.100		0.0601	0.170	mg/L		110	(75%-125%)			
Calcium	2.00		47.9	49.7	mg/L		N/A	(75%-125%)		09/07/23	10:00
Cobalt	0.0500	U	ND	0.0495	mg/L		99	(75%-125%)		09/06/23	21:09
Iron	2.00	J	0.0446	2.04	mg/L		99.9	(75%-125%)			
Magnesium	2.00		24.7	27.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500	U	ND	0.0498	mg/L		99	(75%-125%)			
Potassium	2.00		1.19	3.21	mg/L		101	(75%-125%)			
Sodium	2.00		24.3	26.5	mg/L		N/A	(75%-125%)		09/07/23	10:00

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QC Summary

Workorder: 634649

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
QC1205499172	634615001	MSD									
Aluminum	2.00	U	ND	2.00	mg/L	3.03	99.4	(0%-20%)	PRB	09/06/23	21:12
Beryllium	0.0500	U	ND	0.0597	mg/L	0.435	119	(0%-20%)			
Boron	0.100		0.0601	0.169	mg/L	0.597	109	(0%-20%)			
Calcium	2.00		47.9	47.5	mg/L	4.48	N/A	(0%-20%)		09/07/23	10:02
Cobalt	0.0500	U	ND	0.0488	mg/L	1.57	97.5	(0%-20%)		09/06/23	21:12
Iron	2.00	J	0.0446	2.02	mg/L	0.88	99	(0%-20%)			
Magnesium	2.00		24.7	26.1	mg/L	4.35	N/A	(0%-20%)			
Manganese	0.0500	U	ND	0.0491	mg/L	1.28	97.7	(0%-20%)			
Potassium	2.00		1.19	3.12	mg/L	2.62	96.9	(0%-20%)			
Sodium	2.00		24.3	25.2	mg/L	4.79	N/A	(0%-20%)		09/07/23	10:02
QC1205499173	634615001	SDILT									
Aluminum		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			60.1	J	12.2	ug/L	1.49	(0%-20%)			
Calcium			9580		1920	ug/L	.186	(0%-20%)		09/07/23	10:07
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634649

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Iron	J	44.6	U	ND	ug/L	N/A		(0%-20%)	PRB	09/06/23	21:20
Magnesium		24700		5300	ug/L	7.32		(0%-20%)			
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1190	J	231	ug/L	2.54		(0%-20%)			
Sodium		4860		988	ug/L	1.66		(0%-20%)		09/07/23	10:07
Solids Analysis											
Batch	2484234										
QC1205502076	634643001	DUP									
Total Dissolved Solids		1270		1280	mg/L	0.94		(0%-5%)	CH6	08/29/23	16:03
QC1205502074	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	16:03
QC1205502073	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	16:03
Spectrometric Analysis											
Batch	2482961										
QC1205499656	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	08/25/23	10:42
QC1205499655	MB										
Total Sulfide			U	ND	mg/L					08/25/23	10:42
QC1205499657	634513005	PS									
Total Sulfide	0.400	U	ND	0.389	mg/L		96.4	(75%-125%)		08/25/23	10:48

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634649

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2482961										
QC1205499658	634513005	PSD									
Total Sulfide	0.400	U	ND	0.391	mg/L	0.511	96.9	(0%-15%)	JW2	08/25/23	10:48
Titration and Ion Analysis											
Batch	2484392										
QC1205502340	634448001	DUP									
Alkalinity, Total as CaCO3			65.8	65.5	mg/L	0.457		(0%-20%)	JW2	08/29/23	11:54
Bicarbonate alkalinity (CaCO3)			65.8	65.5	mg/L	0.457		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502342	634643001	DUP									
Alkalinity, Total as CaCO3			80.2	80.4	mg/L	0.249		(0%-20%)		08/29/23	12:16
Bicarbonate alkalinity (CaCO3)			80.2	80.4	mg/L	0.249		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502339	LCS										
Alkalinity, Total as CaCO3	50.0			51.8	mg/L		104	(90%-110%)		08/29/23	11:37
QC1205502344	LCS										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L		98.7	(90%-110%)		08/29/23	11:38
QC1205502341	634448001	MS									
Alkalinity, Total as CaCO3	50.0		65.8	118	mg/L		104	(80%-120%)		08/29/23	11:54
QC1205502343	634643001	MS									
Alkalinity, Total as CaCO3	50.0		80.2	132	mg/L		103	(80%-120%)		08/29/23	12:17

Notes:

The Qualifiers in this report are defined as follows:

GEL LABORATORIES LLC

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QC Summary

Workorder: 634649

Page 7 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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									
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 #: 634649**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482705

Preparation Method: SW846 3005A

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

Preparation Batch: 2482704

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205499169	Method Blank (MB)ICP-MS
1205499170	Laboratory Control Sample (LCS)
1205499173	634615001(BRA-BRGWC-17SL) Serial Dilution (SD)
1205499171	634615001(BRA-BRGWC-17SS) Matrix Spike (MS)
1205499172	634615001(BRA-BRGWC-17SSD) 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 634649001 (BRA-PZ-76I) and 634649002 (BRA-PZ-77I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634649	
	001	002
Boron	20X	20X
Calcium	20X	20X

Manganese	20X	20X
-----------	-----	-----

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2482641

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205499054	Method Blank (MB)
1205499055	Laboratory Control Sample (LCS)
1205499056	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205499057	634643001(BRA-PZ-79) 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 1205499056 (BRA-PZ-79DUP), 1205499057 (BRA-PZ-79PS), 634649001 (BRA-PZ-76I) and 634649002 (BRA-PZ-77I) were diluted because target analyte concentrations exceeded the calibration range. 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	634649	
	001	002
Chloride	1X	20X
Sulfate	20X	20X

Miscellaneous Information

Manual Integrations

Sample 634649001 (BRA-PZ-76I) 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: 2484234

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205502073	Method Blank (MB)
1205502074	Laboratory Control Sample (LCS)
1205502076	634643001(BRA-PZ-79) 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 sample for interference prior to analysis. 1205502076 (BRA-PZ-79DUP).

Product: Sulfide, Total

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

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

Analytical Batch: 2482961

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205499655	Method Blank (MB)
1205499656	Laboratory Control Sample (LCS)
1205499657	634513005(NonSDG) Post Spike (PS)
1205499658	634513005(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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2484392

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-761
634649002	BRA-PZ-771
1205502339	Laboratory Control Sample (LCS)
1205502340	634448001(BRA-PZ-79) Sample Duplicate (DUP)
1205502341	634448001(BRA-PZ-79) Matrix Spike (MS)
1205502342	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205502343	634643001(BRA-PZ-79) Matrix Spike (MS)
1205502344	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.

Page: 1 of 1
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: T. Goble ACC
D. Johnson

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax # _____

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 Analysis Requested (5) (Fill in the number of containers for each test)

Should this sample be considered:	Total number of containers		Total number of containers	Preservative Type (6)	Comments
	Yes, please supply isotopic info)	(7) Known or possible Hazards			
Radioactive (if isotopic info)					
CI, SO4, TDS, NO3	✓	5	5		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-OTH-20230823
Total, Carb. & Bicarb Alk	✓	5	5		
EPA 6020	✓				
Metals *	✓				
Sulfide	✓				
SM 4500					

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	8/24/23	<u>[Signature]</u>	8/24/23	8:40
<u>[Signature]</u>	8/24/23	<u>[Signature]</u>	8/24/23	12:43

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: * Metals: B,Ca,Bc,Co,Al,Fe,Mg,Mn,K,Na

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

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

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

Hg = Mercury
Se = Selenium
Ag = Silver
MR = Misc. RCRA metals

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

TS/CA Regulated
 PCB = Polychlorinated biphenyls

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

Other
 OT = Other / Unknown
 (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.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, PD = 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SP=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

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**

634448 634443
 634652 634650
 634649
 634648 634615

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>EG</u>		Date Received: <u>8-24-23</u>		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3</u> <u>cooler 3-3</u> <u>cooler 2-3</u> <u>cooler 4-2</u> <u>cooler 8-3</u>		
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
A) Shipped as a DOT Hazardous?		COC notation or radioactive stickers on containers equal client designation.		
B) Did the client designate the samples are to be received 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		
C) Did the RSO classify the samples as radioactive?		COC notation or hazard labels on containers equal client designation.		
D) Did the client designate samples are hazardous?		If D or E is yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other:		
E) Did the RSO identify possible hazards?				
Sample Receipt Criteria		Yes	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	/		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	/		Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	/		Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>See coolers above & below for temps</u>
4	Daily check performed and passed on IR temperature gun?	/		Temperature Device Serial #: <u>IR9-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	/		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	/		Sample ID's and Containers Affected: If Preservation added, Lot#: <u>See continuation form</u>
7	Do any samples require Volatile Analysis?	/		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?	/		ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	/		ID's and containers affected:
10	Date & time on COC match date & time on bottles?	/		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?	/		Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	/		
13	COC form is properly signed in relinquished/received sections?	/		Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>				

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EG Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-511
- BRA-P2-591
- BRA-BRGWC-353
- BRA-BRGWC-365
- BRA-APE-FB-07
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-385
- BRA-P2-641
- BRA-P2-68D
- BRA-APBLD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

List of current GEL Certifications as of 07 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 07, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance PZ
Work Order: 634784

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 25, 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>
634784001	BRA-PZ-53D	Ground Water	24/08/23 10:12	25/08/23 08:57
634784002	BRA-PZ-52D	Ground Water	23/08/23 13:46	25/08/23 08:57

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	29-AUG-2023
SW846 7470A Prep	28-AUG-2023

Analysis Methods and Analysis Dates

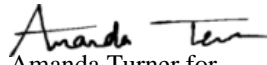
<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	25-AUG-2023
EPA 300.0	26-AUG-2023
SM 2320B	01-SEP-2023
SM 2540C	30-AUG-2023
SM 4500-S (2-) D	28-AUG-2023



SW846 3005A/6020B 06-SEP-2023
SW846 3005A/6020B 07-SEP-2023
SW846 7470A 29-AUG-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 from the end.

Amanda Turner for
Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634784 GEL Work Order: 634784

The Qualifiers in this report are defined as follows:

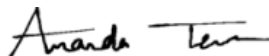
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits 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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-53D Project: GPCC00101
Sample ID: 634784001 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 10:12
Receive Date: 25-AUG-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		4.43	0.0670	0.200	mg/L		1	HXC1	08/25/23	1757	2483150	1
Fluoride		0.334	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0807	0.0330	0.100	mg/L		1					
Sulfate		293	5.32	16.0	mg/L		40	HXC1	08/26/23	0007	2483150	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1236	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.06	0.0520	0.150	mg/L	1.00	10	PRB	09/06/23	2014	2483979	4
Calcium		74.4	0.800	2.00	mg/L	1.00	10					
Sodium		42.8	0.0800	0.250	mg/L	1.00	1	PRB	09/07/23	1050	2483979	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2011	2483979	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0485	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		0.327	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0185	0.00300	0.0100	mg/L	1.00	1					
Magnesium		17.3	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.503	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.00211	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.84	0.0800	0.300	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		499	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1302	2483779	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-53D Project: GPCC00101
Sample ID: 634784001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		50.9	0.725	2.00	mg/L			JW2	09/01/23	1140	2486267	9
Bicarbonate alkalinity (CaCO ₃)		50.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	08/29/23	1515	2483978
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667

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	
8	SM 4500-S (-) D	
9	SM 2320B	

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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QC Summary

Report Date: September 7, 2023

Page 1 of 11

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

Contact: Joju Abraham

Workorder: 634784

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2483150										
QC1205499980	634784001	DUP									
Chloride		4.43		4.44	mg/L	0.11		(0%-20%)	HXC1	08/25/23	18:28
Fluoride		0.334		0.337	mg/L	0.983	^	(+/-0.100)			
Nitrate-N	J	0.0807	J	0.0778	mg/L	3.66	^	(+/-0.100)			
Sulfate		293		294	mg/L	0.0981		(0%-20%)		08/26/23	00:38
QC1205499979	LCS										
Chloride	5.00			4.79	mg/L			95.9 (90%-110%)		08/25/23	21:02
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.38	mg/L			95.4 (90%-110%)			
Sulfate	10.0			9.79	mg/L			97.9 (90%-110%)			
QC1205499978	MB										
Chloride			U	ND	mg/L					08/25/23	19:29
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499981	634784001	PS									
Chloride	5.00	4.43		9.90	mg/L			109 (90%-110%)		08/25/23	18:59

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QC Summary

Workorder: 634784

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2483150										
Fluoride	2.50	0.334		2.76	mg/L		97	(90%-110%)	HXC1	08/25/23	18:59
Nitrate-N	2.50	J 0.0807		2.45	mg/L		94.7	(90%-110%)			
Sulfate	10.0	7.33		17.7	mg/L		103	(90%-110%)		08/26/23	01:09
Metals Analysis - ICPMS											
Batch	2483979										
QC1205501592	LCS										
Antimony	0.0500			0.0501	mg/L		100	(80%-120%)	PRB	09/06/23	18:04
Arsenic	0.0500			0.0507	mg/L		101	(80%-120%)			
Barium	0.0500			0.0497	mg/L		99.5	(80%-120%)			
Beryllium	0.0500			0.0581	mg/L		116	(80%-120%)			
Boron	0.100			0.110	mg/L		110	(80%-120%)			
Cadmium	0.0500			0.0516	mg/L		103	(80%-120%)			
Calcium	2.00			2.10	mg/L		105	(80%-120%)			
Chromium	0.0500			0.0509	mg/L		102	(80%-120%)			
Cobalt	0.0500			0.0507	mg/L		101	(80%-120%)			
Iron	2.00			2.01	mg/L		101	(80%-120%)			
Lead	0.0500			0.0517	mg/L		103	(80%-120%)			

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QC Summary

Workorder: 634784

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Lithium	0.0500			0.0563	mg/L		113	(80%-120%)	PRB	09/06/23	18:04
Magnesium	2.00			2.08	mg/L		104	(80%-120%)			
Manganese	0.0500			0.0498	mg/L		99.6	(80%-120%)			
Molybdenum	0.0500			0.0532	mg/L		106	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Selenium	0.0500			0.0495	mg/L		98.9	(80%-120%)			
Sodium	2.00			2.25	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0496	mg/L		99.2	(80%-120%)			
QC1205501591	MB										
Antimony			U	ND	mg/L					09/06/23	18:00
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						

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QC Summary

Workorder: 634784

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Chromium			U	ND	mg/L				PRB	09/06/23	18:00
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205501593 634768003 MS											
Antimony	0.0500	U	ND	0.0513	mg/L		103	(75%-125%)		09/06/23	18:18
Arsenic	0.0500	U	ND	0.0514	mg/L		99.8	(75%-125%)			
Barium	0.0500		0.0151	0.0634	mg/L		96.5	(75%-125%)			

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QC Summary

Workorder: 634784

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Beryllium	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)	PRB	09/06/23	18:18
Boron	0.100		1.25	1.39	mg/L		N/A	(75%-125%)		09/06/23	18:44
Cadmium	0.0500	U	ND	0.0492	mg/L		98.3	(75%-125%)		09/06/23	18:18
Calcium	2.00		74.4	76.1	mg/L		N/A	(75%-125%)		09/06/23	18:44
Chromium	0.0500	U	ND	0.0497	mg/L		99	(75%-125%)		09/06/23	18:18
Cobalt	0.0500		0.00601	0.0548	mg/L		97.6	(75%-125%)			
Iron	2.00	J	0.0749	2.05	mg/L		98.8	(75%-125%)			
Lead	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)			
Lithium	0.0500	U	ND	0.0547	mg/L		107	(75%-125%)			
Magnesium	2.00		6.53	8.41	mg/L		94.2	(75%-125%)			
Manganese	0.0500		0.458	0.511	mg/L		N/A	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)			
Potassium	2.00		4.90	6.94	mg/L		102	(75%-125%)			
Selenium	0.0500	U	ND	0.0488	mg/L		97.5	(75%-125%)			
Sodium	2.00		16.3	18.1	mg/L		N/A	(75%-125%)			

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QC Summary

Workorder: 634784

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Thallium	0.0500	U	ND	0.0490	mg/L		98	(75%-125%)	PRB	09/06/23	18:18
QC1205501594 634768003 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	2.65	99.9	(0%-20%)		09/06/23	18:22
Arsenic	0.0500	U	ND	0.0495	mg/L	3.85	96	(0%-20%)			
Barium	0.0500		0.0151	0.0615	mg/L	3	92.7	(0%-20%)			
Beryllium	0.0500	U	ND	0.0552	mg/L	0.165	110	(0%-20%)			
Boron	0.100		1.25	1.36	mg/L	2.5	N/A	(0%-20%)		09/06/23	18:47
Cadmium	0.0500	U	ND	0.0481	mg/L	2.27	96.1	(0%-20%)		09/06/23	18:22
Calcium	2.00		74.4	74.0	mg/L	2.8	N/A	(0%-20%)		09/06/23	18:47
Chromium	0.0500	U	ND	0.0482	mg/L	3.1	96	(0%-20%)		09/06/23	18:22
Cobalt	0.0500		0.00601	0.0529	mg/L	3.54	93.8	(0%-20%)			
Iron	2.00	J	0.0749	1.96	mg/L	4.48	94.3	(0%-20%)			
Lead	0.0500	U	ND	0.0491	mg/L	2.44	98.1	(0%-20%)			
Lithium	0.0500	U	ND	0.0532	mg/L	2.78	104	(0%-20%)			
Magnesium	2.00		6.53	8.23	mg/L	2.18	85.2	(0%-20%)			
Manganese	0.0500		0.458	0.493	mg/L	3.49	N/A	(0%-20%)			

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QC Summary

Workorder: 634784

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Molybdenum	0.0500	U	ND	0.0513	mg/L	2.83	102	(0%-20%)	PRB	09/06/23	18:22
Potassium	2.00		4.90	6.74	mg/L	2.93	92.1	(0%-20%)			
Selenium	0.0500	U	ND	0.0468	mg/L	4.28	93.4	(0%-20%)			
Sodium	2.00		16.3	17.9	mg/L	0.949	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0473	mg/L	3.67	94.4	(0%-20%)			
QC1205501595 634768003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	18:29
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			15.1	J	3.20	ug/L	5.84	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			62.7	J	13.1	ug/L	4.57	(0%-20%)		09/06/23	18:51
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	18:29
Calcium			3720		786	ug/L	5.58	(0%-20%)		09/06/23	18:51
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	18:29
Cobalt			6.01		1.25	ug/L	4.24	(0%-20%)			
Iron		J	74.9	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634784

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	09/06/23	18:29
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		6530		1280	ug/L	1.77		(0%-20%)			
Manganese		458		91.7	ug/L	.114		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		4900		968	ug/L	1.19		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		16300		3340	ug/L	2.56		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2483668										
QC1205500965	634563009 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			AXS5	08/29/23	11:59
QC1205500964	LCS										
Mercury		0.00200		0.00214	mg/L		107	(80%-120%)		08/29/23	11:56
QC1205500963	MB										
Mercury			U	ND	mg/L					08/29/23	11:54
QC1205500966	634563009 MS										
Mercury		0.00200	U	ND	0.00211	mg/L		106	(75%-125%)	08/29/23	12:00

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QC Summary

Workorder: 634784

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2483668										
QC1205500967	634563009	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	AXS5	08/29/23	12:02
Solids Analysis											
Batch	2484594										
QC1205502665	634784001	DUP									
Total Dissolved Solids		499		515	mg/L	3.16		(0%-5%)	CH6	08/30/23	17:18
QC1205502664	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/30/23	17:18
QC1205502663	MB										
Total Dissolved Solids			U	ND	mg/L					08/30/23	17:18
Spectrometric Analysis											
Batch	2483779										
QC1205501209	LCS										
Total Sulfide	0.400			0.398	mg/L		99.4	(85%-115%)	JW2	08/28/23	12:54
QC1205501208	MB										
Total Sulfide			U	ND	mg/L					08/28/23	12:54
QC1205501210	634615002	PS									
Total Sulfide	0.400	U	ND	0.118	mg/L		29.4*	(75%-125%)		08/28/23	12:55
QC1205501212	634650011	PS									
Total Sulfide	0.400	U	ND	0.111	mg/L		27.7*	(75%-125%)		08/28/23	12:59
QC1205501211	634615002	PSD									
Total Sulfide	0.400	U	ND	0.113	mg/L	3.73	28.3*	(0%-15%)		08/28/23	12:55
QC1205501213	634650011	PSD									
Total Sulfide	0.400	U	ND	0.109	mg/L	1.96	27.2*	(0%-15%)		08/28/23	13:00

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QC Summary

Workorder: 634784

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2486267										
QC1205505693		LCS									
Alkalinity, Total as CaCO3	50.0			51.2	mg/L		102	(90%-110%)	JW2	09/01/23	11:10
QC1205505710		LCS									
Alkalinity, Total as CaCO3	15.0			15.3	mg/L		102	(90%-110%)		09/01/23	11:11
QC1205506027		LCSD									
Alkalinity, Total as CaCO3	50.0			51.5	mg/L	0.584	103	(0%-20%)		09/01/23	11:11
QC1205506195		LCSD									
Alkalinity, Total as CaCO3	15.0			14.8	mg/L	3.32	98.7	(0%-20%)		09/01/23	11:11

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: 634784

Page 11 of 11

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 #: 634784**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2483979

Preparation Method: SW846 3005A

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

Preparation Batch: 2483978

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634784001	BRA-PZ-53D
1205501591	Method Blank (MB)ICP-MS
1205501592	Laboratory Control Sample (LCS)
1205501595	634768003(BRA-BRGWC-27IL) Serial Dilution (SD)
1205501593	634768003(BRA-BRGWC-27IS) Matrix Spike (MS)
1205501594	634768003(BRA-BRGWC-27ISD) 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. 634784001 (BRA-PZ-53D).

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 634784001 (BRA-PZ-53D) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	634784
	001
Boron	10X
Calcium	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: 2483668

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2483667

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634784001	BRA-PZ-53D
1205500963	Method Blank (MB)CVAA
1205500964	Laboratory Control Sample (LCS)
1205500967	634563009(NonSDGL) Serial Dilution (SD)
1205500965	634563009(NonSDGD) Sample Duplicate (DUP)
1205500966	634563009(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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2483150

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634784001	BRA-PZ-53D
1205499978	Method Blank (MB)
1205499979	Laboratory Control Sample (LCS)
1205499980	634784001(BRA-PZ-53D) Sample Duplicate (DUP)
1205499981	634784001(BRA-PZ-53D) 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 1205499980 (BRA-PZ-53DDUP), 1205499981 (BRA-PZ-53DPS) and 634784001 (BRA-PZ-53D) were diluted because target analyte concentrations exceeded the calibration range. 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	634784
	001
Sulfate	40X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2484594

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634784001	BRA-PZ-53D
1205502663	Method Blank (MB)
1205502664	Laboratory Control Sample (LCS)
1205502665	634784001(BRA-PZ-53D) 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: 2483779

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634784001	BRA-PZ-53D
1205501208	Method Blank (MB)
1205501209	Laboratory Control Sample (LCS)

1205501210	634615002(BRA-BRGWC-35S) Post Spike (PS)
1205501211	634615002(BRA-BRGWC-35S) Post Spike Duplicate (PSD)
1205501212	634650011(BRA-BRGWC-50) Post Spike (PS)
1205501213	634650011(BRA-BRGWC-50) Post Spike Duplicate (PSD)

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
Total Sulfide	1205501210 (BRA-BRGWC-35SPS)	29.4* (75%-125%)
	1205501211 (BRA-BRGWC-35SPSD)	28.3* (75%-125%)
	1205501212 (BRA-BRGWC-50PS)	27.7* (75%-125%)
	1205501213 (BRA-BRGWC-50PSD)	27.2* (75%-125%)

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2486267

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634784001	BRA-PZ-53D
1205505693	Laboratory Control Sample (LCS)
1205505710	Laboratory Control Sample (LCS)
1205506027	Laboratory Control Sample Duplicate (LCSD)
1205506195	Laboratory Control Sample Duplicate (LCSD)

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

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume. 634784001 (BRA-PZ-53D).

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.

ET

Relog

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent

Project # _____ of _____
 GEL Quote # _____
 COC Number (V) _____
 PO Number: _____

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Phone # 404-506-7116
 Fax # _____

GEL Work Order Number: _____

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID	*Date Collected (mm/dd/yyyy)	*Time Collected (Military) (hh:mm)	QC Code (6)	Field Filtered (6)	Sample Matrix (6)	Radioactive (if yes, please specify isotopic info)	(7) Known or possible Hazards	Should this sample be considered:	Sample Analysis Requested (5)	Preservative Type (6)	Comments
BRA-PZ-52D	08/23/23	1346	G	N	WG	N			Metals * EPA 6020, 6010, 7470 Total, Cu, Pb & Benz Aik SMT 74209 Cl, F, SO4, TDS, NO3 EPA 300, SM, 2540C		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
BRA-PZ-53D	08/24/23	1012	G	N	WG	N					
BRA-											
BRA-											
BRA-											
BRA-											
BRA-											
BRA-											
BRA-											
BRA-											

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

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

1. *Erin Trent* 8/24/23 0857
 2. _____
 3. _____

Additional Remarks: * Metals: B, Ca, Sh, As, Ba, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Ni, Mg, Mn, K, Na, Hg
 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 this sample was field filtered or - N - for sample was not field filtered
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WTL=Leachate, SO=Soil, SE=Sludge, SL=Sludge, WQ=Water Quality Control Matrix
 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
 CO = Corrosive
 RE = Reactive

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

Description: _____

RCCA Metals: _____
 As = Arsenic Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCCA metals
 Pb = Lead
 TSCA Regulated
 PCB = Polychlorinated biphenyls

034784 & 034789

634784 634789

Page: 1 of 1

Project # _____

GEL Quote #: _____

COC Number: _____

PO Number: _____

Client Name: GA Power

Project/Site Name: Plant Branch Ash Ponds - E

Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: J. Goble ACC

Send Results To: SCS & Geosyntec Contacts

Phone # 404-506-7116

Fax # _____

GEL Work Order Number: _____

GEL Project Manager: Erin Trent

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	Field Filtered	Field Sample Matrix	Should this sample be considered:	Total number of containers	Preservative Type (6)	Comments
BRA- PZ-52D	08/23/23	1346	G	N	WG	<input type="checkbox"/> Known or possible Hazards <input checked="" type="checkbox"/> Radioactive (if isotopic info. yes, please supply)	3	NI	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
BRA- PZ-53D	08/24/23	1012	G	N	WG	<input type="checkbox"/> Known or possible Hazards <input checked="" type="checkbox"/> Radioactive (if isotopic info. yes, please supply)	8	NI	
BRA-									
BRA-									
BRA-									
BRA-									
BRA-									
BRA-									
BRA-									
BRA-									

Chain of Custody Signatures

Requisitioned By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	8/23/23	<u>[Signature]</u>	8/24/23	1300
<u>[Signature]</u>	8/23/23	<u>[Signature]</u>	8/24/23	0857

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: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

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

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

3.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Lachate, SO=Soil, SE=Sediment, SI=Sludge, WC=Water Quality Control Matrix

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

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

6.) KNOWN OR POSSIBLE HAZARDS

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.)

COOK 1-4°
 COOK 2-4°
 COOK 3-1°
 COOK 4-1°
 COOK 5-3°

ET

634784 634789
634768 634781

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: GPCC		SDG/AR/COC/Work Order:			
Received By: EG		Date Received: 8/25/23 0857			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other cooler 1-4" cooler 3-1" cooler 2-4" cooler 4-1" cooler 5-3"			
Suspected Hazard Information		<input type="checkbox"/> Y <input type="checkbox"/> N *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"/> Y <input type="checkbox"/> N 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"/> Y <input type="checkbox"/> N COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N 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 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"/>	<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"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: See above
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: R6-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: See below
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<input type="checkbox"/>	ID's and containers affected: COC says BRA-P2-74I bottles say BRA-P2-74
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): containers BRA-P2-751, BRA-BRGWC-271, BRA-P2-53D, & BRA-BRGWC-291 preserved with NaOH/Zinc Acetate did not hold preservation					

PM (or PMA) review: Initials **AT** Date **8/26/23** Page **1** of **1**

List of current GEL Certifications as of 07 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 22, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APE-R
Work Orders: 634443 and 634648

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 2023 and August 24, 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>
634443001	BRA-BRGWC-33S	Ground Water	22/08/23 12:10	23/08/23 13:00
634443002	BRA-APE-FD-04	Ground Water	22/08/23 12:00	23/08/23 13:00
634443003	BRA-BRGWC-34S	Ground Water	22/08/23 14:35	23/08/23 13:00
634443004	BRA-APE-FB-07	Water	22/08/23 15:10	23/08/23 13:00
634443005	BRA-BRGWC-37S	Ground Water	22/08/23 16:51	23/08/23 13:00
634443006	BRA-PZ-13S	Ground Water	22/08/23 16:47	23/08/23 13:00
634648001	BRA-BRGWC-17S	Ground Water	23/08/23 14:05	24/08/23 12:43
634648002	BRA-BRGWC-35S	Ground Water	23/08/23 12:01	24/08/23 12:43
634648003	BRA-BRGWC-36S	Ground Water	23/08/23 15:56	24/08/23 12:43
634648004	BRA-BRGWC-38S	Ground Water	23/08/23 12:12	24/08/23 12:43
634648005	BRA-PZ-70I	Ground Water	23/08/23 16:12	24/08/23 12:43
634648006	BRA-APE-FD-05	Ground Water	23/08/23 12:00	24/08/23 12:43
634648007	BRA-APE-FB-08	Water	23/08/23 16:30	24/08/23 12:43
634648008	BRA-APE-EB-09	Water	23/08/23 16:45	24/08/23 12:43
634648009	BRA-APE-EB-10	Water	23/08/23 13:15	24/08/23 12:43



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

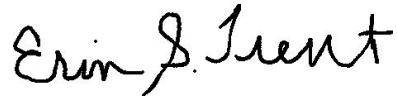
Not Applicable

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	20-SEP-2023
Calculation	22-SEP-2023
EPA 903.1 Modified	20-SEP-2023
EPA 904.0/SW846 9320 Modified	05-SEP-2023
EPA 904.0/SW846 9320 Modified	18-SEP-2023
EPA 904.0/SW846 9320 Modified	20-SEP-2023
EPA 904.0/SW846 9320 Modified	22-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: GPC82177-0006
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: 634443 GEL Work Order: 634443

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, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-33S
Sample ID: 634443001
Matrix: WG
Collect Date: 22-AUG-23
Receive Date: 23-AUG-23
Collector: Client

Project: GPCC00101
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	0.119	+/-0.702	1.33	+/-0.702	3.00	pCi/L			JE1	09/22/23	0821	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.521	+/-0.773	1.33	+/-0.779		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.401	+/-0.326	0.499	+/-0.337	1.00	pCi/L			LXP1	09/20/23	0819	2482017	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"	2494433	83.7	(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
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

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FD-04

Project: GPCC00101

Sample ID: 634443002

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	1.08	+/-0.881	1.41	+/-0.924	3.00	pCi/L			JE1	09/22/23	0821	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.55	+/-0.921	1.41	+/-0.966		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.466	+/-0.269	0.337	+/-0.280	1.00	pCi/L			LXP1	09/20/23	0819	2482017	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"	2494433	92.7	(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, Southern
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Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-34S

Project: GPCC00101

Sample ID: 634443003

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.558	+/-0.907	1.58	+/-0.918	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.06	+/-0.955	1.58	+/-0.973		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.499	+/-0.299	0.393	+/-0.321	1.00	pCi/L			LXP1	09/20/23	0819	2482017	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"	2494433	90.2	(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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Certificate of Analysis

Company : Georgia Power Company, Southern
Address : Company
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Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FB-07

Project: GPCC00101

Sample ID: 634443004

Client ID: GPCC001

Matrix: WQ

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.169	+/-0.878	1.62	+/-0.879	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.546	+/-0.912	1.62	+/-0.916		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.377	+/-0.246	0.301	+/-0.256	1.00	pCi/L			LXP1	09/20/23	0820	2482017	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"	2494433	83.7	(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

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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-BRGWC-37S

Project: GPCC00101

Sample ID: 634443005

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	-0.458	+/-0.719	1.50	+/-0.720	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.578	+/-0.770	1.50	+/-0.781		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.578	+/-0.274	0.309	+/-0.303	1.00	pCi/L			LXP1	09/20/23	0820	2482017	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"	2494433	87.6	(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

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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Certificate of Analysis

Company : Georgia Power Company, Southern
 Address : Company
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Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-PZ-13S

Project: GPCC00101

Sample ID: 634443006

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.273	+/-1.08	1.97	+/-1.08	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.823	+/-1.12	1.97	+/-1.12		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.550	+/-0.277	0.335	+/-0.300	1.00	pCi/L			LXP1	09/20/23	0820	2482017	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"	2494433	72.5	(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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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 634648 GEL Work Order: 634648

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, Southern
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-17S
 Sample ID: 634648001
 Matrix: WG
 Collect Date: 23-AUG-23
 Receive Date: 24-AUG-23
 Collector: Client

Project: GPCC00101
 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	1.78	+/-1.48	2.33	+/-1.55	3.00	pCi/L			JE1	09/18/23	1426	2485947	1	
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>															
Radium-226+228 Sum	U	1.92	+/-1.50	2.33	+/-1.57		pCi/L		1	NXL1	09/20/23	1401	2485949	2	
Rad Radium-226															
<i>Lucas Cell, Ra226, Liquid "As Received"</i>															
Radium-226	U	0.139	+/-0.249	0.448	+/-0.250	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	59.7	(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	

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-35S

Project: GPCC00101

Sample ID: 634648002

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	1.59	+/-1.45	3.00	pCi/L			JE1	09/18/23	1141	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.33	+/-1.29	1.59	+/-1.48		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.546	+/-0.248	0.238	+/-0.263	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	56.5	(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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-36S

Project: GPCC00101

Sample ID: 634648003

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		3.28	+/-1.66	2.40	+/-1.86	3.00	pCi/L			JE1	09/18/23	1141	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.87	+/-1.69	2.40	+/-1.89		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.594	+/-0.297	0.328	+/-0.313	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	57.9	(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, Southern
 Address : Company
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Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-38S

Project: GPCC00101

Sample ID: 634648004

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		5.37	+/-2.03	2.73	+/-2.45	3.00	pCi/L			JE1	09/20/23	0823	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.98	+/-2.05	2.73	+/-2.47		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.610	+/-0.288	0.246	+/-0.307	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	51.8	(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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Certificate of Analysis

Company : Georgia Power Company, Southern
 Address : Company
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Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-PZ-70I

Project: GPCC00101

Sample ID: 634648005

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		3.70	+/-1.64	2.30	+/-1.89	3.00	pCi/L			JE1	09/18/23	1143	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.35	+/-1.67	2.30	+/-1.92		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.655	+/-0.330	0.410	+/-0.354	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	59.4	(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

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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FD-05

Project: GPCC00101

Sample ID: 634648006

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		4.09	+/-1.67	2.27	+/-1.97	3.00	pCi/L			JE1	09/18/23	1143	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.65	+/-1.69	2.27	+/-1.99		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.559	+/-0.250	0.204	+/-0.281	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	58.9	(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 | |

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FB-08

Project: GPCC00101

Sample ID: 634648007

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	2.26	+/-1.55	2.41	+/-1.65	3.00	pCi/L			JE1	09/20/23	0823	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.50	+/-1.56	2.41	+/-1.67		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.247	+/-0.194	0.263	+/-0.201	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	55.4	(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, Southern
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-EB-09

Project: GPCC00101

Sample ID: 634648008

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	2.20	+/-1.48	2.28	+/-1.59	3.00	pCi/L			JE1	09/20/23	0823	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.86	+/-1.52	2.28	+/-1.63		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.662	+/-0.366	0.483	+/-0.384	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	57.5	(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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-EB-10

Project: GPCC00101

Sample ID: 634648009

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	1.46	+/-1.15	1.79	+/-1.21	3.00	pCi/L			JE1	09/18/23	1142	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.62	+/-1.17	1.79	+/-1.23		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.162	+/-0.225	0.390	+/-0.228	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	57.2	(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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QC Summary

Report Date: September 22, 2023
Page 1 of 2

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 634443

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2494433										
QC1205520856	634443001 DUP										
Radium-228	U	0.119	U	1.16	pCi/L	0		N/A	JE1	09/22/23	08:46
	Uncert:	+/-0.702		+/-0.838							
	TPU:	+/-0.702		+/-0.891							
QC1205520857	LCS										
Radium-228	75.6			76.2	pCi/L		101	(75%-125%)	JE1	09/22/23	08:46
	Uncert:			+/-4.33							
	TPU:			+/-19.9							
QC1205520855	MB										
Radium-228				1.38	pCi/L				JE1	09/22/23	08:46
	Uncert:			+/-0.802							
	TPU:			+/-0.875							
Rad Ra-226											
Batch	2482017										
QC1205498038	634443001 DUP										
Radium-226	U	0.401	U	0.170	pCi/L	0		N/A	LXP1	09/20/23	09:26
	Uncert:	+/-0.326		+/-0.249							
	TPU:	+/-0.337		+/-0.251							
QC1205498040	LCS										
Radium-226	26.9			33.3	pCi/L		124	(75%-125%)	LXP1	09/20/23	09:26
	Uncert:			+/-2.02							
	TPU:			+/-5.55							
QC1205498037	MB										
Radium-226			U	0.142	pCi/L				LXP1	09/20/23	09:26
	Uncert:			+/-0.184							
	TPU:			+/-0.188							
QC1205498039	634443001 MS										
Radium-226	137 U	0.401		103	pCi/L		75.1	(75%-125%)	LXP1	09/20/23	09:26
	Uncert:	+/-0.326		+/-7.23							
	TPU:	+/-0.337		+/-17.8							

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 634443

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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.								
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.

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QC Summary

Report Date: September 20, 2023
Page 1 of 2

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 634648

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2485947										
QC1205505245	634648001 DUP										
Radium-228	U	1.78		3.83	pCi/L	72.8		(0% - 100%)	JE1	09/18/23	14:26
	Uncert:	+/-1.48		+/-1.84							
	TPU:	+/-1.55		+/-2.09							
QC1205505246	LCS										
Radium-228	78.3			73.1	pCi/L		93.4	(75%-125%)	JE1	09/18/23	11:42
	Uncert:			+/-5.15							
	TPU:			+/-19.6							
QC1205505244	MB										
Radium-228			U	2.08	pCi/L				JE1	09/18/23	14:26
	Uncert:			+/-1.45							
	TPU:			+/-1.54							
Rad Ra-226											
Batch	2485948										
QC1205505248	634648001 DUP										
Radium-226	U	0.139	U	0.237	pCi/L	0			N/A LXP1	09/20/23	09:58
	Uncert:	+/-0.249		+/-0.233							
	TPU:	+/-0.250		+/-0.238							
QC1205505250	LCS										
Radium-226	26.9			27.4	pCi/L		102	(75%-125%)	LXP1	09/20/23	10:30
	Uncert:			+/-1.80							
	TPU:			+/-4.71							
QC1205505247	MB										
Radium-226			U	0.316	pCi/L				LXP1	09/20/23	09:58
	Uncert:			+/-0.263							
	TPU:			+/-0.271							
QC1205505249	634648001 MS										
Radium-226	122 U	0.139		91.7	pCi/L		75.1	(75%-125%)	LXP1	09/20/23	09:58
	Uncert:	+/-0.249		+/-6.79							
	TPU:	+/-0.250		+/-18.5							

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 634648

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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.									
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.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 634443**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2488604

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S

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: 2494433

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S
1205520855	Method Blank (MB)
1205520856	634443001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205520857	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205520855 (MB)	Radium-228	Result: 1.38 pCi/L > MDA: 1.13 pCi/L <= RDL: 3.00 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Samples were re-prepped due to high relative percent difference/relative error ratio. The re-analysis is being reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2482017

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S
1205498037	Method Blank (MB)
1205498038	634443001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205498039	634443001(BRA-BRGWC-33S) Matrix Spike (MS)
1205498040	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.

Miscellaneous Information

Additional Comments

The matrix spike, 1205498039 (BRA-BRGWC-33SMS), aliquot was reduced to conserve sample volume.

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.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 634648**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2485949

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10

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: 2485947

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10
1205505244	Method Blank (MB)

1205505245 634648001(BRA-BRGWC-17S) Sample Duplicate (DUP)
1205505246 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.

Technical Information

Recounts

Sample 1205505244 (MB) was recounted due to a suspected blank false positive. The recount is reported. Samples 1205505245 (BRA-BRGWC-17SDUP) and 634648001 (BRA-BRGWC-17S) were recounted due to high relative percent difference/relative error ratio. The recounts are reported. Samples 634648004 (BRA-BRGWC-38S), 634648007 (BRA-APE-FB-08) and 634648008 (BRA-APE-EB-09) 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: 2485948

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10
1205505247	Method Blank (MB)
1205505248	634648001(BRA-BRGWC-17S) Sample Duplicate (DUP)
1205505249	634648001(BRA-BRGWC-17S) Matrix Spike (MS)
1205505250	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.

Miscellaneous Information

Additional Comments

The matrix spike, 1205505249 (BRA-BRGWC-17SMS), aliquot was reduced to conserve sample volume.

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.

634441 634443

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry / Radiochemistry / Radiobiology / Specialty Analytics
Chain of Custody and Analytical Request
GEL Work Order Number: _____
GEL Project Manager: Erin Trent
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Phone # 404-506-7116
 Fax # _____
 Collected By: T. Cobble / D. J. ACC
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code (1)	Field Filtered (1)	Sample Matrix (1)	Sample Analysis Requested (5) (Fill in the number of containers for each test)		Should this sample be considered: (7) Known or possible Hazards (isotopic info) yes, please supply	Total number of containers	Total Carb. & Bleach Alk EPA 300, SM 2540C	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
						Radioactive (if isotopic info)	Yes, please supply								
BRA- GWC-335	08/22/23	1210	G	N	WG	8	8	8	8	8	8	8	8		
BRA- APE-FD-04	08/22/23	---	G	N	WG	8	8	8	8	8	8	8	8		
BRA- GWC-345	08/22/23	1435	G	N	WG	8	8	8	8	8	8	8	8		
BRA- APE-FB-07	08/22/23	1510	G	N	WG	8	8	8	8	8	8	8	8		
BRA- BRGWC-375	08/22/23	1651	G	N	WG	8	8	8	8	8	8	8	8		
BRA- PZ-135	08/22/23	1647	G	N	WG	8	8	8	8	8	8	8	8		
BRA-															
BRA-															
BRA-															
BRA-															

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
[Signature]	8-23-23	[Signature]	8/23/23	0825
[Signature]	8/15/23	[Signature]	8/15/23	0832
[Signature]	8/15/23	[Signature]	8/15/23	1200

> 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: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

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: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

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: _____

TSCA Regulated
PCB = Polychlorinated biphenyls

63444 634643
 634448 634447
 634443 634450
 634441 634444
 634446

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: EXPP		SDG/AR/COC/Work Order: ET		
Received By: MVH		Date Received: 8-23-2023		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other COOLER 2-3^c COOLER 4-1^c COOLERS 6-1^c COOLER 1-2^c COOLER 3-1^c COOLERS 5-2^c		
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?		<input checked="" type="checkbox"/> 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): 00 CPM/Am/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> 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. <input checked="" type="checkbox"/> PCB's <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium <input type="checkbox"/> 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 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"/>	<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"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: VOA-D2-G11, BRA-BREWA-SI, BRA-BREWA-23S, If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<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"/>	<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"/>	<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"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): BRA-D2-13S, BRA-BREWA-2S, BRA-BREWA-6S, BRA-BREWC-32S, BRA-BRAWA-2I, BRA-BREWC-37S, BRA-BRWC-34S, BRA-BRGWC-30I Sulfide Samples didnt hold proper preservation.				

PM (or PMA) review: Initials **AT** Date **8/25/23** Page **1** of **1**

634648

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

GEL Laboratories LLC
Chemistry | Radiochemistry | Radioassay | Specialty Analytics
Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent

Project # _____ of _____
GEL Quote #: _____
COC Number (1): _____
PO Number: _____
Client Name: GA Power
Project/Site Name: Plant Branch Ash Ponds - E
Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
Collected By: T. Gobie ACC
D. Johnson

GEL Work Order Number: _____
Phone # 404-506-7116
Fax # _____
Send Results To: SCS & Geosyntec Contacts

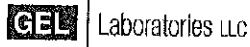
Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (3)	Field Filtered (1)	Sample Matrix (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S2	
						Yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	Total, Carb. & Branch Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320		Sulfide SM 4500
BRA- BRAGWC-175	08/23/23	1405	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- BRAGWC-355	08/23/23	1201	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- BRAGWC-365	08/23/23	1556	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- BRAGWC-385	08/23/23	1212	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- PZ-52D	08/23/23	1346	G	N	WG	N	N	5	✓	✓	✓	✓	✓	
BRA- PZ-70I	08/23/23	1612	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-FD-05	08/23/23	-	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-FB-06	08/23/23	1630	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-EB-09	08/23/23	1645	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-ED-10	08/23/23	1315	G	N	WG	N	N	8	✓	✓	✓	✓	✓	

Chain of Custody Signatures
Relinquished By (Signed) _____ Date _____ Time _____
Received by (signed) _____ Date _____ Time _____
1. *Trent Trent 8-24-23/0740*
2. *Trent Trent 8-24-23/1843*
3. *Trent Trent 8-24-23/1243*

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: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Ni, Mn, K, Na, Hg
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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WL=Leachate, SO=Soil, SE=Soil, SL=Sludge, WQ=Water Quality Control Matrix
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/Ignitable
CO = Corrosive
RE = Reactive
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.)

634448 634043
 634652 634650
 634649
 634648 634615



SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>			SDG/AR/COC/Work Order:			
Received By: <u>EG</u>			Date Received: <u>8-24-23</u>			
Carrier and Tracking Number			Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3</u> <u>cooler 3-3</u> <u>cooler 2-3</u> <u>cooler 4-2</u> <u>cooler 5-3</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 label on containers/equipment 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/equipment 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?					Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?					Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*					Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>See coolers above & below for temps</u>
4	Daily check performed and passed on IR temperature gun?					Temperature Device Serial #: <u>IR6-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?					Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?					Sample ID's and Containers Affected: If Preservation added, Lot#: <u>See continuation form</u>
7	Do any samples require Volatile Analysis?					If Yes, are Encorus 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?					ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?					ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?					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?					Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?					
13	COC form is properly signed in relinquished/received sections?					Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>						

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EG Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-511
- BRA-P2-591
- BRA-BRGWC-353
- BRA-BRGWC-36S
- BRA-APE-FB-07
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-38S
- BRA-P2-641
- BRA-P2-68D
- BRA-APBCD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

List of current GEL Certifications as of 20 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

September 22, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance Upgradient-R
Work Order: 634450

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 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>
634450001	BRA-BRGWA-2S	Ground Water	22/08/23 10:06	23/08/23 13:00
634450002	BRA-BRGWA-5S	Ground Water	22/08/23 10:05	23/08/23 13:00
634450003	BRA-BRGWA-5I	Ground Water	22/08/23 10:10	23/08/23 13:00
634450004	BRA-BRGWA-6S	Ground Water	22/08/23 10:15	23/08/23 13:00
634450005	BRA-BRGWA-2I	Ground Water	22/08/23 10:12	23/08/23 13:00

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

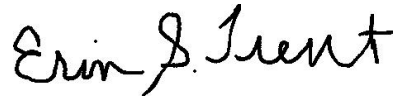
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	22-SEP-2023
EPA 903.1 Modified	20-SEP-2023
EPA 904.0/SW846 9320 Modified	05-SEP-2023
EPA 904.0/SW846 9320 Modified	22-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 initial "E".

Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634450 GEL Work Order: 634450

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, Southern
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceUpgradient-R

Client Sample ID: BRA-BRGWA-2S
 Sample ID: 634450001
 Matrix: WG
 Collect Date: 22-AUG-23
 Receive Date: 23-AUG-23
 Collector: Client

Project: GPCC00101
 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	0.216	+/-0.967	1.76	+/-0.969	3.00	pCi/L			JE1	09/22/23	0847	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.592	+/-0.998	1.76	+/-1.00		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.377	+/-0.246	0.301	+/-0.257	1.00	pCi/L			LXP1	09/20/23	0852	2482017	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"	2494433	91.3	(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	

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceUpgradient-R

Client Sample ID: BRA-BRGWA-5S

Project: GPCC00101

Sample ID: 634450002

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	1.19	+/-1.05	1.70	+/-1.09	3.00	pCi/L			JE1	09/22/23	0847	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.31	+/-1.06	1.70	+/-1.11		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.119	+/-0.181	0.320	+/-0.183	1.00	pCi/L			LXP1	09/20/23	0852	2482017	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"	2494433	82.3	(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 | |

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceUpgradient-R

Client Sample ID: BRA-BRGWA-5I

Project: GPCC00101

Sample ID: 634450003

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.862	+/-0.810	1.30	+/-0.839	3.00	pCi/L			JE1	09/22/23	0847	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.36	+/-0.850	1.30	+/-0.884		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.501	+/-0.260	0.308	+/-0.277	1.00	pCi/L			LXP1	09/20/23	0852	2482017	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"	2494433	79.1	(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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceUpgradient-R

Client Sample ID: BRA-BRGWA-6S

Project: GPCC00101

Sample ID: 634450004

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	1.62	+/-1.32	2.15	+/-1.39	3.00	pCi/L			JE1	09/22/23	0847	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.89	+/-1.34	2.15	+/-1.41		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.271	+/-0.238	0.364	+/-0.243	1.00	pCi/L			LXP1	09/20/23	0852	2482017	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"	2494433	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 | |

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceUpgradient-R

Client Sample ID: BRA-BRGWA-2I

Project: GPCC00101

Sample ID: 634450005

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.367	+/-0.729	1.31	+/-0.735	3.00	pCi/L			JE1	09/22/23	0847	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.857	+/-0.777	1.31	+/-0.788		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.490	+/-0.269	0.294	+/-0.284	1.00	pCi/L			LXP1	09/20/23	0852	2482017	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"	2494433	87.2	(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

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 634450**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2488604

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634450001	BRA-BRGWA-2S
634450002	BRA-BRGWA-5S
634450003	BRA-BRGWA-5I
634450004	BRA-BRGWA-6S
634450005	BRA-BRGWA-2I

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: 2494433

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634450001	BRA-BRGWA-2S
634450002	BRA-BRGWA-5S
634450003	BRA-BRGWA-5I
634450004	BRA-BRGWA-6S
634450005	BRA-BRGWA-2I
1205520855	Method Blank (MB)
1205520856	634443001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205520857	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205520855 (MB)	Radium-228	Result: 1.38 pCi/L > MDA: 1.13 pCi/L <= RDL: 3.00 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Samples were re-prepped due to high relative percent difference/relative error ratio. The re-analysis is being reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2482017

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634450001	BRA-BRGWA-2S
634450002	BRA-BRGWA-5S
634450003	BRA-BRGWA-5I
634450004	BRA-BRGWA-6S
634450005	BRA-BRGWA-2I
1205498037	Method Blank (MB)
1205498038	634443001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205498039	634443001(BRA-BRGWC-33S) Matrix Spike (MS)
1205498040	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.

Miscellaneous Information

Additional Comments

The matrix spike, 1205498039 (BRA-BRGWC-33SMS), aliquot was reduced to conserve sample volume.

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

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QC Summary

Report Date: September 22, 2023
Page 1 of 2

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 634450

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2494433										
QC1205520856	634443001 DUP										
Radium-228	U	0.119	U	1.16	pCi/L	0		N/A	JE1	09/22/23	08:46
	Uncert:	+/-0.702		+/-0.838							
	TPU:	+/-0.702		+/-0.891							
QC1205520857	LCS										
Radium-228	75.6			76.2	pCi/L		101	(75%-125%)	JE1	09/22/23	08:46
	Uncert:			+/-4.33							
	TPU:			+/-19.9							
QC1205520855	MB										
Radium-228				1.38	pCi/L				JE1	09/22/23	08:46
	Uncert:			+/-0.802							
	TPU:			+/-0.875							
Rad Ra-226											
Batch	2482017										
QC1205498038	634443001 DUP										
Radium-226	U	0.401	U	0.170	pCi/L	0		N/A	LXP1	09/20/23	09:26
	Uncert:	+/-0.326		+/-0.249							
	TPU:	+/-0.337		+/-0.251							
QC1205498040	LCS										
Radium-226	26.9			33.3	pCi/L		124	(75%-125%)	LXP1	09/20/23	09:26
	Uncert:			+/-2.02							
	TPU:			+/-5.55							
QC1205498037	MB										
Radium-226			U	0.142	pCi/L				LXP1	09/20/23	09:26
	Uncert:			+/-0.184							
	TPU:			+/-0.188							
QC1205498039	634443001 MS										
Radium-226	137 U	0.401		103	pCi/L		75.1	(75%-125%)	LXP1	09/20/23	09:26
	Uncert:	+/-0.326		+/-7.23							
	TPU:	+/-0.337		+/-17.8							

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 634450

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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.								
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.

034447

034450

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent
 Client Name: GA Power
 Phone # 404-506-7116
 Fax # _____
 Project/Site Name: Plant Branch Ash Ponds - Upgradient
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: J. Braxton ACC
 Send Results To: SCS & Geosyntec Contacts

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 (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)				Preservative Type (6)	Comments	
						(F) Radioactive (Isotope info)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C	Total, Carb, & Bicarb Alk SM 2320B	Metals * EPA 6020, 6010, 7470			Radium 226 & 228 SW-846 9315, 9320
BRA-BR6WA-2S	08/22/23	1006	G	N	WG			8	✓	✓	✓	✓		
BRA-BR6WA-5S	08/22/23	1005	G	N	WG			8	✓	✓	✓	✓		
BRA-BR6WA-5I	08/22/23	1010	G	N	WG			8	✓	✓	✓	✓		
BRA-BR6WA-6S	08/22/23	1015	G	N	WG			8	✓	✓	✓	✓		
BRA-BR6WA-2I	08/22/23	1012	G	N	WG			8	✓	✓	✓	✓		
BRA-														
BRA-														
BRA-														
BRA-														
BRA-														

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	8/23/23	6:32	<i>[Signature]</i>	8/23/23	8:38
<i>[Signature]</i>	8/23/23	1:00	<i>[Signature]</i>	8/23/23	1:30

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: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Ni, Mn, K, Na, Hg

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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Settiment, SL=Sludge, WQ=Water Quality Control Matrix

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.)

SAMPLE RECEIPT & REVIEW FORM

63444 634443
 634448 634447
 634443 634450
 634441 634444
 634446

Client: <u>CCPP</u>		SDG/AR/COC/Work Order:			
Received By: <u>MVH</u>		Date Received: <u>8/23/2023</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. COOLR-2-3°C COOLR-4-1°C COOLR-6-1°C COOLR-1-2°C COOLR-3-1°C COOLR-5-2°C			
A) Shipped as a DOT Hazardous?	<input checked="" 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"/>	COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/AmR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?	<input checked="" 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	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: <u>MSLA-P2-G11, BRA-BREW-A-51, BRA-BREW-A-23S,</u>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Are 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 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 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 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): <u>BRA-P2-13S, BRA-BREW-A-2S, BRA-BREW-A-6S, BRA-BREW-C-32S, BRA-BREW-A-2I, BRA-BREW-C-37S, BRA-BREW-C-34S, BRA-BREW-C-30I Sulfide samples didnt hold proper preservation.</u>					

PM (or PMA) review: Initials AT Date 8/25/23 Page 1 of 1

List of current GEL Certifications as of 22 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

September 22, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APE-R
Work Orders: 634443 and 634648

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 2023 and August 24, 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>
634443001	BRA-BRGWC-33S	Ground Water	22/08/23 12:10	23/08/23 13:00
634443002	BRA-APE-FD-04	Ground Water	22/08/23 12:00	23/08/23 13:00
634443003	BRA-BRGWC-34S	Ground Water	22/08/23 14:35	23/08/23 13:00
634443004	BRA-APE-FB-07	Water	22/08/23 15:10	23/08/23 13:00
634443005	BRA-BRGWC-37S	Ground Water	22/08/23 16:51	23/08/23 13:00
634443006	BRA-PZ-13S	Ground Water	22/08/23 16:47	23/08/23 13:00
634648001	BRA-BRGWC-17S	Ground Water	23/08/23 14:05	24/08/23 12:43
634648002	BRA-BRGWC-35S	Ground Water	23/08/23 12:01	24/08/23 12:43
634648003	BRA-BRGWC-36S	Ground Water	23/08/23 15:56	24/08/23 12:43
634648004	BRA-BRGWC-38S	Ground Water	23/08/23 12:12	24/08/23 12:43
634648005	BRA-PZ-70I	Ground Water	23/08/23 16:12	24/08/23 12:43
634648006	BRA-APE-FD-05	Ground Water	23/08/23 12:00	24/08/23 12:43
634648007	BRA-APE-FB-08	Water	23/08/23 16:30	24/08/23 12:43
634648008	BRA-APE-EB-09	Water	23/08/23 16:45	24/08/23 12:43
634648009	BRA-APE-EB-10	Water	23/08/23 13:15	24/08/23 12:43



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	20-SEP-2023
Calculation	22-SEP-2023
EPA 903.1 Modified	20-SEP-2023
EPA 904.0/SW846 9320 Modified	05-SEP-2023
EPA 904.0/SW846 9320 Modified	18-SEP-2023
EPA 904.0/SW846 9320 Modified	20-SEP-2023
EPA 904.0/SW846 9320 Modified	22-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 initial "E".

Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634443 GEL Work Order: 634443

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, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-33S
Sample ID: 634443001
Matrix: WG
Collect Date: 22-AUG-23
Receive Date: 23-AUG-23
Collector: Client

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gas Flow Proportional Counting

GFPC Ra228, Liquid "As Received"

Radium-228	U	0.119	+/-0.702	1.33	+/-0.702	3.00	pCi/L			JE1	09/22/23	0821	2494433	1
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Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum	U	0.521	+/-0.773	1.33	+/-0.779		pCi/L			NXL1	09/22/23	1016	2488604	2
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Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226	U	0.401	+/-0.326	0.499	+/-0.337	1.00	pCi/L			LXP1	09/20/23	0819	2482017	3
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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"	2494433	83.7	(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

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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FD-04

Project: GPCC00101

Sample ID: 634443002

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	1.08	+/-0.881	1.41	+/-0.924	3.00	pCi/L			JE1	09/22/23	0821	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.55	+/-0.921	1.41	+/-0.966		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.466	+/-0.269	0.337	+/-0.280	1.00	pCi/L			LXP1	09/20/23	0819	2482017	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"	2494433	92.7	(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 | |

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-34S

Project: GPCC00101

Sample ID: 634443003

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.558	+/-0.907	1.58	+/-0.918	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.06	+/-0.955	1.58	+/-0.973		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.499	+/-0.299	0.393	+/-0.321	1.00	pCi/L			LXP1	09/20/23	0819	2482017	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"	2494433	90.2	(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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FB-07

Project: GPCC00101

Sample ID: 634443004

Client ID: GPCC001

Matrix: WQ

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.169	+/-0.878	1.62	+/-0.879	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.546	+/-0.912	1.62	+/-0.916		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.377	+/-0.246	0.301	+/-0.256	1.00	pCi/L			LXP1	09/20/23	0820	2482017	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"	2494433	83.7	(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 | |

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-37S

Project: GPCC00101

Sample ID: 634443005

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	-0.458	+/-0.719	1.50	+/-0.720	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.578	+/-0.770	1.50	+/-0.781		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.578	+/-0.274	0.309	+/-0.303	1.00	pCi/L			LXP1	09/20/23	0820	2482017	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"	2494433	87.6	(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 | |

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-PZ-13S

Project: GPCC00101

Sample ID: 634443006

Client ID: GPCC001

Matrix: WG

Collect Date: 22-AUG-23

Receive Date: 23-AUG-23

Collector: Client

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	0.273	+/-1.08	1.97	+/-1.08	3.00	pCi/L			JE1	09/22/23	0822	2494433	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.823	+/-1.12	1.97	+/-1.12		pCi/L			NXL1	09/22/23	1016	2488604	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.550	+/-0.277	0.335	+/-0.300	1.00	pCi/L			LXP1	09/20/23	0820	2482017	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"	2494433	72.5	(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 | |

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: 634648 GEL Work Order: 634648

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, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-17S
Sample ID: 634648001
Matrix: WG
Collect Date: 23-AUG-23
Receive Date: 24-AUG-23
Collector: Client

Project: GPCC00101
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	1.78	+/-1.48	2.33	+/-1.55	3.00	pCi/L			JE1	09/18/23	1426	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.92	+/-1.50	2.33	+/-1.57		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.139	+/-0.249	0.448	+/-0.250	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	59.7	(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
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

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-35S

Project: GPCC00101

Sample ID: 634648002

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	1.59	+/-1.45	3.00	pCi/L			JE1	09/18/23	1141	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.33	+/-1.29	1.59	+/-1.48		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.546	+/-0.248	0.238	+/-0.263	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	56.5	(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 | |

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-36S

Project: GPCC00101

Sample ID: 634648003

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		3.28	+/-1.66	2.40	+/-1.86	3.00	pCi/L			JE1	09/18/23	1141	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.87	+/-1.69	2.40	+/-1.89		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.594	+/-0.297	0.328	+/-0.313	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	57.9	(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, Southern
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-BRGWC-38S

Project: GPCC00101

Sample ID: 634648004

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		5.37	+/-2.03	2.73	+/-2.45	3.00	pCi/L			JE1	09/20/23	0823	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.98	+/-2.05	2.73	+/-2.47		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.610	+/-0.288	0.246	+/-0.307	1.00	pCi/L			LXP1	09/20/23	0926	2485948	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"	2485947	51.8	(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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE-R

Client Sample ID: BRA-PZ-70I

Project: GPCC00101

Sample ID: 634648005

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		3.70	+/-1.64	2.30	+/-1.89	3.00	pCi/L			JE1	09/18/23	1143	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.35	+/-1.67	2.30	+/-1.92		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.655	+/-0.330	0.410	+/-0.354	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	59.4	(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

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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FD-05

Project: GPCC00101

Sample ID: 634648006

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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		4.09	+/-1.67	2.27	+/-1.97	3.00	pCi/L			JE1	09/18/23	1143	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.65	+/-1.69	2.27	+/-1.99		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.559	+/-0.250	0.204	+/-0.281	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	58.9	(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, Southern
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-FB-08

Project: GPCC00101

Sample ID: 634648007

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	2.26	+/-1.55	2.41	+/-1.65	3.00	pCi/L			JE1	09/20/23	0823	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.50	+/-1.56	2.41	+/-1.67		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.247	+/-0.194	0.263	+/-0.201	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	55.4	(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, Southern
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-EB-09

Project: GPCC00101

Sample ID: 634648008

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	2.20	+/-1.48	2.28	+/-1.59	3.00	pCi/L			JE1	09/20/23	0823	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.86	+/-1.52	2.28	+/-1.63		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.662	+/-0.366	0.483	+/-0.384	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	57.5	(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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 20, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE-R

Client Sample ID: BRA-APE-EB-10

Project: GPCC00101

Sample ID: 634648009

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-23

Receive Date: 24-AUG-23

Collector: Client

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	1.46	+/-1.15	1.79	+/-1.21	3.00	pCi/L			JE1	09/18/23	1142	2485947	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.62	+/-1.17	1.79	+/-1.23		pCi/L		1	NXL1	09/20/23	1401	2485949	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.162	+/-0.225	0.390	+/-0.228	1.00	pCi/L			LXP1	09/20/23	0958	2485948	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"	2485947	57.2	(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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QC Summary

Report Date: September 22, 2023
Page 1 of 2

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 634443

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2494433										
QC1205520856	634443001 DUP										
Radium-228	U	0.119	U	1.16	pCi/L	0		N/A	JE1	09/22/23	08:46
	Uncert:	+/-0.702		+/-0.838							
	TPU:	+/-0.702		+/-0.891							
QC1205520857	LCS										
Radium-228	75.6			76.2	pCi/L		101	(75%-125%)	JE1	09/22/23	08:46
	Uncert:			+/-4.33							
	TPU:			+/-19.9							
QC1205520855	MB										
Radium-228				1.38	pCi/L				JE1	09/22/23	08:46
	Uncert:			+/-0.802							
	TPU:			+/-0.875							
Rad Ra-226											
Batch	2482017										
QC1205498038	634443001 DUP										
Radium-226	U	0.401	U	0.170	pCi/L	0		N/A	LXP1	09/20/23	09:26
	Uncert:	+/-0.326		+/-0.249							
	TPU:	+/-0.337		+/-0.251							
QC1205498040	LCS										
Radium-226	26.9			33.3	pCi/L		124	(75%-125%)	LXP1	09/20/23	09:26
	Uncert:			+/-2.02							
	TPU:			+/-5.55							
QC1205498037	MB										
Radium-226			U	0.142	pCi/L				LXP1	09/20/23	09:26
	Uncert:			+/-0.184							
	TPU:			+/-0.188							
QC1205498039	634443001 MS										
Radium-226	137 U	0.401		103	pCi/L		75.1	(75%-125%)	LXP1	09/20/23	09:26
	Uncert:	+/-0.326		+/-7.23							
	TPU:	+/-0.337		+/-17.8							

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 634443

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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.									
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.

GEL LABORATORIES LLC

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QC Summary

Report Date: September 20, 2023
Page 1 of 2

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 634648

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2485947										
QC1205505245	634648001 DUP										
Radium-228	U	1.78		3.83	pCi/L	72.8		(0% - 100%)	JE1	09/18/23	14:26
	Uncert:	+/-1.48		+/-1.84							
	TPU:	+/-1.55		+/-2.09							
QC1205505246	LCS										
Radium-228	78.3			73.1	pCi/L		93.4	(75%-125%)	JE1	09/18/23	11:42
	Uncert:			+/-5.15							
	TPU:			+/-19.6							
QC1205505244	MB										
Radium-228			U	2.08	pCi/L				JE1	09/18/23	14:26
	Uncert:			+/-1.45							
	TPU:			+/-1.54							
Rad Ra-226											
Batch	2485948										
QC1205505248	634648001 DUP										
Radium-226	U	0.139	U	0.237	pCi/L	0			N/A LXP1	09/20/23	09:58
	Uncert:	+/-0.249		+/-0.233							
	TPU:	+/-0.250		+/-0.238							
QC1205505250	LCS										
Radium-226	26.9			27.4	pCi/L		102	(75%-125%)	LXP1	09/20/23	10:30
	Uncert:			+/-1.80							
	TPU:			+/-4.71							
QC1205505247	MB										
Radium-226			U	0.316	pCi/L				LXP1	09/20/23	09:58
	Uncert:			+/-0.263							
	TPU:			+/-0.271							
QC1205505249	634648001 MS										
Radium-226	122 U	0.139		91.7	pCi/L		75.1	(75%-125%)	LXP1	09/20/23	09:58
	Uncert:	+/-0.249		+/-6.79							
	TPU:	+/-0.250		+/-18.5							

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

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QC Summary

Workorder: 634648

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI										
BD										
h										
R										
^										
N/A										
ND										
M										
NJ										
FA										
UJ										
Q										
K										
UL										
L										
N1										
Y										
**										
M										
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.

** 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.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 634443**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2488604

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S

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: 2494433

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S
1205520855	Method Blank (MB)
1205520856	634443001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205520857	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205520855 (MB)	Radium-228	Result: 1.38 pCi/L > MDA: 1.13 pCi/L <= RDL: 3.00 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Samples were re-prepped due to high relative percent difference/relative error ratio. The re-analysis is being reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2482017

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S
1205498037	Method Blank (MB)
1205498038	634443001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205498039	634443001(BRA-BRGWC-33S) Matrix Spike (MS)
1205498040	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.

Miscellaneous Information

Additional Comments

The matrix spike, 1205498039 (BRA-BRGWC-33SMS), aliquot was reduced to conserve sample volume.

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.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 634648**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2485949

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10

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: 2485947

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10
1205505244	Method Blank (MB)

1205505245 634648001(BRA-BRGWC-17S) Sample Duplicate (DUP)
1205505246 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.

Technical Information

Recounts

Sample 1205505244 (MB) was recounted due to a suspected blank false positive. The recount is reported. Samples 1205505245 (BRA-BRGWC-17SDUP) and 634648001 (BRA-BRGWC-17S) were recounted due to high relative percent difference/relative error ratio. The recounts are reported. Samples 634648004 (BRA-BRGWC-38S), 634648007 (BRA-APE-FB-08) and 634648008 (BRA-APE-EB-09) 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: 2485948

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10
1205505247	Method Blank (MB)
1205505248	634648001(BRA-BRGWC-17S) Sample Duplicate (DUP)
1205505249	634648001(BRA-BRGWC-17S) Matrix Spike (MS)
1205505250	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.

Miscellaneous Information

Additional Comments

The matrix spike, 1205505249 (BRA-BRGWC-17SMS), aliquot was reduced to conserve sample volume.

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.

634441 634443

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry / Radiochemistry / Radiobiology / Specialty Analytics
Chain of Custody and Analytical Request
 GEL Work Order Number: _____
 GEL Project Manager: Erin Trent
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Phone # 404-506-7116
 Fax # _____
 Collected By: T. Cobble / D. J. ACC
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (1)	Field Filtered (1)	Sample Matrix (1)	Sample Analysis Requested (5) (Fill in the number of containers for each test)		Should this sample be considered: (7) Known or possible Hazards (isotopic info) yes, please supply	Total number of containers	Total Carb. & Bleach Aik EPA 300, SM 2540C	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
						NI	NI								
BRA- GWC-335	08/22/23	1210	G	N	WG	8	8	✓	8	✓	✓	✓			
BRA- APE-FD-04	08/22/23	---	G	N	WG	8	8	✓	8	✓	✓	✓			
BRA- GWC-345	08/22/23	1435	G	N	WG	8	8	✓	8	✓	✓	✓			
BRA- APE-FB-07	08/22/23	1510	G	N	WG	8	8	✓	8	✓	✓	✓			
BRA- BRGWC-375	08/22/23	1651	G	N	WG	8	8	✓	8	✓	✓	✓			
BRA- PZ-135	08/22/23	1647	G	N	WG	8	8	✓	8	✓	✓	✓			
BRA-															
BRA-															
BRA-															
BRA-															

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
[Signature]	8-23-23	[Signature]	8/23/23	0825
[Signature]	8/15/23	[Signature]	8/15/23	0832
[Signature]	8/15/23	[Signature]	8/15/23	100

> 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: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg
 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: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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.)

63444 634643
 634448 634447
 634443 634450
 634441 634444
 634446

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: EXPP		SDG/AR/COC/Work Order: ET		
Received By: MVH		Date Received: 8-23-2023		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other COOLER 2-3^c COOLER 4-1^c COOLERS 6-1^c COOLER 1-2^c COOLERS 3-1^c COOLERS 5-2^c		
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?		<input checked="" type="checkbox"/> 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): 00 CPM/Am/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> 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. <input checked="" type="checkbox"/> PCB's <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium <input type="checkbox"/> 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 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"/>	<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"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: VOA-D2-G11, BRA-BREWA-SI, BRA-BREWA-23S, If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<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"/>	<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"/>	<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"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): BRA-D2-13S, BRA-BREWA-2S, BRA-BREWA-6S, BRA-BREWC-32S, BRA-BRAWA-2I, BRA-BREWC-37S, BRA-BRWC-34S, BRA-BRGWC-30I Sulfide Samples didnt hold proper preservation.				

PM (or PMA) review: Initials **AT** Date **8/25/23** Page **1** of **1**

634648

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

GEL Laboratories LLC
Chemistry | Radiochemistry | Radioassay | Specialty Analytics
Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent

Project # _____ of _____
GEL Quote #: _____
COC Number (1): _____
PO Number: _____
Client Name: GA Power
Project/Site Name: Plant Branch Ash Ponds - E
Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
Collected By: T. Gobie ACC
D. Johnson

GEL Work Order Number: _____
Phone # 404-506-7116
Fax # _____
Send Results To: SCS & Geosyntec Contacts

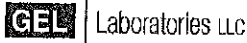
Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (3)	Field Filtered (4)	Sample Matrix (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S2	
						Yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	Total, Carb. & Branch Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320		Sulfide SM 4500
BRA- BRGWC-175	08/23/23	1405	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- BRGWC-355	08/23/23	1201	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- BRGWC-365	08/23/23	1556	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- BRGWC-385	08/23/23	1212	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- PZ-52D	08/23/23	1346	G	N	WG	N	N	5	✓	✓	✓	✓	✓	
BRA- PZ-70I	08/23/23	1612	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-FD-05	08/23/23	-	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-FB-06	08/23/23	1630	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-EB-09	08/23/23	1645	G	N	WG	N	N	8	✓	✓	✓	✓	✓	
BRA- APE-ED-10	08/23/23	1315	G	N	WG	N	N	8	✓	✓	✓	✓	✓	

Chain of Custody Signatures
Relinquished By (Signed) _____ Date _____ Time _____
Received by (signed) _____ Date _____ Time _____
1. *Trent Trent 8-24-23/0740*
2. *Trent Trent 8-24-23/1843*
3. *Trent Trent 8-24-23/1243*

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: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Ni, Mg, Mn, K, Na, Hg
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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WL=Leachate, SO=Soil, SE=Soil, SL=Sludge, WQ=Water Quality Control Matrix
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/Ignitable
CO = Corrosive
RE = Reactive
Listed Waste
LW = Listed Waste
(F, K, P and U-listed wastes.)
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
(i.e. High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

634448 634043
 634652 634650
 634649
 # 634648 634615



SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>			SDG/AR/COC/Work Order:			
Received By: <u>EG</u>			Date Received: <u>8-24-23</u>			
Carrier and Tracking Number			Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3°</u> <u>cooler 3-3°</u> <u>cooler 2-3°</u> <u>cooler 4-2°</u> <u>cooler 5-3°</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 surface on containers and labels 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 and equipment 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?	/				Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	/				Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	/				Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>See coolers above & below for temps</u>
4	Daily check performed and passed on IR temperature gun?	/				Temperature Device Serial #: <u>166-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	/				Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?					Sample ID's and Containers Affected: If Preservation added, Lot#: <u>See continuation form</u>
7	Do any samples require Volatile Analysis?					If Yes, are Encorus 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?	/				ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	/				ID's and containers affected:
10	Date & time on COC match date & time on bottles?	/				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?	/				Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	/				
13	COC form is properly signed in relinquished/received sections?	/				Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>						

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EG Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-511
- BRA-P2-591
- BRA-BRGWC-353
- BRA-BRGWC-36S
- BRA-APE-FB-07
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-38S
- BRA-P2-641
- BRA-P2-68D
- BRA-APBCD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

List of current GEL Certifications as of 20 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

September 26, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance PZ-R
Work Order: 634789

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 25, 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>
634789001	BRA-PZ-53D	Ground Water	24/08/23 10:12	25/08/23 08:57
634789002	BRA-PZ-52D	Ground Water	23/08/23 13:46	25/08/23 08:57

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

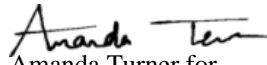
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	26-SEP-2023
EPA 903.1 Modified	26-SEP-2023
EPA 904.0/SW846 9320 Modified	19-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 "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: GPC82177-0006
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: 634789 GEL Work Order: 634789

The Qualifiers in this report are defined as follows:

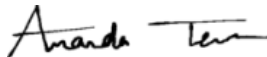
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 26, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater CompliancePZ-R

Client Sample ID: BRA-PZ-53D
Sample ID: 634789001
Matrix: WG
Collect Date: 24-AUG-23
Receive Date: 25-AUG-23
Collector: Client

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gas Flow Proportional Counting

GFPC Ra228, Liquid "As Received"

Radium-228		2.65	+/-1.02	1.29	+/-1.22	3.00	pCi/L			JE1	09/19/23	1052	2483519	1
------------	--	------	---------	------	---------	------	-------	--	--	-----	----------	------	---------	---

Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum		3.67	+/-1.13	1.29	+/-1.32		pCi/L		1	LXB3	09/26/23	1107	2484347	2
--------------------	--	------	---------	------	---------	--	-------	--	---	------	----------	------	---------	---

Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226		1.01	+/-0.488	0.396	+/-0.514	1.00	pCi/L			LXP1	09/26/23	0846	2483512	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"	2483519	86.6	(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
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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 26, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater CompliancePZ-R

Client Sample ID: BRA-PZ-52D

Project: GPCC00101

Sample ID: 634789002

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-23

Receive Date: 25-AUG-23

Collector: Client

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	0.655	+/-0.688	1.14	+/-0.708	3.00	pCi/L			JE1	09/19/23	1052	2483519	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.14	+/-0.777	1.14	+/-0.802		pCi/L		1	LXB3	09/26/23	1107	2484347	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.481	+/-0.361	0.375	+/-0.377	1.00	pCi/L			LXP1	09/26/23	0846	2483512	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"	2483519	87.8	(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 | |

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 634789**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2484347

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634789001	BRA-PZ-53D
634789002	BRA-PZ-52D

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: 2483519

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634789001	BRA-PZ-53D
634789002	BRA-PZ-52D
1205500580	Method Blank (MB)
1205500581	634781003(BRA-BRGWC-27I) Sample Duplicate (DUP)
1205500582	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205500580 (MB)	Radium-228	Result: 1.94 pCi/L > MDA: 1.46 pCi/L <= RDL: 3.00 pCi/L

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2483512

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634789001	BRA-PZ-53D
634789002	BRA-PZ-52D
1205500561	Method Blank (MB)
1205500562	634781003(BRA-BRGWC-27I) Sample Duplicate (DUP)
1205500563	634781003(BRA-BRGWC-27I) Matrix Spike (MS)
1205500564	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.

Miscellaneous Information

Additional Comments

The matrix spike, 1205500563 (BRA-BRGWC-27IMS), aliquot was reduced to conserve sample volume.

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

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QC Summary

Report Date: September 26, 2023
Page 1 of 2

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 634789

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2483519										
QC1205500581	634781003 DUP										
Radium-228	U	1.10	U	0.506	pCi/L	0		N/A	JE1	09/19/23	10:51
	Uncert:	+/-1.05		+/-1.18							
	TPU:	+/-1.09		+/-1.18							
QC1205500582	LCS										
Radium-228	77.5			72.3	pCi/L		93.3	(75%-125%)	JE1	09/19/23	10:51
	Uncert:			+/-4.27							
	TPU:			+/-18.9							
QC1205500580	MB										
Radium-228				1.94	pCi/L				JE1	09/19/23	10:51
	Uncert:			+/-1.03							
	TPU:			+/-1.15							
Rad Ra-226											
Batch	2483512										
QC1205500562	634781003 DUP										
Radium-226		1.13		1.23	pCi/L	8.5		(0% - 100%)	LXP1	09/26/23	09:21
	Uncert:	+/-0.529		+/-0.578							
	TPU:	+/-0.558		+/-0.626							
QC1205500564	LCS										
Radium-226	26.9			25.2	pCi/L		93.6	(75%-125%)	LXP1	09/26/23	09:21
	Uncert:			+/-2.49							
	TPU:			+/-4.93							
QC1205500561	MB										
Radium-226			U	0.162	pCi/L				LXP1	09/26/23	08:46
	Uncert:			+/-0.229							
	TPU:			+/-0.231							
QC1205500563	634781003 MS										
Radium-226	125	1.13		110	pCi/L		87	(75%-125%)	LXP1	09/26/23	09:21
	Uncert:	+/-0.529		+/-11.2							
	TPU:	+/-0.558		+/-25.2							

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 634789

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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.									
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.

634784 634789

Page: / of /
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent
 GEL Work Order Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308
 Phone # 404-506-7116
 Fax # _____
 Collected By: T. Goble ACC
 Send Results To: SCS & Geosyntec Contacts

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)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)		Comments
						Yes, please supply isotopic info. (6)	(3) Known or possible Hazards	Metals * BPA 6020, 6010, 7470	SM 4500 SW-846 9315, 9320	
BRA-PZ-52D	08/23/23	1346	G	N	WG	N	N	✓	SM 4500	Note: extra sample is required for sample specific QC Task Code: BRA-C-CR-ASSMT-2023S2
BRA-PZ-53D	08/24/23	1012	G	N	WG	N	N	✓		
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
Tyler Goble	8/24/23	Erin Trent	8/24/23	1300
Erin Trent	8/25/23	Erin Trent	8/25/23	0857

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: * Metals: B,Ca,Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,Li,Mo,Se,Te,Fe,Mg,Mn,K,Na,Hg
 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, ED = Field Duplicates, 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 - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WC=Water Quality Control Matrix
 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: EA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Tiosulfate. If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS

Characteristics Hazards	Listed Waste
FL = Flammable/Ignitable	LW = Listed Waste
CO = Corrosive	(P, K, P and U-listed wastes.)
RE = Reactive	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:

COCKR 1-4
 COCKR 2-4
 COCKR 3-1
 COCKR 4-1
 COCKR 5-3

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

634784 634789
634768 634781



SAMPLE RECEIPT & REVIEW FORM

Client: GPCC		SDG/AR/COC/Work Order:			
Received By: EG		Date Received: 8/25/23 0857			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other cooler 1-4° cooler 3-1° cooler 2-4° cooler 4-1° cooler 5-3°			
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?		<input checked="" type="checkbox"/> 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"/> 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. PCBs 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 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 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 type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>See above</u>
4	Daily check performed and passed on IR temperature gm?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR6-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: <u>See below</u>
7	Do any samples require Volatile Analysis?	<input type="checkbox"/>	<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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: <input checked="" type="checkbox"/> COC says <u>BRA-P2-74I</u> bottles say <u>BRA-P2-74</u>
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): containers BRA-P2-751, BRA-BR6WC-271, BRA-P2-53D, & BRA-BR6WC-291 preserved with NaOH/Zinc Acetate did not hold preservation					

PM (or PMA) review: Initials AT Date 8/26/23 Page 1 of 1

List of current GEL Certifications as of 26 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

Memorandum

Date: 8 February 2024
To: Courtney Collins
From: Ashley Wilson
CC: K. Henderson
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 634447, 634615, 634441, 634650, 634444, 634768 and 634784 and Eurofins Work Orders 680-239481-1 and 680-242425-1**

SITE: Plant Branch CCR Groundwater Compliance Semiannual Monitoring AP-BCD & AP-E

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of sixty-five groundwater samples including five equipment blanks, five field blanks and five field duplicate samples collected 21-24 August and 30 October – 1 November 2023, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Total and Dissolved Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by US EPA Method 7470A
- Anions (Nitrate-Nitrogen (N), Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Total Sulfide by SM 4500-S2-D
- Alkalinity by SM 2320B

The samples were analyzed at Eurofins Savannah, Savannah, GA, for the following analytical test:

- Total Sulfide by SM 4500 S2 F-2011

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the following documents, the pertinent methods referenced by the data package and professional and technical judgment:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and reported in the laboratory reports:

Laboratory IDs	Client IDs
680-239481-1	BRA-BRGWA-2I
680-239481-2	BRA-BRGWA-5I
680-239481-3	BRA-BRGWA-6S
680-239481-4	BRA-BRGWC-50
680-239481-5	BRA-PZ-57I
680-239481-6	BRA-PZ-59I
680-239481-7	BRA-PZ-64I
680-239481-8	BRA-PZ-65I
680-239481-9	BRA-BRGWC-33S
680-239481-10	BRA-BRGWC-35S
680-239481-11	BRA-BRGWC-38S
680-239481-12	BRA-PZ-76I
680-239481-13	BRA-PZ-77I
680-242425-1	BRA-BRGWA-2S
680-242425-2	BRA-BRGWA-2I
680-242425-3	BRA-PZ-44
680-242425-4	BRA-PZ-64I
680-242425-5	BRA-PZ-66I
680-242425-6	BRA-PZ-59I
680-242425-7	BRA-PZ-58I
680-242425-8	BRA-BRGWA-6S

Laboratory IDs	Client IDs
680-242425-9	BRA-PZ-51I
680-242425-10	BRA-PZ-51D
680-242425-11	BRA-PZ-57I
680-242425-12	BRA-PZ-65I
680-242425-13	BRA-PZ-61I
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S

Laboratory IDs	Client IDs
634650001	BRA-PZ-51I
634650002	BRA-PZ-58I
634650003	BRA-PZ-59I
634650004	BRA-PZ-60I
634650005	BRA-PZ-63I
634650006	BRA-PZ-64I
634650007	BRA-PZ-68D
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
634650014	BRA-PZ-50D
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01

Laboratory IDs	Client IDs
634768001	BRA-APBCD-FD-03
634768002	BRA-APBCD-EB-05
634768003	BRA-BRGWC-27I
634768004	BRA-BRGWC-45
634768005	BRA-PZ-75I
634768006	BRA-PZ-74I
634768007	BRA-BRGWC-29I
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
634784001	BRA-PZ-53D

The samples were received at 5.1, 5.0, 4.0, 3.0, 2.5, 2.8, 2.0 and 1.0 degrees Celsius (°C), both within and outside of the EPA Region 4 criteria of 4°C ± 2°C. Since the samples were received between 0-6°C and based on professional judgment, no qualifications were applied to the data. No sample preservation issues were noted by the laboratory.

634615, 634441, 634444, 634650, 634447 & 634784: The laboratory noted the containers for samples BRA-BRGWC-35S, BRA-BRGWC-36S, BRA-APE-FB-08, BRA-BRGWC-38S, BRA-APE-FD-05, BRA-GWC-34S, BRA-BRGWC-37S, BRA-PZ-13S, BRA-BRGWC-32S, BRA-BRGWC-30I, BRA-PZ-61I, BRA-BRGWA-23S, BRA-PZ-51I, BRA-PZ-60I, BRA-PZ-58I, BRA-PZ-63I, BRA-PZ-64I, BRA-PZ-68D, BRA-APBCD-FD-02, BRA-PZ-50D, BRA-BRGWC-50, BRA-PZ-59I, BRA-BRGWA-2S, BRA-BRGWA-6S, BRA-BRGWA-2I, BRA-BRAW-5I, BRA-PZI, BRA-BRGWC-27I, BRA-PZ-53D and BRA-BRGWC-29I were preserved with NaOH/Zinc, however, they did not hold preservation for sulfide. Samples were preserved upon receipt and placed on a 24-hour preservation hold.

634650: The second relinquishing time on the second page of the chain of custody (COC) did not match the relinquishing time on the first page.

634444 & 634447: The relinquished by time and the received by time for the second sample transfer were inconsistent on the COC. The relinquishing time was not documented in military time.

634784: The laboratory noted a discrepancy between the COC and container label for sample BRA-P2-74I, where the COC has “BRA-P2-74I,” but the bottles have “BRA-P2-74.”

The field pH data and field ferrous iron data included in the laboratory report were not validated.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.1.2 Analysis Anomaly

The laboratory noted that the contract required detection limit (CRDL) for calcium did not meet the laboratory specified acceptance criteria. Since the calcium results in the associated samples were significantly greater than the CRDL and based on professional and technical judgement, no qualifications were applied to the data.

The laboratory also noted that for the Inductively Coupled Plasma – Mass Spectrometry analysis, the Interference Check Sample (ICSA) solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches 2482704, 2482706, 2483978, 2482702 and 2483978). Metals were not detected in the method blanks at or above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four sample set specific MS/MSD pairs were reported, using samples BRA-BRGWC-17S, BRA-BRGWC-34S, BRA-PZ-51I and BRA-BRGWC-27I. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

One batch MS/MSD was also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported for metals.

1.7 Field Blank

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Metals were not detected in the field blanks at or above the MDLs, with the following exceptions.

Boron (0.00673 and 0.00844 mg/L) was detected at an estimated concentrations greater than the MDL and less than the RL in field blanks BRA-APBCD-FB-01 and BRA-APBCD-FB-07, respectively. Therefore, the estimated boron concentrations in the associated samples were U qualified as not detected at the RL.

Barium (0.000729 and 0.00104 mg/L) and magnesium (0.0283 and 0.0112 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs in field blanks BRA-APBCD-FB-01 and BRA-APBCD-FB-02, respectively. Therefore, the estimated concentrations of barium and magnesium in BRA-APBCD-EB-04 were U qualified as not detected at or above the RLs.

Calcium (0.105 mg/L) and manganese (0.00124 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs in field blank BRA-APBCD-FB-02. Therefore, the estimated concentrations of calcium and manganese in BRA-APBCD-EB-04 were U qualified as not detected at or above the RLs.

Sodium (0.291, 0.37 and 0.185 mg/l) was detected in field blanks BRA-APBCD-FB-01 and BRA-APBCD-FB-02, respectively, at concentrations greater than the RL and detected in BRA-APBCD-FB-03 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of sodium in the associated samples were U qualified as not detected at or above the RL and the concentrations in samples BRA-APBCD-EB-04 and BRA-APBCD-EB-06 were J+ qualified as estimated with high bias.

Boron (0.0205 mg/L) was detected in field blank BRA-APE-FB-08 at a concentration greater than the RL. Therefore, the concentrations of boron in samples BRA-BRGWC-17S and BRA-PZ-52D were J+ qualified as estimated with high bias.

Barium (0.000714mg/L), calcium (0.085 mg/L) and magnesium (0.0147 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs in field blank BRA-APE-FB-08. Therefore, the concentration of calcium in BRA-APE-EB-10 was J+ qualified as estimated with high bias and the estimated concentration of magnesium in BRA-APE-EB-10 was U qualified as not detected at or above the RL. Since barium was detected at concentrations greater than the RL in the associated samples and based on professional and technical judgment, no qualifications were applied to the data.

Sodium (0.282 mg/L) was detected in field blank BRA-APE-FB-08 at a concentration greater than the RL. Therefore, the concentration of sodium in sample BRA-APE-EB-10 was J+ qualified as estimated with high bias.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
BRA-APBCD-EB-05	Sodium	0.104	J	0.250	U	3
BRA-APBCD-EB-06	Sodium	0.352	NA	0.352	J+	3
BRA-APBCD-EB-04	Sodium	0.359	NA	0.359	J+	3
BRA-APBCD-EB-04	Barium	0.00138	J	0.00400	U	3
BRA-APBCD-EB-04	Magnesium	0.0165	J	0.0300	U	3
BRA-APBCD-EB-04	Manganese	0.0014	J	0.00500	U	3
BRA-APBCD-EB-04	Calcium	0.143	J	0.200	U	3
BRA-APE-EB-10	Calcium	0.361	NA	0.361	J+	3
BRA-APE-EB-10	Sodium	0.289	NA	0.289	J+	3
BRA-APE-EB-10	Magnesium	0.0142	J	0.0300	U	3
BRA-BRGWC-17S	Boron	0.0601	NA	0.0601	J+	3
BRA-PZ-52D	Boron	0.0668	NA	0.0668	J+	3
BRA-BRGWC-37S	Boron	0.00802	J	0.015	U	3
BRA-PZ-13S	Boron	0.00855	J	0.015	U	3
BRA-BRGWA-2I	Boron	0.00649	J	0.0052	U	3
BRA-BRGWA-2S	Boron	0.00738	J	0.0052	U	3
BRA-BRGWA-5I	Boron	0.0073	J	0.0052	U	3
BRA-BRGWA-5S	Boron	0.00764	J	0.0052	U	3
BRA-BRGWA-6S	Boron	0.00611	J	0.0052	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

1.8 Equipment Blank

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Metals were not detected in the equipment blanks at or above the MDLs, with the following exceptions.

Barium (0.000812 mg/L), calcium (0.115 mg/L), manganese (0.0014 mg/L) and magnesium (0.018 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs in equipment blank BRA-APBCD-EB-04. Since the concentrations of these analytes in equipment blank BRA-APBCD-EB-04 were U qualified as not detected at the RL due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Potassium (0.11 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in equipment blank BRA-APE-EB-10. Since the concentration of potassium in the associated samples was greater than ten times the blank concentration, and based on technical and professional judgement, no qualifications were applied to the data.

Sodium (0.359 mg/L) was detected in equipment blank BRA-APBCD-EB-04 at a concentration greater than the RL. Therefore, the sodium concentrations in the associated samples greater than the equipment blank concentration and less than ten times the equipment blank concentration were J+ qualified as estimated with high bias.

Sodium (0.104 mg/L) was detected in equipment blank BRA-APBCD-EB-05 at a concentration greater than the RL. Since sodium results in the associated samples were qualified due to equipment blank BRA-APBCD-EB-04 and based on professional and technical judgment, no additional qualifications were applied to the data.

Barium (0.000812 mg/L), calcium (0.115 mg/L) and magnesium (0.018 mg/L) were detected in equipment blank BRA-APBCD-EB-06 at estimated concentrations greater than the MDLs and less than the RLs. Since barium, calcium and magnesium were detected at concentrations greater than the RLs in the associated samples and based on professional and technical judgment, no qualifications were applied to the data.

Sodium (0.352 mg/L) was detected in equipment blank BRA-APBCD-EB-06 at a concentration greater than the RL. Since the sodium results in the associated samples were qualified due to equipment blank BRA-APBCD-EB-04 and based on professional and technical judgment, no additional qualifications were applied to the data.

Potassium (0.11 mg/L) and magnesium (0.0142 mg/L) were detected in equipment blank BRA-APE-EB-10 at estimated concentrations greater than the MDLs and less than the RLs. Since the magnesium concentration in equipment blank BRA-APE-EB-10 was U qualified due to field blank contamination, potassium was detected at concentrations greater than the RL in the associated samples and based on professional and technical judgment, no additional qualifications were applied to the magnesium data.

Calcium (0.361 mg/L) was detected in equipment blank BRA-APE-EB-10 at a concentration greater than the RL. Since calcium was detected at concentrations greater than the RL in the associated samples and based on professional and technical judgment, no qualifications were applied to the data.

Sodium (0.289 mg/L) was detected in equipment blank BRA-APE-EB-10 at a concentration greater than the RL. Since sodium results in the associated samples were qualified due to

equipment blank BRA-APBCD-EB-04 and based on professional and technical judgment, no additional qualifications were applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRA-BRGWA-2S	Sodium	3.09	NA	3.09	J+	3
BRA-BRGWA-5S	Sodium	3.48	NA	3.48	J+	3
BRA-BRGWA-6S	Sodium	2.11	NA	2.11	J+	3

mg/L- milligram per liter

NA-not applicable

1.9 Field Duplicate

Five duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD-03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision [RPD < 20% or the difference between the concentrations < reporting limit (RL)] was demonstrated between the field duplicates and the original samples, BRA-BRGWC-50, BRA-PZ-63I, BRA-BRGWC-45, BRA-BRGWC-33S and BRA-BRGWC-35S, respectively, with the following exceptions.

634650: Selenium was not detected in sample BRA-BRGWC-50 and detected at an estimated concentration greater than the MDL and less than the RL in field duplicate BRA-APBCD-FD-01, resulting in a noncalculable RPD between the results. Since the difference between the results were within the RL of each other, no qualifications were applied to the data.

634441: Lithium was detected in field duplicate BRA-APE-FD-04 at a concentration greater than the RL and detected at an estimated concentration greater than the MDL and less than the RL in sample BRA-BRGWC-33S, resulting in a noncalculable RPD between the results. Since the difference between the results were within the RL of each other, no qualifications were applied to the data.

634615: Beryllium was not detected in field duplicate BRA-APE-FD-05 and detected at an estimated concentration greater than the MDL and less than the RL in sample BRA-BRGWC-35S, resulting in a noncalculable RPD between the results. Since the difference between the results were within the RL of each other, no qualifications were applied to the data.

Iron was detected in sample BRA-BRGWC-35S at a concentration greater than the RL and detected at an estimated concentration greater than the MDL and less than the RL in field duplicate BRA-APE-FD-05, resulting in a noncalculable RPD between the results. Since the difference between the results were within the RL of each other, no qualifications were applied to the data.

1.10 Serial Dilution

Four sample set specific serial dilutions were reported for metals using samples BRA-BRGWC-17S, BRA-BRGWC-34S, BRA-PZ-51I and BRA-BRGWC-27I. The percent difference (%D) results were within the method specified acceptance criteria.

One batch serial dilution was also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.11 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

2.0 MERCURY

The samples were analyzed for mercury by US EPA Method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 Holding Times

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches 2482660, 2482623, 2483665 and 2483667). Mercury was not detected in the method blanks at or above the MDL.

2.4 Matrix Spike

MSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MSs were reported using samples BRA-BRGWA-5S and BRA-PZ-13S. The recovery results were within the laboratory specified acceptance criteria.

Two batch MSs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported using sample BRA-BRGWA-5S and BRA-PZ-13S. The RPD results were within the laboratory specified acceptance criteria.

Two batch laboratory duplicates were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Field Blank

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Mercury was not detected in the field blanks at or above the MDL.

2.8 Equipment Blank

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Mercury was not detected in the equipment blanks at or above the MDL.

2.9 Field Duplicate

Five duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD-03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision [RPD < 20% or the difference between the concentrations < reporting limit (RL)] was demonstrated between the field duplicates and the original samples, BRA-BRGWC-50, BRA-PZ-63I, BRA-BRGWC-45, BRA-BRGWC-33S and BRA-BRGWC-35S, respectively.

2.10 Serial Dilution

Two sample set specific serial dilutions were performed using samples BRA-BRGWA-5, BRA-PZ-13S and BRA-PZ-51I. The %D results were within the method specified acceptance criteria. Two batch serial dilutions were also reported for mercury. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.11 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.12 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

3.0 WET CHEMISTRY

The samples were analyzed for anions by US EPA method 300.0, TDS by SM 2540C, total sulfide by SM 4500-S2-D and alkalinity by SM 2320B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

3.1.1 Completeness

The wet chemistry data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

3.1.2 Analysis Anomaly

The laboratory noted that samples BRA-BRGWC-36S and BRA-PZ-70I were manually integrated to correctly position the baseline as set in the calibration standards for the anion analyses. No qualifications were applied to the data based on professional and technical judgment.

3.2 Holding Times

The holding time for the nitrate-n analyses of a water sample is 48 hours from sample collection to analysis. The holding time for the fluoride, chloride and sulfate analyses of a water sample is 28 days from sample collection to analysis. The holding times for the TDS and total sulfide analysis of a water sample are 7 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Seven method blanks were reported for anions (batches 2482580, 2481584, 2482641, 2482649, 2481608, 2483105 and 2483150). Nine method blanks were reported for TDS (batches 2483702, 2484233, 2484234, 2482652, 2482655, 2484583, 2484591, 2484594 and 2482658). Six method blanks were reported for total sulfide (batches 2482961, 2483779, 2481696, 2483133 795173 and 806681). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

Five sample set specific MSs were reported for anions, using samples BRA-BRGWC-17S, BRA-BRGWC-33S, BRA-BRGWC-29I and BRA-PZ-53D. The recovery results were within the laboratory specified acceptance criteria, with the following exceptions.

634441: The recoveries of chloride and nitrate as N in the MS using sample BRA-BRGWC-33S were low and outside of laboratory specified acceptance criteria. Therefore, the estimated concentration for nitrate as N in sample BRA-BRGWC-33S was J qualified as estimated. Since the concentration for chloride in sample BRA-BRGWC-33S was greater than four times the spike amount, no qualifications were applied to the chloride data.

634615: The recovery of chloride in the MS using sample BRA-BRGWC-17S was high and outside of laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-BRGWC-17S was J+ qualified as estimated with high bias.

Seven sample set specific MS/MSDs were reported for sulfide, using samples BRA-BRGWA-5I, BRA-BRGWA-2I, BRA-BRGWC-35S, BRA-BRGWC-33S, BRA-BRGWA-2S, BRA-BRGWC-50 and BRA-BRGWC-45. The recovery results were within the laboratory specified acceptance criteria, with the following exceptions.

680-242425-1: The sulfide recoveries in the MS/MSD pair using sample BRA-BRGWA-2I were low and outside of laboratory specified acceptance criteria. Therefore, the nondetect result for sulfide for sample BRA-BRGWA-2I was UJ qualified as estimated below the MDL.

634615: The sulfide recoveries in the MS/MSD pair using sample BRA-BRGWC-35S were low and outside of laboratory specified acceptance criteria. Therefore, the nondetect result for sulfide for sample BRA-BRGWC-35S was UJ qualified as estimated below the MDL.

634650: The sulfide recoveries in the MS/MSD pair using sample BRA-BRGWC-50 were low and outside of laboratory specified acceptance criteria. Therefore, the nondetect result for sulfide for sample BRA-BRGWC-50 was UJ qualified as estimated below the MDL.

634768: The sulfide recoveries in the MS/MSD pair using sample BRA-BRGWC-45 were low and outside of laboratory specified acceptance criteria. Therefore, the nondetect result for sulfide for sample BRA-BRGWC-45 was UJ qualified as estimated below the MDL.

Batch MSs and MS/MSD pairs were also reported for anions, alkalinity and sulfide. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRA-BRGWC-17S	Chloride	5.18	NA	5.18	J+	4
BRA-BRGWC-33S	Nitrate	0.0707	J	0.0707	J-	4
BRA-BRGWC-35S	Total Sulfide	0.033	U	0.033	UJ	4
BRA-BRGWC-50	Total Sulfide	0.033	U	0.033	UJ	4
BRA-BRGWC-45	Total Sulfide	0.033	U	0.033	UJ	4
BRA-BRGWA-2I	Total Sulfide	0.81	U	0.81	UJ	4

mg/L- milligram per liter

U-not detected at or above the MDL

NA-not applicable

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS or LCS/LCSD pair was reported for each analytical batch per analysis. The recovery and RPD results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Four sample set specific laboratory duplicates were reported for anions, using samples BRA-BRGWC-17S, BRA-BRGWC-33S, BRA-BRGWC-29I and BRA-PZ-53D. The RPD results were within the laboratory specified acceptance criteria.

One sample set specific laboratory duplicate was reported for TDS, using sample BRA-PZ-53D. The RPD result was within the laboratory specified acceptance criteria.

One sample set specific laboratory duplicate was reported for sulfide, using sample BRA-BRGWA-2S. The RPD result was within the laboratory specified acceptance criteria.

Batch laboratory duplicates were reported for TDS, alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

3.7 Field Blank

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Wet chemistry parameters were not detected in the field blanks at or above the MDLs, with the following exceptions.

Fluoride (0.388, 0.516, 0.233, 0.0478 and 0.34 mg/L) was detected in field blanks BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08, respectively. Therefore, for the associated samples the estimated fluoride concentrations were U qualified as not detected at the RL, the fluoride concentrations greater than the RL and less than the field blank concentrations were U qualified as not detected at the reported concentration and the fluoride concentrations of samples BRA-PZ-53D, BRA-BRGWC-17S, BRA-BRGWC-38S, BRA-PZ-52D, BRA-APE-FD-04, BRA-BRGWC-33S, BRA-APBCD-EB-06, BRA-BRGWC-25I, BRA-BRGWC-27I, BRA-BRGWC-47, BRA-PZ-51D, BRA-APBCD-FD-01, BRA-PZ-58I and BRA-PZ-60I were J+ qualified as estimated with high bias.

Chloride (0.206 mg/L) was detected in field blank BRA-APE-FB-07. Therefore, the concentration of chloride in sample BRA-BRGWA-2I was J+ qualified as estimated with high bias.

Nitrate (0.043 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in field blank BRA-APE-FB-07. Therefore, the concentrations of nitrate in samples BRA-BRGWA-2S, BRA-BRGWA-5I, BRA-BRGWA-5S and BRA-BRGWC-37S were J+ qualified as estimated with high bias and the estimated concentrations in the associated samples were U qualified as not detected at or above the RL.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRA-BRGWA-2I	Chloride	1.9	NA	1.9	J+	3
BRA-BRGWA-6S	Fluoride	0.0787	J	0.100	U	3
BRA-BRGWA-2S	Nitrate	0.218	NA	0.218	J+	3
BRA-BRGWA-5I	Nitrate	0.266	NA	0.266	J+	3
BRA-BRGWA-5S	Nitrate	0.203	NA	0.203	J+	3
BRA-APE-FD-04	Nitrate	0.063	J	0.100	U	3
BRA-BRGWC-33S	Nitrate	0.0707	J	0.100	U	3
BRA-BRGWC-34S	Nitrate	0.0431	J	0.100	U	3
BRA-BRGWC-37S	Nitrate	0.294	NA	0.294	J+	3
BRA-PZ-13S	Nitrate	0.0695	J	0.100	U	3
BRA-APBCD-EB-05	Fluoride	0.0798	J	0.100	U	3
BRA-APBCD-EB-06	Fluoride	0.435	NA	0.435	J+	3
BRA-APBCD-FD-03	Fluoride	0.198	NA	0.198	J+	3
BRA-BRGWC-25I	Fluoride	0.250	NA	0.250	J+	3
BRA-BRGWC-27I	Fluoride	0.302	NA	0.302	J+	3
BRA-BRGWC-29I	Fluoride	0.0849	J	0.100	U	3

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRA-BRGWC-45	Fluoride	0.185	NA	0.185	J+	3
BRA-BRGWC-47	Fluoride	0.243	NA	0.243	J+	3
BRA-BRGWC-52I	Fluoride	0.188	J	0.200	U	3
BRA-PZ-51D	Fluoride	0.395	NA	0.395	J+	3
BRA-PZ-74I	Fluoride	0.157	NA	0.157	J+	3
BRA-PZ-75I	Fluoride	0.14	NA	0.140	J+	3
BRA-BRGWA-23S	Fluoride	0.114	NA	0.114	J+	3
BRA-BRGWC-30I	Fluoride	0.116	NA	0.116	J+	3
BRA-BRGWC-32S	Fluoride	0.0477	J	0.100	U	3
BRA-PZ-61I	Fluoride	0.188	NA	0.188	J+	3
BRA-APBCD-EB-04	Fluoride	0.503	NA	0.503	J+	3
BRA-APBCD-FD-01	Fluoride	0.583	NA	0.583	J+	3
BRA-APBCD-FD-02	Fluoride	0.255	NA	0.255	J+	3
BRA-BRGWC-50	Fluoride	0.499	NA	0.499	J+	3
BRA-PZ-44	Fluoride	0.195	NA	0.195	J+	3
BRA-PZ-50D	Fluoride	0.193	NA	0.193	J+	3
BRA-PZ-51I	Fluoride	0.0744	J	0.100	U	3
BRA-PZ-58I	Fluoride	1.10	NA	1.10	J+	3
BRA-PZ-60I	Fluoride	1.32	NA	1.32	J+	3
BRA-PZ-63I	Fluoride	0.252	NA	0.252	J+	3
BRA-PZ-64I	Fluoride	0.135	NA	0.135	J+	3
BRA-PZ-68D	Fluoride	0.218	NA	0.218	J+	3
BRA-APE-EB-09	Fluoride	0.0531	J	0.100	U	3
BRA-APE-EB-10	Fluoride	0.302	NA	0.302	U	3
BRA-APE-FD-05	Fluoride	0.341	NA	0.341	U	3
BRA-BRGWC-17S	Fluoride	0.484	NA	0.484	J+	3
BRA-BRGWC-35S	Fluoride	0.347	NA	0.347	U	3
BRA-BRGWC-36S	Fluoride	0.301	NA	0.301	U	3
BRA-BRGWC-38S	Fluoride	0.748	NA	0.748	J+	3
BRA-PZ-52D	Fluoride	1.94	NA	1.94	J+	3
BRA-PZ-70I	Fluoride	0.229	NA	0.229	U	3
BRA-APE-FD-04	Fluoride	0.119	NA	0.119	J+	3
BRA-BRGWC-33S	Fluoride	0.123	NA	0.123	J+	3
BRA-BRGWC-34S	Fluoride	0.0816	J	0.200	U	3
BRA-BRGWC-37S	Fluoride	0.0445	J	0.100	U	3
BRA-PZ-53D	Fluoride	0.334	NA	0.334	J+	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

3.8 Equipment Blank

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Wet chemistry

parameters were not detected in the equipment blanks at or above the MDLs, with the following exceptions.

Sulfate (0.329 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in equipment blank BRA-APE-EB-10. Therefore, the estimated sulfate concentration in the associated sample was U qualified as not detected at the RL and the sulfate concentrations in samples BRA-BRGWA-2S, BRA-BRGWA-5S and BRA-BRGWA-6S, were J+ qualified as estimated with high bias.

Chloride (0.581 mg/L) and nitrate (0.470 mg/L) were detected in BRA-APE-EB-10 at concentrations greater than the RLs. Therefore, for the associated samples the chloride and nitrate concentrations were qualified as following. The estimated concentrations were U qualified as not detected at the RLs. The concentrations greater than the RLs and less than the equipment blank concentrations were U qualified as not detected at the reported concentration and the concentrations greater than the equipment blank concentrations and less than ten times the equipment blank concentrations were J+ qualified as estimated with high bias.

Fluoride (0.0531 mg/L, 0.503 mg/L, 0.0798 mg/L and 0.302 mg/L) was detected at estimated concentrations greater than the MDL and less than the RL in BRA-APE-EB-09, BRA-APBCD-EB-04, BRA-APBCD-EB-05 and BRA-APBCD-EB-10, respectively. Since the fluoride concentrations in these equipment blanks were U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Chloride (0.282 mg/L) and fluoride (0.435 mg/L) were detected in BRA-APBCD-EB-06. Since the chloride concentrations in the associated samples were qualified due to equipment blank BRA-APE-EB-10 and the fluoride concentrations in the associated samples were qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRA-BRGWC-17S	Nitrate	0.094	J	0.100	U	3
BRA-BRGWC-17S	Chloride	5.18	NA	5.18	J+	3
BRA-PZ-70I	Nitrate	0.175	NA	0.175	U	3
BRA-PZ-70I	Chloride	5.75	NA	5.75	J+	3
BRA-BRGWC-37S	Chloride	1.89	NA	1.89	J+	3
BRA-BRGWC-37S	Sulfate	0.355	J	0.400	U	3
BRA-PZ-13S	Chloride	2.73	NA	2.73	J+	3
BRA-APBCD-FD-03	Nitrate	0.0476	J	0.100	U	3
BRA-BRGWC-27I	Nitrate	0.0657	J	0.100	U	3
BRA-BRGWC-27I	Chloride	4.81	NA	4.81	J+	3
BRA-BRGWC-29I	Nitrate	0.297	NA	0.297	U	3

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRA-BRGWC-47	Nitrate	0.117	NA	0.117	U	3
BRA-BRGWC-47	Chloride	4.67	NA	4.67	J+	3
BRA-PZ-74I	Nitrate	0.0475	J	0.100	U	3
BRA-PZ-75I	Nitrate	0.794	NA	0.794	J+	3
BRA-BRGWA-23S	Chloride	2.41	NA	2.41	J+	3
BRA-BRGWA-23S	Nitrate	0.212	NA	0.212	U	3
BRA-BRGWC-30I	Chloride	3.35	NA	3.35	J+	3
BRA-BRGWC-32S	Chloride	4.30	NA	4.30	J+	3
BRA-BRGWC-32S	Nitrate	0.184	NA	0.184	U	3
BRA-BRGWA-2S	Sulfate	0.526	NA	0.526	J+	3
BRA-BRGWA-5S	Sulfate	0.540	NA	0.540	J+	3
BRA-BRGWA-6S	Sulfate	0.467	NA	0.467	J+	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

3.9 Field Duplicate

Five duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD-03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision [RPD < 20% or the difference between the concentrations < reporting limit (RL)] was demonstrated between the field duplicates and the original samples, BRA-BRGWC-50, BRA-PZ-63I, BRA-BRGWC-45, BRA-BRGWC-33S and BRA-BRGWC-35S, respectively, with the following exception.

634768: Nitrate was not detected in sample BRA-BRGWC-45 and detected at an estimated concentration greater than the MDL and less than the RL in field duplicate BRA-APBCD-FD-03, resulting in a noncalculable RPD between the results. Since the nitrate concentration for field duplicate BRA-APBCD-FD-03 was U qualified due to equipment blank contamination and based on professional and technical judgement, no additional qualifications were applied to the data.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec’s Data Validation Team**

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

Memorandum

Date: 24 January 2024
To: Courtney Collins
From: Ashley Wilson
CC: K. Henderson
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 634448, 634643 and 634649**

SITE: Plant Branch CCR Groundwater Compliance Transect and Porewater Assessment

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four groundwater samples collected 22-23 August 2023, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Total and Dissolved Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Anions (Nitrate-Nitrogen (N), Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Total Sulfide by SM 4500-S2-D
- Alkalinity by SM 2320B

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data are usable for supporting project objectives. If

The data were reviewed based on the following documents, the pertinent methods referenced by the data package and professional and technical judgment:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and reported in the laboratory reports:

Laboratory IDs	Client IDs
634448001	BRA-PZ-79; 08/22/2023
634643001	BRA-PZ-79; 08/23/2023

Laboratory IDs	Client IDs
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I

The samples were received at 4.0, 3.0, 2.0 and 1.0 degrees Celsius (°C), both within and outside of the EPA Region 4 criteria of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. Since the samples were received between 0-6°C and based on professional judgment, no qualifications were applied to the data. No sample preservation issues were noted by the laboratory.

634448: The relinquished by time and the received by time for the second sample transfer were inconsistent on the COC. The relinquishing time appears to not be documented in military time.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.1.2 Analysis Anomaly

The laboratory noted that the contract required detection limit (CRDL) for calcium did not meet the laboratory specified acceptance criteria. Since the calcium results in the associated samples were significantly greater than the CRDL, based on professional and technical judgement, no qualifications were applied to the data.

The laboratory also noted that for the Inductively Coupled Plasma – Mass Spectrometry analysis, the Interference Check Sample (ICSA) solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 2482702 and 2482704). Metals were not detected in the method blanks at or above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

Three batch MS/MSDs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported for metals.

1.7 Field Blank

Field blanks were not reported with the sample set.

1.8 Equipment Blank

Equipment blanks were not reported with the sample set.

1.9 Field Duplicate

Field duplicates were not reported with the sample set.

1.10 Serial Dilution

Three batch serial dilutions were reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.11 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

2.0 WET CHEMISTRY

The samples were analyzed for anions by US EPA method 300.0, TDS by SM 2540C, total sulfide by SM 4500-S2-D and alkalinity by SM 2320B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

2.1.1 Completeness

The wet chemistry data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.1.2 Analysis Anomaly

The laboratory noted that sample BRA-PZ-76I was manually integrated to correctly position the baseline as set in the calibration standards for the anion analysis.

2.2 Holding Times

The holding time for the nitrate-n analyses of a water sample is 48 hours from sample collection to analysis. The holding time for the fluoride, chloride, sulfate analyses of a water sample is 28 days from sample collection to analysis. The holding times for the TDS and total sulfide analysis of a water sample are 7 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for anions (batches 2481584 and 2482641). Nine method blanks were reported for TDS (batch 2482658 and 2484234). Four method blanks were reported for total sulfide (batches 2482961, 2483779, 2481696 and 2483133). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

2.4 Matrix Spike

Two sample set specific MSs were reported for total alkalinity, using samples BRA-PZ-79 collected August 22, 2023, and collected August 23, 2023. The recovery result was within the laboratory specified acceptance criteria.

One sample set specific MS was reported for anions, using sample BRA-PZ-79 collected August 23, 2023. The recovery result was within the laboratory specified acceptance criteria.

Batch MSs were also reported for anions, alkalinity and sulfide. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for total alkalinity, using sample BRA-PZ-79. The relative percent difference (RPD) result was within the laboratory specified acceptance criteria.

One sample set specific laboratory duplicate was reported for anions, using sample BRA-PZ-79 collected August 23, 2023. The RPD result was within the laboratory specified acceptance criteria.

Batch laboratory duplicates were reported for TDS, alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

2.7 Field Duplicate

Field duplicates were not reported with the sample set.

2.8 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

2.9 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

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DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

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- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

Memorandum

Date: 13 February 2024
To: Lauren Fitzgerald
From: Kristoffer Henderson
CC: Matthew Richardson
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders (WOs) 634443, 634648, 634450, 634781, 634446, 634652 and 634789**

SITE: Plant Branch CCR Groundwater Compliance

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of thirty-eight groundwater samples, five equipment blanks, five field blanks and five field duplicate samples, collected between 22-24 August 2023, as part of the Plant Branch CCR Groundwater Compliance sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Radium-226 by Modified United States (US) Environmental Protection Agency (EPA) Method 903.1
- Radium-228 by Modified US EPA Methods 904.0/9320 Modified
- Total Radium by Calculation

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- American Nuclear Society Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation (ANSI/ANS-41.5-2012), February 15, 2012.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
634443001	BRA-BRGWC-33S
634443002	BRA-APE-FD-04
634443003	BRA-BRGWC-34S
634443004	BRA-APE-FB-07
634443005	BRA-BRGWC-37S
634443006	BRA-PZ-13S
634446002	BRA-BRGWA-23S
634446003	BRA-BRGWC-30I
634446004	BRA-BRGWC-32S
634446005	BRA-PZ-61I
634446006	BRA-APBCD-FB-01
634450001	BRA-BRGWA-2S
634450002	BRA-BRGWA-5S
634450003	BRA-BRGWA-5I
634450004	BRA-BRGWA-6S
634450005	BRA-BRGWA-2I
634648001	BRA-BRGWC-17S
634648002	BRA-BRGWC-35S
634648003	BRA-BRGWC-36S
634648004	BRA-BRGWC-38S
634648005	BRA-PZ-70I
634648006	BRA-APE-FD-05
634648007	BRA-APE-FB-08
634648008	BRA-APE-EB-09
634648009	BRA-APE-EB-10
634652001	BRA-PZ-51I
634652002	BRA-PZ-58I

Laboratory ID	Client ID
634652003	BRA-PZ-60I
634652004	BRA-PZ-63I
634652005	BRA-PZ-64I
634652006	BRA-PZ-68D
634652007	BRA-APBCD-FB-02
634652008	BRA-APBCD-FD-01
634652009	BRA-APBCD-FD-02
634652010	BRA-BRGWC-50
634652011	BRA-APBCD-EB-04
634652012	BRA-PZ-44
634652013	BRA-PZ-50D
634781001	BRA-APBCD-FD-03
634781002	BRA-APBCD-EB-05
634781003	BRA-BRGWC-27I
634781004	BRA-BRGWC-45
634781005	BRA-PZ-75I
634781006	BRA-PZ-74I
634781007	BRA-BRGWC-29I
634781008	BRA-PZ-51D
634781009	BRA-APBCD-FB-03
634781010	BRA-APBCD-EB-06
634781011	BRA-BRGWC-52I
634781012	BRA-BRGWC-47
634781013	BRA-BRGWC-25I
634789001	BRA-PZ-53D
634789002	BRA-PZ-52D

No sample preservation issues were noted by the laboratory.

Sample collection times were not listed on the chain of custody (COC) for field duplicate samples, BRA-APE-FD-04, BRA-APE-FD-05, BRA-APBCD-FD-01, BRA-APBCD-FD-02 and BRA-APBCD-FD-03. Collection times were not documented in the laboratory reports.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by modified US EPA method 903.1, modified radium-228 by US EPA methods 904.0/9320 modified and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ⊗ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

1.1.1 Completeness

The radiochemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.1.2 Analysis Anomaly

Total radium was reported at the minimum detectable concentration (MDC) for radium-228 for the samples and total radium-226 was detected in the following samples greater than the MDC. In addition, since the total radium concentrations were less than the MDC for radium-228 the laboratory U flagged these concentrations as less than the MDC. Since total radium is calculated from radium-226 and radium-228 and radium-226 was greater than the MDC, and based on professional and technical judgment, the total radium concentrations for these samples were reported with no qualifications.

Sample
BRA-APE-FB-07
BRA-BRGWC-34S
BRA-BRGWC-37S
BRA-PZ-13S-WG

Sample
BRA-APBCD-EB-04
BRA-APBCD-FD-01
BRA-APBCD-FD-02
BRA-APBCD-FB-01

Sample
BRA-PZ-61I
BRA-APBCD-EB-06
BRA-BRGWC-25I
BRA-BRGWC-45

Sample
BRA-PZ-74I
BRA-BRGWA-2I

Sample
BRA-BRGWA-2S
BRA-PZ-52D

Sample
BRA-APE-FB-08

Total radium was reported at the MDC for radium-228 for the samples and total radium-226 and total radium-228 were not detected in sample BRA-APE-FB-08 greater than the MDC. In addition, since the total radium concentration was greater than the MDC for radium-228 the sample result was not U flagged as less than the MDC. Since total radium is calculated from radium-226 and radium-228 and radium-226 and radium-228 were less than the MDC, and based on professional and technical judgment, the total radium concentration for sample BRA-APE-FB-08 was U qualified as less than the MDC.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier (pCi/L)	Reason Code
BRA-APE-FB-07	Total Radium	0.546	U	0.546	NA	13
BRA-BRGWC-34S	Total Radium	1.06	U	1.06	NA	13
BRA-BRGWC-37S	Total Radium	0.578	U	0.578	NA	13
BRA-PZ-13S-WG	Total Radium	0.823	U	0.823	NA	13
BRA-APBCD-EB-04	Total Radium	1.22	U	1.22	NA	13
BRA-APBCD-FD-01	Total Radium	2.39	U	2.39	NA	13
BRA-APBCD-FD-02	Total Radium	1.14	U	1.14	NA	13
BRA-APBCD-FB-01	Total Radium	0.595	U	0.595	NA	13
BRA-PZ-61I	Total Radium	0.868	U	0.868	NA	13
BRA-APBCD-EB-06	Total Radium	0.924	U	0.924	NA	13
BRA-BRGWC-25I	Total Radium	1.21	U	1.21	NA	13
BRA-BRGWC-45	Total Radium	0.607	U	0.607	NA	13
BRA-PZ-74I	Total Radium	0.811	U	0.811	NA	13
BRA-BRGWA-2I	Total Radium	0.857	U	0.857	NA	13
BRA-BRGWA-2S	Total Radium	0.592	U	0.592	NA	13
BRA-PZ-52D	Total Radium	1.14	U	1.14	NA	13
BRA-APE-FB-08	Total Radium	2.50	NA	2.50	U	13

pCi/L-picocuries per liter

U-not detected at or above the MDC

NA-not applicable

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-226 data (batches 2483512, 2482017 and 2485948). Four method blanks were reported for the radium-228 data (batches 2483519, 2483035, 2494433 and 2485947). Radium-226 and radium-228 were not detected in the method blanks at or above the MDCs, with the following exceptions.

634789 and 634781: Radium-228 (1.94 pCi/L) was detected in the method blank in batch 2483519 at a concentration greater than the MDC. Since the mean differences were less than 2 between the blank and samples BRA-PZ-53D, BRA-APBCD-FB-03 and BRA-PZ-75I and the sample concentrations were less than ten times the blank concentration, the radium-228 concentrations for samples BRA-PZ-53D, BRA-APBCD-FB-03 and BRA-PZ-75I and combined radium concentrations for samples BRA-APBCD-FB-03 and BRA-PZ-53D were UJ qualified as estimated less than the reported concentrations and the combined radium concentrations in samples BRA-PZ-75I were J qualified as estimated. Since the mean differences were greater than 2 and less than 3 between the blank and samples BRA-APBCD-FD-03 and BRA-BRGWC-52I and the sample concentrations were less than ten times the blank concentration, the radium-228 and combined radium concentrations for samples BRA-APBCD-FD-03 and BRA-BRGWC-52I were J qualified as estimated.

634446, 634450 and 634443: Radium-228 (1.38 pCi/L) was detected in the method blank in batch 2494433 at a concentration greater than the MDC. Since radium-228 was not detected at concentrations greater than the MDC in the associated samples, no qualifications were applied to the data.

The blank qualifications are listed in Attachment 3 at the end of this report.

1.4 Matrix Spike (MS)

Four sample set specific MSs were reported for radium-226 using samples BRA-BRGWC-27I, BRA-PZ-51I, BRA-BRGWC-33S and BRA-BRGWC-17S. The recovery results were within the laboratory specified acceptance criteria.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported for radium-226 and four LCSs were reported for radium-228. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Four sample set specific laboratory duplicates were reported for radium-226 using samples BRA-BRGWC-27I, BRA-PZ-51I, BRA-BRGWC-33S and BRA-BRGWC-17S and four sample set specific laboratory duplicates were reported for radium-228 using samples BRA-BRGWC-27I, BRA-PZ-51I, BRA-BRGWC-33S and BRA-BRGWC-17S. The replicate error ratio (RER) results were within the laboratory specified acceptance criteria.

1.7 Tracers and Carriers

Tracers were reported for radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Field Blank

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Radium-226 and Radium-228 were not detected in the field blanks at or above the MDCs, with the following exceptions.

Radium-226 (0.454 pCi/L) was detected in the BRA-APBCD-FB-01 at a concentration greater than the MDC. Radium-226 (0.377 pCi/L) was detected in the BRA-APE-FB-07 at a concentration greater than the MDC.

For radium-226 concentrations less than ten times the field blank concentration with a mean difference less than two, the radium concentration was UJ qualified as estimated less than the reported concentration. For radium-226 concentrations less than ten times the field blank concentration with a mean difference greater than 2 and less than 3, the radium-226 concentration was J qualified as estimated.

For samples with a UJ qualified radium-226 concentration and a radium-228 concentration less than the MDC, the total radium concentration was UJ qualified as estimated less than the reported concentration. For samples with a UJ qualified radium-226 concentration and a radium-228 concentration greater than the MDC, the total radium concentration was J qualified as estimated. For samples with a J qualified radium-226 concentration, the total radium concentration was J qualified as estimated.

Radium-228 (1.61 pCi/L) was detected in the BRA-APE-FB-03 at a concentration greater than the MDC. Since the radium-228 concentration in BRA-APE-FB-03 was UJ qualified as not detected at the reported concentration due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

The blank qualifications are listed in Attachment 3 at the end of this report.

1.9 Equipment Blank

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05 and BRA-APBCD-EB-06 BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Radium-226 and radium-228 were not detected in the equipment blanks at or above the MDCs, with the following exceptions.

Radium-226 (0.816 pCi/L) was detected in the BRA-APE-EB-04 at a concentration greater than the MDC. Radium-226 (0.639 pCi/L) was detected in the BRA-APE-EB-06 at a concentration greater than the MDC. Radium-226 (0.662 pCi/L) was detected in the BRA-APE-EB-09 at a concentration greater than the MDC. The associated samples were qualified as following:

For radium-226 concentrations less than ten times the equipment blank concentration with a mean difference less than 2, the radium concentration was UJ qualified as estimated less than the reported concentration. For radium-226 concentrations less than ten times the equipment blank concentration with a mean difference greater than 2 and less than 3, the radium-226 concentration was J qualified as estimated.

For samples with a UJ qualified radium-226 concentration and a radium-228 concentration less than the MDC, the total radium concentration was UJ qualified as estimated less than the reported concentration. For samples with a UJ qualified radium-226 concentration and a radium-228 concentration greater than the MDC, the total radium concentration was J qualified as estimated. For samples with a J qualified radium-226 concentration, the total radium concentration was J qualified as estimated.

The blank qualifications are listed in Attachment 3 at the end of this report.

1.10 Field Duplicate

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD-03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision [RER (1σ) < 3] was demonstrated between the field duplicates and the original samples, BRA-BRGWC-50, BRA-PZ-63I, BRA-BRGWC-45, BRA-BRGWC-33S and BRA-BRGWC-35S, respectively.

1.11 Sensitivity

The samples were reported to the MDCs. Elevated non-detect results were not reported.

1.12 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

**DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team**

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result.”

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

ATTACHMENT 3
BLANK QUALIFICATIONS

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-APE-FD-04	Radium-226	0.466	NA	0.466	UJ	3
BRA-APE-FD-04	Total Radium	1.55	NA	1.55	UJ	3
BRA-BRGWC-34S	Radium-226	0.499	NA	0.499	UJ	3
BRA-BRGWC-34S	Total Radium	1.06	U	1.06	UJ	3
BRA-BRGWC-37S	Radium-226	0.578	NA	0.578	UJ	3
BRA-BRGWC-37S	Total Radium	0.578	U	0.578	UJ	3
BRA-PZ-13S	Radium-226	0.550	NA	0.550	UJ	3
BRA-PZ-13S	Total Radium	0.823	U	0.823	UJ	3
BRA-APE-FD-05	Radium-226	0.559	NA	0.559	UJ	3
BRA-APE-FD-05	Total Radium	4.65	NA	4.65	J	3
BRA-BRGWC-35S	Radium-226	0.546	NA	0.546	UJ	3
BRA-BRGWC-35S	Total Radium	3.33	NA	3.33	J	3
BRA-BRGWC-36S	Radium-226	0.594	NA	0.594	UJ	3
BRA-BRGWC-36S	Total Radium	3.87	NA	3.87	J	3
BRA-BRGWC-38S	Radium-226	0.610	NA	0.610	UJ	3
BRA-BRGWC-38S	Total Radium	5.98	NA	5.98	J	3
BRA-PZ-70I	Radium-226	0.655	NA	0.655	UJ	3
BRA-PZ-70I	Total Radium	4.35	NA	4.35	J	3
BRA-BRGWA-2I	Radium-226	0.490	NA	0.490	UJ	3
BRA-BRGWA-2I	Total Radium	0.857	U	0.857	UJ	3
BRA-BRGWA-2S	Radium-226	0.377	NA	0.377	UJ	3
BRA-BRGWA-2S	Total Radium	0.592	U	0.592	UJ	3
BRA-BRGWA-5I	Radium-226	0.501	NA	0.501	UJ	3
BRA-BRGWA-5I	Total Radium	1.36	NA	1.36	UJ	3
BRA-APBCD-FD-01	Radium-226	1.09	NA	1.09	UJ	3
BRA-APBCD-FD-01	Total Radium	2.39	U	2.39	UJ	3
BRA-APBCD-FD-02	Radium-226	0.652	NA	0.652	UJ	3
BRA-APBCD-FD-02	Total Radium	1.14	U	1.14	UJ	3
BRA-BRGWC-50	Radium-226	1.26	NA	1.26	UJ	3
BRA-BRGWC-50	Total Radium	1.55	NA	1.55	UJ	3
BRA-PZ-50D	Radium-226	0.941	NA	0.941	UJ	3
BRA-PZ-50D	Total Radium	2.12	NA	2.12	UJ	3
BRA-PZ-51I	Radium-226	1.02	NA	1.02	UJ	3
BRA-PZ-51I	Total Radium	5.22	NA	5.22	J	3
BRA-PZ-58I	Radium-226	1.95	NA	1.95	J	3
BRA-PZ-58I	Total Radium	3.71	NA	3.71	J	3

Plant Branch Data Validation

13 February 2024

Page 12

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-PZ-60I	Radium-226	1.83	NA	1.83	J	3
BRA-PZ-60I	Total Radium	4.48	NA	4.48	J	3
BRA-PZ-63I	Radium-226	0.873	NA	0.873	UJ	3
BRA-PZ-63I	Total Radium	2.31	NA	2.31	UJ	3
BRA-PZ-68D	Radium-226	0.786	NA	0.786	UJ	3
BRA-PZ-68D	Total Radium	1.62	NA	1.62	UJ	3
BRA-BRGWA-23S	Radium-226	1.06	NA	1.06	UJ	3
BRA-BRGWA-23S	Total Radium	2.16	NA	2.16	UJ	3
BRA-BRGWC-30I	Radium-226	0.736	NA	0.736	UJ	3
BRA-BRGWC-30I	Total Radium	2.71	NA	2.71	UJ	3
BRA-BRGWC-32S	Radium-226	0.729	NA	0.729	UJ	3
BRA-BRGWC-32S	Total Radium	2.33	NA	2.33	UJ	3
BRA-PZ-61I	Radium-226	0.353	NA	0.353	UJ	3
BRA-PZ-61I	Total Radium	0.868	U	0.868	UJ	3
BRA-APBCD-FB-03	Radium-228	1.61	NA	1.61	UJ	3
BRA-APBCD-FB-03	Total Radium	1.93	NA	1.93	UJ	3
BRA-APBCD-FD-03	Radium-228	4.38	NA	4.38	J	3
BRA-APBCD-FD-03	Total Radium	4.92	NA	4.92	J	3
BRA-BRGWC-25I	Radium-226	0.574	NA	0.574	UJ	3
BRA-BRGWC-25I	Total Radium	1.21	U	1.21	UJ	3
BRA-BRGWC-27I	Radium-226	1.13	NA	1.13	UJ	3
BRA-BRGWC-27I	Total Radium	2.23	NA	2.23	UJ	3
BRA-BRGWC-29I	Radium-226	1.12	NA	1.12	UJ	3
BRA-BRGWC-29I	Total Radium	3.02	NA	3.02	UJ	3
BRA-BRGWC-45	Radium-226	0.607	NA	0.607	UJ	3
BRA-BRGWC-45	Total Radium	0.607	U	0.607	UJ	3
BRA-BRGWC-47	Radium-226	0.834	NA	0.834	UJ	3
BRA-BRGWC-47	Total Radium	2.39	NA	2.39	UJ	3
BRA-BRGWC-52I	Radium-226	1.50	NA	1.50	UJ	3
BRA-BRGWC-52I	Radium-228	4.85	NA	4.85	J	3
BRA-BRGWC-52I	Total Radium	6.36	NA	6.36	J	3
BRA-PZ-51D	Radium-226	0.860	NA	0.860	UJ	3
BRA-PZ-51D	Total Radium	1.27	NA	1.27	UJ	3
BRA-PZ-74I	Radium-226	0.620	NA	0.620	UJ	3
BRA-PZ-74I	Total Radium	0.811	U	0.811	UJ	3
BRA-PZ-75I	Radium-226	1.20	NA	1.20	UJ	3
BRA-PZ-75I	Radium-228	1.91	NA	1.91	UJ	3
BRA-PZ-75I	Total Radium	3.11	NA	3.11	J	3
BRA-PZ-52D	Radium-226	0.481	NA	0.481	UJ	3

Plant Branch Data Validation

13 February 2024

Page 13

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-PZ-52D	Total Radium	1.14	U	1.14	UJ	3
BRA-PZ-53D	Radium-226	1.01	NA	1.01	UJ	3
BRA-PZ-53D	Radium-228	2.65	NA	2.65	UJ	3
BRA-PZ-53D	Total Radium	3.67	NA	3.67	UJ	3

pCi/L-picocuries per liter

U-not detected at or above the MDC

NA-not applicable

Low-Flow Test Report:

Test Date / Time: 8/22/2023 9:47:33 AM

Project: Plant Branch Ash Ponds

Operator Name: Hunter Auld

Location Name: BRGWA-2I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 54.3 ft Total Depth: 64.3 ft Initial Depth to Water: 12.07 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 59.5 ft Estimated Total Volume Pumped: 2.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 17.2 in	Instrument Used: Aqua TROLL 400 Serial Number: 884189
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Test Notes:

Sampled at 1012. Clear, 80s. Ferrous iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/22/2023 9:47 AM	00:00	7.76 pH	26.70 °C	240.53 µS/cm	7.69 mg/L	5.00 NTU	180.5 mV	12.07 ft	200.00 ml/min
8/22/2023 9:52 AM	05:00	6.87 pH	21.87 °C	146.31 µS/cm	0.67 mg/L	0.70 NTU	63.1 mV	13.10 ft	100.00 ml/min
8/22/2023 9:57 AM	10:00	6.91 pH	21.91 °C	151.72 µS/cm	0.24 mg/L	1.10 NTU	84.6 mV	13.30 ft	100.00 ml/min
8/22/2023 10:02 AM	15:00	6.93 pH	21.80 °C	150.42 µS/cm	0.22 mg/L	0.90 NTU	89.7 mV	13.40 ft	100.00 ml/min
8/22/2023 10:07 AM	20:00	6.95 pH	21.69 °C	148.41 µS/cm	0.19 mg/L	0.80 NTU	84.5 mV	13.50 ft	100.00 ml/min
8/22/2023 10:12 AM	25:00	6.95 pH	21.78 °C	148.81 µS/cm	0.16 mg/L	1.00 NTU	84.3 mV	13.50 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 9:41:09 AM

Project: Plant Branch Ash Ponds

Operator Name: J. Berisford

Location Name: BRGWA-2S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 34.6 ft Total Depth: 44.6 ft Initial Depth to Water: 12.33 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 39 ft Estimated Total Volume Pumped: 5.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:

Sunny, sample time-1006. Ferrous iron = 0.0 mg/L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/22/2023 9:41 AM	00:00	6.69 pH	29.28 °C	7.33 µS/cm	6.90 mg/L	1.84 NTU	251.6 mV	12.33 ft	225.00 ml/min
8/22/2023 9:46 AM	05:00	6.08 pH	23.51 °C	54.96 µS/cm	3.40 mg/L	1.29 NTU	73.3 mV	12.40 ft	225.00 ml/min
8/22/2023 9:51 AM	10:00	6.02 pH	20.04 °C	50.29 µS/cm	1.85 mg/L	1.13 NTU	47.3 mV	12.50 ft	225.00 ml/min
8/22/2023 9:56 AM	15:00	5.97 pH	19.80 °C	50.35 µS/cm	1.31 mg/L	0.94 NTU	42.0 mV	12.50 ft	225.00 ml/min
8/22/2023 10:01 AM	20:00	5.97 pH	19.75 °C	48.65 µS/cm	1.31 mg/L	0.59 NTU	42.0 mV	12.50 ft	225.00 ml/min
8/22/2023 10:06 AM	25:00	5.96 pH	19.80 °C	48.21 µS/cm	1.21 mg/L	0.64 NTU	41.3 mV	12.50 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 9:40:30 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

Location Name: BRGWA-5I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 53.89 ft Total Depth: 63.89 ft Initial Depth to Water: 12.88 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 58 ft Estimated Total Volume Pumped: 7.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 3 in	Instrument Used: Aqua TROLL 400 Serial Number: 728623
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Test Notes:

Sample time 1010. Sunny 80s. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/22/2023 9:40 AM	00:00	6.59 pH	22.07 °C	117.61 µS/cm		3.64 NTU	64.4 mV	12.88 ft	250.00 ml/min
8/22/2023 9:45 AM	05:00	6.42 pH	20.07 °C	118.45 µS/cm		2.89 NTU	73.6 mV	13.10 ft	250.00 ml/min
8/22/2023 9:50 AM	10:00	6.36 pH	19.77 °C	118.53 µS/cm		2.25 NTU	103.6 mV	13.10 ft	250.00 ml/min
8/22/2023 9:55 AM	15:00	6.36 pH	20.03 °C	117.55 µS/cm	5.49 mg/L	2.63 NTU	77.5 mV	13.10 ft	250.00 ml/min
8/22/2023 10:00 AM	20:00	6.34 pH	19.77 °C	118.19 µS/cm	5.53 mg/L	3.75 NTU	125.8 mV	13.10 ft	250.00 ml/min
8/22/2023 10:05 AM	25:00	6.24 pH	19.91 °C	117.81 µS/cm	5.54 mg/L	3.81 NTU	123.8 mV	13.10 ft	250.00 ml/min
8/22/2023 10:10 AM	30:00	6.24 pH	19.92 °C	118.66 µS/cm	5.59 mg/L	2.95 NTU	204.5 mV	13.10 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 9:40:08 AM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

Location Name: BRGWA-5S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.06 ft Total Depth: 43.06 ft Initial Depth to Water: 12.87 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 38.06 ft Estimated Total Volume Pumped: 4.375 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 3.36 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sample time 1005.

Sunny, 84 degrees F. Ferrous Iron = 0.0 mg/L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/22/2023 9:40 AM	00:00	6.31 pH	26.30 °C	139.76 µS/cm	3.90 mg/L	2.24 NTU	115.0 mV	12.87 ft	175.00 ml/min
8/22/2023 9:45 AM	05:00	6.03 pH	20.27 °C	113.30 µS/cm	2.31 mg/L	2.01 NTU	67.4 mV	13.01 ft	175.00 ml/min
8/22/2023 9:50 AM	10:00	6.07 pH	20.15 °C	116.53 µS/cm	1.94 mg/L	2.26 NTU	56.7 mV	13.12 ft	175.00 ml/min
8/22/2023 9:55 AM	15:00	6.09 pH	19.97 °C	118.14 µS/cm	1.87 mg/L	2.82 NTU	51.9 mV	13.15 ft	175.00 ml/min
8/22/2023 10:00 AM	20:00	6.09 pH	19.99 °C	118.67 µS/cm	1.87 mg/L	2.72 NTU	49.0 mV	13.15 ft	175.00 ml/min
8/22/2023 10:05 AM	25:00	6.08 pH	20.29 °C	118.53 µS/cm	1.90 mg/L	2.70 NTU	47.5 mV	13.15 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 9:40:34 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: BRGWA-6S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 42.86 ft Total Depth: 52.86 ft Initial Depth to Water: 26.51 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 47 ft Estimated Total Volume Pumped: 8050 ml Flow Cell Volume: 90 ml Final Flow Rate: 230 ml/min Final Draw Down: 0.45 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sampled at 1015. Clear 85 degrees. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/22/2023 9:40 AM	00:00	7.18 pH	24.81 °C	76.58 µS/cm	6.92 mg/L	3.35 NTU	133.2 mV	26.85 ft	230.00 ml/min
8/22/2023 9:45 AM	05:00	6.68 pH	21.85 °C	66.74 µS/cm	7.09 mg/L	2.29 NTU	117.2 mV	26.92 ft	230.00 ml/min
8/22/2023 9:50 AM	10:00	6.41 pH	21.75 °C	65.74 µS/cm	7.06 mg/L	2.03 NTU	114.4 mV	26.96 ft	230.00 ml/min
8/22/2023 9:55 AM	15:00	6.27 pH	21.75 °C	65.26 µS/cm	7.07 mg/L	1.88 NTU	114.4 mV	26.96 ft	230.00 ml/min
8/22/2023 10:00 AM	20:00	6.17 pH	21.68 °C	60.46 µS/cm	7.09 mg/L	1.71 NTU	115.8 mV	26.96 ft	230.00 ml/min
8/22/2023 10:05 AM	25:00	6.16 pH	21.77 °C	64.87 µS/cm	7.28 mg/L	1.63 NTU	115.9 mV	26.96 ft	230.00 ml/min
8/22/2023 10:10 AM	30:00	6.10 pH	21.82 °C	64.86 µS/cm	7.10 mg/L	1.30 NTU	119.4 mV	26.96 ft	230.00 ml/min
8/22/2023 10:15 AM	35:00	6.09 pH	22.10 °C	65.14 µS/cm	7.18 mg/L	1.23 NTU	120.1 mV	26.96 ft	230.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2023 1:30:40 PM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

Location Name: BRGWC-17S Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 5.22 ft Total Depth: 10.22 ft Initial Depth to Water: 6.36 ft	Pump Type: Peri. Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 7.72 ft Estimated Total Volume Pumped: 7.87 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 12.84 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sample time 1406.

Overcast, 91 Degrees F. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2023 1:30 PM	00:00	6.20 pH	25.50 °C	416.07 µS/cm	1.85 mg/L	2.37 NTU	69.8 mV	6.36 ft	225.00 ml/min
8/23/2023 1:35 PM	05:00	6.17 pH	22.45 °C	440.86 µS/cm	1.53 mg/L	2.08 NTU	62.0 mV	6.91 ft	225.00 ml/min
8/23/2023 1:40 PM	10:00	6.18 pH	22.27 °C	442.79 µS/cm	1.49 mg/L	1.83 NTU	60.7 mV	7.08 ft	225.00 ml/min
8/23/2023 1:45 PM	15:00	6.17 pH	22.27 °C	440.63 µS/cm	1.50 mg/L	0.90 NTU	60.0 mV	7.29 ft	225.00 ml/min
8/23/2023 1:50 PM	20:00	6.17 pH	22.22 °C	440.81 µS/cm	1.48 mg/L	0.65 NTU	59.3 mV	7.32 ft	225.00 ml/min
8/23/2023 1:55 PM	25:00	6.16 pH	22.31 °C	439.38 µS/cm	1.43 mg/L	0.52 NTU	59.1 mV	7.37 ft	225.00 ml/min
8/23/2023 2:00 PM	30:00	6.17 pH	22.14 °C	438.45 µS/cm	1.47 mg/L	0.38 NTU	59.2 mV	7.43 ft	225.00 ml/min
8/23/2023 2:05 PM	35:00	6.16 pH	22.05 °C	440.62 µS/cm	1.51 mg/L	0.36 NTU	59.1 mV	7.43 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 11:30:03 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

<p>Location Name: BRGWC-33S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 18.88 ft Total Depth: 28.88 ft Initial Depth to Water: 12.3 ft</p>	<p>Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 11200 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.66 ft</p>	<p>Instrument Used: Aqua TROLL 400 Serial Number: 965658</p>
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Test Notes:

Sampled at 1210. Sunny 92 degrees. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/22/2023 11:30 AM	00:00	4.75 pH	25.27 °C	960.12 µS/cm	0.88 mg/L	2.12 NTU	178.6 mV	12.68 ft	280.00 ml/min
8/22/2023 11:35 AM	05:00	4.60 pH	21.87 °C	1,073.9 µS/cm	2.76 mg/L	1.55 NTU	180.8 mV	12.81 ft	280.00 ml/min
8/22/2023 11:40 AM	10:00	4.59 pH	21.68 °C	1,074.5 µS/cm	0.51 mg/L	0.75 NTU	182.0 mV	12.91 ft	280.00 ml/min
8/22/2023 11:45 AM	15:00	4.59 pH	21.64 °C	1,074.7 µS/cm	0.74 mg/L	0.57 NTU	183.1 mV	12.96 ft	280.00 ml/min
8/22/2023 11:50 AM	20:00	4.59 pH	21.55 °C	1,075.6 µS/cm	0.78 mg/L	0.52 NTU	184.0 mV	12.96 ft	280.00 ml/min
8/22/2023 11:55 AM	25:00	4.59 pH	21.50 °C	1,087.3 µS/cm	0.25 mg/L	0.60 NTU	184.7 mV	12.96 ft	280.00 ml/min
8/22/2023 12:00 PM	30:00	4.58 pH	21.55 °C	1,079.7 µS/cm	0.15 mg/L	0.49 NTU	185.3 mV	12.96 ft	280.00 ml/min
8/22/2023 12:05 PM	35:00	4.58 pH	21.77 °C	1,074.4 µS/cm	0.15 mg/L	0.55 NTU	186.1 mV	12.96 ft	280.00 ml/min
8/22/2023 12:10 PM	40:00	4.58 pH	21.78 °C	1,075.5 µS/cm	0.15 mg/L	0.59 NTU	186.4 mV	12.96 ft	280.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 12:50:14 PM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

Location Name: BRGWC-34S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 15.26 ft Total Depth: 25.76 ft Initial Depth to Water: 3.29 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 20.76 ft Estimated Total Volume Pumped: 23.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 7.56 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sample time 1435.

Sunny, 95 degrees F. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/22/2023 12:50 PM	00:00	5.89 pH	28.78 °C	535.85 µS/cm	2.69 mg/L	2.08 NTU	56.0 mV	3.29 ft	225.00 ml/min
8/22/2023 12:55 PM	05:00	5.86 pH	23.52 °C	591.41 µS/cm	1.11 mg/L	1.33 NTU	56.3 mV	3.37 ft	225.00 ml/min
8/22/2023 1:00 PM	10:00	5.85 pH	23.25 °C	586.46 µS/cm	1.38 mg/L	1.35 NTU	56.2 mV	3.79 ft	225.00 ml/min
8/22/2023 1:05 PM	15:00	5.85 pH	22.85 °C	543.97 µS/cm	1.37 mg/L	1.37 NTU	56.5 mV	3.79 ft	225.00 ml/min
8/22/2023 1:10 PM	20:00	5.84 pH	22.90 °C	392.96 µS/cm	1.17 mg/L	1.40 NTU	57.3 mV	3.81 ft	225.00 ml/min
8/22/2023 1:15 PM	25:00	5.84 pH	22.71 °C	457.81 µS/cm	1.14 mg/L	1.35 NTU	57.5 mV	3.83 ft	225.00 ml/min
8/22/2023 1:20 PM	30:00	5.82 pH	22.71 °C	573.06 µS/cm	1.17 mg/L	1.36 NTU	57.9 mV	3.84 ft	225.00 ml/min
8/22/2023 1:25 PM	35:00	5.82 pH	22.45 °C	563.34 µS/cm	1.13 mg/L	1.37 NTU	58.3 mV	3.84 ft	225.00 ml/min
8/22/2023 1:30 PM	40:00	5.83 pH	22.54 °C	563.14 µS/cm	0.97 mg/L	0.91 NTU	59.5 mV	3.84 ft	225.00 ml/min
8/22/2023 1:35 PM	45:00	5.80 pH	22.29 °C	560.25 µS/cm	0.94 mg/L	0.92 NTU	60.3 mV	3.85 ft	225.00 ml/min
8/22/2023 1:40 PM	50:00	5.80 pH	22.58 °C	561.62 µS/cm	1.13 mg/L	0.99 NTU	60.8 mV	3.86 ft	225.00 ml/min
8/22/2023 1:45 PM	55:00	5.80 pH	22.49 °C	559.19 µS/cm	0.80 mg/L	1.38 NTU	61.6 mV	3.88 ft	225.00 ml/min
8/22/2023 1:50 PM	01:00:00	5.79 pH	22.81 °C	560.87 µS/cm	1.10 mg/L	1.71 NTU	62.5 mV	3.89 ft	225.00 ml/min
8/22/2023 1:55 PM	01:05:00	5.79 pH	22.45 °C	557.64 µS/cm	1.18 mg/L	1.91 NTU	63.7 mV	3.91 ft	225.00 ml/min

8/22/2023 2:00 PM	01:10:00	5.79 pH	22.59 °C	563.47 µS/cm	1.43 mg/L	1.23 NTU	63.2 mV	3.91 ft	225.00 ml/min
8/22/2023 2:05 PM	01:15:00	5.79 pH	22.61 °C	560.69 µS/cm	1.13 mg/L	1.07 NTU	64.5 mV	3.92 ft	225.00 ml/min
8/22/2023 2:10 PM	01:20:00	5.77 pH	22.38 °C	557.15 µS/cm	1.06 mg/L	1.01 NTU	64.8 mV	3.92 ft	225.00 ml/min
8/22/2023 2:15 PM	01:25:00	5.78 pH	23.22 °C	564.00 µS/cm	1.72 mg/L	1.07 NTU	65.3 mV	3.92 ft	225.00 ml/min
8/22/2023 2:20 PM	01:30:00	5.77 pH	22.65 °C	559.98 µS/cm	1.34 mg/L	0.86 NTU	66.9 mV	3.92 ft	225.00 ml/min
8/22/2023 2:25 PM	01:35:00	5.77 pH	22.91 °C	561.48 µS/cm	1.52 mg/L	0.44 NTU	66.2 mV	3.92 ft	225.00 ml/min
8/22/2023 2:30 PM	01:40:00	5.75 pH	23.22 °C	564.94 µS/cm	1.51 mg/L	0.51 NTU	66.4 mV	3.92 ft	225.00 ml/min
8/22/2023 2:35 PM	01:45:00	5.72 pH	25.89 °C	570.67 µS/cm	1.54 mg/L	0.52 NTU	64.9 mV	3.92 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2023 11:31:15 AM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

Location Name: BRGWC-35S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 20.01 ft Total Depth: 30.01 ft Initial Depth to Water: 2.22 ft	Pump Type: Ded. Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 25.01 ft Estimated Total Volume Pumped: 9 liter Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 1.68 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sample time 1201.

Sunny, 88 degrees F. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2023 11:31 AM	00:00	6.11 pH	28.83 °C	534.38 µS/cm	5.45 mg/L	4.42 NTU	91.7 mV	2.22 ft	300.00 ml/min
8/23/2023 11:36 AM	05:00	5.89 pH	22.33 °C	544.73 µS/cm	0.58 mg/L	1.64 NTU	73.6 mV	2.34 ft	300.00 ml/min
8/23/2023 11:41 AM	10:00	5.89 pH	22.03 °C	544.56 µS/cm	0.22 mg/L	1.51 NTU	73.0 mV	2.35 ft	300.00 ml/min
8/23/2023 11:46 AM	15:00	5.89 pH	21.78 °C	546.50 µS/cm	0.18 mg/L	1.35 NTU	72.8 mV	2.35 ft	300.00 ml/min
8/23/2023 11:51 AM	20:00	5.90 pH	21.50 °C	548.07 µS/cm	0.16 mg/L	0.78 NTU	73.0 mV	2.36 ft	300.00 ml/min
8/23/2023 11:56 AM	25:00	5.90 pH	21.44 °C	548.57 µS/cm	0.16 mg/L	0.63 NTU	73.1 mV	2.36 ft	300.00 ml/min
8/23/2023 12:01 PM	30:00	5.90 pH	21.42 °C	548.82 µS/cm	0.16 mg/L	0.61 NTU	73.2 mV	2.36 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2023 3:24:53 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: BRGWC-36S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 25.44 ft Total Depth: 35.44 ft Initial Depth to Water: 4.94 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 30 ft Estimated Total Volume Pumped: 9380 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.03 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sampled at 1556. Cloudy 94 degrees. APE-FB-08 taken here. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/23/2023 3:24 PM	00:00	7.24 pH	36.35 °C	514.23 µS/cm	4.33 mg/L	3.39 NTU	138.8 mV	4.97 ft	300.00 ml/min
8/23/2023 3:29 PM	05:00	5.58 pH	24.73 °C	566.57 µS/cm	1.65 mg/L	3.13 NTU	140.7 mV	4.97 ft	300.00 ml/min
8/23/2023 3:34 PM	10:00	5.37 pH	23.88 °C	562.18 µS/cm	1.66 mg/L	2.77 NTU	141.4 mV	4.97 ft	300.00 ml/min
8/23/2023 3:39 PM	15:00	5.31 pH	23.50 °C	557.50 µS/cm	1.70 mg/L	2.60 NTU	142.3 mV	4.97 ft	300.00 ml/min
8/23/2023 3:41 PM	16:16	5.30 pH	23.40 °C	554.00 µS/cm	1.72 mg/L	1.74 NTU	142.5 mV	4.97 ft	300.00 ml/min
8/23/2023 3:46 PM	21:16	5.28 pH	23.02 °C	545.30 µS/cm	1.77 mg/L	1.15 NTU	143.4 mV	4.97 ft	300.00 ml/min
8/23/2023 3:51 PM	26:16	5.27 pH	23.01 °C	553.94 µS/cm	1.81 mg/L	0.96 NTU	144.0 mV	4.97 ft	300.00 ml/min
8/23/2023 3:56 PM	31:16	5.26 pH	22.79 °C	552.45 µS/cm	1.83 mg/L	0.83 NTU	144.6 mV	4.97 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 4:06:44 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: BRGWC-37S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 56.25 ft Total Depth: 66.25 ft Initial Depth to Water: 53.19 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 61 ft Estimated Total Volume Pumped: 7200 ml Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 0.6 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sampled at 1651. Sunny 97 degrees. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/22/2023 4:06 PM	00:00	7.78 pH	28.92 °C	53.15 µS/cm	7.82 mg/L	1.57 NTU	143.1 mV	53.75 ft	160.00 ml/min
8/22/2023 4:11 PM	05:00	6.37 pH	22.56 °C	55.20 µS/cm	7.96 mg/L	1.38 NTU	160.7 mV	53.78 ft	160.00 ml/min
8/22/2023 4:16 PM	10:00	5.77 pH	22.12 °C	54.68 µS/cm	7.89 mg/L	1.21 NTU	164.7 mV	53.79 ft	160.00 ml/min
8/22/2023 4:21 PM	15:00	5.57 pH	22.08 °C	54.38 µS/cm	7.79 mg/L	1.09 NTU	168.9 mV	53.79 ft	160.00 ml/min
8/22/2023 4:26 PM	20:00	5.53 pH	21.92 °C	54.31 µS/cm	7.99 mg/L	0.94 NTU	170.1 mV	53.79 ft	160.00 ml/min
8/22/2023 4:31 PM	25:00	5.50 pH	21.60 °C	54.17 µS/cm	7.81 mg/L	0.87 NTU	173.2 mV	53.79 ft	160.00 ml/min
8/22/2023 4:36 PM	30:00	5.49 pH	22.13 °C	55.37 µS/cm	8.01 mg/L	0.77 NTU	173.2 mV	53.79 ft	160.00 ml/min
8/22/2023 4:41 PM	35:00	5.40 pH	25.13 °C	55.76 µS/cm	7.76 mg/L	0.60 NTU	175.2 mV	53.79 ft	160.00 ml/min
8/22/2023 4:46 PM	40:00	5.39 pH	27.38 °C	55.89 µS/cm	7.55 mg/L	0.55 NTU	176.5 mV	53.79 ft	160.00 ml/min
8/22/2023 4:51 PM	45:00	5.42 pH	29.25 °C	56.00 µS/cm	7.47 mg/L	0.51 NTU	176.4 mV	53.79 ft	160.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2023 11:27:16 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: BRGWC-38S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.64 ft Total Depth: 40.64 ft Initial Depth to Water: 23.35 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 8550 ml Flow Cell Volume: 90 ml Final Flow Rate: 190 ml/min Final Draw Down: 0.97 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sampled at 1212. Sunny 90 degrees. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/23/2023 11:27 AM	00:00	4.96 pH	28.23 °C	648.08 µS/cm	5.01 mg/L	0.98 NTU	126.4 mV	23.98 ft	190.00 ml/min
8/23/2023 11:32 AM	05:00	4.11 pH	22.98 °C	637.18 µS/cm	2.59 mg/L	0.80 NTU	123.9 mV	24.15 ft	190.00 ml/min
8/23/2023 11:37 AM	10:00	4.02 pH	22.55 °C	628.25 µS/cm	2.27 mg/L	0.77 NTU	124.6 mV	24.23 ft	190.00 ml/min
8/23/2023 11:42 AM	15:00	3.97 pH	22.38 °C	617.39 µS/cm	2.01 mg/L	0.64 NTU	125.6 mV	24.27 ft	190.00 ml/min
8/23/2023 11:47 AM	20:00	3.95 pH	22.52 °C	609.78 µS/cm	1.96 mg/L	0.61 NTU	126.5 mV	24.30 ft	190.00 ml/min
8/23/2023 11:52 AM	25:00	3.94 pH	22.86 °C	612.84 µS/cm	1.92 mg/L	0.54 NTU	127.7 mV	24.32 ft	190.00 ml/min
8/23/2023 11:57 AM	30:00	3.93 pH	22.82 °C	616.85 µS/cm	1.88 mg/L	0.79 NTU	129.0 mV	24.32 ft	190.00 ml/min
8/23/2023 12:02 PM	35:00	3.92 pH	23.03 °C	621.99 µS/cm	1.85 mg/L	0.90 NTU	130.1 mV	24.32 ft	190.00 ml/min
8/23/2023 12:07 PM	40:00	3.91 pH	22.86 °C	624.91 µS/cm	1.82 mg/L	0.76 NTU	131.3 mV	24.32 ft	190.00 ml/min
8/23/2023 12:12 PM	45:00	3.91 pH	22.70 °C	632.85 µS/cm	1.80 mg/L	0.83 NTU	132.5 mV	24.32 ft	190.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/22/2023 3:47:19 PM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

Location Name: PZ-13S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.17 ft Total Depth: 38.17 ft Initial Depth to Water: 27.82 ft	Pump Type: Peri. Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 33.17 ft Estimated Total Volume Pumped: 16.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 13.44 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sample time 1652.

Sunny, 95 degrees F. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/22/2023 3:47 PM	00:00	5.71 pH	32.60 °C	178.44 µS/cm	5.90 mg/L	199.00 NTU	68.1 mV	27.82 ft	275.00 ml/min
8/22/2023 3:52 PM	05:00	5.43 pH	22.26 °C	181.19 µS/cm	3.71 mg/L	54.00 NTU	74.6 mV	27.91 ft	275.00 ml/min
8/22/2023 3:57 PM	10:00	5.43 pH	21.64 °C	171.00 µS/cm	3.77 mg/L	49.60 NTU	76.0 mV	28.94 ft	275.00 ml/min
8/22/2023 4:02 PM	15:00	5.43 pH	21.57 °C	157.62 µS/cm	3.99 mg/L	17.60 NTU	76.4 mV	28.94 ft	275.00 ml/min
8/22/2023 4:07 PM	20:00	5.41 pH	21.41 °C	154.76 µS/cm	4.20 mg/L	9.87 NTU	77.7 mV	28.94 ft	275.00 ml/min
8/22/2023 4:12 PM	25:00	5.40 pH	21.70 °C	154.70 µS/cm	4.24 mg/L	8.85 NTU	78.2 mV	28.94 ft	275.00 ml/min
8/22/2023 4:17 PM	30:00	5.39 pH	21.83 °C	148.57 µS/cm	4.34 mg/L	4.52 NTU	78.8 mV	28.94 ft	275.00 ml/min
8/22/2023 4:22 PM	35:00	5.38 pH	21.50 °C	147.18 µS/cm	4.41 mg/L	4.33 NTU	80.2 mV	28.94 ft	275.00 ml/min
8/22/2023 4:27 PM	40:00	5.39 pH	21.47 °C	140.85 µS/cm	4.47 mg/L	3.35 NTU	80.1 mV	28.94 ft	275.00 ml/min
8/22/2023 4:32 PM	45:00	5.36 pH	21.49 °C	140.83 µS/cm	4.52 mg/L	2.66 NTU	81.9 mV	28.94 ft	275.00 ml/min
8/22/2023 4:37 PM	50:00	5.36 pH	21.54 °C	139.57 µS/cm	4.56 mg/L	2.45 NTU	82.4 mV	28.94 ft	275.00 ml/min
8/22/2023 4:42 PM	55:00	5.37 pH	21.53 °C	137.00 µS/cm	4.59 mg/L	2.78 NTU	82.4 mV	28.94 ft	275.00 ml/min
8/22/2023 4:47 PM	01:00:00	5.37 pH	21.52 °C	134.85 µS/cm	4.58 mg/L	2.71 NTU	83.2 mV	28.94 ft	275.00 ml/min

Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 8/22/2023 1:53:08 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: PZ-52D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 52.23 ft Total Depth: 62.23 ft Initial Depth to Water: 24.86 ft	Pump Type: Portable Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 59 ft Estimated Total Volume Pumped: 17875 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 34.14 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Purged dry at 1543. Sunny 97 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/22/2023 1:53 PM	00:00	6.64 pH	31.96 °C	614.35 µS/cm	5.25 mg/L	7.48 NTU	180.2 mV	25.31 ft	100.00 ml/min
8/22/2023 1:58 PM	05:00	7.13 pH	26.33 °C	617.45 µS/cm	5.03 mg/L	7.68 NTU	179.8 mV	25.74 ft	100.00 ml/min
8/22/2023 2:03 PM	10:00	7.25 pH	25.69 °C	618.29 µS/cm	5.13 mg/L	7.28 NTU	179.9 mV	25.86 ft	100.00 ml/min
8/22/2023 2:08 PM	15:00	7.26 pH	27.44 °C	623.35 µS/cm	5.14 mg/L	6.67 NTU	179.0 mV	26.22 ft	65.00 ml/min
8/22/2023 2:13 PM	20:00	7.29 pH	28.12 °C	616.03 µS/cm	5.09 mg/L	4.22 NTU	178.5 mV	26.75 ft	65.00 ml/min
8/22/2023 2:18 PM	25:00	7.31 pH	27.95 °C	614.83 µS/cm	5.04 mg/L	3.51 NTU	178.3 mV	27.22 ft	65.00 ml/min
8/22/2023 2:23 PM	30:00	7.32 pH	27.99 °C	614.07 µS/cm	5.01 mg/L	3.39 NTU	178.5 mV	27.69 ft	50.00 ml/min
8/22/2023 2:28 PM	35:00	7.33 pH	27.99 °C	612.47 µS/cm	5.06 mg/L	2.25 NTU	178.0 mV	28.08 ft	50.00 ml/min
8/22/2023 2:33 PM	40:00	7.33 pH	28.06 °C	618.94 µS/cm	5.03 mg/L	2.11 NTU	178.1 mV	29.00 ft	50.00 ml/min
8/22/2023 2:38 PM	45:00	7.33 pH	28.19 °C	621.29 µS/cm	5.12 mg/L	1.89 NTU	178.2 mV	29.45 ft	50.00 ml/min
8/22/2023 2:43 PM	50:00	7.41 pH	23.65 °C	614.73 µS/cm	5.09 mg/L	2.29 NTU	179.8 mV	31.41 ft	240.00 ml/min
8/22/2023 2:48 PM	55:00	7.41 pH	23.29 °C	616.93 µS/cm	5.13 mg/L	2.66 NTU	179.4 mV	33.89 ft	240.00 ml/min
8/22/2023 2:53 PM	01:00:00	7.41 pH	23.56 °C	630.35 µS/cm	5.27 mg/L	2.34 NTU	179.2 mV	35.96 ft	240.00 ml/min
8/22/2023 2:58 PM	01:05:00	7.40 pH	23.54 °C	621.88 µS/cm	5.49 mg/L	2.32 NTU	179.8 mV	38.14 ft	240.00 ml/min
8/22/2023 3:03 PM	01:10:00	7.40 pH	23.46 °C	623.35 µS/cm	5.63 mg/L	3.03 NTU	179.3 mV	40.22 ft	240.00 ml/min

8/22/2023 3:08 PM	01:15:00	7.40 pH	23.62 °C	620.63 µS/cm	5.58 mg/L	3.57 NTU	179.6 mV	42.57 ft	240.00 ml/min
8/22/2023 3:13 PM	01:20:00	7.41 pH	23.38 °C	622.07 µS/cm	5.69 mg/L	3.86 NTU	179.2 mV	44.85 ft	240.00 ml/min
8/22/2023 3:18 PM	01:25:00	7.41 pH	23.38 °C	622.09 µS/cm	5.76 mg/L	3.99 NTU	179.3 mV	47.03 ft	240.00 ml/min
8/22/2023 3:23 PM	01:30:00	7.39 pH	23.79 °C	624.52 µS/cm	5.95 mg/L	3.77 NTU	179.2 mV	49.41 ft	240.00 ml/min
8/22/2023 3:28 PM	01:35:00	7.41 pH	23.02 °C	622.39 µS/cm	5.30 mg/L	3.13 NTU	179.2 mV	52.11 ft	240.00 ml/min
8/22/2023 3:33 PM	01:40:00	7.40 pH	23.38 °C	619.33 µS/cm	5.26 mg/L	2.89 NTU	178.9 mV	54.40 ft	240.00 ml/min
8/22/2023 3:38 PM	01:45:00	7.40 pH	23.27 °C	620.49 µS/cm	5.23 mg/L	2.75 NTU	178.7 mV	56.73 ft	240.00 ml/min
8/22/2023 3:43 PM	01:50:00	7.40 pH	23.56 °C	620.89 µS/cm	5.24 mg/L	2.28 NTU	179.2 mV	59.00 ft	240.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2023 1:41:40 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: PZ-52D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 52.23 ft Total Depth: 62.23 ft Initial Depth to Water: 52.57 ft	Pump Type: Portable Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 58 ft Estimated Total Volume Pumped: 250 ml Flow Cell Volume: 90 ml Final Flow Rate: 50 ml/min Final Draw Down: 0.33 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sampled at 1346. Cloudy 94 degrees. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/23/2023 1:41 PM	00:00	6.22 pH	41.54 °C	563.91 µS/cm	5.52 mg/L	3.23 NTU	155.7 mV	52.57 ft	50.00 ml/min
8/23/2023 1:46 PM	05:00	6.99 pH	35.72 °C	622.07 µS/cm	6.83 mg/L	3.37 NTU	154.8 mV	52.90 ft	50.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/24/2023 9:37:20 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: PZ-53D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 132.48 ft Total Depth: 142.48 ft Initial Depth to Water: 24.16 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 137 ft Estimated Total Volume Pumped: 4623.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min Final Draw Down: 0.6 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sampled at 1012. Cloudy 83 degrees. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
8/24/2023 9:37 AM	00:00	7.43 pH	26.79 °C	720.18 µS/cm	4.49 mg/L	1.99 NTU	141.9 mV	24.16 ft	130.00 ml/min
8/24/2023 9:42 AM	05:00	6.68 pH	24.51 °C	731.41 µS/cm	1.77 mg/L	1.68 NTU	114.2 mV	24.55 ft	130.00 ml/min
8/24/2023 9:47 AM	10:00	6.69 pH	24.15 °C	741.40 µS/cm	1.42 mg/L	1.51 NTU	117.1 mV	24.72 ft	130.00 ml/min
8/24/2023 9:52 AM	15:00	6.61 pH	23.34 °C	745.99 µS/cm	1.36 mg/L	1.44 NTU	116.8 mV	24.77 ft	130.00 ml/min
8/24/2023 9:52 AM	15:34	6.60 pH	23.46 °C	748.92 µS/cm	1.29 mg/L	1.44 NTU	116.5 mV	24.80 ft	130.00 ml/min
8/24/2023 9:57 AM	20:34	6.60 pH	24.46 °C	742.38 µS/cm	1.87 mg/L	1.61 NTU	116.0 mV	24.80 ft	130.00 ml/min
8/24/2023 10:02 AM	25:34	6.62 pH	23.16 °C	742.33 µS/cm	1.31 mg/L	1.83 NTU	115.8 mV	24.80 ft	130.00 ml/min
8/24/2023 10:07 AM	30:34	6.61 pH	23.03 °C	743.95 µS/cm	1.23 mg/L	1.40 NTU	115.0 mV	24.80 ft	130.00 ml/min
8/24/2023 10:12 AM	35:34	6.54 pH	23.07 °C	745.28 µS/cm	1.45 mg/L	1.31 NTU	113.8 mV	24.80 ft	130.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2023 3:12:27 PM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

Location Name: PZ-70I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 in Top of Screen: 44.72 in Total Depth: 54.72 in Initial Depth to Water: 28.63 ft	Pump Type: Peri. Pump Tubing Type: Poly Tubing Inner Diameter: 0.17 in Pump Intake From TOC: 49.72 ft Estimated Total Volume Pumped: 12 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 2.76 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sample time 1612.

Sunny, 97 degrees F. Ferrous Iron = 0.0 mg/L.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2023 3:12 PM	00:00	5.92 pH	32.65 °C	266.66 µS/cm	3.87 mg/L	0.88 NTU	74.6 mV	28.63 ft	200.00 ml/min
8/23/2023 3:17 PM	05:00	5.39 pH	23.47 °C	294.77 µS/cm	0.39 mg/L	0.61 NTU	78.4 mV	28.85 ft	200.00 ml/min
8/23/2023 3:22 PM	10:00	5.37 pH	23.16 °C	298.26 µS/cm	0.25 mg/L	0.59 NTU	79.5 mV	28.85 ft	200.00 ml/min
8/23/2023 3:27 PM	15:00	5.36 pH	22.89 °C	300.29 µS/cm	0.22 mg/L	0.35 NTU	80.2 mV	28.85 ft	200.00 ml/min
8/23/2023 3:32 PM	20:00	5.36 pH	22.85 °C	301.57 µS/cm	0.21 mg/L	0.36 NTU	80.6 mV	28.85 ft	200.00 ml/min
8/23/2023 3:37 PM	25:00	5.35 pH	22.71 °C	301.87 µS/cm	0.20 mg/L	0.58 NTU	81.0 mV	28.85 ft	200.00 ml/min
8/23/2023 3:42 PM	30:00	5.36 pH	22.81 °C	299.15 µS/cm	0.19 mg/L	0.44 NTU	81.4 mV	28.85 ft	200.00 ml/min
8/23/2023 3:47 PM	35:00	5.35 pH	22.63 °C	302.37 µS/cm	0.19 mg/L	0.39 NTU	81.6 mV	28.86 ft	200.00 ml/min
8/23/2023 3:52 PM	40:00	5.36 pH	22.81 °C	300.26 µS/cm	0.18 mg/L	0.37 NTU	81.8 mV	28.86 ft	200.00 ml/min
8/23/2023 3:57 PM	45:00	5.35 pH	22.80 °C	302.73 µS/cm	0.18 mg/L	0.38 NTU	81.9 mV	28.86 ft	200.00 ml/min
8/23/2023 4:02 PM	50:00	5.36 pH	22.80 °C	301.10 µS/cm	0.17 mg/L	0.25 NTU	82.2 mV	28.86 ft	200.00 ml/min
8/23/2023 4:07 PM	55:00	5.35 pH	22.89 °C	301.22 µS/cm	0.16 mg/L	0.24 NTU	82.4 mV	28.86 ft	200.00 ml/min
8/23/2023 4:12 PM	01:00:00	5.36 pH	22.80 °C	302.46 µS/cm	0.16 mg/L	0.23 NTU	82.4 mV	28.86 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

Staff

SB/As/HA/DJ/TG

Date

8/2/23

Time (start/finish)

1120 / 1730

AP-BCD

Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)	TD
PZ-44	27.66	57.0 91.	46.6	56.6	10.0	NA	Downgradient B	N	59.54
PZ-50D	38.42	106.0	96.02	106.02	10.0	NA	Downgradient	N	110.20
PZ-51S	38.25	45.4	40	45	5.0	NA	Downgradient B	N	47.97
PZ-51I	38.38	65.0	54.9	64.9	10.0	NA	Downgradient B	N	68.02
PZ-51D	38.11	106.0	96.02	106.02	10.0	NA	Downgradient B	N	109.88
PZ-57I	36.29	75.9	65.58	75.58	10.0	NA	Downgradient B	N	
PZ-58I	38.39	63.9	53.6	63.6	10.0	NA	Downgradient B	N	66.92
PZ-59I	39.75	66.0	56.4	66.4	10.0	NA	Downgradient B	N	64.80
PZ-60I	38.14	60.8	50.43	60.43	10.0	NA	Downgradient B	N 64.07	77.96
PZ-61I	47.95	76.0	65.77	75.77	10.0	NA	Downgradient B	N	77.96
PZ-62I	39.17	70.0	60	70	10.0	NA	Downgradient B	N	
PZ-63I	39.47	56.5	46.5	56.5	10.0	NA	Downgradient B	N	
PZ-64I	38.53	69.3	58.75	68.75	10.0	PZ-64	Downgradient B	N	71.54
PZ-65I	36.08	69.3	58.75	68.75	10.0	PZ-65	Downgradient B	N	72.26
PZ-66I	35.75	68.3	57.75	67.75	10.0	PZ-66	Downgradient B	N	
PZ-68D	46.85	84.3	73.75	83.75	10.0	PZ-68	Downgradient D	N	87.0

Staff

DB/HA/AS/DJ/TG

Date

8/21/23

Time (start/finish)

1120 / 1730

TP

AP-BCD

Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)
BRGWA-2S	12.27	44.6	34.2	44.2	10.0	PZ-2S	Upgradient BCD & E	Y
BRGWA-2I	12.07	64.3	53.9	63.9	10.0	PZ -2I	Upgradient BCD & E	Y
BRGWA-5S	12.94	40.0	29.6	39.6	10.0	PZ-5S	Upgradient BCD & E	Y
BRGWA-5I	12.85	61.2	50.8	60.8	10.0	PZ-5I	Upgradient BCD & E	Y
BRGWA-6S	26.46	49.7	39.3	49.3	10.0	PZ-6S	Upgradient BCD & E	Y
BRGWA-23S	38.69	40.8	30.8	40.8	10.0	PZ-23S	Upgradient BCD	Y
BRGWC-25I	11.08	20.5	10.5	20.5	10.0	PZ-25I	Downgradient B	Y
BRGWC-27I	10.98	24.0	14	24	10.0	PZ-27S	Downgradient C	Y
BRGWC-29I	10.88	20.0	10	20	10.0	PZ-29I	Downgradient C	Y
BRGWC-30I	4.88	20.3	10	20	10.0	PZ-30I	Downgradient D	Y
BRGWC-32S	40.50	45.0	35	45	10.0	PZ-32S	Downgradient D	Y
BRGWC-45	15.20	57.0	46.6	56.6	10.0	PZ-45	Downgradient B	Y
BRGWC-47	27.42	92.0	81.6	91.6	10.0	PZ-47	Downgradient D	Y
BRGWC-50	38.23	65.0	54.6	64.6	10.0	PZ-50	Downgradient B	Y
BRGWC-52I	39.68	73.9	63.9	73.9	10.0	PZ-52	Downgradient B	

48.35

Staff

SR/HA/AS/TG/DS

Date

8/21/23

Time (start/finish)

1120 / 1730

PZs, IWs

Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)
<u>IWs</u>								
IW-B-1	22.42	40.2	4.9	39.9	35.0	NA	NA	
IW-B-2	9.00	16.3	6	16	10.0	NA	NA	N
IW-B-3	17.74					NA	NA	N
IW-B-4	23.35					NA	NA	N
IW-B-5	27.62					NA	NA	N
IW-C-1	15.53	19.2	8.9	18.9	10.0	NA	NA	
IW-C-2	19.68	26.3	6	26	20.0	NA	NA	
IW-D-1	Dry	16.5	6.2	16.2	10.0	NA	NA	
IW-D-2	24.04	30.0	4.7	29.7	25.0	NA	NA	
IW-D-3	unable to locate					NA	NA	
IW-E-1	9.67	NA	NA	NA	NA	NA	NA	N
DW-B1	21.22						NA	N
OW-B1	21.21						NA	N
OW-B2	20.72						NA	N
OW-B3	20.92						NA	N
OW-B4	21.11						NA	N
OW-B5	21.68						NA	N
OW-B6	21.98						NA	N
DW-D1	18.25						NA	
OW-D1	17.75						NA	

Staff

Date

Time (start/finish)

JB/HA/AS/TG/DS

8/21/23

1120 / 1730

OW-D2	17.81						NA	
OW-D3	17.24						NA	
OW-D4	16.48						NA	
OW-D5	unable to locate						NA	
OW-D6	unable to locate						NA	
C2-02	45.37					NA		N

Staff

JR/HA/AS/DJ/TG

Date

8/21/23

Time (start/finish)

1120 / 1151730

PZs								
Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)
PZ-40S	15.79	40.2	28.8	38.8	10.0	NA	Downgradient A	
PZ-41S	16.97	44.2	33.8	43.8	10.0	NA	Downgradient A	
PZ-42S	20.14	32.2	21.8	31.8	10.0	NA	Downgradient A	
PZ-43	29.72	40.4	30	40	10.0	NA	Downgradient A	
PZ-46	11.69	45.6	35.6	45.6	10.0	NA	Downgradient B	
PZ-48	31.82	67.0	56.6	66.6	10.0	NA	Downgradient D	N
PZ-49	9.47	17.0	6.6	16.6	10.0	NA	Downgradient B	N
PZ-54	49.29	52.0	42	52	10.0	NA	Downgradient E	N
PZ-55	55.51	49.3	39.3	49.3	10.0	NA	Downgradient E	N
PZ-56	9.21	29.3	19.3	29.3	10.0	NA	Downgradient B	N
PZ-67	30.41	38.3	27.75	37.75	10.0	NA	Downgradient B	N
PZ-68D	40.85	84.3	73.7	83.7	10.0	NA	Downgradient D	
PZ-69I	21.95	39.3	28.8	38.8	10.0	NA	Downgradient D	N
PZ-71I	34.14				10.0	NA		N
PZ-72I	25.87				10.0	NA		N
PZ-73I	7.57				10.0	NA		N

On the list
to 100

Staff
JB/HA/AS/DS/TG

Date
8/21/23

Time (start/finish)
1120 / 1730

PZs								
Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)
PZ-15S	11.38	39.9	29.9	39.9	10.0	NA	Downgradient	N
PZ-16I	12.43	38.6	28.2	38.2	10.0	NA	Downgradient	N
PZ-16S	12.59	19.1	8.7	18.7	10.0	NA	Downgradient	N
PZ-17I	3.56	43.5	33.1	43.1	10.0	NA	Downgradient	N
PZ-18I	20.68	38.4	28.3	38.3	10.0	NA	Downgradient	N
PZ-18S	20.87	24.2	14.7	24.7	10.0	NA	Downgradient	N
PZ-19I	15.13	43.7	33.3	43.3	10.0	NA	Downgradient	N
PZ-19S	14.85	28.0	17.6	27.6	10.0	NA	Downgradient	N
PZ-20I	17.14	29.5	19.1	29.1	10.0	NA	Downgradient	N
PZ-20S	17.28	15.3	4.9	14.9	10.0	NA	Downgradient	N
PZ-21I	212.58	24.4	14	24	10.0	NA	Downgradient	N
PZ-21S	12.09	9.8	4.4	9.4	5.0	NA	Downgradient	N
PZ-23I	38.14	66.5	56.5	66.5	10.0	NA	Downgradient	N
PZ-24S	14.21	42.0	31.5	41.5	10.0	BRGWC-24S	Downgradient A	N
PZ-26I	22.92	30.5	20.5	30.5	10.0	NA	Downgradient	N
PZ-28I	16.62	24.0	14	24	10.0	NA	Downgradient	N
PZ-31S	27.07	39.5	29.5	39.5	10.0	NA	Downgradient	N

w/ Transducer

w/ Transducer

w/ Transducer

Staff

JB/HA/AD/DS/TG

Date

8/21/22

Time (start/finish)

1120 / 1750

PZs

Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)
PZ-74I	28.17				10.0	NA		N
PZ-75I	17.86				10.0	NA		N
PZ-76I	20.02	44.02			10.0	NA		N
PZ-77I	18.64	43.20			10.0	NA		N
PZ-78I	N/A	Not	Installed		10.0	NA		
PZ-79	13.73				10.0	NA		N
<u>Temporary Piezometers</u>								
PB-13D		97.0	87	97	10.0	NA	Downgradient	

TP 102

50.95

30.54

19.3

Staff

TG/JT

Date

8-21-23

Time (start/finish)

1300 / 1800

AP-E									
Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)	Total Depth
BRGWA-2S	12.27	44.6	34.2	44.2	10.0	PZ-2S	Upgradient E	Y (Transducer)	NA
BRGWA-2I	12.07	64.3	53.9	63.9	10.0	PZ-2I	Upgradient E	Y	NA
BRGWA-5S	12.94	40.0	29.6	39.6	10.0	PZ-5S	Upgradient E	Y	NA
BRGWA-5I	12.85	61.2	50.8	60.8	10.0	PZ-5I	Upgradient E	Y	NA
BRGWA-6S	26.46	49.7	39.3	49.3	10.0	PZ-6S	Upgradient E	Y Y	NA
BRGWC-17S	6.03	7.1	1.7	6.7	5.0	PZ-17S	Downgradient E	Transducer	7.05
BRGWC-33S	12.31	26.4	16	26	10.0	PZ-33S	Downgradient E	Y	NA
BRGWC-34S	3.45	23.0	13	23	10.0	PZ-34S	Downgradient E	Y	NA
BRGWC-35S	2.20	27.4	17	27	10.0	PZ-35S	Downgradient E	Y	NA
BRGWC-36S	4.98	28.7	18.7	28.7	10.0	PZ-36S	Downgradient E	N	35.69
BRGWC-37S	53.22	63.6	53.6	63.6	10.0	PZ-37S	Downgradient E	N	NA
BRGWC-38S	23.30	38.2	27.8	37.8	10.0	PZ-38S	Downgradient E	Y	NA
PZ-13S	27.95	34.7	24.3	34.3	10.0	NA	Downgradient E	N	38.40
PZ-52D	24.93	59.5	49.5	59.5	10.0	NA	Downgradient E	N	62.37
PZ-53D	24.07	139.4	129.4	139.4	10.0	NA	Downgradient E	Y	NA
PZ-70I	28.62	50.0	39.5	49.5	10.0	NA	Downgradient E	N	52.98

Staff
TG/~~WAA~~ JT

Date
8-21-23

Time (start/finish)
1300/1800

PZs									
Well-ID	Depth to Water	Total Depth (feet bgs) ^[2]	Screen Interval (feet bgs)		Screen Length	Old Well-ID	Location	Has Dedicated Pump (Y/N)	Total Depth
PZ-1D	39.89	160.0	65.5	160	94.5	NA	Upgradient	N	NA
PZ-1I	41.53	79.5	69.1	79.1	10.0	NA	Upgradient	Transducer	NA
PZ-1S	39.69	65.0	54.6	64.6	10.0	NA	Upgradient	N	NA
PZ-3D	49.44	130.0	48	130	82.0	NA	Upgradient	N	NA
PZ-3I	51.06	54.6	44.2	54.2	10.0	NA	Upgradient	N	NA
PZ-3S	DRY	39.9	29.5	39.5	10.0	NA	Upgradient	N	NA
PZ-4I	33.98	46.8	36.4	46.4	10.0	NA	Upgradient	Transducer	NA
PZ-4S	32.21	30.0	19.6	29.6	10.0	NA	Upgradient	N	NA
PZ-7S	28.60	44.5	34.1	44.1	10.0	NA	Downgradient	N	NA
PZ-8S	27.06	49.5	39.1	49.1	10.0	NA	Upgradient	N	NA
PZ-9S	35.90	48.0	37.6	47.6	10.0	NA	Upgradient	N	NA
PZ-10S	27.75	39.0	28.6	38.6	10.0	NA	Downgradient	N	NA
PZ-14I	19.95	53.8	43.4	53.4	10.0	NA	Downgradient	N	NA
PZ-14S	23.84	37.6	27.2	37.2	10.0	NA	Downgradient	N	NA
PZ-15I	11.12	88.7	78.3	88.3	10.0	NA	Downgradient	N	NA

Obstruction
at
13.0 bto c
possible to
get past

FIELD STAFF:

TG/DJ

Georgia Power Site Sampling Data (GW)

Site Name: Plant Branch AP - E

Dates: 8/22 - 8/24/23

Sample ID	Sample Date	Sample Time	Additional Comments
BRA-BRGWC-17S	8-23-23	1405	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-BRGWC-33S	8-22-23	1210	Plus Eurofins split sulfide check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-BRGWC-34S	8-22-23	1435	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-BRGWC-35S	8-23-23	1201	Plus Eurofins split sulfide check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-BRGWC-36S	8-23-23	1556	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-BRGWC-37S	8-22-23	1651	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-BRGWC-38S	8-23-23	1212	Plus Eurofins split sulfide check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-PZ-13S	8-22-23	1647	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-PZ-52D	8-23-23	1346	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-PZ-53D	8-24-23	1012	check field ferrous iron Ferrous iron = 0.0 mg/L
BRA-PZ-70I	8-23-23	1612	check field ferrous iron Ferrous iron = 0.0 mg/L

FIELD STAFF:

TG/DJ

Georgia Power Site Sampling Data (GW)

Site Name: Plant Branch AP - E

Dates :

Sample ID	Sample Date	Sample Time	Additional Comments
BRA-APE-FD-04	8-22-23	—	Parent Sample: BRGWC-33S
BRA-APE-FD-05	8-23-23	—	Parent Sample: BRGWC-35S
BRA-APE-FB-07	8-22-23	1510	Poured at: BRGWC-34S
BRA-APE-FB-08	8-23-23	1630	Poured at: BRGWC-36S
BRA-APE-EB-09	8-23-23	1645	Equipment Type: Peri Pump
BRA-APE-EB-10	8-23-23	1315	Equipment Type: Gloves

Put Upgradient, BCD, E, New PZs, and Split on separate COCs

Matrix codes WG for groundwater, WS for surface water, WW for wastewater, WQ for field blanks and equipment blanks

FD for blind field duplicates with WG matrix

Additional comments :

Note if Dissolved metals were taken

Task_Code: BRA-CCR-ASSMT-2023S2



ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

Page: 1 of 1

SITE: Plant Branch

TECHNICIAN: T. Gable

WATER LEVEL: Salmst

WATER LEVEL S/N: 378591

INSTRUMENT S/N: 965658

INSTRUMENT TYPE: AquaTroll

CAL. SOLUTION/S: ID: pH 4 LOT #: 22250153 EXP. DATE: 11/23

Manufact. Drift range pH must be less than .10 (6.90-7.10 range) Conductivity must be within 1.0% (1399 - 1427 range)	ID: pH 7	LOT #: <u>26E590</u>	EXP. DATE: <u>5/24</u>
	ID: pH 10	LOT #: <u>26B707</u>	EXP. DATE: <u>2/24</u>
	ID: Conductivity	LOT #: <u>22250153</u>	EXP. DATE: <u>11/23</u>
	ID: ORP	LOT #: <u>3GD400</u>	EXP. DATE: <u>1/24</u>

Calibration Date: 8-22 Time: 0800

RDO: 100% sat. = 91.01

PH: 4.00 = 3.94 7.00 = 6.91 10.00 = 9.78

CONDUCTIVITY: ~~1413~~ 4490 = 4520

ORP (mV) 240 = 229

Drift Check Date: 8-22 Time: 1245

pH 7.00 = 7.07 SC ~~1413~~ ⁴⁴⁹⁰ = 4496 ORP 240 = 232

Drift Check Date: 8-22 Time: 1800

pH 7.00 = 7.07 SC ~~1413~~ ⁴⁴⁹⁰ = 4510 ORP 240 = 231

Calibration Date: 8-23 Time: 0830

RDO: 100% sat. = 107.95

PH: 4.00 = 4.19 7.00 = 7.15 10.00 = 10.09

CONDUCTIVITY: ~~1413~~ 4490 = 4572 4572

ORP (mV) 240 = 238

Drift Check Date: 8-23 Time: 1315

pH 7.00 = 7.02 SC ~~1413~~ ⁴⁴⁹⁰ = 4472 ORP 240 = 240

Drift Check Date: 8-23 Time: _____

pH 7.00 = _____ SC 1413 = _____ ORP 240 = _____

Calibration Date: 8-24 Time: 0815

RDO: 100% sat. = 103.3

PH: 4.00 = 4.02 7.00 = 6.95 10.00 = 9.90

CONDUCTIVITY: ~~1413~~ 4490 = 4461

ORP (mV) 240 = 241.3

Drift Check Date: 8-24 Time: 1200

pH 7.00 = 7.05 SC ~~1413~~ ⁴⁴⁹⁰ = 4480 ORP 240 = 238

Drift Check Date: _____ Time: _____ NA (Half Day)



ATLANTIC COAST
CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant Branch
TECHNICIAN: T. Gable

INSTRUMENT S/N: HACH 20050
INSTRUMENT TYPE: 16040C0497x3
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI
10 NTU - LOT # A3139 EXP. DATE: 8/24
20 NTU - LOT # A3138 EXP. DATE: 8/24

Calibration Date: 8-22-23 Time: 0800

Calibration Solution	Instrument Reading
0.0	0.67 NTU
10.0	10.7 NTU
20.0	21.8 NTU

Time: 1300

Midday Spot Check
10.0 = 10.4 NTU

Midday Calibration Time: N/A

Cal Solution	Reading
0.0	
10.0	NTU
20.0	NTU

Calibration Date: 8-23-23 Time: 0830

Calibration Solution	Instrument Reading
0.0	0.57 NTU
10.0	10.5 NTU
20.0	20.8 NTU

Time: 1300

Midday Spot Check
10.0 = 10.8 NTU

Midday Calibration Time: N/A

Cal Solution	Reading
0.0	
10.0	NTU
20.0	NTU

Calibration Date: 8-24-23 Time: 0830

Calibration Solution	Instrument Reading
0.0	0.33 NTU
10.0	10.6 NTU
20.0	20.9 NTU

Time: 1215

Midday Spot Check
10.0 = 10.3 NTU

Midday Calibration Time: N/A

Cal Solution	Reading
0.0	
10.0	NTU
20.0	NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading
0.0	NTU
10.0	NTU
20.0	NTU

Time:

Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading
0.0	NTU
10.0	NTU
20.0	NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading
0.0	NTU
10.0	NTU
20.0	NTU

Time:

Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading
0.0	NTU
10.0	NTU
20.0	NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading
0.0	NTU
10.0	NTU
20.0	NTU

Time:

Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading
0.0	NTU
10.0	NTU
20.0	NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading
0.0	NTU
10.0	NTU
20.0	NTU

Time:

Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading
0.0	NTU
10.0	NTU
20.0	NTU



ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

Page: 1 of 2

SITE: Plant Branch

TECHNICIAN: D. JOHNSON

WATER LEVEL: 501mst

WATER LEVEL S/N: 530984

INSTRUMENT S/N: 965678

INSTRUMENT TYPE: AquaTroll

CAL. SOLUTIONS: ID: pH 4 LOT #: 36c91b EXP. DATE: 3/25

Manufact. Drift range pH must be less than .10 (6.90-7.10 range) Conductivity must be within 1.0% (1399 - 1427 range)	ID: pH 7	LOT #: <u>261169</u>	EXP. DATE: <u>3/24</u>
	ID: pH 10	LOT #: <u>264018</u>	EXP. DATE: <u>7/24</u>
	ID: Conductivity	LOT #: <u>3641066</u>	EXP. DATE: <u>7/24</u>
	ID: ORP	LOT #: <u>3614008</u>	EXP. DATE: <u>5/24</u>

Calibration Date: 8/21/23 Time: 1630

RDO: 100% sat. = 105.42

PH: 4.00 = 3.77 7.00 = 6.94 10.00 = 10.20

CONDUCTIVITY: 1413 = ~~143~~ 1351

ORP (mV) 240 = 239.4

Drift Check Date: 8/21/23 Time: 1800

pH 7.00 = 7.00 SC 1413 = 1365 ORP 240 = 241.0

Drift Check Date: _____ Time: _____

pH 7.00 = _____ SC 1413 = _____ ORP 240 = N/A

Calibration Date: 8/22/23 Time: ~~1745~~ 0900

RDO: 100% sat. = 101.11

PH: 4.00 = 4.12 7.00 = 7.08 10.00 = 10.07

CONDUCTIVITY: 1413 = 1439

ORP (mV) 240 = 221.5

Drift Check Date: 8/22/23 Time: 1400

pH 7.00 = 7.01 SC 1413 = 1410 ORP 240 = 220.3

Drift Check Date: 8/22/23 Time: 1745

pH 7.00 = 7.00 SC 1413 = 1443 ORP 240 = 223.1

Calibration Date: 8/23/23 Time: 0900

RDO: 100% sat. = 99.89

PH: 4.00 = 3.99 7.00 = 6.99 10.00 = 9.98

CONDUCTIVITY: 1413 = 1518

ORP (mV) 240 = 220.7

Drift Check Date: 8/23/23 Time: 1215

pH 7.00 = 7.00 SC 1413 = 1501 ORP 240 = 230.0

Drift Check Date: 8/23/23 Time: 1650

pH 7.00 = 7.00 SC 1413 = 1520 ORP 240 = 230.3



ATLANTIC COAST
CONSULTING, INC.

Daily Instrument Calibration Log

Page: 2 of 2

Calibration

Date: 8/24/23 Time: 0901

RDO: 100% sat. = 100.22

PH: 4.00 = 4.06 7.00 = 7.06 10.00 = 10.03

CONDUCTIVITY: 1413 = 1409

ORP (mV) 240 = 226.4

Drift Check

Date: 8/24/23 Time: 1250

pH 7.00 = 7.02 SC 1413 = 1412 ORP 240 = 226.7

Drift Check

Date: 8/24/23 Time: 1700

pH 7.00 = 7.00 SC 1413 = 1413 ORP 240 = 225.1

Calibration

Date: _____ Time: _____

RDO: 100% sat. = _____

PH: 4.00 = _____ 7.00 = _____ 10.00 = _____

CONDUCTIVITY: 1413 = _____

ORP (mV) 240 = _____

Drift Check

Date: _____ Time: _____

pH 7.00 = _____ SC 1413 = _____ ORP 240 = _____

Drift Check

Date: _____ Time: _____

pH 7.00 = _____ SC 1413 = _____ ORP 240 = _____

Calibration

Date: _____ Time: _____

RDO: 100% sat. = _____

PH: 4.00 = _____ 7.00 = _____ 10.00 = _____

CONDUCTIVITY: 1413 = _____

ORP (mV) 240 = _____

Drift Check

Date: _____ Time: _____

pH 7.00 = _____ SC 1413 = _____ ORP 240 = _____

Drift Check

Date: _____ Time: _____

pH 7.00 = _____ SC 1413 = _____ ORP 240 = _____



ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant Branch
TECHNICIAN: D. JOHNSON

INSTRUMENT S/N: 22080D00U27
INSTRUMENT TYPE: HACH
CAL. SOLUTION: 0 NTU - LOT # EXP. DATE: NEW DI H2O
10 NTU - LOT # A3139 EXP. DATE: 08/24
20 NTU - LOT # A3138 EXP. DATE: 08/24

Calibration Date: 8/21/23 Time: 1640

Calibration Solution	Instrument Reading	
0.0	<u>0.21</u>	NTU
10.0	<u>10.3</u>	NTU
20.0	<u>20.7</u>	NTU

Time: 1640
Midday Spot Check
10.0 = 10.8 NTU

Midday Calibration Time:

Cal Solution	Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: 8/22/23 Time: 0810

Calibration Solution	Instrument Reading	
0.0	<u>0.23</u>	NTU
10.0	<u>10.0</u>	NTU
20.0	<u>21.0</u>	NTU

Time: 1200
Midday Spot Check
10.0 = 10.1 NTU

800
Midday Calibration Time: 1700

Cal Solution	Reading	
0.0	<u>0.22</u>	NTU
10.0	<u>9.94</u>	NTU
20.0	<u>20.1</u>	NTU

Calibration Date: 8/23/23 Time: 0843

Calibration Solution	Instrument Reading	
0.0	<u>0.23</u>	NTU
10.0	<u>9.79</u>	NTU
20.0	<u>20.0</u>	NTU

Time: 1402
Midday Spot Check
10.0 = 9.99 NTU

800
Midday Calibration Time: 1700

Cal Solution	Reading	
0.0	<u>0.25</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.3</u>	NTU

Calibration Date: 8/24/24 Time: 0900

Calibration Solution	Instrument Reading	
0.0	<u>0.24</u>	NTU
10.0	<u>9.99</u>	NTU
20.0	<u>20.3</u>	NTU

Time: 1245
Midday Spot Check
10.0 = 9.98 NTU

800
Midday Calibration Time: 1700

Cal Solution	Reading	
0.0	<u>0.24</u>	NTU
10.0	<u>9.99</u>	NTU
20.0	<u>20.2</u>	NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Time:
Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Time:
Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: Time:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Time:
Midday Spot Check
10.0 = NTU

Midday Calibration Time:

Cal Solution	Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965678
Created 8/21/2023

Sensor **RDO**

Serial Number 964485
Last Calibrated 8/21/2023

Calibration Details

Slope 1.02317
Offset 0.00 mg/L

Calibration point 100%

Concentration 7.28 mg/L
Temperature 30.38 °C
Barometric Pressure 1,005.4 mbar

Sensor **Conductivity**

Serial Number 965678
Last Calibrated 8/21/2023

Calibration Details

Cell Constant 0.834
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 965199
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21997
Last Calibrated	8/21/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer	4.01 pH
pH mV	94.9 mV
Temperature	31.00 °C

Calibration Point 2

pH of Buffer	6.99 pH
pH mV	-78.5 mV
Temperature	31.10 °C

Calibration Point 3

pH of Buffer	9.95 pH
pH mV	-249.6 mV
Temperature	30.95 °C

Slope and Offset 1

Slope	-58.18 mV/pH
Offset	-79.1 mV

Slope and Offset 2

Slope	-57.8 mV/pH
Offset	-79.1 mV

ORP

ORP Solution	Zobell's
Offset	75.6 mV
Temperature	30.88 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965678
Created 8/22/2023

Sensor **RDO**

Serial Number 964485
Last Calibrated 8/22/2023

Calibration Details

Slope 1.012477
Offset 0.00 mg/L

Calibration point 100%

Concentration 8.05 mg/L
Temperature 25.33 °C
Barometric Pressure 1,005.5 mbar

Sensor **Conductivity**

Serial Number 965678
Last Calibrated 8/22/2023

Calibration Details

Cell Constant 0.843
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 965199
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21997
Last Calibrated	8/22/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.00 pH
pH mV 87.0 mV
Temperature 26.11 °C

Calibration Point 2

pH of Buffer 7.00 pH
pH mV -82.4 mV
Temperature 26.38 °C

Calibration Point 3

pH of Buffer 10.00 pH
pH mV -252.8 mV
Temperature 26.38 °C

Slope and Offset 1

Slope -56.47 mV/pH
Offset -82.4 mV

Slope and Offset 2

Slope -56.78 mV/pH
Offset -82.4 mV

ORP

ORP Solution Zobell's
Offset 81.2 mV
Temperature 26.56 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965658
Created 8/22/2023

Sensor **RDO**

Serial Number 964434
Last Calibrated 8/22/2023

Calibration Details

Slope 1.114191
Offset 0.00 mg/L

Calibration point 100%

Concentration 6.95 mg/L
Temperature 28.17 °C
Barometric Pressure 1,005.5 mbar

Sensor **Conductivity**

Serial Number 965658
Last Calibrated 8/22/2023

Calibration Details

Cell Constant 1.039
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 962246
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	22007
Last Calibrated	8/22/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.01 pH
pH mV 81.5 mV
Temperature 28.64 °C

Calibration Point 2

pH of Buffer 6.99 pH
pH mV -84.4 mV
Temperature 28.82 °C

Calibration Point 3

pH of Buffer 9.95 pH
pH mV -236.0 mV
Temperature 28.87 °C

Slope and Offset 1

Slope -55.66 mV/pH
Offset -85.0 mV

Slope and Offset 2

Slope -51.2 mV/pH
Offset -84.9 mV

ORP

ORP Solution ORP Standard
Offset 98.7 mV
Temperature 28.64 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965678
Created 8/23/2023

Sensor **RDO**

Serial Number 964485
Last Calibrated 8/23/2023

Calibration Details

Slope 1.014711
Offset 0.00 mg/L

Calibration point 100%

Concentration 7.83 mg/L
Temperature 26.65 °C
Barometric Pressure 1,004.8 mbar

Sensor **Conductivity**

Serial Number 965678
Last Calibrated 8/23/2023

Calibration Details

Cell Constant 0.822
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 965199
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21997
Last Calibrated	8/23/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	87.6 mV
Temperature	27.17 °C

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-82.2 mV
Temperature	27.25 °C

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-252.6 mV
Temperature	27.25 °C

Slope and Offset 1

Slope	-56.63 mV/pH
Offset	-82.2 mV

Slope and Offset 2

Slope	-56.8 mV/pH
Offset	-82.2 mV

ORP

ORP Solution	Zobell's
Offset	80.5 mV
Temperature	27.36 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965658
Created 8/23/2023

Sensor **RDO**

Serial Number 964434
Last Calibrated 8/23/2023

Calibration Details

Slope 1.032823
Offset 0.00 mg/L

Calibration point 100%

Concentration 7.70 mg/L
Temperature 26.56 °C
Barometric Pressure 1,004.8 mbar

Sensor **Conductivity**

Serial Number 965658
Last Calibrated 8/23/2023

Calibration Details

Cell Constant 1.019
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 962246
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	22007
Last Calibrated	8/23/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.01 pH
pH mV 71.5 mV
Temperature 27.80 °C

Calibration Point 2

pH of Buffer 6.99 pH
pH mV -92.3 mV
Temperature 28.09 °C

Calibration Point 3

pH of Buffer 9.95 pH
pH mV -242.7 mV
Temperature 28.29 °C

Slope and Offset 1

Slope -54.98 mV/pH
Offset -92.9 mV

Slope and Offset 2

Slope -50.8 mV/pH
Offset -92.8 mV

ORP

ORP Solution ORP Standard
Offset 100.5 mV
Temperature 28.31 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965678
Created 8/24/2023

Sensor **RDO**

Serial Number 964485
Last Calibrated 8/24/2023

Calibration Details

Slope 1.012094
Offset 0.00 mg/L

Calibration point 100%

Concentration 8.16 mg/L
Temperature 24.65 °C
Barometric Pressure 1,005.8 mbar

Sensor **Conductivity**

Serial Number 965678
Last Calibrated 8/24/2023

Calibration Details

Cell Constant 0.829
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 965199
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21997
Last Calibrated	8/24/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	83.9 mV
Temperature	25.65 °C

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-85.2 mV
Temperature	25.78 °C

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-253.5 mV
Temperature	25.56 °C

Slope and Offset 1

Slope	-56.34 mV/pH
Offset	-85.2 mV

Slope and Offset 2

Slope	-56.12 mV/pH
Offset	-85.2 mV

ORP

ORP Solution	Zobell's
Offset	81.4 mV
Temperature	26.32 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 965658
Created 8/24/2023

Sensor **RDO**

Serial Number 964434
Last Calibrated 8/24/2023

Calibration Details

Slope 1.002982
Offset 0.00 mg/L

Calibration point 100%

Concentration 8.10 mg/L
Temperature 25.46 °C
Barometric Pressure 1,005.8 mbar

Sensor **Conductivity**

Serial Number 965658
Last Calibrated 8/24/2023

Calibration Details

Cell Constant 1.026
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 962246
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	22007
Last Calibrated	8/24/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.00 pH
pH mV 70.8 mV
Temperature 26.94 °C

Calibration Point 2

pH of Buffer 7.00 pH
pH mV -90.0 mV
Temperature 27.16 °C

Calibration Point 3

pH of Buffer 10.00 pH
pH mV -239.5 mV
Temperature 27.30 °C

Slope and Offset 1

Slope -53.58 mV/pH
Offset -90.0 mV

Slope and Offset 2

Slope -49.85 mV/pH
Offset -90.0 mV

ORP

ORP Solution ORP Standard
Offset 99.6 mV
Temperature 27.45 °C

APPENDIX C

Semiannual Remedy Selection and Design Progress Report



Prepared for

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

SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT

PLANT BRANCH ASH POND E

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144

Project Number GW8862

February 2024

CERTIFICATION STATEMENT

This *Semiannual Remedy Selection and Design Progress Report, Plant Branch Ash Pond E* has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.

Report Prepared by:



Lauren E. Fitzgerald
Georgia Professional Engineer No. 048960

February 28, 2024
Date

TABLE OF CONTENTS

1.0 INTRODUCTION 1

 1.1 Purpose 1

 1.2 Site Background and Overview of AP-E Pond Closure 1

 1.3 Regulatory Program Status and Nature and Extent 2

 1.4 Corrective Measures Evaluated 4

 1.5 Annual Potable Water Survey 5

2.0 SUMMARY OF WORK COMPLETED 7

 2.1 Field Activities 7

 2.1.1 Piezometer Installation and Sampling 7

 2.2 Data Analysis Activities 7

 2.2.1 Soil Characterization 8

 2.2.2 Groundwater Analytical Analysis 8

3.0 SUMMARY OF RESULTS 9

 3.1 Summary of Field Activities 9

 3.2 Summary of Data Analysis Activities 9

 3.2.1 Soil Characterization 9

 3.2.2 Groundwater Geochemical Analysis 10

4.0 UPDATED CONCEPTUAL SITE MODEL 11

5.0 UPDATED EVALUATION OF CORRECTIVE MEASURES 12

6.0 PLANNED ACTIVITIES AND ANTICIPATED SCHEDULE 14

7.0 REFERENCES 15

LIST OF TABLES

Table 1	Monitoring Well Network Summary
Table 2	Evaluation of Remedial Technologies
Table 3	Temporary Piezometer Well Construction Summary
Table 4	Summary of Soil Total Metals
Table 5	Summary of Whole Rock Analysis
Table 6	Summary of Groundwater Analytical Data
Table 7	Summary of Sulfide Analytical Data

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Monitoring Well Network Map
Figure 3	Iso-concentration Map, Beryllium – August 2023
Figure 4	Iso-concentration Map, Cobalt – August 2023
Figure 5	Beryllium and Cobalt Correlations with pH
Figure 6	Beryllium and Cobalt Concentration Trends

LIST OF APPENDICES

Appendix A	Potable Well Survey
Appendix B	Boring Logs
Appendix C	Analytical Laboratory Reports

LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Assessment of Corrective Measures
AP	ash pond
CCR	coal combustion residuals
CEC	cation exchange capacity
CFR	Code of Federal Regulations
cm/sec	centimeters per second
CSM	conceptual site model
Fe/Mn	iron/manganese
ft/day	feet per day
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GWPS	Groundwater Protection Standard
K_h	hydraulic conductivity
meq/100g	milliequivalents per 100 grams
mg/kg	milligrams per kilogram
MNA	monitored natural attenuation
PRB	permeable reactive barrier
PWR	partially weathered rock
redox	oxidation/reduction
SEP	sequential extraction procedure
SSI	statistically significant increase
SSL	statistically significant level
USEPA	United States Environmental Protection Agency
XRD	X-ray diffraction

1.0 INTRODUCTION

1.1 Purpose

This *Semiannual Remedy Selection and Design Progress Report* (the semiannual progress report) was prepared by Geosyntec Consultants, Inc. (Geosyntec) for Georgia Power Company (Georgia Power) Plant Branch Ash Pond E (AP-E or Site) in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D), specifically 40 CFR § 257.97(a), and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a) (State CCR Rule). Plant Branch ceased producing electricity prior to April 2015, therefore AP-E is not subject to the CCR Rule. AP-E is managed directly under the State CCR Rule, which incorporates the CCR Rule by reference. This semiannual progress report describes the progress made in selecting and designing a remedy since the issuance of the prior semiannual progress report in July 2023.

The purpose of the ACM Report (and subsequent semiannual progress reports) is to document the process of evaluating and selecting corrective measure(s) to improve groundwater quality at the Site. This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures. Once potential corrective measures are identified, they are further evaluated using the criteria outlined in § 257.96(c) and Rule 391-3-4-.10(6)(a). The selected corrective measure must meet the additional protection criteria outlined in § 257.97 and corresponding Rule 391-3-4-.10(6)(a). Pursuant to § 257.97(a) and Rule 391-3-4-.10(6)(a), semiannual progress reports are being regularly submitted to document the efforts of evaluating and progressing toward selecting a groundwater corrective measure (Geosyntec, 2023c).

1.2 Site Background and Overview of AP-E Pond Closure

Ash Pond E (AP-E) is surrounded by forested, rural land. The ash pond is approximately 348 acres in size and covers four converging valleys and side-channels. The ash pond was first used for CCR disposal in 1982 and stopped receiving CCR in 2015. This unit ceased receiving waste prior to the effective date of the CCR rule promulgated in April 2015, thereby designating this site as a Phase II site under the State CCR Rule.

Georgia Power intends to close AP-E (**Figure 1**) via closure by removal in accordance with § 257.102 and corresponding State Rule 391-3-4-.10(7)(b). By removing the CCR

from AP-E, the proposed method provides a source control measure which reduces the potential for migration of CCR constituents to groundwater.

1.3 Regulatory Program Status and Nature and Extent

Pursuant to the CCR Rule, CCR compliance groundwater monitoring-related activities have been performed for AP-E since 2018. Georgia Power initiated a groundwater assessment monitoring program on November 13, 2019, after identifying statistically significant increases (SSI) of Appendix III constituents.

Statistical analyses of the Appendix IV assessment monitoring groundwater data collected in October 2019 identified statistically significant levels (SSL) for cobalt and beryllium at concentrations exceeding the state and/or federal Groundwater Protection Standards (GWPS)¹. Georgia Power submitted an Alternate Source Demonstration (ASD) to GA EPD for the observed SSLs (Golder, 2020). In a letter dated April 22, 2022, GA EPD expressed nonconcurrency with the ASD report, while acknowledging that site-specific lithology and pH may induce mobilization for cobalt and beryllium. Within 90 days of receiving GA EPD's nonconcurrency letter, pursuant to § 257.96, Georgia Power initiated an ACM program for AP-E on July 21, 2022. The ACM Report was submitted to GA EPD on December 16, 2022 and posted to the CCR compliance website (Geosyntec, 2022).

Since the ACM was initiated, assessment monitoring wells (formerly referred to as "delineation monitoring wells") have been installed and incorporated into the monitoring well network (formerly referred to as the "compliance monitoring well network") to delineate, both horizontally and vertically, the extent of the cobalt and beryllium SSLs downgradient of AP-E. The monitoring well network is shown on **Figure 2**; **Table 1** provides well construction details.

Statistical analysis of the August 2023 semiannual assessment monitoring groundwater data identified SSLs of the following Appendix IV constituents at concentrations exceeding the applicable GWPS at AP-E:

- Beryllium: BRGWC-38S; and

¹ On February 22, 2022, GA EPD adopted the federal GWPS for cobalt, lithium, lead, and molybdenum. The GWPS for cadmium is derived from the federally promulgated maximum contaminant level of 0.005 milligrams per liter.

- Cobalt: BRGWC-33S and BRGWC-38S.

Details are provided in the *2023 Semiannual Groundwater Monitoring and Corrective Action Report* (2023 Semiannual Groundwater Report) to which this semiannual progress report is appended.

The groundwater data collected in August 2023 were used to generate the beryllium and cobalt iso-concentration maps presented on **Figures 3** and **4**, respectively. Based on the groundwater data reported in the 2023 Semiannual Groundwater Report, the horizontal and vertical delineation status of identified cobalt and beryllium SSLs is the following.

- BRGWC-33S – cobalt is horizontally delineated downgradient by PZ-13S and vertically by PZ-52D.
- BRGWC-38S – beryllium and cobalt are horizontally delineated downgradient by PZ-70I and vertically by PZ-53D.

Monitoring wells with SSLs were further evaluated by Groundwater Stats Consulting using the Sen's Slope/Mann Kendall trend test. The full statistical evaluation is included as an appendix to the 2023 Semiannual Groundwater Report. Statistically significant decreasing trends (at 99% confidence) were identified for beryllium in BRGWC-38S and cobalt in BRGWC-33S and BRGWC-38S.

In addition to the assessment monitoring program at the Site, Georgia Power conducted a human health and ecological risk evaluation to evaluate beryllium and cobalt that are present at SSLs in groundwater at AP-E. The evaluation provides one of many lines of evidence that will be evaluated and factored into the remedy selection process, which will be completed in accordance with § 257.97. Based on this risk evaluation, concentrations of beryllium and cobalt detected in groundwater at AP-E between September 2016 and August 2022 are not expected to pose a risk to human health or the environment (Geosyntec, 2023b).

Georgia Power will continue to adaptively manage the Site and use ongoing data collection to evaluate the need for additional wells at AP-E. Pursuant to § 257.96, groundwater in the vicinity of AP-E continues to be monitored during the ACM phase in accordance with the established assessment monitoring program.

1.4 Corrective Measures Evaluated

As discussed in the ACM Report, the following corrective measures were initially considered to be potentially feasible for use at AP-E. A comparative screening of the corrective measures is provided in **Table 2**.

1. Geochemical Approaches (In-Situ Injection)
2. Hydraulic Containment (Pump and Treat)
3. Monitored Natural Attenuation (MNA)
4. Permeable Reactive Barrier (PRB)
5. Phytoremediation
6. Subsurface Vertical Barrier Walls

The subsurface vertical barrier wall corrective measure has been removed from consideration based on the ash pond closure plan of closure by removal, limited extent of SSL impacts, and geochemical investigations. In addition, while phytoremediation was being considered given groundwater depth and velocity at the SSL locations, an evaluation of infrastructure in the AP-E dike upgradient of BRGWC-33S and anticipated closure activities, a phytoremediation corrective measure has been removed from consideration. In previous progress reports, the PRB corrective measure was also excluded, however due to recent data evaluations and considerations for corrective action timeline and closure duration, a small scale solid-phase PRB will be evaluated in the remedy selection process.

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Geosyntec, 2022) to support the groundwater remedy selection process and address potential changes in site conditions (e.g., successful reduction of constituent concentrations or changing trends) as appropriate during ash pond closure. The adaptive site management approach will take existing site conditions, including natural attenuation mechanisms, into account.

Characterization activities to evaluate attenuation mechanisms at the Site include collection of data necessary to progressively evaluate the existing and long-term effectiveness of these processes in the aquifer and reduce uncertainty for decision making at each screening step as listed in the USEPA guidelines for MNA of inorganic constituents (USEPA, 1999, 2007, and 2015). The 1999 MNA guidance originally introduced a “tiered approach” with three tiers of site-specific information, or lines of evidence, to evaluate the appropriate use of MNA at certain sites (USEPA, 1999). In 2007, the USEPA issued MNA technical guidance specific to inorganic contaminants

(USEPA, 2007) that contained four “tiers.” The 2015 MNA guidance retains these four “tiers,” but describes them as “phases” as described below (USEPA, 2015). This 2015 MNA document for inorganic contaminants expands on and is designed to be a companion to the 1999 and 2007 MNA guidance. The phases are briefly outlined below:

- Phase I: Demonstration that the groundwater plume is *not expanding*.
- Phase II: Determination that the *mechanism and rate* of the attenuation process are sufficient.
- Phase III: Determination that the *capacity* of the aquifer is sufficient to attenuate the mass of contaminant within the plume and the *stability* of the immobilized contaminant is sufficient to resist re-mobilization.
- Phase IV: Design of a *performance monitoring program* based on an understanding of the mechanism of the attenuation process, and establishment of contingency remedies tailored to site-specific characteristics.

Georgia Power will address Phase IV, as appropriate, during the development of the future corrective action monitoring plan, after the final remedy selection report.

The data collection approach and the data interpretation presented within this semiannual progress report are informed by this tiered MNA guidance. It is noted, however, that the characterization data collected under this approach are also used to refine the conceptual site model (CSM) and evaluate other retained potential corrective measures.

1.5 Annual Potable Water Survey

An updated potable well survey of potential groundwater wells within a two-mile radius of AP-E was conducted in November and December 2023 and consisted of reviewing federal, state, county records, and online sources. Surveys conducted by Environmental Data Resources (EDR) are included in **Appendix A**. Additional federal, state, county records and online sources outside of the EDR survey were also reviewed. The Putnam County Environmental Health Department did not provide a response following multiple requests. The findings from the 2023 well survey are consistent with the 2022 well survey (Geosyntec, 2023a), except for the following additional feature identified:

- One drinking water well located approximately 1.8 miles east of AP-E, with geographic coordinates 33.20897, -83.29427.

Beaverdam Creek and portions of Lake Sinclair are located between AP-E and the well listed above. Therefore, it is reasonable to expect the well to be hydrologically separated from the Site and is not considered to be hydraulically downgradient.

2.0 SUMMARY OF WORK COMPLETED

The following section summarizes the field investigations and data evaluations completed in support of the ACM program since the issuance of the prior semiannual progress report in July 2023 (Geosyntec, 2023c). The routine monitoring events associated with the assessment monitoring program are discussed in the 2023 Semiannual Groundwater Report, to which this semiannual progress report is appended.

2.1 Field Activities

Additional field investigation activities since the issuance of the prior semiannual progress report includes temporary piezometer installation and sampling. These activities are detailed below.

2.1.1 Piezometer Installation and Sampling

In August 2023, two temporary piezometers (PZ-76I and PZ-77I) were installed along a transect from AP-E toward BRGWC-38S (**Figure 2**), to provide additional data to support the geochemical characterization and remedy selection efforts being completed at the Site. PZ-76I and PZ-77I are screened within the lower portion of the saprolite and partially weathered rock (PWR), at or near the top of the underlying bedrock, and are constructed with a 10-foot well screen segment. Soil samples were collected from PZ-76I and PZ-77I at the corresponding elevation of the screen interval for BRGWC-38S. These aquifer solids were collected for characterization via total metals, whole rock analysis, mineralogical content, and sequential extraction procedure (SEP) for cobalt and beryllium.

Following well development, groundwater samples were collected for select Appendix III parameters, beryllium, cobalt, and select geochemical parameters in support of the ACM program for AP-E. Detailed boring logs for the installation of PZ-76I and PZ-77I are provided in **Appendix B**.

2.2 Data Analysis Activities

In addition to the field activities discussed above, this section describes further data analysis including aquifer solids characterization and groundwater geochemical characterization.

2.2.1 Soil Characterization

Aquifer solids samples were sent under chain of custody to SGS Environmental Services in Lakefield, Ontario. Total metals and whole rock analysis were reported for aquifer solids collected from the installation of PZ-76I and PZ-77I. Whole rock analysis is an analytical method for lithochemical classification of samples providing elemental analysis of sample mineralogy that can be used to help inform XRD. The laboratory results are included as **Appendix C**. Additional soil characterization is still ongoing.

2.2.2 Groundwater Analytical Analysis

The analytical groundwater data reported for the assessment monitoring event conducted in August 2023 were evaluated in support of characterizing the nature and extent of cobalt and beryllium impacts.

Groundwater samples from a select number of wells were split and sent to Eurofins for analysis of sulfide to confirm the GEL sulfide results. In October/November 2023, some wells were resampled to confirm the GEL sulfide results.

All groundwater samples were sent to GEL Laboratories under chain of custody procedures, with the exception of the split sulfide samples and sulfide resamples, which were sent to Eurofins. Details of the sampling methods are provided in the 2023 Semiannual Groundwater Report; applicable results are discussed in Section 3.

3.0 SUMMARY OF RESULTS

This section presents the results of the field and data analysis efforts outlined in Section 2.

3.1 Summary of Field Activities

Temporary piezometers PZ-76I and PZ-77I were installed to provide additional geochemical characterization data in August 2023 (**Figure 2**). **Table 3** provides piezometer construction details. Data from these temporary piezometers are intended for geochemical evaluations of the soils and groundwater near the detection monitoring well, BRGWC-38S and geochemical modeling of site conditions to support ACM efforts.

3.2 Summary of Data Analysis Activities

3.2.1 Soil Characterization

Total metals analysis was completed on solids collected from PZ-76I and PZ-77I for inorganic characterization of the solids between AP-E and BRGWC-38S. The quantitative total metals analysis on samples collected from PZ-76I and PZ-77I (see **Table 4**) indicated the presence of SSL constituents beryllium and cobalt up to 3.2 and 9.6 milligrams per kilogram (mg/kg), respectively, in the solid phase. Based on previous total metals results for samples collected in 2020 and 2022 (Geosyntec, 2023c), these concentrations of beryllium and cobalt in the solid phase downgradient of AP-E are generally on the same order or lower (in the case of cobalt) relative to upgradient locations presented in the previous semiannual remedy selection and design progress report (Geosyntec, 2023c). Beryllium in upgradient monitoring wells ranges from 0.31 to 0.67 mg/kg, while cobalt in background ranges from 36 to 72 mg/kg. Different downgradient geochemical conditions (i.e., low pH) could serve as or contribute to the mechanism for mobilization of the SSL constituents from the solid to the aqueous phase.

Characterization of the elemental abundance in the aquifer matrix was accomplished by whole rock analysis. Overall, the whole rock analysis in PZ-76I and PZ-77I (see **Table 5**) is characterized by an abundance of silica (e.g., SiO₂) at approximately 68 wt.% and aluminum oxide (e.g., Al₂O₃) at approximately 16 wt.% downgradient of AP-E. The presence of iron oxide (e.g., Fe₂O₃) was observed between approximately 3 and 4 wt. %. Iron and aluminum bearing minerals, if present, are expected to provide sorption capacity for attenuation of metals in groundwater at AP-E.

3.2.2 Groundwater Geochemical Analysis

Review of the groundwater analytical data (**Table 6**) collected during the August 2023 groundwater sampling event indicate that the detection monitoring wells that exhibit SSLs (BRGWC-33S and BRGWC-38S) are characterized by a lower pH (less than 5) relative to monitoring wells and piezometers where beryllium and/or cobalt impacts are not observed. This is consistent with prior groundwater data reported for previous assessment monitoring events. The correlations between aqueous cobalt and beryllium concentrations and pH are presented in **Figure 5**. The temporary piezometers downgradient of AP-E (PZ-76I and PZ-77I) are also characterized by a relatively lower pH.

Sulfide analytical data from groundwater samples collected during the August 2023 groundwater sampling event and the resampling event conducted in October/November 2023, are presented in **Table 7**. Although there were detections of sulfide in two of the split samples analyzed by Eurofins, when resampled, all wells were non-detect for sulfide. Non-detect sulfide levels are expected as none of the wells are observed to be under complete reducing conditions based on field data. Review of the water quality data is consistent with what has been observed previously when sulfide measurements were observed to be non-detect. Select detections in sulfide at various times are likely due to localized and temporal changes in the oxidation reduction potential (ORP).

4.0 UPDATED CONCEPTUAL SITE MODEL

As noted previously, the closure strategy for AP-E will be closure by removal, thereby providing a source control measure that reduces potential for migration of CCR-related constituents to groundwater. The CSM indicates that, under current conditions, the groundwater exceedances are contained onsite.

- A statistically significant decreasing trend was observed for beryllium in BRGWC-38S (**Figure 6**).
- A statistically significant decreasing trend was observed for cobalt in BRGWC-33S and BRGWC-38S (**Figure 6**).
- The downgradient lateral extent of beryllium and cobalt are delineated by sampling of PZ-13S and PZ-70I (**Figures 3 and 4**).
- Exceedances of beryllium and cobalt downgradient of AP-E appear to be correlated to the relatively lower pH of the downgradient groundwater in BRGWC-33S and BRGWC-38S (**Figure 5**). Wells BRGWC-33S and BRGWC-38S have consistently shown a pH less than 5 (over the monitoring period) and relatively low pH conditions were also observed between AP-E and BRGWC-38 in PZ-76I and PZ-77I; the mobilization of cobalt at these pH conditions are well documented in the literature and Site conditions support such a mechanism for the mobilization of cobalt into groundwater. However, since these wells also show CCR indicator parameters such as boron and sulfate at relatively higher concentrations compared to upgradient groundwater, the mobilization of mechanism of cobalt is being investigated to document the change in groundwater pH along groundwater flow paths from AP-E to these detection monitoring wells.

5.0 UPDATED EVALUATION OF CORRECTIVE MEASURES

Based on the data collected to date, the following potential corrective measures will be retained for further evaluation.

- Geochemical Approach (In-Situ Injections):
 - Geochemical injections include the use of an injection well network, or other means of introducing reagents into the subsurface, to promote conditions (i.e., pH and redox) suitable for the attenuation of beryllium and cobalt. The attenuation of beryllium and cobalt is expected to occur under both aerobic (via sorption to manganese or iron oxides) and anaerobic conditions (via formation of sulfide minerals). Therefore, the applicability of injection mechanisms for the treatment of beryllium and cobalt remains a potentially viable option.
- Hydraulic Containment (Pump and Treat):
 - Hydraulic containment refers to the use of groundwater extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse. Groundwater extraction and above-ground treatment is potentially a viable option.
- Monitored Natural Attenuation:
 - MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or redox reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. The characterization of aquifer solids presented in this progress reports suggest that the aquifer matrix has the potential for attenuation of beryllium and cobalt. Therefore, MNA remains a viable corrective measure. MNA may either be a stand-alone corrective measure or be part of a combination of corrective measures to address groundwater impacts.

- Permeable Reactive Barrier (PRB):
 - Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. A solid phase composed of calcite or a similar material to alter the pH of impacted groundwater is currently proposed for the removal of cobalt and beryllium. Treatability testing would be required to confirm Site compatibility for this measure. Exact placement of the PRB is contingent on the groundwater flow direction and refinement of the plume extent to ensure that the reactive media intercepts impacted groundwater.

Continued groundwater monitoring and updates to the statistical analyses will further refine the groundwater and geochemical CSMs and allow for the continued evaluation of an appropriate groundwater corrective measure at the Site.

6.0 PLANNED ACTIVITIES AND ANTICIPATED SCHEDULE

The proposed closure by removal approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. During the closure construction of AP-E, temporary changes in site conditions may occur that must be considered as part of remedy selection. Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Geosyntec, 2022) to support the remedial strategy and address potential changes in site conditions as appropriate. The adaptive site management approach may be adjusted over the Site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary in support of efforts to refine the CSM and to continue assessment of the feasibility of the corrective measures retained for further evaluation. Once sufficient data are available to make technically sound decisions regarding the ability to implement one or more specific corrective measures, necessary steps will be taken to design and implement a remedy for AP-E in accordance with § 257.98.

Supplementary data collection and evaluation activities proposed to be completed during the next semiannual reporting period include:

- Continue evaluation of beryllium and cobalt in assessment monitoring wells.
- Complete an MNA demonstration to confirm capacity of aquifer solids for attenuation of cobalt and beryllium downgradient of AP-E.
- Complete geochemical investigations to model the mechanisms of mobilization and potential attenuation of beryllium and cobalt.
- Evaluate the need for additional bench-scale treatability testing to support in-situ geochemical injection or PRB remedial alternatives.

Georgia Power will continue to prepare semiannual progress reports to document AP-E groundwater conditions, results associated with additional data collection, and the progress in selecting and designing a groundwater remedy in accordance with § 257.97(a). Georgia Power will include future semiannual progress reports in routine groundwater monitoring and corrective action reports. Record keeping, notifications, and publicly accessible internet site requirements for the semiannual progress reports will be provided in accordance with § 257.105(h)(12), § 257.106(h)(9), and § 257.107(h)(9), respectively.

7.0 REFERENCES

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TABLES

Table 1
Monitoring Well Network Summary
Plant Branch AP-E, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting ⁽¹⁾	Northing ⁽¹⁾	Ground Surface Elevation (ft)	Top of Casing Elevation ⁽²⁾ (ft)	Top of Screen Elevation ⁽²⁾ (ft)	Bottom of Screen Elevation ⁽²⁾ (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
AP-BCD Detection Monitoring Well Network										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWA-23S	Upgradient BCD	7/26/2016	2557868.25	1162971.84	425.5	428.24	394.7	384.7	40.8	10
BRGWC-25I	Downgradient B	7/25/2016	2561315.08	1160583.67	355.0	357.37	344.5	334.5	20.5	10
BRGWC-27I	Downgradient C	7/22/2016	2559712.12	1159695.33	364.0	366.86	350.0	340.0	24.0	10
BRGWC-29I	Downgradient C	7/23/2016	2561050.03	1160297.65	350.6	353.23	340.6	330.6	20.0	10
BRGWC-30I	Downgradient D	7/18/2016	2557691.84	1161607.69	350.0	352.61	340.0	330.0	20.3	10
BRGWC-32S	Downgradient D	7/20/2016	2558497.97	1160677.67	403.6	406.39	368.6	358.6	45.0	10
BRGWC-45	Downgradient B	2/3/2018	2561075.38	1162229.68	381.6	384.58	335.0	325.0	57.0	10
BRGWC-47	Downgradient D	1/25/2018	2559456.75	1162700.66	408.8	411.20	327.2	317.2	92.0	10
BRGWC-50	Downgradient B	1/31/2018	2562372.96	1161593.45	378.8	381.35	324.2	314.2	65.0	10
BRGWC-52I	Downgradient B	8/6/2018	2562145.22	1161274.99	381.2	383.87	317.3	307.3	73.9	10
AP-E Detection Monitoring Well Network										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWC-17S	Downgradient E	3/13/2014	2554687.84	1166301.32	362.2	365.32	360.5	355.5	7.1	5
BRGWC-33S	Downgradient E	7/26/2016	2554064.97	1168057.09	414.2	416.68	398.2	388.2	26.4	10
BRGWC-34S	Downgradient E	7/25/2016	2554231.28	1167384.17	389.2	391.96	376.2	366.2	23.0	10
BRGWC-35S	Downgradient E	7/23/2016	2554476.13	1166646.02	363.7	366.31	346.7	336.7	27.4	10
BRGWC-36S	Downgradient E	7/26/2016	2554693.26	1165742.82	383.1	389.84	364.4	354.4	28.7	10
BRGWC-37S	Downgradient E	7/24/2016	2554979.63	1165093.07	444.4	447.05	390.8	380.8	63.6	10
BRGWC-38S	Downgradient E	7/22/2016	2555016.50	1164391.82	429.8	432.24	402.0	392.0	38.2	10
AP-BCD Assessment Monitoring Well Network										
PZ-44	Downgradient B	2/2/2018	2561587.42	1161724.48	380.5	383.04	333.9	323.9	57.0	10
PZ-50D	Downgradient B	10/8/2020	2562380.34	1161589.51	378.3	380.86	282.3	272.3	106.0	10
PZ-51I	Downgradient B	8/1/2018	2562439.35	1161631.12	378.0	380.52	323.1	313.1	65.0	10
PZ-51D	Downgradient B	10/9/2020	2562433.15	1161640.16	378.1	380.75	282.1	272.1	106.0	10
PZ-58I	Downgradient B	3/27/2021	2562297.82	1161579.00	379.3	382.27	325.7	315.7	63.9	10
PZ-60I	Downgradient B	3/29/2021	2562330.79	1161588.01	379.5	382.61	329.0	319.0	60.8	10
PZ-61I	Downgradient B	3/30/2021	2562429.63	1161621.94	377.7	380.64	312.0	302.0	76.0	10
PZ-63I	Downgradient B	1/5/2022	2562233.10	1161371.20	378.6	381.31	332.1	322.1	56.5	10
PZ-64I	Downgradient B	9/10/2022	2562404.29	1161787.72	379.4	381.94	320.6	310.6	69.3	10
PZ-68D	Downgradient D	9/06/2022	2558512.90	1160690.48	402.5	405.25	328.8	318.8	84.3	10
PZ-74I	Downgradient D	5/24/2023	2557970.94	1160189.30	368.3	371.13	330.5	320.5	48.0	10
PZ-75I	Downgradient D	6/27/2023	2558343.03	1160009.37	354.9	357.86	337.9	327.9	27.4	10
AP-E Assessment Monitoring Well Network										
PZ-13S	Downgradient E	3/19/2014	2555276.64	1168011.19	406.5	409.97	382.2	372.2	34.7	10
PZ-52D	Downgradient E	5/14/2020	2554051.53	1168053.71	414.3	417.03	364.8	354.8	59.5	10
PZ-53D	Downgradient E	5/17/2020	2554984.36	1164393.74	431.6	434.68	302.2	292.2	139.4	10
PZ-70I	Downgradient E	8/16/2022	2555374.08	1164326.66	422.9	425.70	363.4	373.4	52.9	10
Piezometers										
PZ-1D	Upgradient BCD & E	4/4/2014	2551598.09	1171999.19	462.9	463.41	397.4	302.9	160.0	94.5
PZ-1I	Upgradient BCD & E	3/10/2014	2551577.63	1171995.75	461.9	464.71	392.8	382.8	79.5	10
PZ-1S	Upgradient BCD & E	3/20/2014	2551588.02	1171996.20	462.4	465.07	407.8	397.8	65.0	10
PZ-3D	Upgradient BCD & E	3/27/2014	2550275.05	1165474.25	486.7	487.50	438.7	358.6	130.0	82
PZ-3I	Upgradient BCD & E	3/11/2014	2550273.05	1165494.61	486.5	489.49	442.3	432.3	54.6	10
PZ-3S	Upgradient BCD & E	3/11/2014	2550274.66	1165484.43	487.0	490.53	457.5	447.5	39.9	10

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PZ-4I	Upgradient BCD & E	3/11/2014	2551282.08	1163246.61	479.9	482.98	443.5	433.5	46.8	10
PZ-4S	Upgradient BCD & E	3/10/2014	2551270.14	1163247.97	479.9	482.87	460.3	450.3	30.0	10
PZ-7S	Upgradient BCD & E	4/1/2014	2553055.64	1169419.33	449.0	451.57	414.9	404.9	44.5	10
PZ-8S	Upgradient BCD & E	4/1/2014	2551188.94	1167801.20	450.5	453.08	411.4	401.4	49.5	10
PZ-9S	Upgradient BCD & E	3/5/2014	2553089.53	1162633.36	466.1	469.28	428.5	418.5	48.0	10
PZ-10S	Downgradient E	3/5/2014	2554990.43	1164021.55	431.0	433.85	402.4	392.4	39.0	10
PZ-14I	Downgradient E	3/20/2014	2554365.65	1168398.28	419.9	422.71	376.5	366.5	53.8	10
PZ-14S	Downgradient E	3/20/2014	2554359.23	1168398.59	420.2	423.31	393.0	383.0	37.6	10
PZ-15I	Downgradient E	3/25/2014	2554399.25	1167721.02	400.2	403.06	321.9	311.9	88.7	10
PZ-15S	Downgradient E	3/27/2014	2554394.06	1167720.25	400.1	402.90	370.2	360.2	39.9	10
PZ-16I	Downgradient E	3/14/2014	2554587.53	1166980.59	379.5	382.45	351.3	341.3	38.6	10
PZ-16S	Downgradient E	3/18/2014	2554581.44	1166977.63	379.3	382.52	370.6	360.6	19.1	10
PZ-17I	Downgradient E	3/17/2014	2554702.42	1166313.81	362.3	365.33	329.2	319.2	43.5	10
PZ-18I	Downgradient D	2/26/2014	2557745.51	1160766.13	359.6	362.55	331.3	321.3	38.4	10
PZ-18S	Downgradient D	3/26/2014	2557747.42	1160757.41	359.7	362.82	345.0	335.0	24.2	10
PZ-19I	Downgradient C	3/4/2014	2558899.87	1159797.10	368.9	371.74	335.6	325.6	43.7	10
PZ-19S	Downgradient C	3/4/2014	2558894.60	1159805.43	368.4	371.42	350.8	340.8	28.0	10
PZ-20I	Downgradient C	3/5/2014	2560160.17	1159495.25	362.2	365.34	343.1	333.1	29.5	10
PZ-20S	Downgradient C	3/5/2014	2560157.16	1159490.13	362.2	365.41	357.3	347.3	15.3	10
PZ-21I	Downgradient B	3/10/2014	2561328.17	1160591.42	355.8	358.92	341.8	331.8	24.4	10
PZ-21S	Downgradient B	3/11/2014	2561321.43	1160592.45	355.5	358.52	351.1	346.1	9.8	5
PZ-23I	Upgradient BCD	7/29/2016	2557877.71	1162975.56	425.1	427.74	368.6	358.6	66.5	10
PZ-24S	Downgradient A	7/27/2016	2562862.19	1162400.95	351.4	354.10	319.9	309.9	42.0	10
PZ-26I	Downgradient B	7/26/2016	2561626.45	1160669.20	368.0	370.63	347.5	337.5	30.5	10
PZ-28I	Downgradient C	7/24/2016	2560151.53	1159505.00	362.5	364.81	348.5	338.5	24.0	10
PZ-31S	Downgradient D	7/26/2016	2557971.75	1160936.81	374.3	376.77	344.8	334.8	39.5	10
PZ-40S	Downgradient A	2/14/2017	2562807.61	1162415.06	353.2	355.96	324.4	314.4	40.2	10
PZ-41S	Downgradient A	2/14/2017	2562759.44	1162431.76	354.3	357.17	320.5	310.5	44.2	10
PZ-42S	Upgradient A	2/9/2017	2562734.89	1162845.64	359.0	361.66	337.2	327.2	32.2	10
PZ-43	Downgradient B	2/7/2018	2562031.42	1162159.72	381.0	383.71	351.0	341.0	40.4	10
PZ-46	Downgradient B	2/5/2018	2560558.89	1162756.31	382.1	384.64	346.5	336.5	45.6	10
PZ-48	Downgradient D	1/24/2018	2558444.63	1163046.78	418.3	420.90	361.7	351.7	67.0	10
PZ-49	Downgradient B	1/30/2018	2561125.71	1163321.35	382.2	384.99	375.6	365.6	17.0	10
PZ-51S	Downgradient B	8/1/2018	2562433.07	1161613.24	377.9	380.27	337.9	332.9	45.4	5
PZ-54	Downgradient E	5/15/2020	2555458.38	1164828.76	440.8	443.86	398.8	388.8	52.0	10
PZ-55	Downgradient E	5/19/2020	2554783.76	1163208.08	450.2	453.07	410.9	400.9	49.3	10
PZ-56	Downgradient E	5/20/2020	2554086.36	1162965.21	416.2	418.84	396.9	386.9	29.3	10
PZ-57I	Downgradient B	3/24/2021	2562170.21	1161582.31	379.4	382.50	313.8	303.8	75.9	10
PZ-59I	Downgradient B	3/31/2021	2562329.80	1161654.90	379.9	383.49	323.5	313.5	66.0	10
PZ-62I	Downgradient B	1/6/2022	2562336.00	1161478.90	378.1	380.95	318.1	308.1	70.0	10
PZ-65I	Downgradient B	9/09/2022	2562240.57	1161692.72	379.6	382.06	320.9	310.9	69.3	10
PZ-66I	Downgradient B	9/08/2022	2562134.65	1161747.91	380.9	383.52	323.1	313.1	68.3	10
PZ-67	Downgradient B	9/07/2022	2561919.76	1161831.98	378.8	381.48	351.0	341.0	38.3	10
PZ-69I	Downgradient D	8/31/2022	2558447.46	1160311.39	377.0	379.36	348.2	338.2	39.3	10
PZ-71I	Downgradient D	5/2/2023	2558230.83	1160295.35	382.6	385.34	352.8	342.8	40.0	10
PZ-72I	Downgradient D	5/9/2023	2558394.65	1160133.29	365.9	368.57	342.0	332.0	34.2	10
PZ-73I	Downgradient D	5/10/2023	2558559.30	1160226.37	349.9	352.63	334.9	324.9	25.3	10

Notes:

ft = feet

ft BGS = feet below ground surface

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

Table 2
Evaluation of Remedial Technologies
Plant Branch AP-E, Putnam County, Georgia

Regulatory Citation for Criteria:		40 CFR 257.96(C)(1)		40 CFR 257.96(C)(1)	40 CFR 257.96(C)(1)
Corrective Measure	Description	Performance	Reliability	Ease of Implementation	Potential Impacts
Geochemical Approaches (In-Situ Injection)	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to promote either anaerobic or aerobic attenuation of beryllium (Be) and cobalt (Co). However, the main attenuation mechanism for Be and Co is sorption, which is more dependent on pH than redox. Under anaerobic conditions, Be and Co would be attenuated within sparingly soluble sulfide minerals. Under aerobic conditions, soluble iron or manganese and oxygen (either via air sparging or through a chemical oxidant) would be injected to promote the formation of iron or manganese (oxy-) hydroxides for subsequent sorption of Be and Co onto these mineral phases. If sufficient iron is present in groundwater, the use of air sparging alone may be considered to precipitate iron (oxy-) hydroxides for sorption. In-situ chemical oxidation (ISCO) or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility of certain inorganic compounds, including Be and Co.	The effective immobilization of Be and Co at neutral to alkaline pH can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. This immobilization has been shown at other sites under aerobic and anaerobic conditions; however, the anaerobic approach (involving the injection of an electron donor together with iron or manganese and sulfur) requires careful study and testing. While aerobic approaches are somewhat less complex, additional aquifer characterization is needed to further evaluate these options.	Reliability dependent on permeability of the subsurface and the amount and distribution of secondary iron or manganese (oxy-) hydroxides (for aerobic approach), or electron donors and soluble iron or manganese and sulfur that can be consistently distributed (for anaerobic approach). Reliable technology if injected materials can be distributed throughout the impacted aquifer. Bench- and/or pilot-scale treatability testing programs are needed to understand the biogeochemical processes that would effectively reduce migration of Be and Co in groundwater.	Moderate. Installation of injection well network or other injection infrastructure would be required. Alternative installation approaches may be considered, such as along the downgradient edge of impacted groundwater, which would function similar to a PRB application. The potential for clogging of aquifer matrix and/or injection well infrastructure is an implementation consideration. Chemical distribution during injections (i.e., radius of influence) needs to be evaluated.	Minimal impacts are expected if remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Redox-altering processes have the potential to mobilize naturally-occurring constituents as an unintended consequence if not properly studied and implemented.
Hydraulic Containment ("Pump and Treat")	Hydraulic containment refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.). It is applicable to a variable mix of inorganic constituents, including dissolved Be and Co.	Pump and treat (P&T) is effective at providing hydraulic control, but it is unclear whether full groundwater remediation can be achieved without further understanding attenuation mechanisms at the Site. At BRGWC-38S and BRGWC-33S, implementation of the corrective measure is contingent on completing additional assessment activities (i.e., high-resolution site characterization, pump tests, flow modeling, and capture zone analysis). This is needed to refine the constituent distribution in the subsurface to target specific zones for pumping for improved mass recovery efficiency/effectiveness and to further evaluate the potential remedy performance.	Generally reliable for hydraulic containment, but uncertainty exists whether groundwater remediation goals can be achieved within a reasonable time frame without further understanding attenuation mechanisms.	Moderate. Proven approach, and supplemental installation of extraction wells/trenches is fairly straightforward. The extracted groundwater may potentially require an above-ground treatment system. A variety of sorption and precipitation approaches exist for ex-situ treatment of Be and Co. Operation and maintenance (O&M) requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Moderate. The main potential impacts are related to the presence and operation of an on-site above-ground water treatment facility and related infrastructure to convey and treat extracted groundwater. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone.
Monitored Natural Attenuation (MNA)	MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or oxidation-reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Attenuation mechanisms for inorganic constituents at CCR sites, including Be and Co at BRGWC-38S and Co at BRGWC-33S, are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (sorption or oxidation reduction reactions). Chemical attenuation processes include precipitation and sorption reactions such as adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Further, oxidation-reduction (redox) reactions, via abiotic or biotic processes, can transform the valence states of some inorganic constituents to less soluble and thus less mobile forms. For Be and Co, the main attenuation processes include sorption to iron and manganese oxides and for Co, formation of sparingly soluble sulfide minerals.	Physical and chemical MNA mechanisms for Be and Co, including dilution, dispersion, sorption, and oxidation reduction reactions, can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. Attenuation processes for Be and Co are already occurring at the site as evidenced by data from the assessment wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted. The attenuation processes already at work for Be and Co at BRGWC-38S and for Co at BRGWC-33S will further enhance the effectiveness of MNA.	Reliable as long as the aquifer conditions that result in Be and Co attenuation remain favorable (and/or are being enhanced) and sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved Be and Co, or in combination with a second technology.	Reasonably implementable with respect to infrastructure, but moderate to complex with respect to documentation. Proven approach, but additional data are needed to show that the existing attenuation capacity is sufficient to meet site objectives within a reasonable timeframe. A monitoring well network already exists to implement future groundwater monitoring efforts.	None. MNA relies on the natural processes active in the aquifer matrix to reduce constituent concentrations without disturbing the surface or the subsurface.
Permeable Reactive Barrier	Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. A solid phase composed of calcite or similar material alter the pH of impacted groundwater is currently proposed for the removal of Co and Be. Treatability testing would be required to confirm Site compatibility for this measure. Exact placement of the PRB is contingent on the groundwater flow direction and refinement of the plume extent to ensure that the reactive media intercepts impacted groundwater.	PRBs have been shown to effectively address Co in groundwater if the right mix of reactive materials (e.g., ZVI and carbon) is selected for removal/immobilization of the constituent. The approach for this Site would be to use a solid phase including calcite to increase groundwater pH and cause attenuation of both Co and Be. It is expected to achieve GWPS for Co and Be as impacted groundwater passes through the reactive barrier. Additional testing is required to select the appropriate scale and sorptive media mix.	Reliable groundwater corrective measure, but loss of reactivity over time may require re-installation depending on the duration of the remedy. Additional data collection, including conducting a bench and/or pilot study, is needed to better characterize current attenuation mechanisms and/or select the appropriate reactive media mix for a PRB wall.	Moderate to difficult. Trenching at depth (up to 40 feet) would be required to install a mix of reactive materials in the subsurface. Continuous trenching may be the most feasible construction method. Installation methods and materials are readily available. Once installed, treatment will be passive and O&M requirements are minimal if replacement of the PRB is not necessary.	Minimal impacts are expected following the construction of the remedy. However, ZVI has the potential to create anaerobic conditions downgradient of the PRB wall that may mobilize redox-sensitive naturally-occurring constituents. These conditions need to be carefully monitored. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures.
Phytoremediation / TreeWells	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure. Within the context of AP-E, this corrective measure would likely use an engineered (proprietary) TreeWell phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. The system promotes root development to the targeted groundwater zone (depth), allowing for hydraulic control of impacted groundwater. In addition, immobilization of Be and Co within the root zone as well as incidental uptake of dissolved Be and Co with groundwater is expected to occur concurrent with hydraulic control.	Once established (typically at the end of the third growing season), a TreeWell system is effective for providing hydraulic containment of groundwater, and potential reduction of Be and Co concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Additional aquifer testing and/or groundwater flow modeling may be needed to confirm the suitability of this technology.	Engineered phytoremediation is a proven technology where hydrogeologic factors are taken into account (e.g., hydraulic conductivity, flow velocity, depth to impacted groundwater zone, etc.). This is considered an active remedial approach through the use of trees as the "pumps" driving the system. Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of TreeWell units.	Reasonably implementable to moderate. Engineered approach has been proven effective, and specific depth zones can be targeted. Trees are installed as "tree wells" in a large diameter boring to get the roots deep enough to intercept impacted groundwater flow paths. Area must be clear of above and below-ground structures (i.e., power lines). The system, once established (approximately three growing seasons), is a self-maintaining, sustainable remedial system that has no external energy requirements and little maintenance (i.e., efforts normally associated with landscaping).	Minimal impacts are expected. In fact, there are several positive impacts expected, including enhanced aesthetics, wildlife habitat, and limited energy consumption.
Subsurface Vertical Barrier Walls	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. In general, barrier walls are designed to provide containment; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective. A barrier wall might be used in conjunction with a "funnel and gate" system for a PRB rather than a stand-alone technology. Barrier walls can also be used in downgradient applications; to limit discharge to a surface water feature or to reduce aquifer recharge from an adjacent surface water feature when groundwater extraction wells are placed near one. A variety of barrier materials can be used, including cement and/or bentonite slurries, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier.	Barrier walls are a proven technology for seepage control and/or groundwater cutoff at impoundments. Slurry walls can be installed up to approximately 90 ft below ground surface (bgs), and groundwater impacts at the site are observed at depths less than 40 ft bgs. Within the context of BRGWC-33S and BRGWC-38S, groundwater could either be directed to "treatment gates" for passive treatment (in a PRB) or migration of impacted groundwater could be minimized via barrier wall installation. Additional subsurface investigations, aquifer testing, and compatibility testing with site-specific groundwater will be needed.	Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is typically not the primary objective.	Moderate to difficult. Trenching will be required to fill in the various slurry mixes; alternatively, sheet pile installations can be accomplished without excavation of trenches. The application of barrier walls is limited by the depth of installation. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater will be required. O&M requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Minimal impacts are expected following the construction of the remedy. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected, which can affect other aspects of groundwater corrective action. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone that may result in the mobilization of other constituents that may require treatment.

Table 2
Evaluation of Remedial Technologies
Plant Branch AP-E, Putnam County, Georgia

Regulatory Citation for Criteria: Corrective Measure	40 CFR 257.96(C)(2)		40 CFR 257.96(C)(3)		Relative Costs	Evaluation of Retainage
	Time Requirement to Begin/Complete	Institutional Requirements	Other Env or Public Health Requirements			
Geochemical Approaches (In-Situ Injection)	Installation of the injection network can be accomplished relatively quickly (1 to 2 months). However, a thorough pre-design investigation, geochemical modeling, and/or bench- and/or pilot-testing will be required to obtain design parameters prior to design and construction of the corrective measure, which may take up to 24 months. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation process kinetics of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.	No institutional requirements are expected at this time.	None expected at this point. Based on downgradient sampling results, there currently are no complete exposure pathways for potential receptors downgradient of BRGWC-38S and BRGWC-33S. Potential for mobilization of redox-sensitive constituents exists during implementation of an anaerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)	Remedial approach retained as a targeted injection layout may result in decreased concentrations of Co and Be in groundwater below the GWPS.	
Hydraulic Containment ("Pump and Treat")	Installation of extraction wells and/or trenches can be accomplished relatively quickly (1 to 2 months). However, additional aquifer testing, system design and installation, and permit approval may be required, which may take up to 24 months. The initiation of the approach would be contingent on the start-up of the wastewater treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system, but uncertainty exists with respect to the time to achieve GWPS without additional data collection to better understand attenuation mechanisms for Be and Co.	Depending on the effluent management strategy, modifications to the existing NPDES permit may be required, or obtaining a new underground injection control (UIC) permit may be needed if groundwater reinjection is chosen.	Based on downgradient sampling results, there currently are no complete exposure pathways for potential receptors downgradient of BRGWC-38S and BRGWC-33S. Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on remedy duration, complexity of above-ground treatment system, and volume of water processed)	During ash pond closure, there will be an on-site wastewater treatment plant that may be available for treatment of extracted groundwater. Therefore, P&T is a potentially viable interim corrective measure for Co and Be in groundwater at Plant Branch and will be retained for further evaluation.	
Monitored Natural Attenuation (MNA)	The infrastructure to initiate MNA is already in place. Demonstrating attenuation mechanisms and capacity can be time-consuming and can take up to 24 months. MNA is expected to be successful within a reasonable time frame following pond closure. Engineering measures will be implemented to minimize potential impacts to the subsurface during closure activities and routine groundwater monitoring will be used to verify that groundwater impacts remain stable or decrease over time.	No institutional requirements are expected at this time.	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding community. Based on downgradient sampling results, there currently are no complete exposure pathways for potential receptors downgradient of BRGWC-38S and BRGWC-33S.	Low	Under current conditions, attenuation processes for Co and Be are already occurring as evidenced by groundwater data from assessment wells. Therefore, MNA is a potentially viable corrective measure for Co and Be in groundwater at Plant Branch and will be retained for further evaluation.	
Permeable Reactive Barrier	Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench- and/or pilot-testing would be required to obtain design parameters prior to design and construction of the remedy, which may take up to 24 months. Once installed, the time to achieve GWPS downgradient of the PRB is anticipated to be relatively quick.	No institutional requirements are expected at this time.	None expected at this point. Based on downgradient sampling results, there currently are no complete exposure pathways for potential receptors downgradient of BRGWC-38S and BRGWC-33S. Following installation, the remedy is passive (but may require replacement). However, certain treatment media (such as ZVI) have the potential to mobilize naturally-occurring constituents downgradient of the PRB.	Medium to high (for installation) - minimal O&M requirements if replacement is not necessary	Given groundwater depth, velocity, and limited spatial occurrence of impacts at the Site, a small solid-phase PRB (likely containing calcite or a similar alternative) presents a viable groundwater corrective measure and will be retained for further consideration.	
Phytoremediation / TreeWells	The design phase will require some groundwater modeling for optimal placement of the TreeWell units, which may take up to 6 months. Additional aquifer testing and design may be required, which may take up to 24 months. Depending on the number of required units, the installation effort is expected to last several weeks. Hydraulic capture/control is expected approximately three years after planting and system performance is expected to further improve over time.	No institutional requirements are expected at this time.	None expected at this point. Based on downgradient sampling results, there currently are no complete exposure pathways for potential receptors downgradient of BRGWC-38S and BRGWC-33S. Following installation, the remedy is passive and does not require external energy.	Medium (for installation) - minimal O&M requirements	Given groundwater depth and velocity at the Site, phytoremediation presents a viable groundwater corrective measure. However, given the infrastructure in the dike upgradient of BRGWC-33S and anticipated closure activities for the closure-by-removal strategy in the vicinity of the SSL wells, this corrective measure will not be retained for further consideration.	
Subsurface Vertical Barrier Walls	Installation of a barrier wall can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, design and additional aquifer and compatibility testing will be required, which may take up to 24 months. Once installed, preventing migration of constituents dissolved in groundwater is anticipated to be relatively quick. Since this approach does not treat the downgradient area of impacted groundwater but prevents migration from a source area, it will likely have to be maintained long-term and coupled with other approaches.	No institutional requirements are expected at this time.	Based on downgradient sampling results, there currently are no complete exposure pathways for potential receptors downgradient of BRGWC-38S and BRGWC-33S. Due to the need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on length and depth of wall, remedy duration and complexity of above-ground treatment system)	Given AP-E closure by removal, the limited extent of impacts, and initial geochemical investigation, Subsurface Vertical Barrier Walls have not been retained for further consideration.	

Table 3
Temporary Piezometer Well Construction Summary
Plant Branch AP-E, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting ⁽¹⁾	Northing ⁽¹⁾	Ground Surface Elevation (ft)	Top of Casing Elevation ⁽²⁾ (ft)	Top of Screen Elevation ⁽²⁾ (ft)	Bottom of Screen Elevation ⁽²⁾ (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
PZ-76I	Downgradient E	8/2/2023	2554903.80	1164366.20	430.89	433.84	399.5	409.5	41.8	10
PZ-77I	Downgradient E	8/1/2023	2554810.04	1164396.90	430.31	433.33	400.6	410.6	40.0	10

Notes:

ft = feet

ft BGS = feet below ground surface

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

Table 4
 Summary of Soil Total Metals
 Plant Branch AP-E, Putnam County, Georgia

Location ID	PZ-76I	PZ-77I
Sample Depth	33 to 37 ft BGS	33 to 37 ft BGS
Sample Date	8/30/2023	8/30/2023
Analysis^(1,2)		
Beryllium	3.2	2.6
Cobalt	9.6	9.2
Iron	27000	20000
Manganese	570	450

Notes:

-- = Parameter was not analyzed

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

ft BGS = feet below ground surface

(1) Parameters are reported in units of milligram per kilogram (mg/kg).

(2) Metals were analyzed by EPA Method 6010D, 6020B.

(3) Analysis was completed by SGS analytical laboratory.

(4) Results for metals at other locations may be found in the prior semiannual progress report issued in July 2023 (Geosyntec, 2023b).

Table 5
 Summary of Whole Rock Analysis
 Plant Branch AP-E, Putnam County, Georgia

Location ID	PZ-761	PZ-771	Units
Sample Depth	33 to 37 ft BGS	33 to 37 ft BGS	
Sample Date	8/30/2023	8/30/2023	
Mineral/Compound			
Al₂O₃	16.01	16.29	%
CaO	1.61	1.75	%
Cr₂O₃	<0.01	<0.01	%
Fe₂O₃	3.84	2.61	%
K₂O	3.73	3.94	%
Loss on Ignition (LOI)	3.78	2.78	%
MgO	1.25	0.97	%
MnO	0.09	0.06	%
Na₂O	1.73	2.39	%
P₂O₅	0.11	0.13	%
SiO₂	66.65	68.13	%
TiO₂	0.47	0.37	%
V₂O₅	<0.01	<0.01	%
Sum	95.63	96.80	%

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

ft BGS = feet below ground

Table 6
Summary of Groundwater Analytical Data
Plant Branch AP-E, Putnam County, Georgia

Well ID:	BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-52D	PZ-53D	PZ-70I	PZ-76I	PZ-77I		
Sample Date:	08/22/23	08/22/23	08/22/23	08/22/23	08/22/23	08/23/23	08/22/23	08/22/23	08/22/23	08/23/23	08/23/23	08/22/23	08/23/23	08/23/23	08/24/23	08/23/23	08/23/23	08/23/23	08/23/23	
Parameter ^(1,2,3)																				
APP. III	Boron	0.00738 J	0.00649 J	0.00764 J	0.0073 J	0.00611 J	0.0601	0.946	1.9	2.36	1.04	0.00802 J	1.37	0.00855 J	0.0668	1.06	1.01	2.1	0.936	
	Calcium	5.02	12.6	14.9	14.3	3.79	47.9	135	83.4	71.4	43.4	3.47	28.7	8.74	46.7	74.4	31.4	141	86.8	
	Chloride	2.14	1.9	3.37	3.53	2.34	5.18	32.7	13.2	6.21	8.26	1.89	6.44	2.73	6.9	4.43	5.75	5.28	12.1	
	Fluoride	0.229	0.267	0.277	0.289	0.0787 J	0.484	0.123	0.0816 J	0.347	0.301	0.0445 J	0.748	< 0.033	1.94	0.334	0.229	--	--	
	pH	5.97	6.91	6.09	6.36	6.27	6.16	4.58	5.72	5.90	5.26	5.42	3.91	5.37	6.99	6.54	5.36	5.71	5.39	
	Sulfate	0.526	6.85	0.54	1.83	0.467	180	466	299	269	223	0.355 J	274	46.2	112	293	139	158	269	
TDS	36	81	73	80	30	391	778	495	485	398	42	459	112	372	499	252	304	466		
APP. IV	Beryllium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0019	< 0.0002	0.0002 J	< 0.0002	< 0.0002	0.0068	0.000259 J	< 0.0002	< 0.0002	0.000325 J	< 0.0002	0.000318 J	
	Cobalt	0.000707 J	0.000707 J	0.000327 J	0.000474 J	< 0.0003	< 0.0003	0.0659	0.00384	< 0.0003	< 0.0003	< 0.0003	0.139	< 0.0003	0.000307 J	< 0.0003	0.000784 J	0.00587	0.0332	
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	37.1	71.7	68.4	77.2	36.8	71.8	1.4 J	28.9	52.7	20.6	21.9	< 0.725	21	180	50.9	14.5	23.1	21.9	
	Alkalinity (Carbonate as CaCO3)	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725
	Alkalinity (total) as CaCO3	37.1	71.7	68.4	77.2	36.8	71.8	1.4 J	28.9	52.7	20.6	21.9	< 0.725	21	180	50.9	14.5	23.1	21.9	
	Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0505	0.122
	Ferrous Iron	--	--	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	--	--
	Iron	0.0513 J	0.0904 J	0.263	0.0953 J	< 0.033	0.0446 J	0.0388 J	< 0.033	0.1	0.0387 J	< 0.033	0.0343 J	< 0.033	0.0556 J	0.327	0.105	0.194	0.402	
	Magnesium	4.66	7.27	6.25	9.41	3.48	24.7	19.5	18.9	32	17.2	1.16	30.4	5.04	10.7	17.3	11.1	5.68	10.6	
	Manganese	0.0283	0.0145	0.0105	0.00104 J	0.0012 J	< 0.001	3.14	3.33	0.0108	0.00167 J	< 0.001	1.43	0.00237 J	0.00623	0.503	0.291	4.65	3.51	
	Nitrate	0.218	< 0.033	0.203	0.266	0.646	0.094 J	0.0707 J	0.0431 J	< 0.033	0.136	0.294	0.123	0.0695 J	< 0.033	0.0807 J	0.175	< 0.033	0.151	
	Potassium	0.415	5.25	0.435	0.933	0.607	1.19	14.4	3.52	3.93	3.4	1.79	5.28	3.58	7.47	5.84	3.91	6.83	13.6	
Sodium	3.09	5.26	3.48	4.69	2.11	24.3	39.9	20.7	18.5	36.9	4.23	36.3	11.4	68.2	42.8	19.5	19.7	27.9		
Sulfide	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	
FIELD	Dissolved Oxygen (DO)	1.31	0.24	1.87	5.49	7.07	1.51	0.15	1.54	0.16	1.83	7.47	1.8	4.58	6.83	1.87	0.16	0.23	0.3	
	Oxidation-reduction potential (ORP) (mV)	42	84.58	51.92	77.51	114.4	59.12	186.45	64.94	73.18	144.65	176.4	132.46	83.2	154.76	115.95	82.38	95.74	135.5	
	Temperature (°C)	19.8	21.91	19.97	20.03	21.75	22.05	21.78	25.89	21.42	22.79	29.25	22.7	21.52	35.72	24.46	22.8	22.98	22.8	
	Conductivity (µS/cm)	50.35	151.72	118.14	117.55	65.26	440.62	1,075.53	570.67	548.82	552.45	56	632.85	134.85	622.07	742.38	302.46	341.1	715.49	
	pH (S.U.)	5.97	6.91	6.09	6.36	6.27	6.16	4.58	5.72	5.9	5.26	5.42	3.91	5.37	6.99	6.54	5.36	5.71	5.39	
Turbidity (NTU)	0.94	1.1	2.82	2.63	1.88	0.36	0.59	0.52	0.61	0.83	0.51	0.83	2.71	3.37	1.61	0.23	6.45	4.97		

Notes:
 -- = Parameter was not analyzed
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).
 J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).
 TDS = total dissolved solids
 U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)
 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.
 (3) The pH value presented was recorded at the time of sample collection in the field.

Table 7
Summary of Sulfide Analytical Data
Plant Branch AP-BCD and AP-E, Putnam County, Georgia

Well	Date	Laboratory	Analytical Method	Sulfide
BRA-BRGWA-2S	8/22/2023	GEL	4500-S2-D	< 0.033
	10/30/2023	Eurofins	4500-S2-F	< 0.81
BRA-BRGWA-2I	8/22/2023	GEL	4500-S2-D	< 0.033
	8/22/2023	Eurofins	4500-S2-D	< 0.81
	10/30/2023	Eurofins	4500-S2-F	< 0.81
BRA-BRGWA-5I	8/22/2023	GEL	4500-S2-D	< 0.033
	8/22/2023	Eurofins	4500-S2-F	< 0.83
BRA-BRGWA-6S	8/22/2023	GEL	4500-S2-D	< 0.033
	8/22/2023	Eurofins	4500-S2-F	< 0.89
	10/30/2023	Eurofins	4500-S2-F	< 0.81
BRA-BRGWA-50	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.83
BRA-PZ-44	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-51I	8/23/2023	GEL	4500-S2-D	< 0.033
	10/31/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-51D	8/21/2023	GEL	4500-S2-D	0.192
	10/31/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-57I	8/21/2023	GEL	4500-S2-D	< 0.033
	8/21/2023	Eurofins	4500-S2-F	< 0.83
	10/30/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-58I	8/23/2023	GEL	4500-S2-D	< 0.033
	11/1/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-59I	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	6
	10/31/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-61I	8/22/2023	GEL	4500-S2-D	< 0.033
	10/31/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-64I	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.81
	10/30/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-65I	8/21/2023	GEL	4500-S2-D	< 0.033
	8/21/2023	Eurofins	4500-S2-F	2.5
	10/31/2023	Eurofins	4500-S2-D	< 0.81
BRA-PZ-66I	10/31/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-76I	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.81
BRA-PZ-77I	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.89
BRA-BRGWC-33S	8/22/2023	GEL	4500-S2-D	< 0.033
	8/22/2023	Eurofins	4500-S2-F	< 0.83
BRA-BRGWC-35S	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.83
BRA-BRGWC-38S	8/23/2023	GEL	4500-S2-D	< 0.033
	8/23/2023	Eurofins	4500-S2-F	< 0.89

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

Sulfide concentrations are reported in milligrams per liter (mg/L)

GEL = GEL Laboratories, LLC

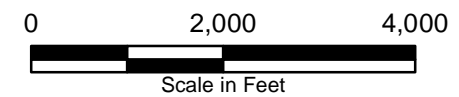
FIGURES



LEGEND
 - - - Plant Branch Property Boundary
 Approximate Ash Pond Boundary



Notes:
 1. Coordinate System: NAD 1983 State Plane Georgia West_FIPS (U.S. Feet).
 2. Property Boundary Provided by Southern Company Services.
 3. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



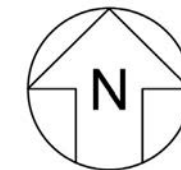
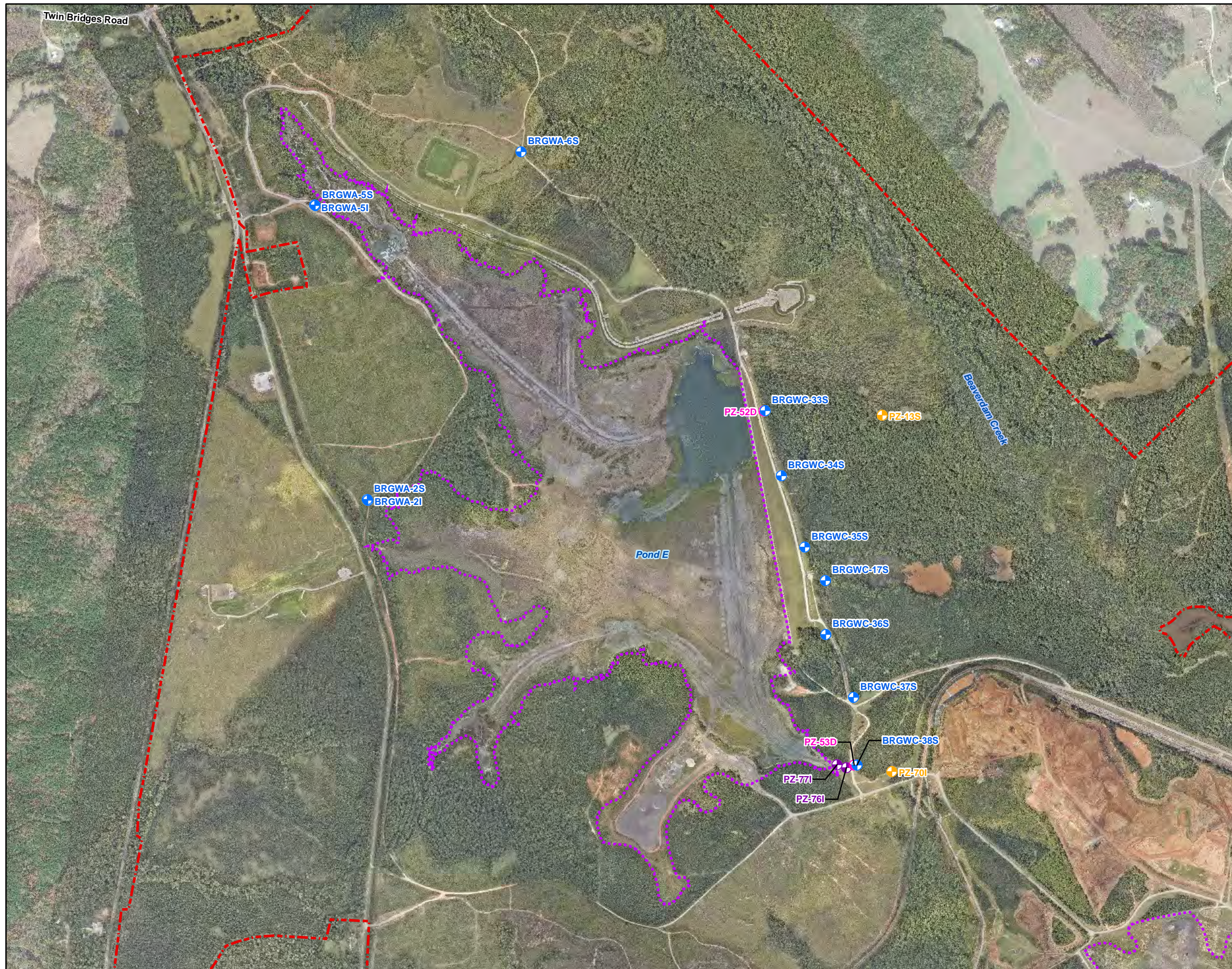
SITE LOCATION MAP
 GEORGIA POWER COMPANY
 PLANT BRANCH AP-E
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

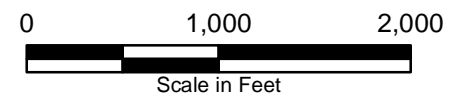
KENNESAW, GA FEBRUARY 2024

FIGURE 1



- LEGEND**
- + Detection Monitoring Well
 - + Horizontal Assessment Monitoring Well
 - + Vertical Assessment Monitoring Well
 - + Temporary Piezometer
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

Notes:
 1. Property Boundary Provided by Southern Company Services.
 2. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



MONITORING WELL NETWORK MAP

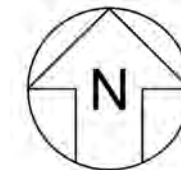
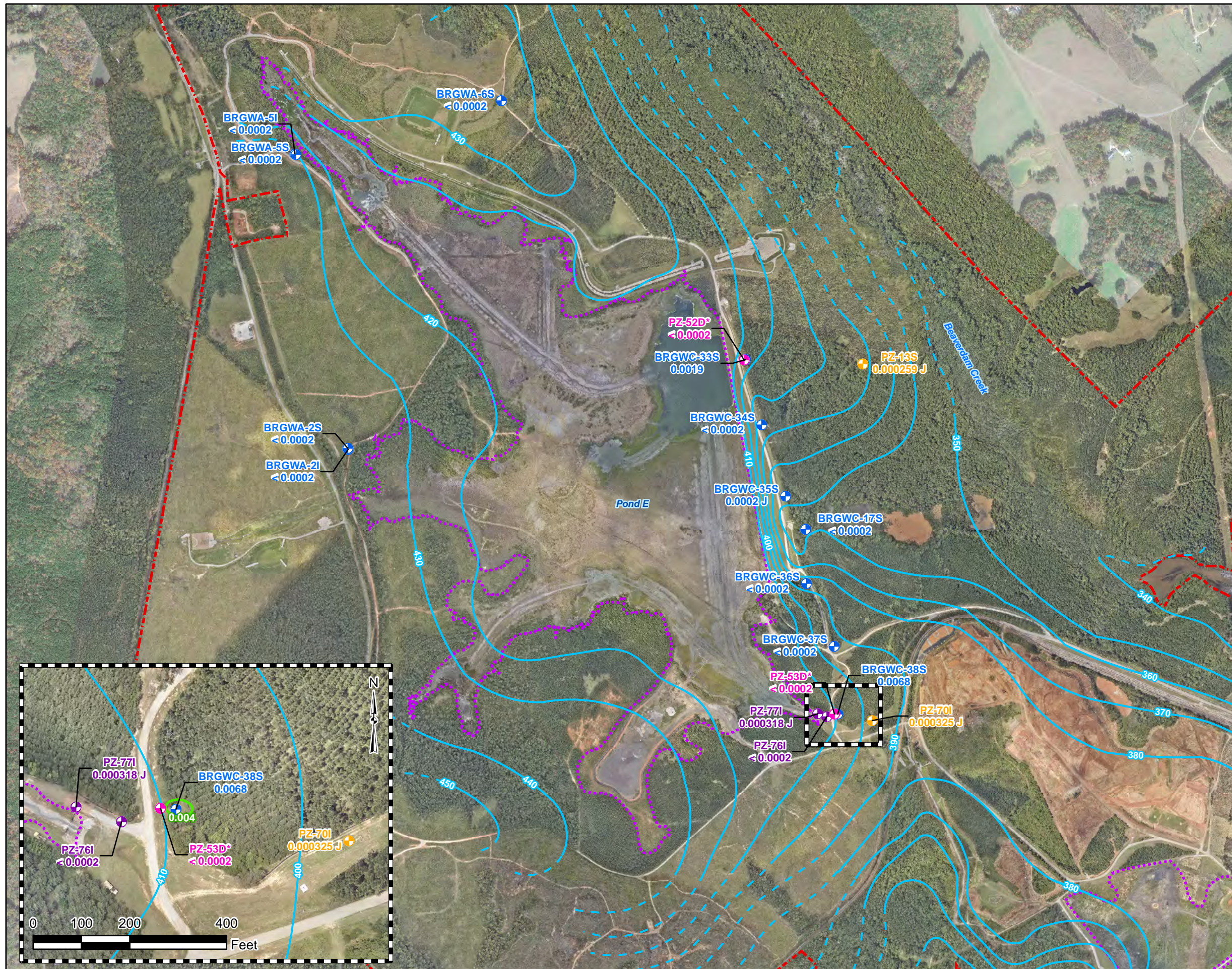
GEORGIA POWER COMPANY
 PLANT BRANCH AP-E
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

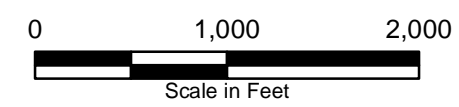
KENNESAW, GA FEBRUARY 2024

FIGURE 2



- LEGEND**
- ⊕ Detection Monitoring Well
 - ⊕ Horizontal Assessment Monitoring Well
 - ⊕ Vertical Assessment Monitoring Well
 - ⊕ Temporary Piezometer
 - Groundwater Elevation Iso-Contour (August 2023)
 - - - Groundwater Elevation Iso-Contour (Inferred)(August 2023)
 - Beryllium GWPS Iso-Concentration Contour (mg/L)
 - - - Plant Branch Property Boundary
 - - - Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the August 2023, semiannual monitoring event.
 2. Concentrations are reported in milligrams per liter (mg/L).
 3. Water level elevation recorded on August 21, 2023.
 4. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
 5. The Groundwater Protection Standard (GWPS) for beryllium is 0.004 mg/L.
 6. J - Estimated value.
 7. * - Data reported was not used to generate the iso-concentration contour.
 8. Property Boundary Provided by Southern Company Services.
 9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



**ISO-CONCENTRATION MAP,
BERYLLIUM -
AUGUST 2023**

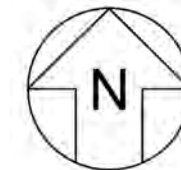
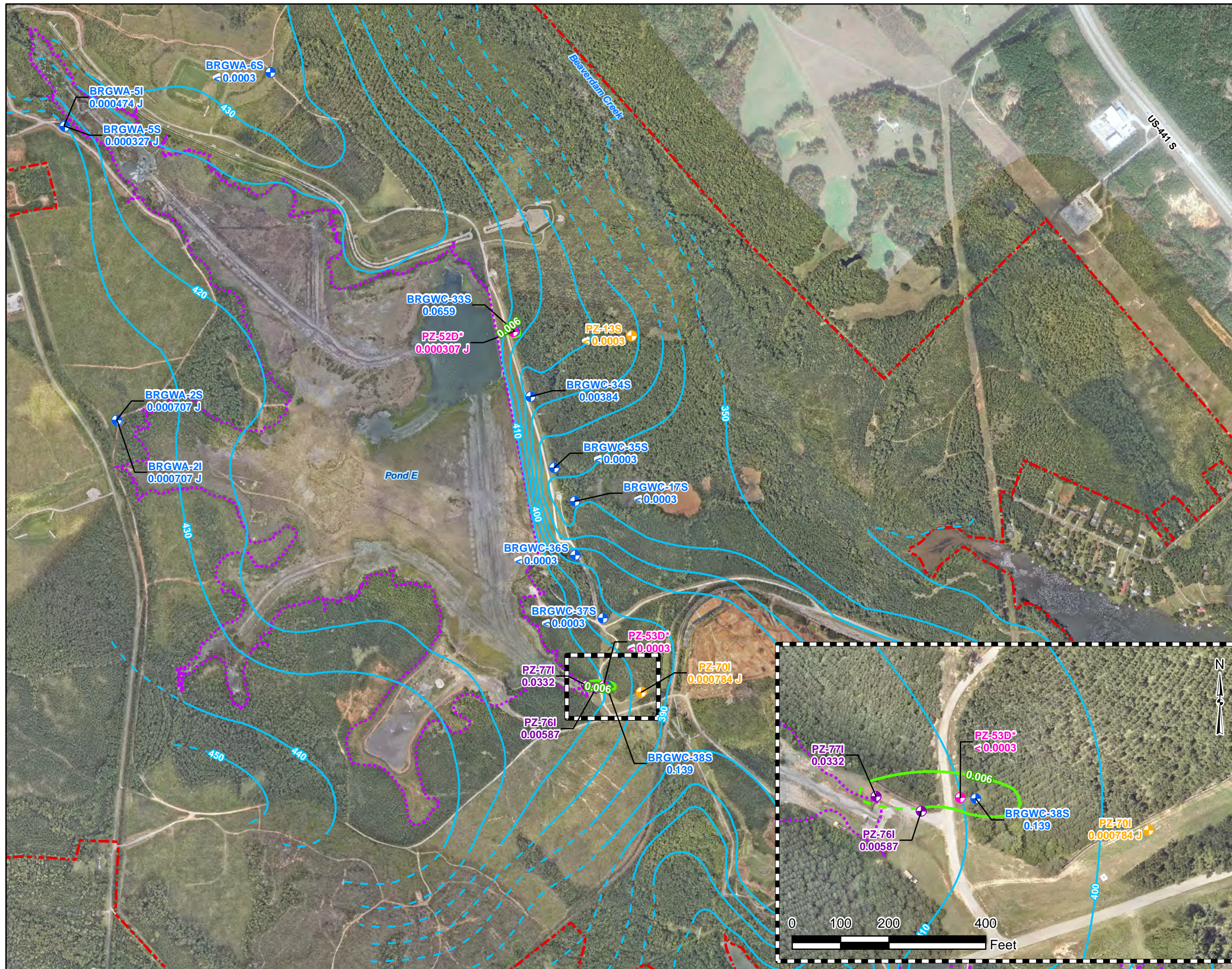
GEORGIA POWER COMPANY
PLANT BRANCH AP-E
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

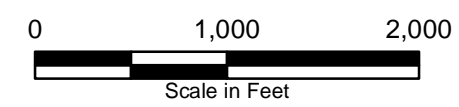
KENNESAW, GA FEBRUARY 2024

**FIGURE
3**



- LEGEND**
- + Detection Monitoring Well
 - + Horizontal Assessment Monitoring Well
 - + Vertical Assessment Monitoring Well
 - + Temporary Piezometer
 - Groundwater Elevation Iso-Contour (August 2023)
 - - - Groundwater Elevation Iso-Contour (Inferred)(August 2023)
 - - - Cobalt GWPS Iso-Concentration Contour (mg/L) (dashed where inferred)
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the August 2023, semiannual monitoring event.
 2. Concentrations are reported in milligrams per liter (mg/L).
 3. Water level elevation recorded on August 21, 2023.
 4. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
 5. The Groundwater Protection Standard (GWPS) for cobalt is 0.006 mg/L.
 6. J - Estimated value.
 7. * - Data reported was not used to generate the iso-concentration contour.
 8. Property Boundary Provided by Southern Company Services.
 9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, May 2023.



**ISO-CONCENTRATION MAP,
COBALT -
AUGUST 2023**

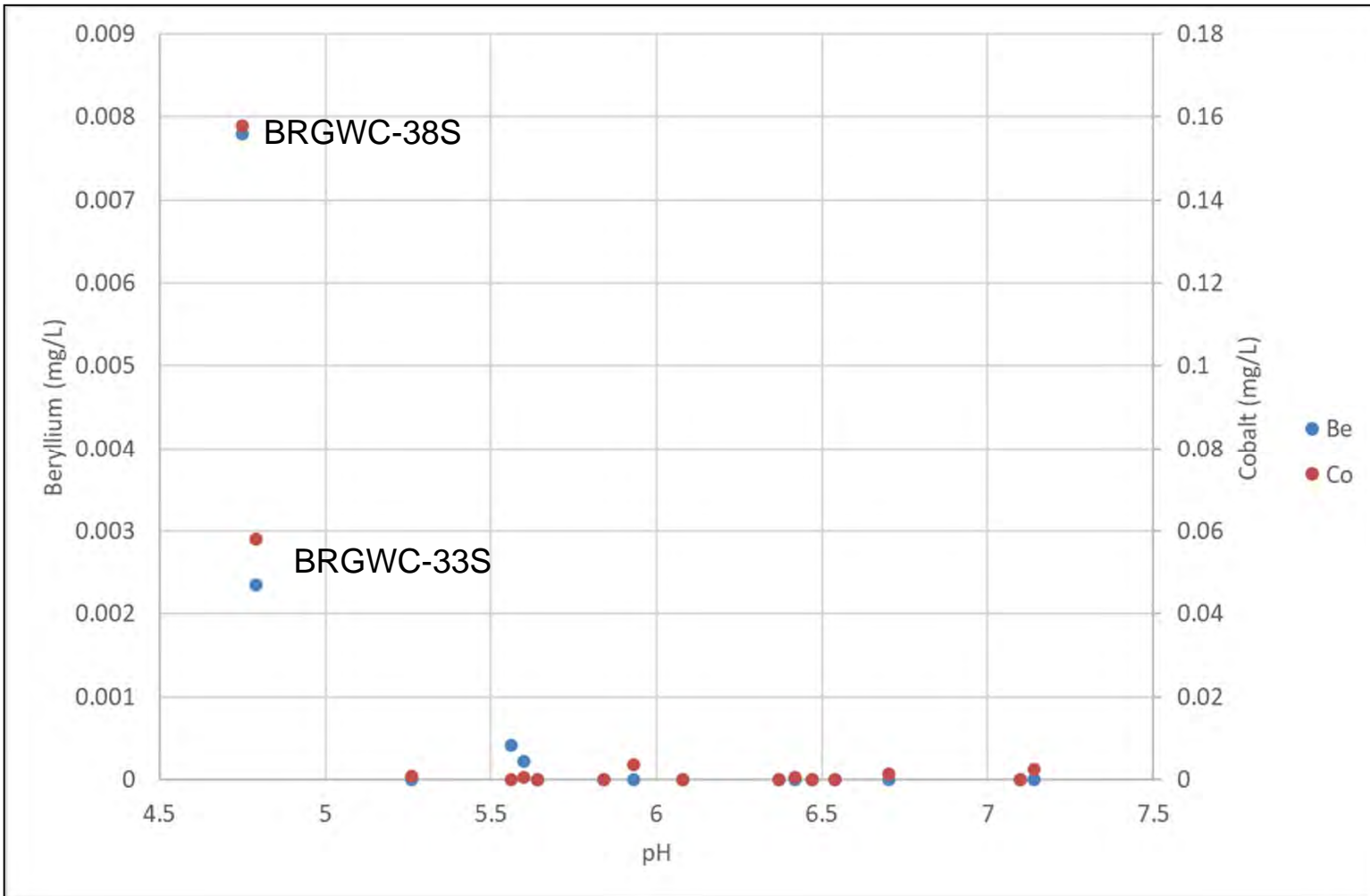
GEORGIA POWER COMPANY
PLANT BRANCH AP-E
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

KENNESAW, GA FEBRUARY 2024

**FIGURE
4**



Notes:

1. Groundwater samples collected during the spring semi-annual sampling event between 1/24/2023 and 2/2/2023.
2. mg/L = milligrams per liter
3. Be = beryllium
4. Co = cobalt

Beryllium and Cobalt Correlations with pH

Georgia Power Company
 Plant Branch AP-E
 Putnam County, Georgia

Prepared For:



Prepared By:



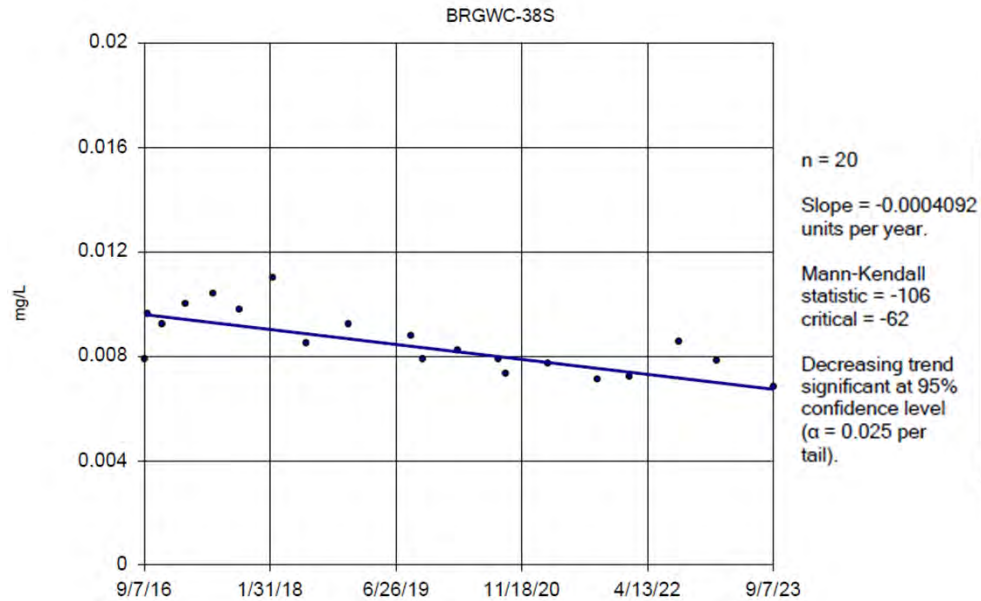
Kennesaw, GA

February 2024

Figure

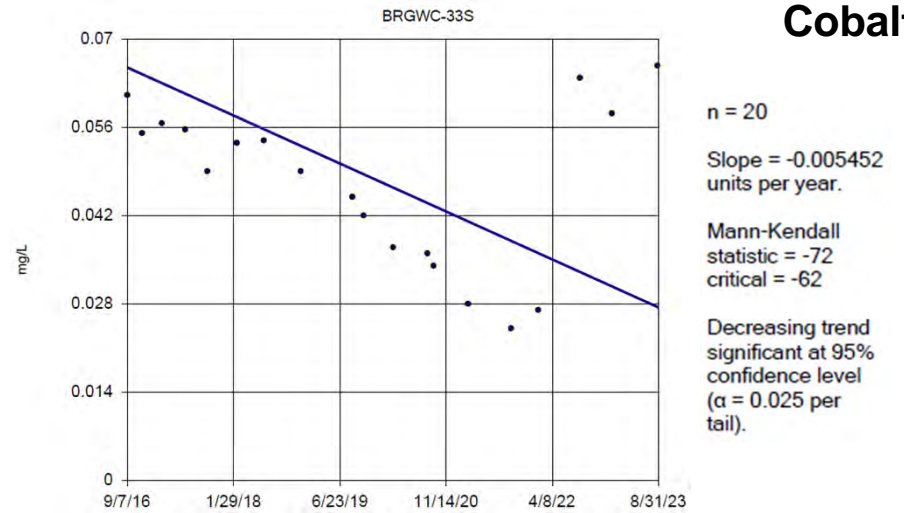
5

Beryllium

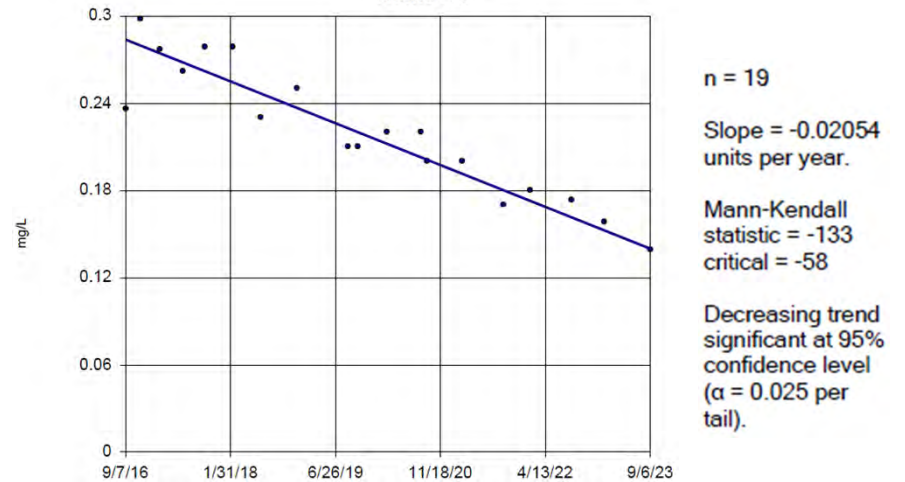


Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Cobalt



Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP
BRGWC-33S



Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Notes:

1. Groundwater trends completed by Groundwater Stats Consulting using groundwater data collected for the full monitoring period through the August 2023 semiannual sampling event.
2. Trends shown are in wells where statistically significant levels (SSLs) have been identified.
3. mg/L = milligrams per liter

Beryllium and Cobalt Concentration Trends

Georgia Power Company
Plant Branch AP-E
Putnam County, Georgia

Prepared For:



Prepared By:



Figure

6

Kennesaw, GA

February 2024

APPENDIX A

Potable Well Survey

Plant Branch

1078-1074 Milledgeville Rd
Eatonton, GA 31024

Inquiry Number: 07486311.1r
November 01, 2023

The EDR GeoCheck® Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
<u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-8
Physical Setting Source Records Searched	PSGR-1

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

PLANT BRANCH
1078-1074 MILLEDGEVILLE RD
EATONTON, GA 31024

TARGET PROPERTY COORDINATES

Latitude (North):	33.202258 - 33° 12' 8.13"
Longitude (West):	83.322819 - 83° 19' 22.15"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	283479.7
UTM Y (Meters):	3675922.0
Elevation:	382 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33083-B3 LAKE SINCLAIR WEST, GA
Version Date:	1972

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).

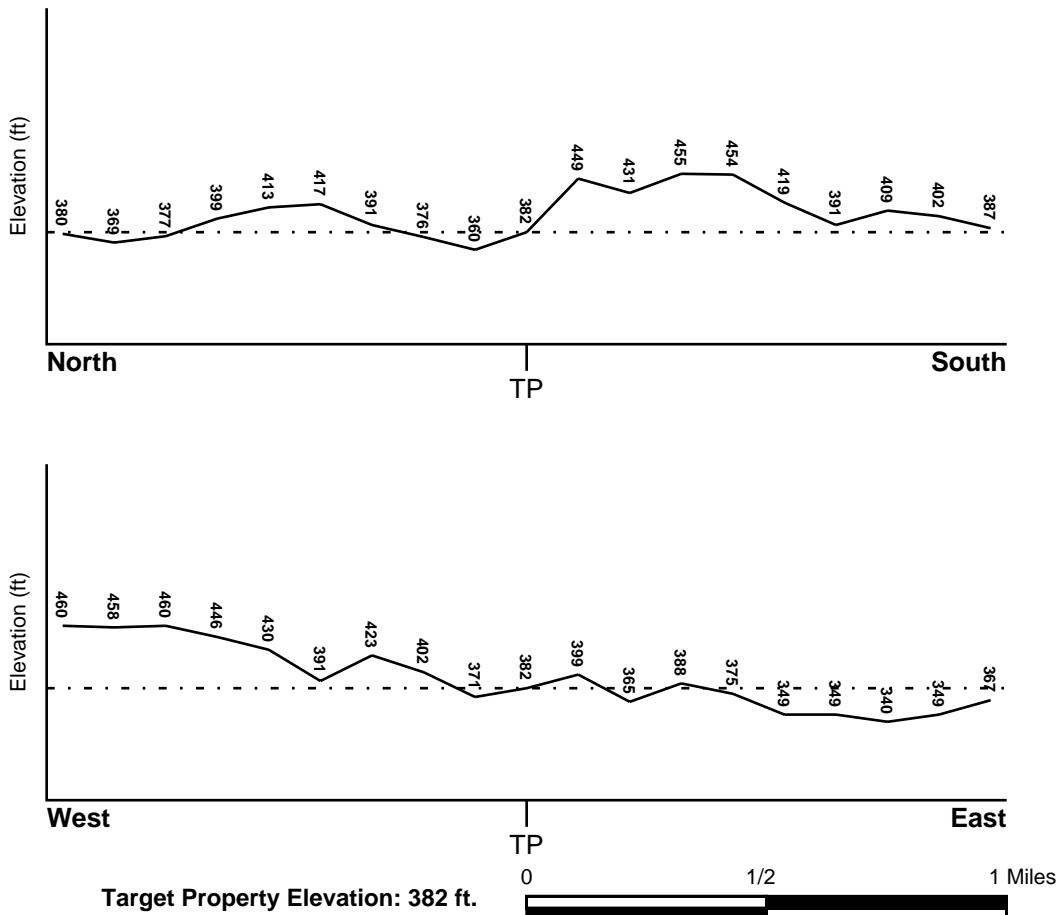
TOPOGRAPHIC INFORMATION

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 NE

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>
13009C0050D	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
Not Reported	

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
LAKE SINCLAIR 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: Paleozoic
System: Pennsylvanian
Series: Felsic paragneiss and schist
Code: mm1 (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Metamorphic Rocks

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).

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. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: CECIL

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 6.50 Min: 4.50
2	7 inches	11 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50
3	11 inches	50 inches	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: 2.00 Min: 0.60	Max: 5.50 Min: 4.50
4	50 inches	75 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sandy loam
loam
fine sandy loam

Surficial Soil Types: sandy loam
loam
fine sandy loam

Shallow Soil Types: clay
sandy clay
gravelly - loam

Deeper Soil Types: loamy fine sand
sandy loam
weathered bedrock

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.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	2.000
Federal FRDS PWS	2.000
State Database	2.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	USGS40000262392	1 - 2 Miles NNE
A2	USGS40000262391	1 - 2 Miles NNE
3	USGS40000262403	1 - 2 Miles NNE
B4	USGS40000262292	1 - 2 Miles WSW
5	USGS40000262254	1 - 2 Miles SW
B6	USGS40000262290	1 - 2 Miles WSW
9	USGS40000262386	1 - 2 Miles NE
10	USGS40000262278	1 - 2 Miles WSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

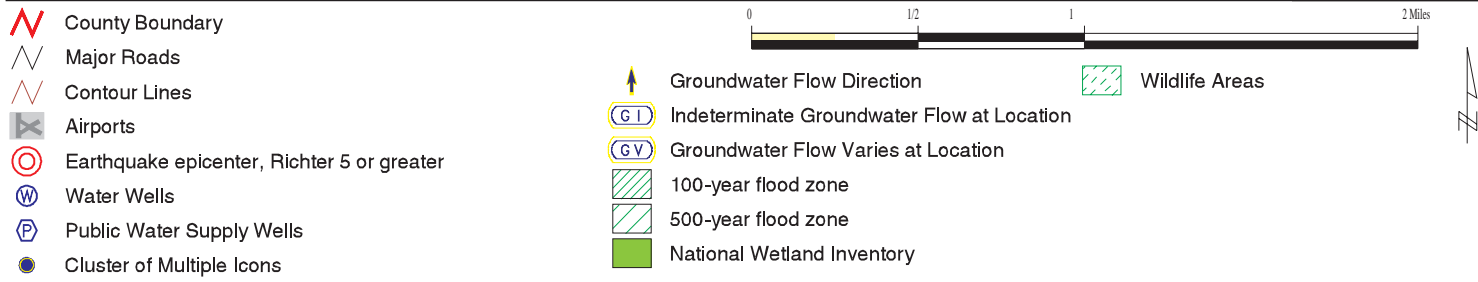
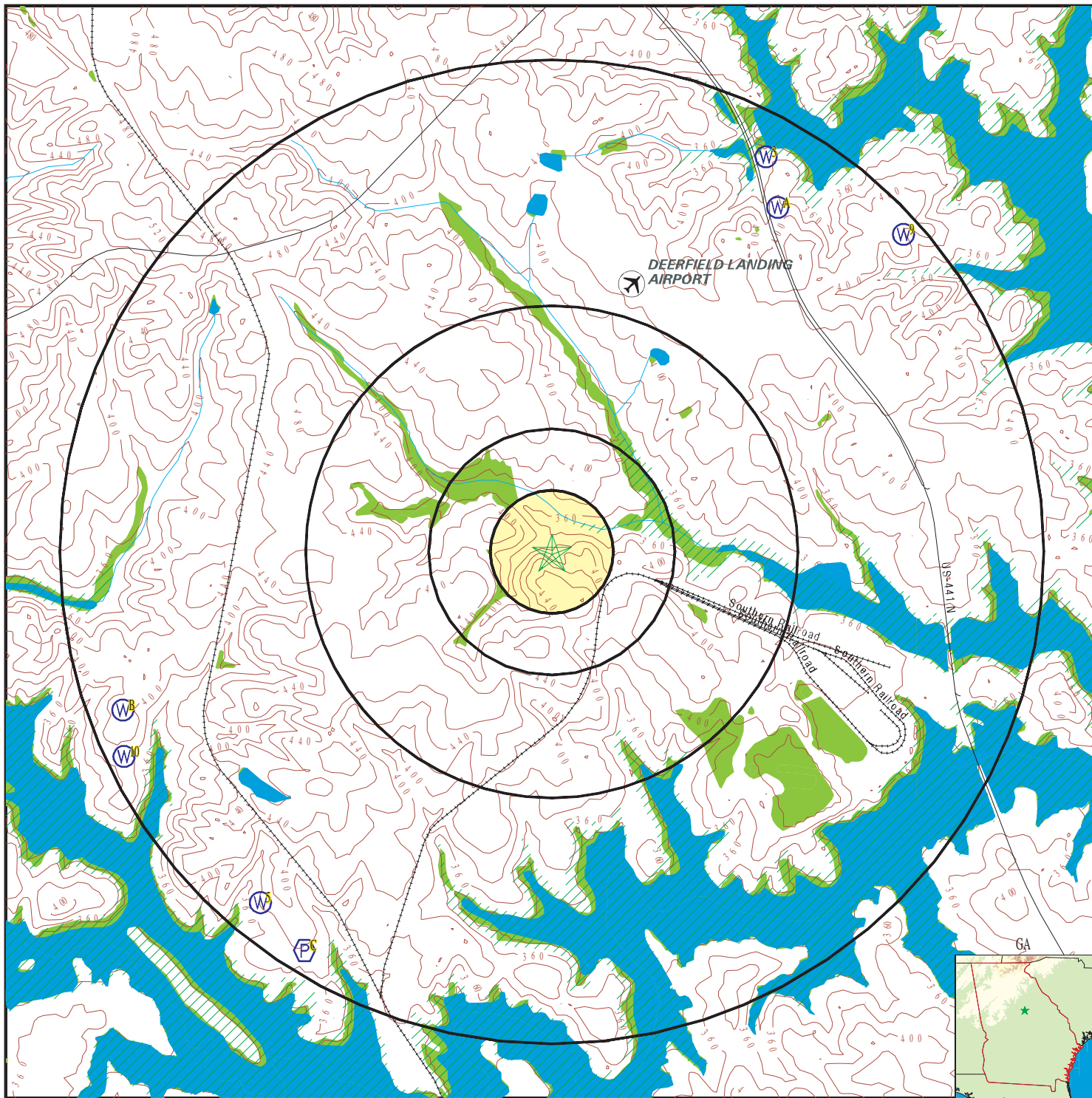
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
C7	GA2370006	1 - 2 Miles SSW
C8	GA2370008	1 - 2 Miles SSW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 07486311.1r



<p>SITE NAME: Plant Branch ADDRESS: 1078-1074 Milledgeville Rd Eatonton GA 31024 LAT/LONG: 33.202258 / 83.322819</p>	<p>CLIENT: Geosyntec Consultants CONTACT: Anthony Szwest INQUIRY #: 07486311.1r DATE: November 01, 2023 3:20 pm</p>
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A1
NNE
1 - 2 Miles
Higher

FED USGS USGS40000262392

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z016	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

A2
NNE
1 - 2 Miles
Higher

FED USGS USGS40000262391

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z017	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

3
NNE
1 - 2 Miles
Lower

FED USGS USGS40000262403

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z013	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

B4
WSW
1 - 2 Miles
Higher

FED USGS USGS40000262292

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z021	Type:	Well
Description:	Not Reported	HUC:	03070101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
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

**5
SW
1 - 2 Miles
Lower**

FED USGS USGS40000262254

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z020	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**B6
WSW
1 - 2 Miles
Higher**

FED USGS USGS40000262290

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z023	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**C7
SSW
1 - 2 Miles
Lower**

FRDS PWS GA2370006

Epa region:	04	State:	GA
Pwsid:	GA2370006	Pwsname:	PINE FOREST SUBDIVISION
Cityserved:	Not Reported	Stateserved:	GA
Zipsserved:	Not Reported	Fipscounty:	13237
Status:	Closed	Retpopsrvd:	1003
Pwssvconn:	388	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	ARCHEBELLE, DONNA	Contactorgname:	ARCHEBELLE, DONNA
Contactphone:	706-485-5252	Contactaddress1:	POB 3639
Contactaddress2:	Not Reported	Contactcity:	EATONTON
Contactstate:	GA	Contactzip:	31024-3639
Pwsactivitycode:	I		
Pwsid:	GA2370006	Facid:	15132
Facname:	PARCEL B/451 AVANT RD PLANT #4		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
Pwsid:	GA2370006	Facid:	16589
Facname:	160 BEAR CREEK EAST PLANT #5		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
Pwsid:	GA2370006	Facid:	16646
Facname:	143 EDGEWATER DRIVE PLANT #6		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
Pwsid:	GA2370006	Facid:	3517
Facname:	L525/308 LITTLE RIVER TRAILPLANT #3		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
PWS ID:	GA2370006	PWS name:	PINE FOREST SUBDIVISION
Address:	POB 390	Care of:	GREAT SOUTHEAST UTILITY CO.
City:	GREENSBORO	State:	GA
Zip:	306420390	Owner:	PINE FOREST SUBDIVISION
Source code:	Ground water	Population:	629
PWS ID:	GA2370006	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:	PINE FOREST SUBDIVISION
PWS type code:	C	Retail population served:	1003
Contact:	ARCHEBELLE, DONNA	Contact address:	663 GODFREY RD.
Contact address:	EATONTON	Contact city:	GA
Contact state:	31	Contact zip:	706-485-52
Contact telephone:	Not Reported		
County:	PUTNAM	Source:	Ground water
Treatment Objective:	DISINFECTION	Process:	HYPOCHLORINATION, POST
Population:	629		
PWS ID:	GA2370006	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000564	System name:	PINE FOREST SUBDIVISION
System address:	GREAT SE UTILITY COMPANY	System address:	POB 390
System city:	GREENSBORO	System state:	GA
System zip:	306420390		
Population served:	501 - 1,000 Persons	Treatment:	Treated
Latitude:	335554	Longitude:	0832024
Latitude:	331044	Longitude:	0832025
State:	GA	Latitude degrees:	33
Latitude minutes:	10	Latitude seconds:	44.0000
Longitude degrees:	83	Longitude minutes:	20
Longitude seconds:	25.0000		
State:	GA	Latitude degrees:	33
Latitude minutes:	19	Latitude seconds:	39.0000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude degrees: 83
 Longitude seconds: 6.0000

Longitude minutes: 21

Violation id: 20101
 State: GA
 Contamination code: 1040
 Violation code: 03
 Rule code: 331
 Violation measur: 0
 State mcl: 0
 Cmp edt: 12/31/2000

Orig code: S
 Violation Year: 2000
 Contamination Name: Nitrate
 Violation name: Monitoring, Regular
 Rule name: Nitrates
 Unit of measure: Not Reported
 Cmp bdt: 01/01/2000

Violation id: 20301
 State: GA
 Contamination code: 5000
 Violation code: 52
 Rule code: 350
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 1997
 Contamination Name: Lead and Copper Rule
 Violation name: Follow-up Or Routine LCR Tap M/R
 Rule name: LCR
 Unit of measure: Not Reported
 Cmp bdt: 10/01/1997

Violation id: 20401
 State: GA
 Contamination code: 5000
 Violation code: 52
 Rule code: 350
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2000
 Contamination Name: Lead and Copper Rule
 Violation name: Follow-up Or Routine LCR Tap M/R
 Rule name: LCR
 Unit of measure: Not Reported
 Cmp bdt: 10/01/2000

Violation id: 20604
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2004
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2004

Violation id: 20705
 State: GA
 Contamination code: 5000
 Violation code: 52
 Rule code: 350
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2003
 Contamination Name: Lead and Copper Rule
 Violation name: Follow-up Or Routine LCR Tap M/R
 Rule name: LCR
 Unit of measure: Not Reported
 Cmp bdt: 10/01/2003

Violation id: 20805
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2005
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2005

Violation id: 21008
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420

Orig code: S
 Violation Year: 2008
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		
Violation id:	21109	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2009
Cmp edt:	Not Reported		
Violation id:	21209	Orig code:	S
State:	GA	Violation Year:	2009
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:	07/01/2009
Cmp edt:	07/31/2009		
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St No addtl Formal Action needed		
Enforcement Category:	Informal		
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20401	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/24/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20401	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	07/22/2003
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20604	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/23/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20604	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/27/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/14/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/01/2004
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/01/2004
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/08/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	21008	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	07/09/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	21109	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	08/05/2009
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	21109	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/07/2009
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	21209	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	08/19/2009
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	21209	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	08/19/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20101
Contaminant:	NITRATE	Violation type:	3
Compliance start date:	1/1/2000 0:00:00	Compliance end date:	12/31/2000 0:00:00
Enforcement date:	9/6/2001 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	0		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20101
Contaminant:	NITRATE	Violation type:	3
Compliance start date:	1/1/2000 0:00:00	Compliance end date:	12/31/2000 0:00:00
Enforcement date:	9/6/2001 0:00:00	Enforcement action:	State Public Notif Received

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation measurement: 0

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20101
Contaminant:	NITRATE	Violation type:	3
Compliance start date:	1/1/2000 0:00:00	Compliance end date:	12/31/2000 0:00:00
Enforcement date:	9/6/2001 0:00:00		
Enforcement action:	State No Additional Formal Action Needed		
Violation measurement:	0		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20301
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/1997 0:00:00	Compliance end date:	12/31/2025 0:00:00
Enforcement date:	9/20/2001 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20401
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2000 0:00:00	Compliance end date:	7/24/2001 0:00:00
Enforcement date:	7/22/2003 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20401
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2000 0:00:00	Compliance end date:	7/24/2001 0:00:00
Enforcement date:	7/24/2001 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20604
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	7/23/2004 0:00:00
Enforcement date:	7/1/2004 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20604
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	7/23/2004 0:00:00
Enforcement date:	7/23/2004 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	12/1/2004 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	12/1/2004 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		

PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	7/14/2005 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	7/27/2004 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20805
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	7/8/2005 0:00:00
Enforcement date:	7/1/2005 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20805
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	7/8/2005 0:00:00
Enforcement date:	7/8/2005 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	21008
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	12/31/2025 0:00:00
Enforcement date:	No Enf Action as of	Enforcement action:	7/8/2009 0:00:00
Violation measurement:	Not Reported		

C8
SSW
1 - 2 Miles
Lower

FRDS PWS GA2370008

Epa region:	04	State:	GA
Pwsid:	GA2370008	Pwsname:	TALL TIMBERS-OAK OPENINGS
Cityserved:	Not Reported	Stateserved:	GA
Zipsserved:	Not Reported	Fipscounty:	13237
Status:	Closed	Retpopsrvd:	733
Pwssvconn:	279	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	ARCHEBELLE, DONNA	Contactorgname:	ARCHEBELLE, DONNA
Contactphone:	706-485-5252	Contactaddress1:	POB 3639
Contactaddress2:	Not Reported	Contactcity:	EATONTON
Contactstate:	GA	Contactzip:	31024-3639
Pwsactivitycode:	I		
Pwsid:	GA2370008	Facid:	15117
Facname:	WELLS 2 & 3 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA2370008	Facid:	15126
Facname:	116 BLUEGILL RD/L#1 - WELL #5 PLANT	Facactivitycode:	A
Factype:	Treatment_plant	Trtprocess:	hypochlorination, post
Trtobjective:	disinfection		
Factypecode:	TP		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pwsid:	GA2370008	Facid:	21184
Facname:	308 BLUEGILL ROAD-LOT 215 WELL #6 PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
PWS ID:	GA2370008	PWS name:	TALL TIMBERS-OAK OPENINGS
Address:	POB 390	Care of:	GREAT SOUTHEAST UTILITY CO.
City:	GREENSBORO	State:	GA
Zip:	306420390	Owner:	TALL TIMBERS-OAK OPENINGS
Source code:	Ground water	Population:	465
PWS ID:	GA2370008	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:	PUTNAM
Source:	Ground water	Treatment Objective:	DISINFECTION
Process:	HYPOCHLORINATION, POST	Population:	465
PWS ID:	GA2370008	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000465	System name:	TALL TIMBERS-OAK OPENINGS
System address:	GREAT SE UTILITY COMPANY	System address:	POB 390
System city:	GREENSBORO	System state:	GA
System zip:	306420390		
Population served:	101 - 500 Persons	Treatment:	Treated
Latitude:	335554	Longitude:	0832024
Latitude:	331042	Longitude:	0832025
State:	GA	Latitude degrees:	33
Latitude minutes:	10	Latitude seconds:	42.0000
Longitude degrees:	83	Longitude minutes:	20
Longitude seconds:	25.0000		
Violation id:	10101	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	01/01/2000
Cmp edt:	12/31/2000		
Violation id:	10201	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	01/01/2000
Cmp edt:	12/31/2000		
Violation id:	10301	Orig code:	S
State:	GA	Violation Year:	1995
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/1995

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Cmp edt: Not Reported

Violation id: 10501
 State: GA
 Contamination code: 5000
 Violation code: 52
 Rule code: 350
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2000
 Contamination Name: Lead and Copper Rule
 Violation name: Follow-up Or Routine LCR Tap M/R
 Rule name: LCR
 Unit of measure: Not Reported
 Cmp bdt: 10/01/2000

Violation id: 10704
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2004
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2004

Violation id: 10805
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2005
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2005

Violation id: 10906
 State: GA
 Contamination code: 5000
 Violation code: 52
 Rule code: 350
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2005
 Contamination Name: Lead and Copper Rule
 Violation name: Follow-up Or Routine LCR Tap M/R
 Rule name: LCR
 Unit of measure: Not Reported
 Cmp bdt: 10/01/2005

Violation id: 11008
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2008
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2008

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9200002
 PWS telephone: Not Reported
 Violation type: Max Contaminant Level, Monthly (TCR)
 Violation start date: 070192
 Violation period (months): 001
 Major violator: Not Reported
 Number of required samples: Not Reported
 Analysis method: Not Reported

Violation source ID: Not Reported
 Contaminant: COLIFORM (TCR)
 Violation end date: 073192
 Violation awareness date: Not Reported
 Maximum contaminant level: Not Reported
 Number of samples taken: Not Reported
 Analysis result: Not Reported

Violation ID: 10101
 Enforcemnt FY: 2001
 Enforcement Detail: St No addtl Formal Action needed
 Enforcement Category: Informal

Orig Code: S
 Enforcement Action: 09/06/2001

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	05/15/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	05/15/2001
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	10/03/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St No addtl Formal Action needed		
Enforcement Category:	Informal		
Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	10/03/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	10501	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	08/17/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10501	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	07/22/2003
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/23/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/08/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/12/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/07/2006
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/17/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/07/2006
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11008	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	07/09/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

**9
NE
1 - 2 Miles
Higher**

FED USGS USGS40000262386

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z015	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**10
WSW
1 - 2 Miles
Higher**

FED USGS USGS40000262278

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z022	Type:	Well
Description:	Not Reported	HUC:	03070101
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:	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 RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for PUTNAM County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level \geq 2 pCi/L and \leq 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 31024

Number of sites tested: 10

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.190 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
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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APPENDIX B

Boring Logs

BORING AND WELL LOG LEGEND

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	Date & Time	Blow Counts	Recovery	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample
-----------	-------------	------------------------	-------------	-------------	-------------	----------	------------------------------	-----------	------------



GR
EN
SS
ST
CO
DP

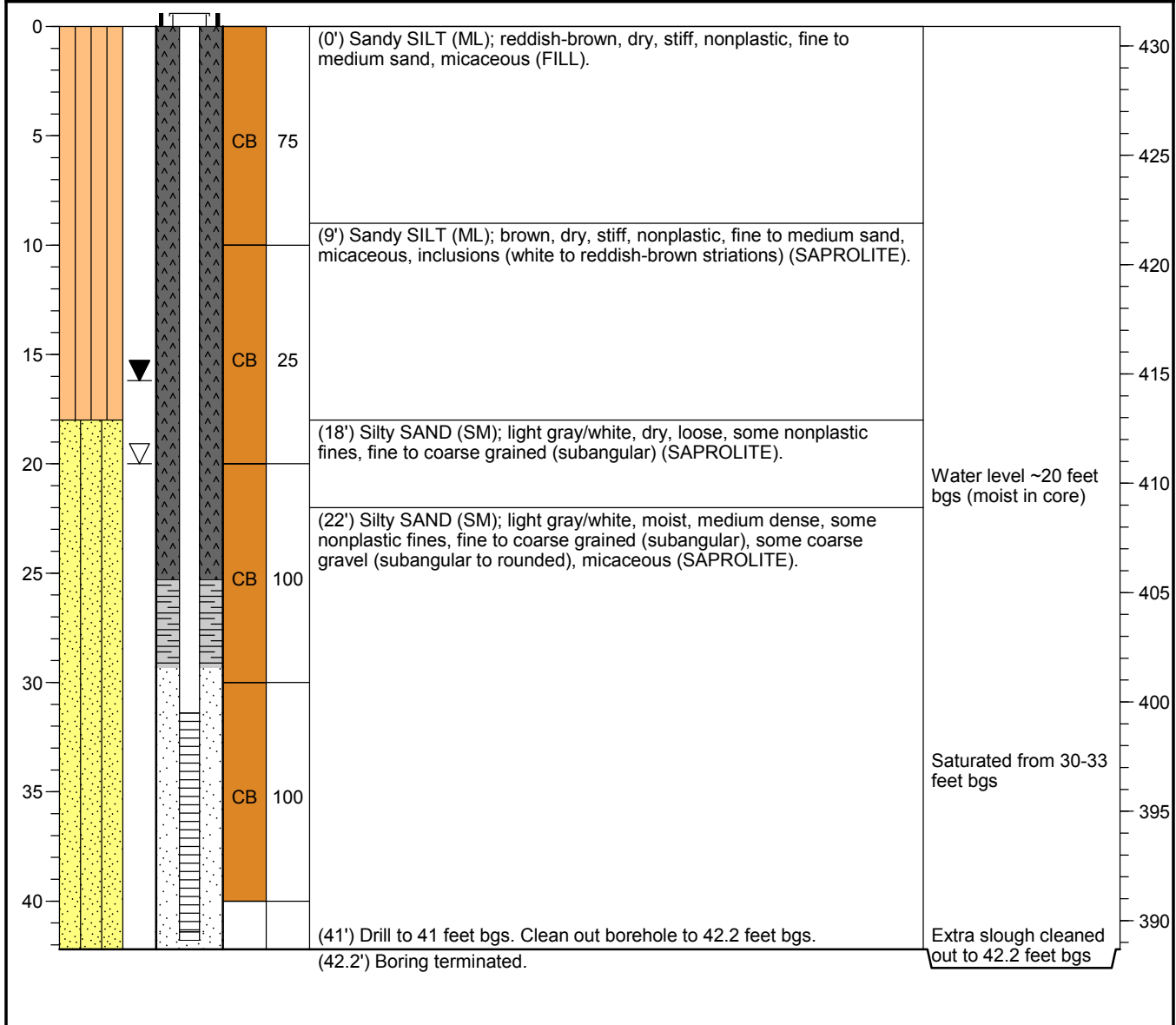
- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- COBBLES
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- PARTIALLY WEATHERED Rock (PWR)
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with clay (GW-GC)
- Poorly graded GRAVEL with clay (GP-GC)
- Well-graded SAND (SW)
- Poorly graded SAND (SP)
- Silty SAND (SM)
- Clayey SAND (SC)
- Well-graded SAND with silt (SW-SM)
- Poorly graded SAND with silt (SP-SM)
- Well-graded SAND with clay (SW-SC)
- Poorly graded SAND with clay (SP-SC)
- SILT (ML)
- Lean CLAY (CL)
- Organic SOIL (OL)
- Elastic SILT (MH)
- Fat CLAY (CH)
- Organic SOIL (OH)
- PEAT (PT)
- Volume Descriptors:
Trace = <5%
Few = 5-10%
Little = 15-25%
Some = 30-45%
Mostly = >=50%
- Water Level During Drilling
- Water Level at End of Drilling/in Completed Well
- Cap
- Riser
- Screen
- Cement
- Bentonite Grout
- Bentonite Seal
- Filter Pack
- Backfill
- Grab
- Encore
- Split Spoon
- Shelby Tube
- Core Barrel
- Direct Push
- PID reading | Lab Sample ID (soil | water)

0.0	SB1@2.5
-----	---------

NOTES:

Drilling Start Date: 08/02/2023	Boring Depth (ft): 42.2	Well Depth (ft TOC): 41.8
Drilling End Date: 08/02/2023	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Drilling	Sampling Method(s): Core Barrel	Screen Slot (in): 0.010
Drilling Method: Sonic 4x6	DTW Post-Installation (ft): 16.2	Riser Material: Sch 40 PVC
Drilling Equipment: TSI-150 Comp. Crawler	Ground Surface Elevation: 430.89 NAVD 88	Screen Material: Sch 40 PVC Slotted
Driller: C. Griffis	Top of Casing Elevation: 433.84 NAVD 88	Seal Material(s): Grout, Bentonite
Logged By: E. Volk	North, East: 1164366.20 ft, 2554903.80 ft	Filter Pack: 20/40 Sand

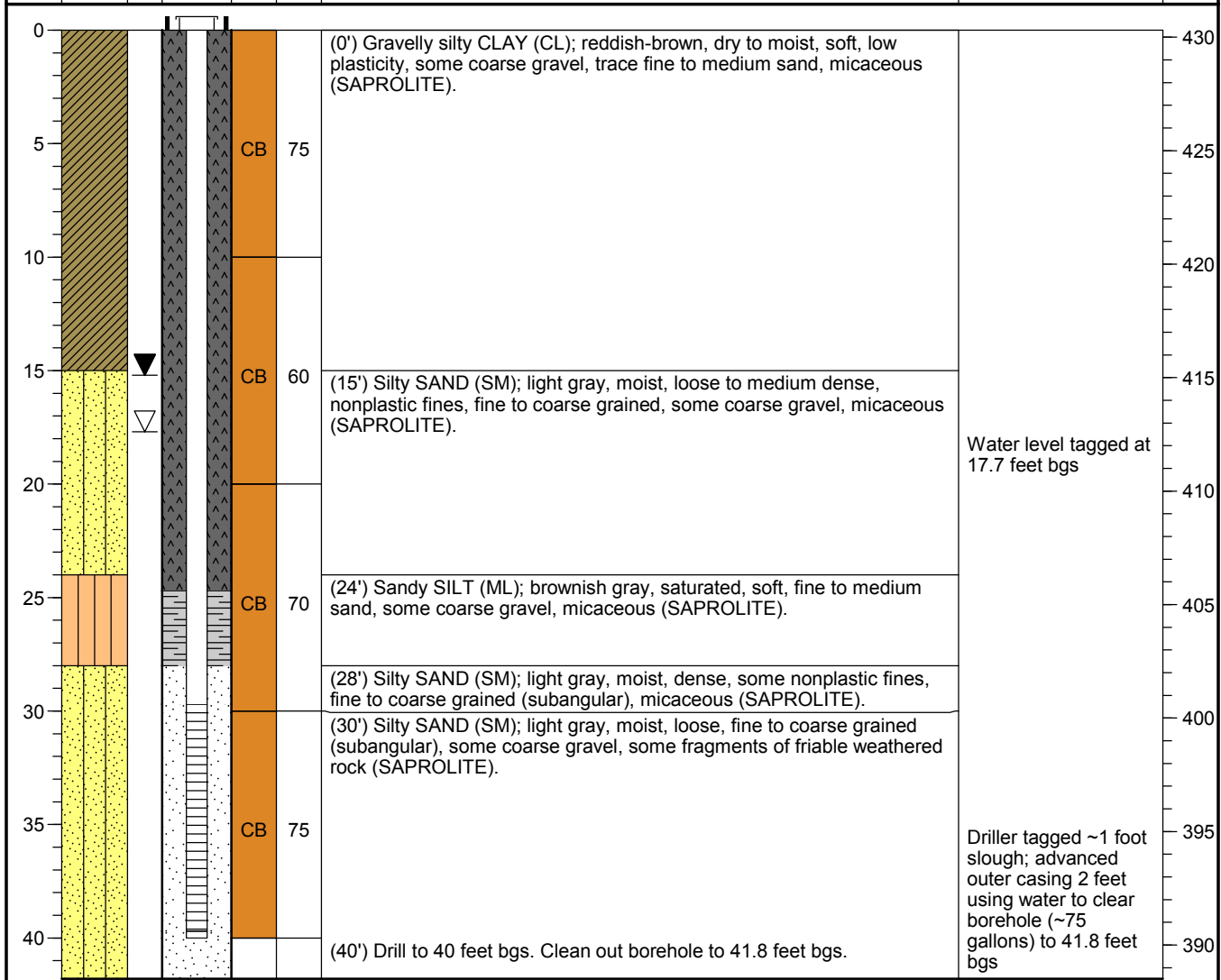
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAVD 88)
------------	-----------	-------------	-----------------	-------------	--------------	------------------------------	---------	------------------------



NOTES: Temporary piezometer completed with T posts and snow fence. Piezometer depth measured from the top of casing (TOC).

Drilling Start Date: 08/01/2023	Boring Depth (ft): 41.8	Well Depth (ft TOC): 40
Drilling End Date: 08/01/2023	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Drilling	Sampling Method(s): Core Barrel	Screen Slot (in): 0.010
Drilling Method: Sonic 4x6	DTW Post-Installation (ft): 15.2	Riser Material: Sch 40 PVC
Drilling Equipment: TSI-150 Comp. Crawler	Ground Surface Elevation: 430.31 NAVD 88	Screen Material: Sch 40 PVC Slotted
Driller: C. Griffis	Top of Casing Elevation: 433.33 NAVD 88	Seal Material(s): Grout, Bentonite
Logged By: E. Volk	North, East: 1164396.90 ft, 2554810.04 ft	Filter Pack: 20/40 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAVD 88)
------------	-----------	-------------	-----------------	-------------	--------------	------------------------------	---------	------------------------



NOTES: Temporary piezometer completed with T posts and snow fence. Piezometer depth measured from the top of casing (TOC).

APPENDIX C

Analytical Laboratory Reports



ANALYTICAL REPORT

PREPARED FOR

Attn: Lauren Fitzgerald
Geosyntec Consultants Inc
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Generated 8/29/2023 9:31:45 AM

JOB DESCRIPTION

Plant Branch Ash Ponds

JOB NUMBER

680-239481-1

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



Generated
8/29/2023 9:31:45 AM

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



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Method Summary	6
Definitions/Glossary	7
Detection Summary	8
Client Sample Results	9
QC Sample Results	22
QC Association Summary	23
Lab Chronicle	24
Chain of Custody	27
Receipt Checklists	29
Certification Summary	30

Case Narrative

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Job ID: 680-239481-1

Laboratory: Eurofins Savannah

Narrative

**Job Narrative
680-239481-1**

Receipt

The samples were received on 8/24/2023 11:50 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 5.1°C

General Chemistry

Method SM4500_S2_F: The following samples were analyzed with headspace in the sample container(s): BRA-BRGWA-2I (680-239481-1), BRA-BRGWA-5I (680-239481-2), BRA-BRGWA-6S (680-239481-3), BRA-BRGWC-50 (680-239481-4), BRA-PZ-57I (680-239481-5), BRA-PZ-65I (680-239481-8), BRA-BRGWC-33S (680-239481-9), BRA-BRGWC-35S (680-239481-10), BRA-BRGWC-38S (680-239481-11), BRA-PZ-77I (680-239481-13), (680-239481-B-2 MS) and (680-239481-B-2 MSD).

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



Sample Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-239481-1	BRA-BRGWA-2I	Water	08/22/23 10:12	08/24/23 11:50
680-239481-2	BRA-BRGWA-5I	Water	08/22/23 10:10	08/24/23 11:50
680-239481-3	BRA-BRGWA-6S	Water	08/22/23 10:15	08/24/23 11:50
680-239481-4	BRA-BRGWC-50	Water	08/23/23 11:00	08/24/23 11:50
680-239481-5	BRA-PZ-57I	Water	08/21/23 17:55	08/24/23 11:50
680-239481-6	BRA-PZ-59I	Water	08/23/23 11:40	08/24/23 11:50
680-239481-7	BRA-PZ-64I	Water	08/23/23 10:55	08/24/23 11:50
680-239481-8	BRA-PZ-65I	Water	08/21/23 17:45	08/24/23 11:50
680-239481-9	BRA-BRGWC-33S	Water	08/22/23 12:10	08/24/23 11:50
680-239481-10	BRA-BRGWC-35S	Water	08/23/23 12:01	08/24/23 11:50
680-239481-11	BRA-BRGWC-38S	Water	08/23/23 12:12	08/24/23 11:50
680-239481-12	BRA-PZ-76I	Water	08/23/23 10:37	08/24/23 11:50
680-239481-13	BRA-PZ-77I	Water	08/23/23 10:26	08/24/23 11:50



Method Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

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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Definitions/Glossary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

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

Detection Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWA-2I

Lab Sample ID: 680-239481-1

No Detections.

Client Sample ID: BRA-BRGWA-5I

Lab Sample ID: 680-239481-2

No Detections.

Client Sample ID: BRA-BRGWA-6S

Lab Sample ID: 680-239481-3

No Detections.

Client Sample ID: BRA-BRGWC-50

Lab Sample ID: 680-239481-4

No Detections.

Client Sample ID: BRA-PZ-57I

Lab Sample ID: 680-239481-5

No Detections.

Client Sample ID: BRA-PZ-59I

Lab Sample ID: 680-239481-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	6.0		0.81	0.81	mg/L	1		4500 S2 F-2011	Total/NA

Client Sample ID: BRA-PZ-64I

Lab Sample ID: 680-239481-7

No Detections.

Client Sample ID: BRA-PZ-65I

Lab Sample ID: 680-239481-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	2.5		0.83	0.83	mg/L	1		4500 S2 F-2011	Total/NA

Client Sample ID: BRA-BRGWC-33S

Lab Sample ID: 680-239481-9

No Detections.

Client Sample ID: BRA-BRGWC-35S

Lab Sample ID: 680-239481-10

No Detections.

Client Sample ID: BRA-BRGWC-38S

Lab Sample ID: 680-239481-11

No Detections.

Client Sample ID: BRA-PZ-76I

Lab Sample ID: 680-239481-12

No Detections.

Client Sample ID: BRA-PZ-77I

Lab Sample ID: 680-239481-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Savannah

Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWA-2I

Lab Sample ID: 680-239481-1

Date Collected: 08/22/23 10:12

Matrix: Water

Date Received: 08/24/23 11:50

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			08/25/23 12:23	1

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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWA-5I

Lab Sample ID: 680-239481-2

Date Collected: 08/22/23 10:10

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.83		0.83	0.83	mg/L			08/25/23 12:23	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWA-6S

Lab Sample ID: 680-239481-3

Date Collected: 08/22/23 10:15

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.89		0.89	0.89	mg/L			08/25/23 12:23	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWC-50

Lab Sample ID: 680-239481-4

Date Collected: 08/23/23 11:00

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.83		0.83	0.83	mg/L			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-571

Lab Sample ID: 680-239481-5

Date Collected: 08/21/23 17:55

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.83		0.83	0.83	mg/L			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-59I

Lab Sample ID: 680-239481-6

Date Collected: 08/23/23 11:40

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	6.0		0.81	0.81	mg/L			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-64I

Lab Sample ID: 680-239481-7

Date Collected: 08/23/23 10:55

Matrix: Water

Date Received: 08/24/23 11:50

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			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-65I

Lab Sample ID: 680-239481-8

Date Collected: 08/21/23 17:45

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	2.5		0.83	0.83	mg/L			08/25/23 12:23	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWC-33S

Lab Sample ID: 680-239481-9

Date Collected: 08/22/23 12:10

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.83		0.83	0.83	mg/L			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWC-35S

Lab Sample ID: 680-239481-10

Date Collected: 08/23/23 12:01

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.83		0.83	0.83	mg/L			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWC-38S

Lab Sample ID: 680-239481-11

Date Collected: 08/23/23 12:12

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.89		0.89	0.89	mg/L			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-761

Lab Sample ID: 680-239481-12

Date Collected: 08/23/23 10:37

Matrix: Water

Date Received: 08/24/23 11:50

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			08/25/23 12:23	1

- 1
- 2
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-771

Lab Sample ID: 680-239481-13

Date Collected: 08/23/23 10:26

Matrix: Water

Date Received: 08/24/23 11:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.89		0.89	0.89	mg/L			08/25/23 12:23	1

- 1
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QC Sample Results

Client: Geosyntec Consultants Inc
 Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-795173/1
Matrix: Water
Analysis Batch: 795173

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			08/25/23 12:23	1

Lab Sample ID: LCS 680-795173/2
Matrix: Water
Analysis Batch: 795173

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	9.95		mg/L		100	75 - 125

Lab Sample ID: LCSD 680-795173/3
Matrix: Water
Analysis Batch: 795173

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	9.64		mg/L		96	75 - 125	3	30

Lab Sample ID: 680-239481-2 MS
Matrix: Water
Analysis Batch: 795173

Client Sample ID: BRA-BRGWA-5I
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	8.55		mg/L		123	75 - 125

Lab Sample ID: 680-239481-2 MSD
Matrix: Water
Analysis Batch: 795173

Client Sample ID: BRA-BRGWA-5I
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	8.55		mg/L		123	75 - 125	0	30

QC Association Summary

Client: Geosyntec Consultants Inc
 Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

General Chemistry

Analysis Batch: 795173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-239481-1	BRA-BRGWA-2I	Total/NA	Water	4500 S2 F-2011	
680-239481-2	BRA-BRGWA-5I	Total/NA	Water	4500 S2 F-2011	
680-239481-3	BRA-BRGWA-6S	Total/NA	Water	4500 S2 F-2011	
680-239481-4	BRA-BRGWC-50	Total/NA	Water	4500 S2 F-2011	
680-239481-5	BRA-PZ-57I	Total/NA	Water	4500 S2 F-2011	
680-239481-6	BRA-PZ-59I	Total/NA	Water	4500 S2 F-2011	
680-239481-7	BRA-PZ-64I	Total/NA	Water	4500 S2 F-2011	
680-239481-8	BRA-PZ-65I	Total/NA	Water	4500 S2 F-2011	
680-239481-9	BRA-BRGWC-33S	Total/NA	Water	4500 S2 F-2011	
680-239481-10	BRA-BRGWC-35S	Total/NA	Water	4500 S2 F-2011	
680-239481-11	BRA-BRGWC-38S	Total/NA	Water	4500 S2 F-2011	
680-239481-12	BRA-PZ-76I	Total/NA	Water	4500 S2 F-2011	
680-239481-13	BRA-PZ-77I	Total/NA	Water	4500 S2 F-2011	
MB 680-795173/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-795173/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-795173/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-239481-2 MS	BRA-BRGWA-5I	Total/NA	Water	4500 S2 F-2011	
680-239481-2 MSD	BRA-BRGWA-5I	Total/NA	Water	4500 S2 F-2011	



Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-BRGWA-21

Lab Sample ID: 680-239481-1

Date Collected: 08/22/23 10:12

Matrix: Water

Date Received: 08/24/23 11:50

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	300 mL	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWA-51

Lab Sample ID: 680-239481-2

Date Collected: 08/22/23 10:10

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWA-6S

Lab Sample ID: 680-239481-3

Date Collected: 08/22/23 10:15

Matrix: Water

Date Received: 08/24/23 11:50

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	280 mL	280 mL	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWC-50

Lab Sample ID: 680-239481-4

Date Collected: 08/23/23 11:00

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-571

Lab Sample ID: 680-239481-5

Date Collected: 08/21/23 17:55

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-591

Lab Sample ID: 680-239481-6

Date Collected: 08/23/23 11:40

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-64I

Lab Sample ID: 680-239481-7

Date Collected: 08/23/23 10:55

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-65I

Lab Sample ID: 680-239481-8

Date Collected: 08/21/23 17:45

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWC-33S

Lab Sample ID: 680-239481-9

Date Collected: 08/22/23 12:10

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWC-35S

Lab Sample ID: 680-239481-10

Date Collected: 08/23/23 12:01

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWC-38S

Lab Sample ID: 680-239481-11

Date Collected: 08/23/23 12:12

Matrix: Water

Date Received: 08/24/23 11:50

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	280 mL	280 mL	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-76I

Lab Sample ID: 680-239481-12

Date Collected: 08/23/23 10:37

Matrix: Water

Date Received: 08/24/23 11:50

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	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Client Sample ID: BRA-PZ-771

Lab Sample ID: 680-239481-13

Date Collected: 08/23/23 10:26

Matrix: Water

Date Received: 08/24/23 11:50

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	280 mL	280 mL	795173	08/25/23 12:23	JAS	EET SAV
Instrument ID: NoEquip										

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 Fax (912) 352-0165

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: <i>J. Boydell</i>	ACC	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No:	
Client Contact: Lauren Fitzgerald		Phone: <i>770-544-5498</i>		E-Mail: <i>david.fuller@et.eurofinsus.com</i>		Page:	
Company: Geosyntec Consultants Inc				Analysis Requested		Job #:	
Address: 1255 Roberts Blvd, NW Suite 200		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) Sulfide (SM 4500)		Total Number of containers	
City: Kennesaw		TAT Requested (days):					
State, Zip: GA, 30144		Lab Project #: 68029735					
Phone:		PO #:					
Email: <u>SCS Contacts / Geosyntec Contacts</u>		Project #:					
Project Name: Plant Branch Ash Ponds		SSOW#:					
Site: Georgia						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 Z - other (specify)	
Sample Identification		Sample Date (mm/dd/yy)	Sample Time (hhmm)	Sample Type (C=comp, G=grab)	Matrix (WG=ground water, WS=surface water, WO=quality control)	Preservation Code:	Special Instructions/Note:
						BC	
BRA-BRGWA-2I	08/22/23	1012	G	WG	N N X		
BRA-BRGWA-5I	08/22/23	1010	G	WG	N N X		
BRA-BRGWA-6S	08/22/23	1015	G	WG	N N X		
BRA-BRGWC-50	08/23/23	1100	G	WG	N N X		
BRA-PZ-57I	08/21/23	1755	G	WG	N N X		
BRA-PZ-59I	08/23/23	1140	G	WG	N N X		
BRA-PZ-64I	08/23/23	1055	G	WG	N N X		
BRA-PZ-65I	08/21/23	1745	G	WG	N N X		
BRA-BRGWC-33S	08/22/23	1210	G	WG	N N X		
BRA-BRGWC-35S	08/23/23	1201	G	WG	N N X		
BRA-BRGWC-38S	08/23/23	1212	G	WG	N N X		
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than)			
<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			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/24/23 0831</i>	Company: <i>ACC</i>	Received by: <i>J. Tally</i>		Date/Time: <i>8/24/23 0831</i>	Company: <i>ACC</i>
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:
Relinquished by:		Date/Time:	Company:	Received by: <i>C. M...</i>		Date/Time: <i>8/24/23 1150</i>	Company: <i>EUROFINS</i>
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>5.0/5.1</i>			



Eurofins Savannah

5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record



Client Information					Sampler: ACC T. Goble, J. Bernstein		Lab PM: Fuller, David		Carrier Tracking No(s):		COC No:			
Client Contact: Lauren Fitzgerald					Phone: 770-546-5448		E-Mail: david.fuller@et.eurofinsus.com				Page:			
Company: Geosyntec Consultants Inc					Analysis Requested							Job #:		
Address: 1255 Roberts Blvd, NW Suite 200												Due Date Requested:		Preservation Codes:
City: Kennesaw					TAT Requested (days):		Field Filtered Sample (Yes or No) MS/MSD (Yes or No) Sulfide (SM 4500)		Total Number of containers		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: GA, 30144					Lab Project #: 68029735						Other:			
Phone:					PO #:						Special Instructions/Note:			
Email: SCS Contacts / Geosyntec Contacts					Project #:									
Project Name: Plant Branch Ash Ponds					SSOW#:									
Site: Georgia														
Sample Identification					Sample Date (mm/dd/yy)		Sample Time (hhmm)		Sample Type (C=Comp, G=grab)		Matrix (WG=ground water, WS=surface water, WQ=quality control)		Preservation Code:	
X					X		X		X		X		X	
BRA-PZ-76I					08/23/23		1037		G WG		N N X		2	
BRA-PZ-77I					08/23/23		1026		G WG		N 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 checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" 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>[Signature]</i>					Date/Time: 8/24/23 0831		Company: ACC		Received by: J. Tracy		Date/Time: 8/24/23 0831		Company: ACC	
Relinquished by:					Date/Time:		Company:		Received by:		Date/Time:		Company:	
Relinquished by:					Date/Time:		Company:		Received by: C. Mingo		Date/Time: 8/24/23 1150		Company: Eurofins	
Custody Seals Intact: Δ Yes Δ No					Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:							

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 680-239481-1

Login Number: 239481

List Number: 1

Creator: Sims, Robert D

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-239481-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24

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September 06, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance Upgradient
Work Order: 634447

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 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. Samples "BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRAW-5I" and "BRA-BRGWA-2I" did not hold sulfide preservation. 634447001(BRA-BRGWA-2S), 634447003(BRA-BRGWA-5I), 634447004(BRA-BRGWA-6S), 634447005(BRA-BRGWA-2I). 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>
634447001	BRA-BRGWA-2S	Ground Water	22/08/23 10:06	23/08/23 13:00
634447002	BRA-BRGWA-5S	Ground Water	22/08/23 10:05	23/08/23 13:00
634447003	BRA-BRGWA-5I	Ground Water	22/08/23 10:10	23/08/23 13:00
634447004	BRA-BRGWA-6S	Ground Water	22/08/23 10:15	23/08/23 13:00
634447005	BRA-BRGWA-2I	Ground Water	22/08/23 10:12	23/08/23 13:00

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	25-AUG-2023
SW846 7470A Prep	24-AUG-2023


Analysis Methods and Analysis Dates



<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-AUG-2023
SM 2320B	29-AUG-2023
SM 2540C	25-AUG-2023
SM 2540C	28-AUG-2023
SM 4500-S (2-) D	24-AUG-2023
SW846 3005A/6020B	01-SEP-2023
SW846 3005A/6020B	31-AUG-2023
SW846 7470A	25-AUG-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,



Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634447 GEL Work Order: 634447

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-2S Project: GPCC00101
Sample ID: 634447001 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:06
Receive Date: 23-AUG-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		2.14	0.0670	0.200	mg/L		1	HXC1	08/23/23	1637	2481608	1
Fluoride		0.229	0.0330	0.100	mg/L		1					
Nitrate-N		0.218	0.0330	0.100	mg/L		1					
Sulfate		0.526	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	08/25/23	1221	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2333	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0135	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00738	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	J	0.00921	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000707	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0513	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					
Magnesium		4.66	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.415	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		3.09	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.0283	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0936	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		36.0	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1745	2481696	6

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-2S	Project: GPCC00101
Sample ID: 634447001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		37.1	0.725	2.00	mg/L			JW2	08/29/23	1140	2484392	7
Bicarbonate alkalinity (CaCO3)		37.1	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-5S Project: GPCC00101
Sample ID: 634447002 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:05
Receive Date: 23-AUG-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		3.37	0.0670	0.200	mg/L		1	HXC1	08/23/23	1707	2481608	1
Fluoride		0.277	0.0330	0.100	mg/L		1					
Nitrate-N		0.203	0.0330	0.100	mg/L		1					
Sulfate		0.540	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	08/25/23	1222	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2337	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0352	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00764	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		14.9	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00472	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000327	0.000300	0.00100	mg/L	1.00	1					
Iron		0.263	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					
Magnesium		6.25	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.435	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		3.48	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.0105	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0939	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		73.0	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1747	2481696	6

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-5S Project: GPCC00101
Sample ID: 634447002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		68.4	0.725	2.00	mg/L			JW2	08/29/23	1142	2484392	7
Bicarbonate alkalinity (CaCO ₃)		68.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-51 Project: GPCC00101
Sample ID: 634447003 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:10
Receive Date: 23-AUG-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		3.53	0.0670	0.200	mg/L		1	HXC1	08/23/23	1738	2481608	1
Fluoride		0.289	0.0330	0.100	mg/L		1					
Nitrate-N		0.266	0.0330	0.100	mg/L		1					
Sulfate		1.83	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	08/25/23	1231	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2340	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0245	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00730	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		14.3	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00701	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000474	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0953	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					
Magnesium		9.41	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000953	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.933	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.69	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	J	0.00104	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0941	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		80.0	2.38	10.0	mg/L			CH6	08/28/23	1403	2482658	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1748	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-5I Project: GPCC00101
Sample ID: 634447003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		77.2	0.725	2.00	mg/L			JW2	08/29/23	1144	2484392	7
Bicarbonate alkalinity (CaCO3)		77.2	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance Upgradient

Client Sample ID: BRA-BRGWA-6S Project: GPCC00101
Sample ID: 634447004 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:15
Receive Date: 23-AUG-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		2.34	0.0670	0.200	mg/L		1	HXC1	08/23/23	1809	2481608	1
Fluoride	J	0.0787	0.0330	0.100	mg/L		1					
Nitrate-N		0.646	0.0330	0.100	mg/L		1					
Sulfate		0.467	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	08/25/23	1236	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00120	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0943	2482703	3
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2344	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0143	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00611	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.79	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0132	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					
Magnesium		3.48	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		0.607	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		2.11	0.0800	0.250	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		30.0	2.38	10.0	mg/L			CH6	08/28/23	1403	2482658	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1748	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-6S Project: GPCC00101
Sample ID: 634447004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		36.8	0.725	2.00	mg/L			JW2	08/29/23	1147	2484392	7
Bicarbonate alkalinity (CaCO ₃)		36.8	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance Upgradient

Client Sample ID: BRA-BRGWA-21 Project: GPCC00101
Sample ID: 634447005 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 10:12
Receive Date: 23-AUG-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		1.90	0.0670	0.200	mg/L		1	HXC1	08/23/23	1840	2481608	1
Fluoride		0.267	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		6.85	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	08/25/23	1237	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2348	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.00680	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00649	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		12.6	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000707	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0904	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0209	0.00300	0.0100	mg/L	1.00	1					
Magnesium		7.27	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00169	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.25	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		5.26	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.0145	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0945	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		81.0	2.38	10.0	mg/L			CH6	08/28/23	1403	2482658	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1749	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceUpgradient

Client Sample ID: BRA-BRGWA-2I Project: GPCC00101
Sample ID: 634447005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		71.7	0.725	2.00	mg/L			JW2	08/29/23	1149	2484392	7
Bicarbonate alkalinity (CaCO3)		71.7	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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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QC Summary

Report Date: September 6, 2023

Page 1 of 12

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

Contact: Joju Abraham

Workorder: 634447

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481608										
QC1205497371	634145003	DUP									
Chloride		78.8		79.7	mg/L	1.1		(0%-20%)	HXC1	08/24/23	15:05
Fluoride		0.719		0.719	mg/L	0.0417		(0%-20%)		08/23/23	20:43
Nitrate-N		10.9		11.0	mg/L	0.894	^	(+/-2.50)		08/24/23	15:05
Sulfate		37.6		37.5	mg/L	0.306	^	(+/-10.0)			
QC1205497369	LCS										
Chloride	5.00			4.78	mg/L			95.6 (90%-110%)		08/23/23	23:18
Fluoride	2.50			2.46	mg/L			98.3 (90%-110%)			
Nitrate-N	2.50			2.36	mg/L			94.3 (90%-110%)			
Sulfate	10.0			9.76	mg/L			97.6 (90%-110%)			
QC1205497368	MB										
Chloride			U	ND	mg/L					08/23/23	22:47
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205497373	634145003	PS									
Chloride	5.00	3.15		8.45	mg/L			106 (90%-110%)		08/24/23	15:36

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QC Summary

Workorder: 634447

Page 2 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481608										
Fluoride	2.50	0.719		3.17	mg/L		98	(90%-110%)	HXC1	08/23/23	21:14
Nitrate-N	2.50	0.434		2.85	mg/L		96.5	(90%-110%)		08/24/23	15:36
Sulfate	10.0	1.51		11.3	mg/L		98.4	(90%-110%)			
Metals Analysis - ICPMS											
Batch	2482703										
QC1205499165	LCS										
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	08/31/23	22:21
Arsenic	0.0500			0.0500	mg/L		99.9	(80%-120%)			
Barium	0.0500			0.0522	mg/L		104	(80%-120%)			
Beryllium	0.0500			0.0527	mg/L		105	(80%-120%)			
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0502	mg/L		100	(80%-120%)			
Calcium	2.00			1.96	mg/L		98	(80%-120%)			
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0518	mg/L		104	(80%-120%)			

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QC Summary

Workorder: 634447

Page 3 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lithium	0.0500			0.0506	mg/L		101	(80%-120%)	PRB	08/31/23	22:21
Magnesium	2.00			1.97	mg/L		98.4	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/01/23	08:52
Molybdenum	0.0500			0.0499	mg/L		99.8	(80%-120%)		08/31/23	22:21
Potassium	2.00			1.94	mg/L		97	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.7	(80%-120%)			
Sodium	2.00			1.95	mg/L		97.6	(80%-120%)			
Thallium	0.0500			0.0507	mg/L		101	(80%-120%)			
QC1205499164	MB										
Antimony			U	ND	mg/L					08/31/23	22:18
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						

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QC Summary

Workorder: 634447

Page 4 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Chromium			U	ND	mg/L				PRB	08/31/23	22:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/01/23	08:50
Molybdenum			U	ND	mg/L					08/31/23	22:18
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205499166 634441003 MS											
Antimony	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Arsenic	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)			
Barium	0.0500		0.0268	0.0800	mg/L		106	(75%-125%)			

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QC Summary

Workorder: 634447

Page 5 of 12

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2482703											
Beryllium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)	PRB	08/31/23	22:36
Boron	0.100		1.90		2.08	mg/L		N/A	(75%-125%)		09/01/23	09:00
Cadmium	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Calcium	2.00		83.4		88.8	mg/L		N/A	(75%-125%)		09/01/23	09:00
Chromium	0.0500	U	ND		0.0518	mg/L		103	(75%-125%)		08/31/23	22:36
Cobalt	0.0500		0.00384		0.0554	mg/L		103	(75%-125%)			
Iron	2.00	U	ND		2.06	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND		0.0521	mg/L		102	(75%-125%)			
Magnesium	2.00		18.9		21.3	mg/L		N/A	(75%-125%)			
Manganese	0.0500		3.33		3.48	mg/L		N/A	(75%-125%)		09/01/23	09:00
Molybdenum	0.0500	U	ND		0.0527	mg/L		105	(75%-125%)		08/31/23	22:36
Potassium	2.00		3.52		5.59	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)			
Sodium	2.00		20.7		23.1	mg/L		N/A	(75%-125%)			

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QC Summary

Workorder: 634447

Page 6 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Thallium	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)	PRB	08/31/23	22:36
QC1205499167 634441003 MSD											
Antimony	0.0500	U	ND	0.0491	mg/L	4.07	98.1	(0%-20%)		08/31/23	22:39
Arsenic	0.0500	U	ND	0.0508	mg/L	3.79	101	(0%-20%)			
Barium	0.0500		0.0268	0.0757	mg/L	5.49	97.8	(0%-20%)			
Beryllium	0.0500	U	ND	0.0506	mg/L	4.96	101	(0%-20%)			
Boron	0.100		1.90	2.00	mg/L	4.07	N/A	(0%-20%)		09/01/23	09:02
Cadmium	0.0500	U	ND	0.0496	mg/L	2.97	98.7	(0%-20%)		08/31/23	22:39
Calcium	2.00		83.4	84.1	mg/L	5.45	N/A	(0%-20%)		09/01/23	09:02
Chromium	0.0500	U	ND	0.0504	mg/L	2.88	101	(0%-20%)		08/31/23	22:39
Cobalt	0.0500		0.00384	0.0540	mg/L	2.65	100	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	2.95	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0493	mg/L	3.6	98.5	(0%-20%)			
Lithium	0.0500	U	ND	0.0509	mg/L	2.35	99.9	(0%-20%)			
Magnesium	2.00		18.9	20.7	mg/L	2.55	N/A	(0%-20%)			
Manganese	0.0500		3.33	3.35	mg/L	3.62	N/A	(0%-20%)		09/01/23	09:02

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QC Summary

Workorder: 634447

Page 7 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Molybdenum	0.0500	U	ND	0.0512	mg/L	2.82	102	(0%-20%)	PRB	08/31/23	22:39
Potassium	2.00		3.52	5.37	mg/L	4.12	92.4	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	3.53	102	(0%-20%)			
Sodium	2.00		20.7	22.6	mg/L	2.28	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0488	mg/L	3.06	97.5	(0%-20%)			
QC1205499168 634441003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			26.8	5.04	ug/L	6.03		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			95.1	20.6	ug/L	8.16		(0%-20%)		09/01/23	09:04
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Calcium			4170	869	ug/L	4.2		(0%-20%)		09/01/23	09:04
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Cobalt			3.84	J	0.796	ug/L	3.56	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634447

Page 8 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	08/31/23	22:46
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		18900		3500	ug/L	7.29		(0%-20%)			
Manganese		167		33.7	ug/L	1.09		(0%-20%)		09/01/23	09:04
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/23	22:46
Potassium		3520		680	ug/L	3.4		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		20700		3830	ug/L	7.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2482624										
QC1205499046	634447002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/25/23	12:24
QC1205499045	LCS										
Mercury	0.00200			0.00199	mg/L		99.5	(80%-120%)		08/25/23	11:58
QC1205499044	MB										
Mercury			U	ND	mg/L					08/25/23	11:56
QC1205499047	634447002 MS										
Mercury	0.00200	U	ND	0.00199	mg/L		99.5	(75%-125%)		08/25/23	12:26

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QC Summary

Workorder: 634447

Page 9 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482624										
QC1205499048	634447002	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	08/25/23	12:27
Solids Analysis											
Batch	2482655										
QC1205499077	634352015	DUP									
Total Dissolved Solids	U	ND	U	ND	mg/L	N/A			CH6	08/25/23	10:10
QC1205499076	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/25/23	10:10
QC1205499075	MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23	10:10
Batch	2482658										
QC1205499081	634205010	DUP									
Total Dissolved Solids		400		390	mg/L	2.53		(0%-5%)	CH6	08/28/23	14:03
QC1205499080	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/28/23	14:03
QC1205499079	MB										
Total Dissolved Solids			U	ND	mg/L					08/28/23	14:03
Spectrometric Analysis											
Batch	2481696										
QC1205497560	LCS										
Total Sulfide	0.400			0.398	mg/L		99.6	(85%-115%)	JW2	08/24/23	17:36
QC1205497559	MB										
Total Sulfide			U	ND	mg/L					08/24/23	17:36
QC1205497561	634441001	PS									
Total Sulfide	0.400	U	ND	0.363	mg/L		90.8	(75%-125%)		08/24/23	17:37

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QC Summary

Workorder: 634447

Page 10 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2481696										
QC1205497563	634447001	PS									
Total Sulfide	0.400	U	ND	0.420	mg/L		105	(75%-125%)	JW2	08/24/23	17:46
QC1205497562	634441001	PSD									
Total Sulfide	0.400	U	ND	0.367	mg/L	1.09	91.8	(0%-15%)		08/24/23	17:38
QC1205497564	634447001	PSD									
Total Sulfide	0.400	U	ND	0.412	mg/L	1.92	103	(0%-15%)		08/24/23	17:47
Titration and Ion Analysis											
Batch	2484392										
QC1205502340	634448001	DUP									
Alkalinity, Total as CaCO3			65.8	65.5	mg/L	0.457		(0%-20%)	JW2	08/29/23	11:54
Bicarbonate alkalinity (CaCO3)			65.8	65.5	mg/L	0.457		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502342	634643001	DUP									
Alkalinity, Total as CaCO3			80.2	80.4	mg/L	0.249		(0%-20%)		08/29/23	12:16
Bicarbonate alkalinity (CaCO3)			80.2	80.4	mg/L	0.249		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502339	LCS										
Alkalinity, Total as CaCO3	50.0			51.8	mg/L		104	(90%-110%)		08/29/23	11:37
QC1205502344	LCS										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L		98.7	(90%-110%)		08/29/23	11:38
QC1205502341	634448001	MS									
Alkalinity, Total as CaCO3	50.0		65.8	118	mg/L		104	(80%-120%)		08/29/23	11:54

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QC Summary

Workorder: 634447

Page 11 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2484392										
QC1205502343	634643001	MS									
Alkalinity, Total as CaCO3	50.0	80.2		132	mg/L		103	(80%-120%)	JW2	08/29/23	12:17

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
- 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

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QC Summary

Workorder: 634447

Page 12 of 12

<u>Parmname</u>	<u>NOM</u>	<u>Sample</u>	<u>Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	---------------	-------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

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 #: 634447**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482703

Preparation Method: SW846 3005A

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

Preparation Batch: 2482702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205499164	Method Blank (MB) ICP-MS
1205499165	Laboratory Control Sample (LCS)
1205499168	634441003(BRA-BRGWC-34SL) Serial Dilution (SD)
1205499166	634441003(BRA-BRGWC-34SS) Matrix Spike (MS)
1205499167	634441003(BRA-BRGWC-34SSD) 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.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2482624

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482623

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205499044	Method Blank (MB)CVAA
1205499045	Laboratory Control Sample (LCS)
1205499048	634447002(BRA-BRGWA-5SL) Serial Dilution (SD)
1205499046	634447002(BRA-BRGWA-5SD) Sample Duplicate (DUP)
1205499047	634447002(BRA-BRGWA-5SS) 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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 32

Analytical Batch: 2481608

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205497368	Method Blank (MB)
1205497369	Laboratory Control Sample (LCS)
1205497371	634145003(NonSDG) Sample Duplicate (DUP)
1205497373	634145003(NonSDG) 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 1205497371 (Non SDG 634145003DUP) and 1205497373 (Non SDG 634145003PS) were diluted because target analyte concentrations exceeded the calibration range. 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.

Product: Solids, Total Dissolved**Analytical Method:** SM 2540C**Analytical Procedure:** GL-GC-E-001 REV# 21**Analytical Batch:** 2482655

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
1205499075	Method Blank (MB)
1205499076	Laboratory Control Sample (LCS)
1205499077	634352015(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: Solids, Total Dissolved**Analytical Method:** SM 2540C**Analytical Procedure:** GL-GC-E-001 REV# 21**Analytical Batch:** 2482658

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205499079	Method Blank (MB)
1205499080	Laboratory Control Sample (LCS)
1205499081	634205010(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: 2481696

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205497559	Method Blank (MB)
1205497560	Laboratory Control Sample (LCS)
1205497561	634441001(BRA-BRGWC-33S) Post Spike (PS)
1205497562	634441001(BRA-BRGWC-33S) Post Spike Duplicate (PSD)
1205497563	634447001(BRA-BRGWA-2S) Post Spike (PS)
1205497564	634447001(BRA-BRGWA-2S) 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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2484392

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634447001	BRA-BRGWA-2S
634447002	BRA-BRGWA-5S
634447003	BRA-BRGWA-5I
634447004	BRA-BRGWA-6S
634447005	BRA-BRGWA-2I
1205502339	Laboratory Control Sample (LCS)
1205502340	634448001(BRA-PZ-79) Sample Duplicate (DUP)
1205502341	634448001(BRA-PZ-79) Matrix Spike (MS)
1205502342	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205502343	634643001(BRA-PZ-79) Matrix Spike (MS)
1205502344	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.

63447 634450

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent
 GEL Work Order Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - Upgradient
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: J. Braswell ACC
 Send Results To: SCS & Geosyntec Contacts
 Phone # 404-506-7116
 Fax # _____
 GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (r)	Field Filtered (r)	Sample Matrix (s)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
						Yes, please supply isotopic info.	(7) Known or possible Hazards		Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	← Preservative Type (6)		
BRA-BRGWA-2S	08/22/23	1006	G	N	WG			8						
BRA-BR6WA-5S	08/22/23	1005	6	N	WG			8						
BRA-BR6WA-5I	08/22/23	1010	6	N	WG			8						
BRA-BR6WA-6S	08/22/23	1015	6	N	WG			8						
BRA-BR6WA-2I	08/22/23	1012	6	N	WG			8						
BRA-														
BRA-														
BRA-														
BRA-														
BRA-														

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	8/23/23	6:32	<i>[Signature]</i>	8/23/23	8:38
<i>[Signature]</i>	8/23/23	1:00	<i>[Signature]</i>	8/23/23	1:30

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: * Metals: B,Ca,Sb,As,Ba,Bi,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg
 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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.)

SAMPLE RECEIPT & REVIEW FORM

63444 634643
 634448 634447
 634443 634450
 634441 634444
 634446

Client: **EXPP**
 Received By: **MVH**
 SDG/AR/COC/Work Order: **ET**
 Date Received: **08-23-2023**
 Carrier and Tracking Number: **COOLER 2-3°C, COOLER 4-1°C, COOLER 6-1°C, COOLER 1-2°C, COOLER 3-1°C, COOLERS 5-2°C**

Suspected Hazard Information

A) Shipped as a DOT Hazardous? Yes No
 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? Yes No
 COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive? Yes No
 Maximum Net Counts Observed* (Observed Counts - Area Background Counts): **0** CPM/mR/Hr
 Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous? Yes No
 COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards? Yes No
 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 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"/>	<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"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: MOZA-P2-G11, BRA-BREWA-S1, BRA-BREWA-23S,
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<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"/>	<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"/>	<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"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):
BRA-P2-13S, BRA-BREWA-2S, BRA-BREWA-6S, BRA-BREWC-32S, BRA-BRAWA-2I, BRA-BREWC-37S, BRA-BRWL-34S, BRA-BRWL-30I Sulfide samples didnt hold proper preservation.

PM (or PMA) review: Initials **AT** Date **8/25/23** Page **1** of **1**

Amanda Turner

From: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>
Sent: Friday, August 25, 2023 8:52 AM
To: Amanda Turner; Jurinko, Kristen Nichole; Smilley, Michael Jay; Gangi, Noelia S.; Midkiff, Laura B.
Cc: Team Trent
Subject: RE: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re-preserve and analyze for sulfide in all samples.

JA

From: Amanda Turner <Amanda.Turner@gel.com>
Sent: Friday, August 25, 2023 8:29 AM
To: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Gangi, Noelia S. <NSMUSKUS@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>
Cc: Team Trent <Team.Trent@gel.com>
Subject: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

Good morning,

I wanted to notify you of the following preservation issues. These samples did not hold proper sulfide preservation. Please advise.

"BRA-GWC-34S" "BRA-BRGWC-37S" "BRA-PZ-13S" on work orders 634441 and 634443
"BRA-BRGWC-32S" "BRA-BRGWC-30I" "BRA-PZ-61I" "BRA-BRGWA-23S" on work orders 634444 and 634446
"BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRGWA-2I" "BRA-BRAW-5I" on work orders 634447 and 634450

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com [[gel.com](http://www.gel.com)]

Analytical Testing



[gellaboratories.com]



[linkedin.com]

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List of current GEL Certifications as of 06 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 07, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APE
Work Orders: 634615 and 634441

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 2023 and August 24, 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. Samples "BRA-BRGWC-35S" "BRA-BRGWC-36S" "BRA-APE-FB-08" "BRA-BRGWC-38S" "BRA-APE-FD-05" containers for sodium hydroxide/zinc acetate did not hold preservation. Samples were preserved upon receipt and placed on a 24 hour preservation hold. 634615002(BRA-BRGWC-35S), 634615003(BRA-BRGWC-36S), 634615004(BRA-BRGWC-38S), 634615007(BRA-APE-FD-05), 634615008(BRA-APE-FB-08). 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>
634441001	BRA-BRGWC-33S	Ground Water	22/08/23 12:10	23/08/23 13:00
634441002	BRA-APE-FD-04	Ground Water	22/08/23 12:00	23/08/23 13:00
634441003	BRA-BRGWC-34S	Ground Water	22/08/23 14:35	23/08/23 13:00
634441004	BRA-APE-FB-07	Water	22/08/23 15:10	23/08/23 13:00
634441005	BRA-BRGWC-37S	Ground Water	22/08/23 16:51	23/08/23 13:00
634441006	BRA-PZ-13S	Ground Water	22/08/23 16:47	23/08/23 13:00
634615001	BRA-BRGWC-17S	Ground Water	23/08/23 14:05	24/08/23 12:43
634615002	BRA-BRGWC-35S	Ground Water	23/08/23 12:01	24/08/23 12:43
634615003	BRA-BRGWC-36S	Ground Water	23/08/23 15:56	24/08/23 12:43
634615004	BRA-BRGWC-38S	Ground Water	23/08/23 12:12	24/08/23 12:43
634615005	BRA-PZ-52D	Ground Water	23/08/23 13:46	24/08/23 12:43
634615006	BRA-PZ-70I	Ground Water	23/08/23 16:12	24/08/23 12:43
634615007	BRA-APE-FD-05	Ground Water	23/08/23 12:00	24/08/23 12:43
634615008	BRA-APE-FB-08	Water	23/08/23 16:30	24/08/23 12:43



634615009	BRA-APE-EB-09	Water	23/08/23 16:45	24/08/23 12:43
634615010	BRA-APE-EB-10	Water	23/08/23 13:15	24/08/23 12:43

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

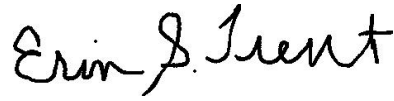
<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	25-AUG-2023
SW846 7470A Prep	24-AUG-2023
SW846 7470A Prep	25-AUG-2023

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-AUG-2023
EPA 300.0	24-AUG-2023
EPA 300.0	25-AUG-2023
SM 2320B	24-AUG-2023
SM 2320B	29-AUG-2023
SM 2540C	25-AUG-2023
SM 2540C	28-AUG-2023
SM 2540C	29-AUG-2023
SM 4500-S (2-) D	24-AUG-2023
SM 4500-S (2-) D	25-AUG-2023
SM 4500-S (2-) D	28-AUG-2023
SW846 3005A/6020B	01-SEP-2023
SW846 3005A/6020B	06-SEP-2023
SW846 3005A/6020B	07-SEP-2023
SW846 3005A/6020B	31-AUG-2023
SW846 7470A	25-AUG-2023
SW846 7470A	28-AUG-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 initial "E".

Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634615 GEL Work Order: 634615

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 for

GPCC001 Georgia Power Company

Client SDG: 634441 GEL Work Order: 634441

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-17S Project: GPCC00101
Sample ID: 634615001 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 14:05
Receive Date: 24-AUG-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		5.18	0.0670	0.200	mg/L		1	HXC1	08/24/23	1915	2482580	1
Fluoride		0.484	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0940	0.0330	0.100	mg/L		1					
Sulfate		180	2.66	8.00	mg/L		20	HXC1	08/25/23	0430	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0927	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2105	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0445	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0601	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium		0.0115	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0446	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					
Magnesium		24.7	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		1.19	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00214	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		47.9	0.400	1.00	mg/L	1.00	5	PRB	09/07/23	0958	2482705	5
Sodium		24.3	0.400	1.25	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		391	2.38	10.0	mg/L			CH6	08/28/23	1550	2483702	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1052	2482961	7

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-17S	Project: GPCC00101
Sample ID: 634615001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		71.8	0.725	2.00	mg/L			JW2	08/29/23	1156	2484392	8
Bicarbonate alkalinity (CaCO3)		71.8	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-35S Project: GPCC00101
Sample ID: 634615002 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:01
Receive Date: 24-AUG-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		6.21	0.0670	0.200	mg/L		1	HXC1	08/24/23	1712	2482580	1
Fluoride		0.347	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		269	5.32	16.0	mg/L		40	HXC1	08/25/23	0603	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0929	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2130	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0286	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00592	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.100	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		32.0	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0108	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.93	0.0800	0.300	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		2.36	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1013	2482705	5
Calcium		71.4	1.60	4.00	mg/L	1.00	20					
Beryllium	J	0.000200	0.000200	0.000500	mg/L	1.00	1	PRB	09/06/23	2355	2482705	6
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		18.5	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		485	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1254	2483779	8

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-35S Project: GPCC00101
Sample ID: 634615002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		52.7	0.725	2.00	mg/L			JW2	08/29/23	1159	2484392	9
Bicarbonate alkalinity (CaCO ₃)		52.7	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-36S Project: GPCC00101
Sample ID: 634615003 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 15:56
Receive Date: 24-AUG-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		223	2.66	8.00	mg/L		20	HXC1	08/25/23	0735	2482580	1
Fluoride		0.301	0.0660	0.200	mg/L		2	HXC1	08/25/23	0806	2482580	2
Chloride		8.26	0.0670	0.200	mg/L		1	HXC1	08/24/23	1946	2482580	3
Nitrate-N		0.136	0.0330	0.100	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	08/28/23	0930	2482668	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2134	2482705	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0243	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00649	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0387	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		17.2	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00167	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.40	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00173	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	PRB	09/06/23	2359	2482705	6
Calcium		43.4	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		36.9	0.0800	0.250	mg/L	1.00	1					
Boron		1.04	0.0520	0.150	mg/L	1.00	10	PRB	09/07/23	1015	2482705	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		398	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1256	2483779	9

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Certificate of Analysis

Report Date: September 7, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-36S Project: GPCC00101
Sample ID: 634615003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		20.6	0.725	2.00	mg/L			JW2	08/29/23	1200	2484392	10
Bicarbonate alkalinity (CaCO ₃)		20.6	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-38S Project: GPCC00101
Sample ID: 634615004 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:12
Receive Date: 24-AUG-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		6.44	0.0670	0.200	mg/L		1	HXC1	08/24/23	2017	2482580	1
Fluoride		0.748	0.0330	0.100	mg/L		1					
Nitrate-N		0.123	0.0330	0.100	mg/L		1					
Sulfate		274	5.32	16.0	mg/L		40	HXC1	08/25/23	0837	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0932	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2138	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0134	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000410	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00338	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.139	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0343	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		30.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.28	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0186	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00680	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0002	2482705	5
Calcium		28.7	0.0800	0.200	mg/L	1.00	1					
Lithium		0.0195	0.00300	0.0100	mg/L	1.00	1					
Sodium		36.3	0.0800	0.250	mg/L	1.00	1					
Boron		1.37	0.0520	0.150	mg/L	1.00	10	PRB	09/07/23	1017	2482705	6
Manganese		1.43	0.0100	0.0500	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		459	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1256	2483779	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-38S
Sample ID: 634615004

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1202	2484392	9
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-PZ-52D Project: GPCC00101
Sample ID: 634615005 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 13:46
Receive Date: 24-AUG-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		6.90	0.0670	0.200	mg/L		1	HXC1	08/24/23	2047	2482580	1
Fluoride		1.94	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		112	1.33	4.00	mg/L		10	HXC1	08/25/23	0908	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0934	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0006	2482705	4
Boron		0.0668	0.00520	0.0150	mg/L	1.00	1					
Calcium		46.7	0.0800	0.200	mg/L	1.00	1					
Lithium		0.0182	0.00300	0.0100	mg/L	1.00	1					
Sodium		68.2	0.800	2.50	mg/L	1.00	10	PRB	09/07/23	1019	2482705	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2141	2482705	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0163	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	J	0.000307	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0556	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		10.7	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.00623	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.0154	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.47	0.0800	0.300	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		372	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1052	2482961	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-PZ-52D Project: GPCC00101
Sample ID: 634615005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		180	0.725	2.00	mg/L			JW2	08/29/23	1204	2484392	9
Bicarbonate alkalinity (CaCO ₃)		180	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	
8	SM 4500-S (-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-70I Project: GPCC00101
Sample ID: 634615006 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 16:12
Receive Date: 24-AUG-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		139	1.33	4.00	mg/L		10	HXC1	08/25/23	0939	2482580	1
Chloride		5.75	0.0670	0.200	mg/L		1	HXC1	08/24/23	2118	2482580	2
Nitrate-N		0.175	0.0330	0.100	mg/L		1					
Fluoride		0.229	0.0660	0.200	mg/L		2	HXC1	08/25/23	1010	2482580	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury		0.00322	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0939	2482668	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000325	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0010	2482705	5
Calcium		31.4	0.0800	0.200	mg/L	1.00	1					
Lithium	J	0.00385	0.00300	0.0100	mg/L	1.00	1					
Sodium		19.5	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2145	2482705	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0196	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	J	0.000784	0.000300	0.00100	mg/L	1.00	1					
Iron		0.105	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		11.1	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.291	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.91	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00829	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.01	0.0520	0.150	mg/L	1.00	10	PRB	09/07/23	1021	2482705	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		252	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1052	2482961	9

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-70I	Project: GPCC00101
Sample ID: 634615006	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		14.5	0.725	2.00	mg/L			JW2	08/29/23	1207	2484392	10
Bicarbonate alkalinity (CaCO3)		14.5	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 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-APE-FD-05 Project: GPCC00101
Sample ID: 634615007 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:00
Receive Date: 24-AUG-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		6.34	0.0670	0.200	mg/L		1	HXC1	08/24/23	2149	2482580	1
Fluoride		0.341	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		273	3.33	10.0	mg/L		25	HXC1	08/25/23	1041	2482580	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/28/23	0940	2482668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2148	2482705	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0269	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00564	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0804	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		31.7	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.00976	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.84	0.0800	0.300	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		2.22	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1023	2482705	5
Calcium		66.3	1.60	4.00	mg/L	1.00	20					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0013	2482705	6
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		18.3	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		505	2.38	10.0	mg/L			CH6	08/29/23	1539	2484233	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1256	2483779	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-05 Project: GPCC00101
Sample ID: 634615007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		53.0	0.725	2.00	mg/L			JW2	08/29/23	1209	2484392	9
Bicarbonate alkalinity (CaCO ₃)		53.0	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-08 Project: GPCC00101
Sample ID: 634615008 Client ID: GPCC001
Matrix: WQ
Collect Date: 23-AUG-23 16:30
Receive Date: 24-AUG-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	HXC1	08/24/23	2220	2482580	1
Fluoride		0.340	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	08/28/23	0942	2482668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2152	2482705	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	J	0.000714	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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	J	0.0147	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	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	PRB	09/07/23	0017	2482705	4
Boron		0.0205	0.00520	0.0150	mg/L	1.00	1					
Calcium	J	0.0850	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		0.282	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	08/29/23	1603	2484234	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1257	2483779	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-08	Project: GPCC00101
Sample ID: 634615008	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1211	2484392	7
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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-09	Project: GPCC00101
Sample ID: 634615009	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-23 16:45	
Receive Date: 24-AUG-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	HXC1	08/24/23	2251	2482580	1
Fluoride	J	0.0531	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	08/28/23	0944	2482668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0028	2482705	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2203	2482705	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					
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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	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	08/29/23	1603	2484234	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1053	2482961	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-09 Project: GPCC00101
Sample ID: 634615009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1213	2484392	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482704
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-10 Project: GPCC00101
Sample ID: 634615010 Client ID: GPCC001
Matrix: WQ
Collect Date: 23-AUG-23 13:15
Receive Date: 24-AUG-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		0.581	0.0670	0.200	mg/L		1	HXC1	08/24/23	2322	2482580	1
Fluoride		0.302	0.0330	0.100	mg/L		1					
Nitrate-N		0.470	0.0330	0.100	mg/L		1					
Sulfate	J	0.329	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	08/28/23	0945	2482668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0031	2482705	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium		0.361	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Sodium		0.289	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2207	2482705	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					
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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	J	0.0142	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	J	0.110	0.0800	0.300	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	08/29/23	1603	2484234	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1054	2482961	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-10 Project: GPCC00101
Sample ID: 634615010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/29/23	1214	2484392	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482704

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-33S	Project: GPCC00101
Sample ID: 634441001	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 12:10	
Receive Date: 23-AUG-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		32.7	3.35	10.0	mg/L		50	JLD1	08/24/23	0117	2481584	1
Sulfate		466	6.65	20.0	mg/L		50					
Fluoride		0.123	0.0330	0.100	mg/L		1	JLD1	08/23/23	1647	2481584	2
Nitrate-N	J	0.0707	0.0330	0.100	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	08/25/23	1159	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2225	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0357	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00190	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000533	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0659	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0388	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00967	0.00300	0.0100	mg/L	1.00	1					
Magnesium		19.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.4	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00572	0.00150	0.00500	mg/L	1.00	1					
Sodium		39.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.946	0.0520	0.150	mg/L	1.00	10	PRB	09/01/23	0854	2482703	5
Calcium		135	0.800	2.00	mg/L	1.00	10					
Manganese		3.14	0.0100	0.0500	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		778	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1736	2481696	7

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-33S Project: GPCC00101
Sample ID: 634441001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	J	1.40	0.725	2.00	mg/L			JW2	08/24/23	1558	2482476	8
Bicarbonate alkalinity (CaCO ₃)	J	1.40	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-04 Project: GPCC00101
Sample ID: 634441002 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 12:00
Receive Date: 23-AUG-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		0.119	0.0330	0.100	mg/L		1	JLD1	08/23/23	1719	2481584	1
Nitrate-N	J	0.0630	0.0330	0.100	mg/L		1					
Chloride		33.4	3.35	10.0	mg/L		50	JLD1	08/24/23	0253	2481584	2
Sulfate		472	6.65	20.0	mg/L		50					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/25/23	1201	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2228	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0379	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00199	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000586	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0696	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0416	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0100	0.00300	0.0100	mg/L	1.00	1					
Magnesium		20.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		15.3	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00628	0.00150	0.00500	mg/L	1.00	1					
Sodium		42.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.988	0.0520	0.150	mg/L	1.00	10	PRB	09/01/23	0856	2482703	5
Calcium		143	0.800	2.00	mg/L	1.00	10					
Manganese		3.29	0.0100	0.0500	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		766	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1738	2481696	7

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-04 Project: GPCC00101
Sample ID: 634441002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	J	1.20	0.725	2.00	mg/L			JW2	08/24/23	1601	2482476	8
Bicarbonate alkalinity (CaCO ₃)	J	1.20	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-34S	Project: GPCC00101
Sample ID: 634441003	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 14:35	
Receive Date: 23-AUG-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		299	3.33	10.0	mg/L		25	JLD1	08/24/23	0357	2481584	1
Chloride		13.2	0.134	0.400	mg/L		2	JLD1	08/24/23	0325	2481584	2
Fluoride	J	0.0816	0.0660	0.200	mg/L		2					
Nitrate-N	J	0.0431	0.0330	0.100	mg/L		1	JLD1	08/23/23	1751	2481584	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/25/23	1203	2482624	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2232	2482703	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0268	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		0.00384	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					
Magnesium		18.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.52	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		20.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.90	0.104	0.300	mg/L	1.00	20	PRB	09/01/23	0858	2482703	6
Calcium		83.4	1.60	4.00	mg/L	1.00	20					
Manganese		3.33	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		495	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1739	2481696	8

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Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-34S Project: GPCC00101
Sample ID: 634441003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		28.9	0.725	2.00	mg/L			JW2	08/24/23	1603	2482476	9
Bicarbonate alkalinity (CaCO ₃)		28.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-07	Project: GPCC00101
Sample ID: 634441004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 22-AUG-23 15:10	
Receive Date: 23-AUG-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		0.206	0.0670	0.200	mg/L		1	JLD1	08/23/23	1823	2481584	1
Fluoride	J	0.0478	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0430	0.0330	0.100	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	08/25/23	1204	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2257	2482703	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	0.00844	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					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0910	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1740	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-07 Project: GPCC00101
Sample ID: 634441004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/24/23	1605	2482476	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-37S Project: GPCC00101
Sample ID: 634441005 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 16:51
Receive Date: 23-AUG-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		1.89	0.0670	0.200	mg/L		1	JLD1	08/23/23	1855	2481584	1
Fluoride	J	0.0445	0.0330	0.100	mg/L		1					
Nitrate-N		0.294	0.0330	0.100	mg/L		1					
Sulfate	J	0.355	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	08/25/23	1206	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2301	2482703	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0266	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00802	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.47	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					
Magnesium		1.16	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		1.79	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.23	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0912	2482703	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		42.0	2.38	10.0	mg/L			CH6	08/25/23	0938	2482652	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1740	2481696	6

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Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-37S Project: GPCC00101
Sample ID: 634441005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		21.9	0.725	2.00	mg/L			JW2	08/24/23	1607	2482476	7
Bicarbonate alkalinity (CaCO ₃)		21.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-PZ-13S Project: GPCC00101
Sample ID: 634441006 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 16:47
Receive Date: 23-AUG-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		46.2	0.665	2.00	mg/L		5	JLD1	08/24/23	1046	2481584	1
Chloride		2.73	0.0670	0.200	mg/L		1	JLD1	08/23/23	1927	2481584	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0695	0.0330	0.100	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	08/25/23	1208	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00237	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0914	2482703	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2304	2482703	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0683	0.000670	0.00400	mg/L	1.00	1					
Beryllium	J	0.000259	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00855	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		8.74	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0111	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					
Magnesium		5.04	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.58	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.4	0.0800	0.250	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		112	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1741	2481696	7

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Certificate of Analysis

Report Date: September 6, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-13S Project: GPCC00101
Sample ID: 634441006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		21.0	0.725	2.00	mg/L			JW2	08/24/23	1609	2482476	8
Bicarbonate alkalinity (CaCO ₃)		21.0	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 7, 2023

Page 1 of 12

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

Contact: Joju Abraham

Workorder: 634615

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482580										
QC1205499015	634615001	DUP									
Chloride		5.18		5.20	mg/L	0.566		(0%-20%)	HXC1	08/25/23	03:29
Fluoride		0.484		0.453	mg/L	6.49	^	(+/-0.100)			
Nitrate-N	J	0.0940	J	0.0939	mg/L	0.106	^	(+/-0.100)			
Sulfate		180		180	mg/L	0.133		(0%-20%)		08/25/23	05:01
QC1205499014	LCS										
Chloride	5.00			4.79	mg/L			95.8 (90%-110%)		08/25/23	01:56
Fluoride	2.50			2.47	mg/L			98.9 (90%-110%)			
Nitrate-N	2.50			2.37	mg/L			94.9 (90%-110%)			
Sulfate	10.0			9.81	mg/L			98.1 (90%-110%)			
QC1205499013	MB										
Chloride			U	ND	mg/L					08/25/23	01:25
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499016	634615001	PS									
Chloride	5.00	5.18		10.7	mg/L			111* (90%-110%)		08/25/23	03:59

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QC Summary

Workorder: 634615

Page 2 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482580										
Fluoride	2.50	0.484		2.91	mg/L		97	(90%-110%)	HXC1	08/25/23	03:59
Nitrate-N	2.50	J 0.0940		2.43	mg/L		93.5	(90%-110%)			
Sulfate	10.0	9.00		19.6	mg/L		106	(90%-110%)		08/25/23	05:32
Metals Analysis - ICPMS											
Batch	2482705										
QC1205499170	LCS										
Antimony	0.0500			0.0501	mg/L		100	(80%-120%)	PRB	09/06/23	21:01
Arsenic	0.0500			0.0502	mg/L		100	(80%-120%)			
Barium	0.0500			0.0473	mg/L		94.6	(80%-120%)			
Beryllium	0.0500			0.0598	mg/L		120	(80%-120%)			
Boron	0.100			0.111	mg/L		111	(80%-120%)			
Cadmium	0.0500			0.0509	mg/L		102	(80%-120%)			
Calcium	2.00			2.11	mg/L		105	(80%-120%)		09/07/23	09:49
Chromium	0.0500			0.0514	mg/L		103	(80%-120%)		09/06/23	21:01
Cobalt	0.0500			0.0511	mg/L		102	(80%-120%)			
Iron	2.00			2.05	mg/L		102	(80%-120%)			
Lead	0.0500			0.0517	mg/L		103	(80%-120%)			

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QC Summary

Workorder: 634615

Page 3 of 12

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Lithium	0.0500			0.0576	mg/L		115	(80%-120%)	PRB	09/06/23	21:01
Magnesium	2.00			2.09	mg/L		104	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Molybdenum	0.0500			0.0517	mg/L		103	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Selenium	0.0500			0.0478	mg/L		95.7	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)		09/07/23	09:49
Thallium	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/06/23	21:01
QC1205499169	MB										
Antimony			U	ND	mg/L					09/06/23	20:58
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					09/07/23	09:47

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QC Summary

Workorder: 634615

Page 4 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Chromium			U	ND	mg/L				PRB	09/06/23	20:58
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L					09/07/23	09:47
Thallium			U	ND	mg/L					09/06/23	20:58
QC1205499171 634615001 MS											
Antimony	0.0500	U	ND	0.0514	mg/L		103	(75%-125%)		09/06/23	21:09
Arsenic	0.0500	U	ND	0.0505	mg/L		98.8	(75%-125%)			
Barium	0.0500		0.0445	0.0929	mg/L		96.9	(75%-125%)			

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QC Summary

Workorder: 634615

Page 5 of 12

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2482705											
Beryllium	0.0500	U	ND		0.0595	mg/L		119	(75%-125%)	PRB	09/06/23	21:09
Boron	0.100		0.0601		0.170	mg/L		110	(75%-125%)			
Cadmium	0.0500	U	ND		0.0509	mg/L		102	(75%-125%)			
Calcium	2.00		47.9		49.7	mg/L		N/A	(75%-125%)		09/07/23	10:00
Chromium	0.0500		0.0115		0.0621	mg/L		101	(75%-125%)		09/06/23	21:09
Cobalt	0.0500	U	ND		0.0495	mg/L		99	(75%-125%)			
Iron	2.00	J	0.0446		2.04	mg/L		99.9	(75%-125%)			
Lead	0.0500	U	ND		0.0508	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND		0.0584	mg/L		114	(75%-125%)			
Magnesium	2.00		24.7		27.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500	U	ND		0.0498	mg/L		99	(75%-125%)			
Molybdenum	0.0500	U	ND		0.0537	mg/L		107	(75%-125%)			
Potassium	2.00		1.19		3.21	mg/L		101	(75%-125%)			
Selenium	0.0500	J	0.00214		0.0529	mg/L		102	(75%-125%)			
Sodium	2.00		24.3		26.5	mg/L		N/A	(75%-125%)		09/07/23	10:00

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QC Summary

Workorder: 634615

Page 6 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Thallium	0.0500	U	ND	0.0486	mg/L		97.1	(75%-125%)	PRB	09/06/23	21:09
QC1205499172	634615001 MSD										
Antimony	0.0500	U	ND	0.0505	mg/L	1.68	101	(0%-20%)		09/06/23	21:12
Arsenic	0.0500	U	ND	0.0503	mg/L	0.359	98.4	(0%-20%)			
Barium	0.0500		0.0445	0.0900	mg/L	3.18	91.1	(0%-20%)			
Beryllium	0.0500	U	ND	0.0597	mg/L	0.435	119	(0%-20%)			
Boron	0.100		0.0601	0.169	mg/L	0.597	109	(0%-20%)			
Cadmium	0.0500	U	ND	0.0501	mg/L	1.62	100	(0%-20%)			
Calcium	2.00		47.9	47.5	mg/L	4.48	N/A	(0%-20%)		09/07/23	10:02
Chromium	0.0500		0.0115	0.0609	mg/L	1.91	98.8	(0%-20%)		09/06/23	21:12
Cobalt	0.0500	U	ND	0.0488	mg/L	1.57	97.5	(0%-20%)			
Iron	2.00	J	0.0446	2.02	mg/L	0.88	99	(0%-20%)			
Lead	0.0500	U	ND	0.0491	mg/L	3.4	98.3	(0%-20%)			
Lithium	0.0500	U	ND	0.0572	mg/L	2.02	112	(0%-20%)			
Magnesium	2.00		24.7	26.1	mg/L	4.35	N/A	(0%-20%)			
Manganese	0.0500	U	ND	0.0491	mg/L	1.28	97.7	(0%-20%)			

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QC Summary

Workorder: 634615

Page 7 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Molybdenum	0.0500	U	ND	0.0522	mg/L	2.82	104	(0%-20%)	PRB	09/06/23	21:12
Potassium	2.00		1.19	3.12	mg/L	2.62	96.9	(0%-20%)			
Selenium	0.0500	J	0.00214	0.0511	mg/L	3.51	97.9	(0%-20%)			
Sodium	2.00		24.3	25.2	mg/L	4.79	N/A	(0%-20%)		09/07/23	10:02
Thallium	0.0500	U	ND	0.0480	mg/L	1.1	96	(0%-20%)		09/06/23	21:12
QC1205499173 634615001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			44.5	9.45	ug/L	6.18		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			60.1	J	12.2	ug/L	1.49	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			9580	1920	ug/L	.186		(0%-20%)		09/07/23	10:07
Chromium			11.5	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	44.6	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634615

Page 8 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	09/06/23	21:20
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		24700		5300	ug/L	7.32		(0%-20%)			
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1190	J	231	ug/L	2.54		(0%-20%)			
Selenium	J	2.14	U	ND	ug/L	N/A		(0%-20%)			
Sodium		4860		988	ug/L	1.66		(0%-20%)		09/07/23	10:07
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/06/23	21:20
Metals Analysis-Mercury											
Batch	2482668										
QC1205499097	634513006 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/28/23	09:09
QC1205499096	LCS										
Mercury	0.00200			0.00205	mg/L		103	(80%-120%)		08/28/23	09:01
QC1205499095	MB										
Mercury			U	ND	mg/L					08/28/23	08:59
QC1205499098	634513006 MS										
Mercury	0.00200	U	ND	0.00197	mg/L		98.5	(75%-125%)		08/28/23	09:11

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QC Summary

Workorder: 634615

Page 9 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482668										
QC1205499099	634513006	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	08/28/23	09:12
Solids Analysis											
Batch	2483702										
QC1205501048	634610003	DUP									
Total Dissolved Solids		5050		5870	mg/L	15*		(0%-5%)	CH6	08/28/23	15:50
QC1205501047	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/28/23	15:50
QC1205501046	MB										
Total Dissolved Solids			U	ND	mg/L					08/28/23	15:50
Batch	2484233										
QC1205502071	634810010	DUP									
Total Dissolved Solids		184		187	mg/L	1.62		(0%-5%)	CH6	08/29/23	15:39
QC1205502070	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	15:39
QC1205502069	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	15:39
Batch	2484234										
QC1205502076	634643001	DUP									
Total Dissolved Solids		1270		1280	mg/L	0.94		(0%-5%)	CH6	08/29/23	16:03
QC1205502074	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	16:03
QC1205502073	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	16:03

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QC Summary

Workorder: 634615

Page 10 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2482961										
QC1205499656		LCS									
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	08/25/23	10:42
QC1205499655		MB									
Total Sulfide			U	ND	mg/L					08/25/23	10:42
QC1205499657		634513005	PS								
Total Sulfide	0.400	U	ND	0.389	mg/L		96.4	(75%-125%)		08/25/23	10:48
QC1205499658		634513005	PSD								
Total Sulfide	0.400	U	ND	0.391	mg/L	0.511	96.9	(0%-15%)		08/25/23	10:48
Batch	2483779										
QC1205501209		LCS									
Total Sulfide	0.400			0.398	mg/L		99.4	(85%-115%)	JW2	08/28/23	12:54
QC1205501208		MB									
Total Sulfide			U	ND	mg/L					08/28/23	12:54
QC1205501210		634615002	PS								
Total Sulfide	0.400	U	ND	0.118	mg/L		29.4*	(75%-125%)		08/28/23	12:55
QC1205501212		634650011	PS								
Total Sulfide	0.400	U	ND	0.111	mg/L		27.7*	(75%-125%)		08/28/23	12:59
QC1205501211		634615002	PSD								
Total Sulfide	0.400	U	ND	0.113	mg/L	3.73	28.3*	(0%-15%)		08/28/23	12:55
QC1205501213		634650011	PSD								
Total Sulfide	0.400	U	ND	0.109	mg/L	1.96	27.2*	(0%-15%)		08/28/23	13:00

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QC Summary

Workorder: 634615

Page 11 of 12

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2484392										
QC1205502340	634448001	DUP									
Alkalinity, Total as CaCO3		65.8		65.5	mg/L	0.457		(0%-20%)	JW2	08/29/23	11:54
Bicarbonate alkalinity (CaCO3)		65.8		65.5	mg/L	0.457		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205502342	634643001	DUP									
Alkalinity, Total as CaCO3		80.2		80.4	mg/L	0.249		(0%-20%)		08/29/23	12:16
Bicarbonate alkalinity (CaCO3)		80.2		80.4	mg/L	0.249		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205502339	LCS										
Alkalinity, Total as CaCO3	50.0			51.8	mg/L		104	(90%-110%)		08/29/23	11:37
QC1205502344	LCS										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L		98.7	(90%-110%)		08/29/23	11:38
QC1205502341	634448001	MS									
Alkalinity, Total as CaCO3	50.0	65.8		118	mg/L		104	(80%-120%)		08/29/23	11:54
QC1205502343	634643001	MS									
Alkalinity, Total as CaCO3	50.0	80.2		132	mg/L		103	(80%-120%)		08/29/23	12:17

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

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QC Summary

Workorder: 634615

Page 12 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<	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.

GEL LABORATORIES LLC

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

QC Summary

Report Date: September 6, 2023

Page 1 of 11

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

Contact: Joju Abraham

Workorder: 634441

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481584										
QC1205497354	634441001	DUP									
Chloride		32.7		32.5	mg/L	0.522	^	(+/-10.0)	JLD1	08/24/23	01:49
Fluoride		0.123		0.124	mg/L	1.13	^	(+/-0.100)		08/24/23	00:14
Nitrate-N	J	0.0707	J	0.0739	mg/L	4.43	^	(+/-0.100)			
Sulfate		466		474	mg/L	1.69		(0%-20%)		08/24/23	01:49
QC1205497353	LCS										
Chloride	5.00			4.64	mg/L			92.8 (90%-110%)		08/23/23	23:42
Fluoride	2.50			2.37	mg/L			94.6 (90%-110%)			
Nitrate-N	2.50			2.27	mg/L			91 (90%-110%)			
Sulfate	10.0			9.48	mg/L			94.8 (90%-110%)			
QC1205497352	MB										
Chloride			U	ND	mg/L					08/23/23	23:10
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205497355	634441001	PS									
Chloride	5.00	0.654		5.10	mg/L			88.9* (90%-110%)		08/24/23	02:21

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QC Summary

Workorder: 634441

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481584										
Fluoride	2.50	0.123		2.56	mg/L		97.3	(90%-110%)	JLD1	08/24/23	00:45
Nitrate-N	2.50	J 0.0707		2.29	mg/L		88.7*	(90%-110%)			
Sulfate	10.0	9.32		18.8	mg/L		94.3	(90%-110%)		08/24/23	02:21
Metals Analysis - ICPMS											
Batch	2482703										
QC1205499165	LCS										
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	08/31/23	22:21
Arsenic	0.0500			0.0500	mg/L		99.9	(80%-120%)			
Barium	0.0500			0.0522	mg/L		104	(80%-120%)			
Beryllium	0.0500			0.0527	mg/L		105	(80%-120%)			
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0502	mg/L		100	(80%-120%)			
Calcium	2.00			1.96	mg/L		98	(80%-120%)			
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0518	mg/L		104	(80%-120%)			

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

QC Summary

Workorder: 634441

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lithium	0.0500			0.0506	mg/L		101	(80%-120%)	PRB	08/31/23	22:21
Magnesium	2.00			1.97	mg/L		98.4	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/01/23	08:52
Molybdenum	0.0500			0.0499	mg/L		99.8	(80%-120%)		08/31/23	22:21
Potassium	2.00			1.94	mg/L		97	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.7	(80%-120%)			
Sodium	2.00			1.95	mg/L		97.6	(80%-120%)			
Thallium	0.0500			0.0507	mg/L		101	(80%-120%)			
QC1205499164	MB										
Antimony			U	ND	mg/L					08/31/23	22:18
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						

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QC Summary

Workorder: 634441

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Chromium			U	ND	mg/L				PRB	08/31/23	22:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/01/23	08:50
Molybdenum			U	ND	mg/L					08/31/23	22:18
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205499166 634441003 MS											
Antimony	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Arsenic	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)			
Barium	0.0500		0.0268	0.0800	mg/L		106	(75%-125%)			

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QC Summary

Workorder: 634441

Page 5 of 11

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2482703											
Beryllium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)	PRB	08/31/23	22:36
Boron	0.100		1.90		2.08	mg/L		N/A	(75%-125%)		09/01/23	09:00
Cadmium	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Calcium	2.00		83.4		88.8	mg/L		N/A	(75%-125%)		09/01/23	09:00
Chromium	0.0500	U	ND		0.0518	mg/L		103	(75%-125%)		08/31/23	22:36
Cobalt	0.0500		0.00384		0.0554	mg/L		103	(75%-125%)			
Iron	2.00	U	ND		2.06	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND		0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND		0.0521	mg/L		102	(75%-125%)			
Magnesium	2.00		18.9		21.3	mg/L		N/A	(75%-125%)			
Manganese	0.0500		3.33		3.48	mg/L		N/A	(75%-125%)		09/01/23	09:00
Molybdenum	0.0500	U	ND		0.0527	mg/L		105	(75%-125%)		08/31/23	22:36
Potassium	2.00		3.52		5.59	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND		0.0531	mg/L		106	(75%-125%)			
Sodium	2.00		20.7		23.1	mg/L		N/A	(75%-125%)			

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QC Summary

Workorder: 634441

Page 6 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Thallium	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)	PRB	08/31/23	22:36
QC1205499167 634441003 MSD											
Antimony	0.0500	U	ND	0.0491	mg/L	4.07	98.1	(0%-20%)		08/31/23	22:39
Arsenic	0.0500	U	ND	0.0508	mg/L	3.79	101	(0%-20%)			
Barium	0.0500		0.0268	0.0757	mg/L	5.49	97.8	(0%-20%)			
Beryllium	0.0500	U	ND	0.0506	mg/L	4.96	101	(0%-20%)			
Boron	0.100		1.90	2.00	mg/L	4.07	N/A	(0%-20%)		09/01/23	09:02
Cadmium	0.0500	U	ND	0.0496	mg/L	2.97	98.7	(0%-20%)		08/31/23	22:39
Calcium	2.00		83.4	84.1	mg/L	5.45	N/A	(0%-20%)		09/01/23	09:02
Chromium	0.0500	U	ND	0.0504	mg/L	2.88	101	(0%-20%)		08/31/23	22:39
Cobalt	0.0500		0.00384	0.0540	mg/L	2.65	100	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	2.95	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0493	mg/L	3.6	98.5	(0%-20%)			
Lithium	0.0500	U	ND	0.0509	mg/L	2.35	99.9	(0%-20%)			
Magnesium	2.00		18.9	20.7	mg/L	2.55	N/A	(0%-20%)			
Manganese	0.0500		3.33	3.35	mg/L	3.62	N/A	(0%-20%)		09/01/23	09:02

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

QC Summary

Workorder: 634441

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Molybdenum	0.0500	U	ND	0.0512	mg/L	2.82	102	(0%-20%)	PRB	08/31/23	22:39
Potassium	2.00		3.52	5.37	mg/L	4.12	92.4	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	3.53	102	(0%-20%)			
Sodium	2.00		20.7	22.6	mg/L	2.28	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0488	mg/L	3.06	97.5	(0%-20%)			
QC1205499168 634441003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			26.8	5.04	ug/L	6.03		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			95.1	20.6	ug/L	8.16		(0%-20%)		09/01/23	09:04
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Calcium			4170	869	ug/L	4.2		(0%-20%)		09/01/23	09:04
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Cobalt			3.84	J	0.796	ug/L	3.56	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 634441

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	08/31/23	22:46
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		18900		3500	ug/L	7.29		(0%-20%)			
Manganese		167		33.7	ug/L	1.09		(0%-20%)		09/01/23	09:04
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/23	22:46
Potassium		3520		680	ug/L	3.4		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		20700		3830	ug/L	7.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2482624										
QC1205499046	634447002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/25/23	12:24
QC1205499045	LCS										
Mercury	0.00200			0.00199	mg/L		99.5	(80%-120%)		08/25/23	11:58
QC1205499044	MB										
Mercury			U	ND	mg/L					08/25/23	11:56
QC1205499047	634447002 MS										
Mercury	0.00200	U	ND	0.00199	mg/L		99.5	(75%-125%)		08/25/23	12:26

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

QC Summary

Workorder: 634441

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482624										
QC1205499048	634447002	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	08/25/23	12:27
Solids Analysis											
Batch	2482652										
QC1205499070	634323005	DUP									
Total Dissolved Solids		219		217	mg/L	0.917		(0%-5%)	CH6	08/25/23	09:38
QC1205499068	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/25/23	09:38
QC1205499067	MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23	09:38
Batch	2482655										
QC1205499078	634530001	DUP									
Total Dissolved Solids		360		364	mg/L	1.1		(0%-5%)	CH6	08/25/23	10:10
QC1205499076	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/25/23	10:10
QC1205499075	MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23	10:10
Spectrometric Analysis											
Batch	2481696										
QC1205497560	LCS										
Total Sulfide	0.400			0.398	mg/L		99.6	(85%-115%)	JW2	08/24/23	17:36
QC1205497559	MB										
Total Sulfide			U	ND	mg/L					08/24/23	17:36
QC1205497561	634441001	PS									
Total Sulfide	0.400	U	ND	0.363	mg/L		90.8	(75%-125%)		08/24/23	17:37

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

QC Summary

Workorder: 634441

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2481696										
QC1205497563	634447001	PS									
Total Sulfide	0.400	U	ND	0.420	mg/L		105	(75%-125%)	JW2	08/24/23	17:46
QC1205497562	634441001	PSD									
Total Sulfide	0.400	U	ND	0.367	mg/L	1.09	91.8	(0%-15%)		08/24/23	17:38
QC1205497564	634447001	PSD									
Total Sulfide	0.400	U	ND	0.412	mg/L	1.92	103	(0%-15%)		08/24/23	17:47
Titration and Ion Analysis											
Batch	2482476										
QC1205498938	LCS										
Alkalinity, Total as CaCO3	50.0			50.2	mg/L		100	(90%-110%)	JW2	08/24/23	15:56
QC1205499028	LCSD										
Alkalinity, Total as CaCO3	50.0			50.7	mg/L	0.991	101	(0%-20%)		08/24/23	15:57

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
- 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

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634441

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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 #: 634615**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482705

Preparation Method: SW846 3005A

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

Preparation Batch: 2482704

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499169	Method Blank (MB) ICP-MS
1205499170	Laboratory Control Sample (LCS)
1205499173	634615001(BRA-BRGWC-17SL) Serial Dilution (SD)
1205499171	634615001(BRA-BRGWC-17SS) Matrix Spike (MS)
1205499172	634615001(BRA-BRGWC-17SSD) 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 634615001 (BRA-BRGWC-17S),

634615002 (BRA-BRGWC-35S), 634615003 (BRA-BRGWC-36S), 634615004 (BRA-BRGWC-38S), 634615005 (BRA-PZ-52D), 634615006 (BRA-PZ-70I) and 634615007 (BRA-APE-FD-05) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634615						
	001	002	003	004	005	006	007
Boron	1X	20X	10X	10X	1X	10X	20X
Calcium	5X	20X	1X	1X	1X	1X	20X
Manganese	1X	1X	1X	10X	1X	1X	1X
Sodium	5X	1X	1X	1X	10X	1X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2482668

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482660

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499095	Method Blank (MB)CVAA
1205499096	Laboratory Control Sample (LCS)
1205499099	634513006(NonSDGL) Serial Dilution (SD)
1205499097	634513006(NonSDGD) Sample Duplicate (DUP)
1205499098	634513006(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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2482580

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499013	Method Blank (MB)
1205499014	Laboratory Control Sample (LCS)
1205499015	634615001(BRA-BRGWC-17S) Sample Duplicate (DUP)
1205499016	634615001(BRA-BRGWC-17S) 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
Chloride	1205499016 (BRA-BRGWC-17SPS)	111* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205499015 (BRA-BRGWC-17SDUP), 1205499016 (BRA-BRGWC-17SPS), 634615001 (BRA-BRGWC-17S), 634615002 (BRA-BRGWC-35S), 634615003 (BRA-BRGWC-36S), 634615004 (BRA-BRGWC-38S), 634615005 (BRA-PZ-52D), 634615006 (BRA-PZ-70I) and 634615007 (BRA-APE-FD-05) were diluted because target analyte concentrations exceeded the calibration range. The following samples 634615003 (BRA-BRGWC-36S) and 634615006 (BRA-PZ-70I) in this sample group were diluted due to matrix interference. 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	634615						
	001	002	003	004	005	006	007
Fluoride	1X	1X	2X	1X	1X	2X	1X
Sulfate	20X	40X	20X	40X	10X	10X	25X

Miscellaneous Information

Manual Integrations

Samples 1205499015 (BRA-BRGWC-17SDUP), 634615003 (BRA-BRGWC-36S) and 634615006 (BRA-PZ-70I) 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: 2483702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
1205501046	Method Blank (MB)
1205501047	Laboratory Control Sample (LCS)
1205501048	634610003(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	1205501048 (Non SDG 634610003DUP)	15* (0%-5%)

Miscellaneous Information

Additional Comments

A TDS meter was used to check the sample for interference prior to analysis. 1205501048 (Non SDG 634610003DUP).

Product: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 21
Analytical Batch: 2484233

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
1205502069	Method Blank (MB)
1205502070	Laboratory Control Sample (LCS)
1205502071	634810010(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: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 21
Analytical Batch: 2484234

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205502073	Method Blank (MB)
1205502074	Laboratory Control Sample (LCS)
1205502076	634643001(BRA-PZ-79) 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 sample for interference prior to analysis. 1205502076 (BRA-PZ-79DUP).

Product: Sulfide, Total

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

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

Analytical Batch: 2482961

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205499655	Method Blank (MB)
1205499656	Laboratory Control Sample (LCS)
1205499657	634513005(NonSDG) Post Spike (PS)
1205499658	634513005(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.

Product: Sulfide, Total

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

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

Analytical Batch: 2483779

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
1205501208	Method Blank (MB)
1205501209	Laboratory Control Sample (LCS)
1205501210	634615002(BRA-BRGWC-35S) Post Spike (PS)
1205501211	634615002(BRA-BRGWC-35S) Post Spike Duplicate (PSD)
1205501212	634650011(BRA-BRGWC-50) Post Spike (PS)
1205501213	634650011(BRA-BRGWC-50) Post Spike Duplicate (PSD)

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
Total Sulfide	1205501210 (BRA-BRGWC-35SPS)	29.4* (75%-125%)
	1205501211 (BRA-BRGWC-35SPSD)	28.3* (75%-125%)
	1205501212 (BRA-BRGWC-50PS)	27.7* (75%-125%)
	1205501213 (BRA-BRGWC-50PSD)	27.2* (75%-125%)

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2484392

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634615001	BRA-BRGWC-17S
634615002	BRA-BRGWC-35S
634615003	BRA-BRGWC-36S
634615004	BRA-BRGWC-38S
634615005	BRA-PZ-52D
634615006	BRA-PZ-70I
634615007	BRA-APE-FD-05
634615008	BRA-APE-FB-08
634615009	BRA-APE-EB-09
634615010	BRA-APE-EB-10
1205502339	Laboratory Control Sample (LCS)
1205502340	634448001(BRA-PZ-79) Sample Duplicate (DUP)
1205502341	634448001(BRA-PZ-79) Matrix Spike (MS)
1205502342	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205502343	634643001(BRA-PZ-79) Matrix Spike (MS)
1205502344	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.

**Technical Case Narrative
Georgia Power Company
SDG #: 634441**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482703

Preparation Method: SW846 3005A

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

Preparation Batch: 2482702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205499164	Method Blank (MB) ICP-MS
1205499165	Laboratory Control Sample (LCS)
1205499168	634441003(BRA-BRGWC-34SL) Serial Dilution (SD)
1205499166	634441003(BRA-BRGWC-34SS) Matrix Spike (MS)
1205499167	634441003(BRA-BRGWC-34SSD) 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 634441001 (BRA-BRGWC-33S), 634441002 (BRA-APE-FD-04) and 634441003 (BRA-BRGWC-34S) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634441		
	001	002	003
Boron	10X	10X	20X
Calcium	10X	10X	20X
Manganese	10X	10X	20X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2482624

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482623

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205499044	Method Blank (MB) CVAA
1205499045	Laboratory Control Sample (LCS)
1205499048	634447002(BRA-BRGWA-5SL) Serial Dilution (SD)
1205499046	634447002(BRA-BRGWA-5SD) Sample Duplicate (DUP)
1205499047	634447002(BRA-BRGWA-5SS) 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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 32

Analytical Batch: 2481584

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2481584

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205497352	Method Blank (MB)
1205497353	Laboratory Control Sample (LCS)
1205497354	634441001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205497355	634441001(BRA-BRGWC-33S) 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
Chloride	1205497355 (BRA-BRGWC-33SPS)	88.9* (90%-110%)
Nitrate-N	1205497355 (BRA-BRGWC-33SPS)	88.7* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205497354 (BRA-BRGWC-33SDUP), 1205497355 (BRA-BRGWC-33SPS), 634441001 (BRA-BRGWC-33S), 634441002 (BRA-APE-FD-04), 634441003 (BRA-BRGWC-34S) and 634441006 (BRA-PZ-13S) were diluted because target analyte concentrations exceeded the calibration range. The following sample 634441003 (BRA-BRGWC-34S) in this sample group was diluted due to matrix interference. 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	634441			
	001	002	003	006
Chloride	50X	50X	2X	1X
Fluoride	1X	1X	2X	1X
Sulfate	50X	50X	25X	5X

Miscellaneous Information

Manual Integrations

Samples 634441002 (BRA-APE-FD-04), 634441005 (BRA-BRGWC-37S) and 634441006 (BRA-PZ-13S) 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: 2482652

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
1205499067	Method Blank (MB)
1205499068	Laboratory Control Sample (LCS)
1205499070	634323005(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: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2482655

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441006	BRA-PZ-13S
1205499075	Method Blank (MB)
1205499076	Laboratory Control Sample (LCS)
1205499078	634530001(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: 2481696

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205497559	Method Blank (MB)
1205497560	Laboratory Control Sample (LCS)
1205497561	634441001(BRA-BRGWC-33S) Post Spike (PS)
1205497562	634441001(BRA-BRGWC-33S) Post Spike Duplicate (PSD)
1205497563	634447001(BRA-BRGWA-2S) Post Spike (PS)
1205497564	634447001(BRA-BRGWA-2S) 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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2482476

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634441001	BRA-BRGWC-33S
634441002	BRA-APE-FD-04
634441003	BRA-BRGWC-34S
634441004	BRA-APE-FB-07
634441005	BRA-BRGWC-37S
634441006	BRA-PZ-13S
1205498938	Laboratory Control Sample (LCS)
1205499028	Laboratory Control Sample Duplicate (LCSD)

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

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume. 634441001 (BRA-BRGWC-33S), 634441002 (BRA-APE-FD-04), 634441003 (BRA-BRGWC-34S), 634441004 (BRA-APE-FB-07), 634441005 (BRA-BRGWC-37S) and 634441006 (BRA-PZ-13S).

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.

634648

Project # _____ of _____
 GEL Quote #: _____
 GEL Laboratories LLC
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL
 Chain of Custody and Analytical Request
 GEL Work Order Number: _____
 GEL Project Manager: Erin Trent
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Phone # 404-506-7116
 Fax # _____

Send Results To: SCS & Geosyntec Contacts
 Collected By: T. Goale ACC
 D. Johnson

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix	Radiative (if Yes please supply isotopic info)	Should this sample be considered:	Total number of containers	CI, F, SO4, TDS, NO3	Total, Carb, & Biocarb Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	Preservative Type (6)	Comments
BRA- BPGWC-175	08/23/23	1405	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓		Note: extra sample is required for sample specific QC	
BRA- BPGWC-355	08/23/23	1201	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓		Task Code: BRA-CCR-ASSMT-2023S2	
BRA- BPGWC-365	08/23/23	1556	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			
BRA- BPGWC-385	08/23/23	1212	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			
BRA- PZ-52D	08/23/23	1346	G	N	WG	N	Known or possible Hazards	5	✓	✓	✓	✓			
BRA- PZ-70I	08/23/23	1612	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			
BRA- APE-FD-05	08/23/23	—	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			
BRA- APE-FB-06	08/23/23	1630	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			
BRA- APE-EB-09	08/23/23	1645	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			
BRA- APE-ED-10	08/23/23	1315	G	N	WG	N	Known or possible Hazards	8	✓	✓	✓	✓			

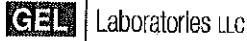
Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1. T. Goale 8-24-23/0740
 2. Erin Trent 8/24/23 1243
 3. _____ 8/24/23 1243

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: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg
 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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, NT = 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/Ignitable, CO = Corrosive, RE = Reactive
 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.)

RCRA Metals
 As = Arsenic
 Ba = Barium
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead
 Hg = Mercury
 Se = Selenium
 Ag = Silver
 MR = Misc. RCRA metals
 PCB = Polychlorinated biphenyls
 TSCA Regulated
 PCB = Polychlorinated biphenyls

634448 634443
 634652 634650
 634649
 634648 634615



SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>EG</u>		Date Received: <u>8-24-23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3°</u> <u>cooler 3-3°</u> <u>cooler 2-3°</u> <u>cooler 4-2°</u> <u>cooler 5-3°</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <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?	Yes <input type="checkbox"/> No <input checked="" 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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	COC notation on radioactive coolers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>CPM</u> mR/hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	COC notation on hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Plammable Foreign Soil RCRA Asbestos Beryllium Other:	
Sample Receipt Criteria		Yes <input type="checkbox"/> NA <input type="checkbox"/> No <input type="checkbox"/>	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 None Other: *all temperatures are recorded in Celsius
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR6-23</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#: <u>see continuation form</u>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encorus 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"/>	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): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>			

TEMP: See coolers above & below for temps

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EC Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-S11
- BRA-P2-591
- BRA-BRGWC-355
- BRA-BRGWC-365
- BRA-APE-FB-07
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-385
- BRA-P2-641
- BRA-P2-68D
- BRA-APBCD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

634441 634443

Page: 1 of 1
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
GEL Work Order Number: _____
GEL Project Manager: Erin Trent
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: T. Cobble / D. J. ACC
 Send Results To: SCS & Geosyntec Contacts

Phone # 404-506-7116
 Fax # _____
 GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
						Radioactive (if yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	Metals *	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	
BRA-GWC-335	08/22/23	1210	G	N	WG	N	N	8	✓	✓		
BRA-APE-FD-04	08/22/23	---	G	N	WG	N	N	8	✓	✓		
BRA-GWC-345	08/22/23	1435	G	N	WG	N	N	8	✓	✓		
BRA-APE-FB-07	08/22/23	1510	G	N	WB	N	N	8	✓	✓		
BRA-BRGWC-375	08/22/23	1651	G	N	WG	N	N	8	✓	✓		
BRA-PZ-135	08/22/23	1647	G	N	WG	N	N	8	✓	✓		
BRA-												
BRA-												
BRA-												
BRA-												

Chain of Custody Signatures				TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: _____ Specify: _____ (Subject to Surcharge)	
Relinquished By (Signed)	Date	Received by (signed)	Date	Time	Fax Results: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<i>[Signature]</i>	8-23-23 10:25	<i>[Signature]</i>	8/23/23	0825	Select Deliverable: <input type="checkbox"/> C of A <input type="checkbox"/> QC Summary <input type="checkbox"/> Level 1 <input checked="" type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4
<i>[Signature]</i>	8/23/23 0832	<i>[Signature]</i>	8/23/23	0832	Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Ph,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg
<i>[Signature]</i>	8/23/23 100	<i>[Signature]</i>	8/23/23	1300	For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: _____ °C
* For sample shipping and delivery details, see Sample Receipt & Review form (SRR)					
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:					

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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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, BX = 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
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.)

63444 63443
 63448 63447
 63443 634450
 63444 63444
 63444

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: CCPP		SDG/AR/COC/Work Order: ET			
Received By: MVH		Date Received: 8/23/2023			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other COOLER 2-3°C COOLER 4-1°C COOLER 6-1°C COOLER 1-2°C COOLER 3-1°C COOLERS 5-2°C			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 00 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 type="checkbox"/> No			
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 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"/>	<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"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	Sample IDs and Containers Affected: VOA-P2-G11, BRA-BRGWA-SI, BRA-BRGWA-23S, If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input 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 IDs and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input 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"/>	<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"/>	<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"/>	<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"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): BRA-P2-13S, BRA-BRGWA-2S, BRA-BRGWA-6S, BRA-BRGWC-32S, BRA-BRGWA-2I, BRA-BRGWC-37S, BRA-BRGWC-34S, BRA-BRGWC-30I Sulfide samples didnt hold proper preservation.					

PM (or PMA) review: Initials **AT** Date **8/25/23** Page **1** of **1**

Amanda Turner

From: Amanda Turner
Sent: Tuesday, August 29, 2023 10:04 AM
To: JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM;
MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com
Cc: Team Trent
Subject: Preservation issues (634652, 634650, 634648, 634615)
Attachments: 634648 634615.pdf; 634652 634650.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning!

I wanted to notify you of the following preservation issues. The samples containers for sodium hydroxide/zinc acetate listed below did not hold preservation. The samples were preserved upon receipt and placed on a 24-hour preservation hold.

"BRA-PZ-51I" "BRA-PZ-60I" "BRA-PZ-58I" "BRA-PZ-63I" "BRA-PZ-64I" "BRA-PZ-68D" "BRA-APBCD-FD-02" "BRA-PZ-50D"
"BRA-BRGWC-50" for work orders 634652 and 634650

"BRA-PZ-59I" for work order 634650

"BRA-BRGWC-35S" "BRA-BRGWC-36S" "BRA-APE-FB-08" "BRA-BRGWC-38S" "BRA-APE-FD-05" for work orders 634648
and 634615

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com

Analytical Testing



Amanda Turner

From: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>
Sent: Friday, August 25, 2023 8:52 AM
To: Amanda Turner; Jurinko, Kristen Nichole; Smilley, Michael Jay; Gangi, Noelia S.; Midkiff, Laura B.
Cc: Team Trent
Subject: RE: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re-preserve and analyze for sulfide in all samples.

JA

From: Amanda Turner <Amanda.Turner@gel.com>
Sent: Friday, August 25, 2023 8:29 AM
To: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Gangi, Noelia S. <NSMUSKUS@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>
Cc: Team Trent <Team.Trent@gel.com>
Subject: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

Good morning,

I wanted to notify you of the following preservation issues. These samples did not hold proper sulfide preservation. Please advise.

"BRA-GWC-34S" "BRA-BRGWC-37S" "BRA-PZ-13S" on work orders 634441 and 634443
"BRA-BRGWC-32S" "BRA-BRGWC-30I" "BRA-PZ-61I" "BRA-BRGWA-23S" on work orders 634444 and 634446
"BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRGWA-2I" "BRA-BRAW-5I" on work orders 634447 and 634450

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407

Office Main: 843.556.8171 | Fax: 843.766.1178

E-Mail: amanda.turner@gel.com | Website: www.gel.com [gel.com]

Analytical Testing



[gellaboratories.com]



[linkedin.com]

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List of current GEL Certifications as of 07 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 07, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance PZ
Work Order: 634649

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 24, 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>
634649001	BRA-PZ-76I	Ground Water	23/08/23 10:37	24/08/23 12:43
634649002	BRA-PZ-77I	Ground Water	23/08/23 10:26	24/08/23 12:43

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	25-AUG-2023

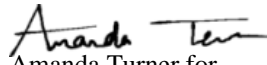
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	24-AUG-2023
EPA 300.0	25-AUG-2023
SM 2320B	29-AUG-2023
SM 2540C	29-AUG-2023
SM 4500-S (2-) D	25-AUG-2023
SW846 3005A/6020B	06-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 "Amanda Turner". The signature is written in a cursive style with a horizontal line extending from the end of the name.

Amanda Turner for
Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634649 GEL Work Order: 634649

The Qualifiers in this report are defined as follows:

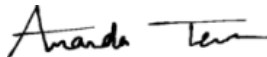
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits 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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-76I	Project: GPCC00101
Sample ID: 634649001	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-23 10:37	
Receive Date: 24-AUG-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		5.28	0.0670	0.200	mg/L		1	LXA2	08/24/23	1728	2482641	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		158	2.66	8.00	mg/L		20	LXA2	08/25/23	1640	2482641	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum		0.0505	0.0193	0.0500	mg/L	1.00	1	PRB	09/06/23	2214	2482705	3
Cobalt		0.00587	0.000300	0.00100	mg/L	1.00	1					
Iron		0.194	0.0330	0.100	mg/L	1.00	1					
Magnesium		5.68	0.0100	0.0300	mg/L	1.00	1					
Potassium		6.83	0.0800	0.300	mg/L	1.00	1					
Boron		2.10	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1027	2482705	4
Calcium		141	1.60	4.00	mg/L	1.00	20					
Manganese		4.65	0.0200	0.100	mg/L	1.00	20					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0039	2482705	5
Sodium		19.7	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		304	2.38	10.0	mg/L			CH6	08/29/23	1603	2484234	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1055	2482961	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		23.1	0.725	2.00	mg/L			JW2	08/29/23	1219	2484392	8
Bicarbonate alkalinity (CaCO3)		23.1	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	CD3	08/25/23	0735	2482704

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-76I
Sample ID: 634649001

Project: GPCC00101
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 3005A/6020B										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SM 2540C										
7	SM 4500-S (2-) D										
8	SM 2320B										

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-771 Project: GPCC00101
Sample ID: 634649002 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 10:26
Receive Date: 24-AUG-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		12.1	1.34	4.00	mg/L		20	LXA2	08/25/23	1711	2482641	1
Sulfate		269	2.66	8.00	mg/L		20					
Nitrate-N		0.151	0.0330	0.100	mg/L		1	LXA2	08/24/23	1759	2482641	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000318	0.000200	0.000500	mg/L	1.00	1	PRB	09/07/23	0042	2482705	3
Sodium		27.9	0.0800	0.250	mg/L	1.00	1					
Aluminum		0.122	0.0193	0.0500	mg/L	1.00	1	PRB	09/06/23	2217	2482705	4
Cobalt		0.0332	0.000300	0.00100	mg/L	1.00	1					
Iron		0.402	0.0330	0.100	mg/L	1.00	1					
Magnesium		10.6	0.0100	0.0300	mg/L	1.00	1					
Potassium		13.6	0.0800	0.300	mg/L	1.00	1					
Boron		0.936	0.104	0.300	mg/L	1.00	20	PRB	09/07/23	1029	2482705	5
Calcium		86.8	1.60	4.00	mg/L	1.00	20					
Manganese		3.51	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		466	2.38	10.0	mg/L			CH6	08/29/23	1603	2484234	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1056	2482961	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		21.9	0.725	2.00	mg/L			JW2	08/29/23	1221	2484392	8
Bicarbonate alkalinity (CaCO3)		21.9	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	CD3	08/25/23	0735	2482704

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater CompliancePZ

Client Sample ID: BRA-PZ-77I
Sample ID: 634649002

Project: GPCC00101
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 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 7, 2023

Page 1 of 7

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

Contact: Joju Abraham

Workorder: 634649

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482641										
QC1205499056	634643001	DUP									
Chloride		2.56		2.56	mg/L	0.235		(0%-20%)	LXA2	08/24/23	23:40
Nitrate-N	J	0.0737	J	0.0724	mg/L	1.78	^	(+/-0.100)			
Sulfate		761		761	mg/L	0.0329		(0%-20%)		08/25/23	15:38
QC1205499055	LCS										
Chloride	5.00			4.61	mg/L			92.3 (90%-110%)		08/24/23	22:06
Nitrate-N	2.50			2.31	mg/L			92.4 (90%-110%)			
Sulfate	10.0			9.50	mg/L			95 (90%-110%)			
QC1205499054	MB										
Chloride			U	ND	mg/L					08/24/23	23:09
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499057	634643001	PS									
Chloride	5.00	2.56		7.48	mg/L			98.4 (90%-110%)		08/25/23	00:11
Nitrate-N	2.50	J 0.0737		2.40	mg/L			92.9 (90%-110%)			
Sulfate	10.0	7.61		17.7	mg/L			101 (90%-110%)		08/25/23	16:09

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QC Summary

Workorder: 634649

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
QC1205499170	LCS										
Aluminum	2.00			2.04	mg/L		102	(80%-120%)	PRB	09/06/23	21:01
Beryllium	0.0500			0.0598	mg/L		120	(80%-120%)			
Boron	0.100			0.111	mg/L		111	(80%-120%)			
Calcium	2.00			2.11	mg/L		105	(80%-120%)		09/07/23	09:49
Cobalt	0.0500			0.0511	mg/L		102	(80%-120%)		09/06/23	21:01
Iron	2.00			2.05	mg/L		102	(80%-120%)			
Magnesium	2.00			2.09	mg/L		104	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)		09/07/23	09:49
QC1205499169	MB										
Aluminum			U	ND	mg/L					09/06/23	20:58
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						
Calcium			U	ND	mg/L					09/07/23	09:47
Cobalt			U	ND	mg/L					09/06/23	20:58

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QC Summary

Workorder: 634649

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Iron			U	ND	mg/L				PRB	09/06/23	20:58
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L					09/07/23	09:47
QC1205499171 634615001 MS											
Aluminum	2.00	U	ND	2.06	mg/L		102	(75%-125%)		09/06/23	21:09
Beryllium	0.0500	U	ND	0.0595	mg/L		119	(75%-125%)			
Boron	0.100		0.0601	0.170	mg/L		110	(75%-125%)			
Calcium	2.00		47.9	49.7	mg/L		N/A	(75%-125%)		09/07/23	10:00
Cobalt	0.0500	U	ND	0.0495	mg/L		99	(75%-125%)		09/06/23	21:09
Iron	2.00	J	0.0446	2.04	mg/L		99.9	(75%-125%)			
Magnesium	2.00		24.7	27.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500	U	ND	0.0498	mg/L		99	(75%-125%)			
Potassium	2.00		1.19	3.21	mg/L		101	(75%-125%)			
Sodium	2.00		24.3	26.5	mg/L		N/A	(75%-125%)		09/07/23	10:00

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QC Summary

Workorder: 634649

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
QC1205499172	634615001	MSD									
Aluminum	2.00	U	ND	2.00	mg/L	3.03	99.4	(0%-20%)	PRB	09/06/23	21:12
Beryllium	0.0500	U	ND	0.0597	mg/L	0.435	119	(0%-20%)			
Boron	0.100		0.0601	0.169	mg/L	0.597	109	(0%-20%)			
Calcium	2.00		47.9	47.5	mg/L	4.48	N/A	(0%-20%)		09/07/23	10:02
Cobalt	0.0500	U	ND	0.0488	mg/L	1.57	97.5	(0%-20%)		09/06/23	21:12
Iron	2.00	J	0.0446	2.02	mg/L	0.88	99	(0%-20%)			
Magnesium	2.00		24.7	26.1	mg/L	4.35	N/A	(0%-20%)			
Manganese	0.0500	U	ND	0.0491	mg/L	1.28	97.7	(0%-20%)			
Potassium	2.00		1.19	3.12	mg/L	2.62	96.9	(0%-20%)			
Sodium	2.00		24.3	25.2	mg/L	4.79	N/A	(0%-20%)		09/07/23	10:02
QC1205499173	634615001	SDILT									
Aluminum		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			60.1	J	12.2	ug/L	1.49	(0%-20%)			
Calcium			9580		1920	ug/L	.186	(0%-20%)		09/07/23	10:07
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	21:20

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QC Summary

Workorder: 634649

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482705										
Iron	J	44.6	U	ND	ug/L	N/A		(0%-20%)	PRB	09/06/23	21:20
Magnesium		24700		5300	ug/L	7.32		(0%-20%)			
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1190	J	231	ug/L	2.54		(0%-20%)			
Sodium		4860		988	ug/L	1.66		(0%-20%)		09/07/23	10:07
Solids Analysis											
Batch	2484234										
QC1205502076	634643001 DUP										
Total Dissolved Solids		1270		1280	mg/L	0.94		(0%-5%)	CH6	08/29/23	16:03
QC1205502074	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	16:03
QC1205502073	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	16:03
Spectrometric Analysis											
Batch	2482961										
QC1205499656	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	08/25/23	10:42
QC1205499655	MB										
Total Sulfide			U	ND	mg/L					08/25/23	10:42
QC1205499657	634513005 PS										
Total Sulfide	0.400	U	ND	0.389	mg/L		96.4	(75%-125%)		08/25/23	10:48

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QC Summary

Workorder: 634649

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2482961										
QC1205499658	634513005	PSD									
Total Sulfide	0.400	U	ND	0.391	mg/L	0.511	96.9	(0%-15%)	JW2	08/25/23	10:48
Titration and Ion Analysis											
Batch	2484392										
QC1205502340	634448001	DUP									
Alkalinity, Total as CaCO3			65.8	65.5	mg/L	0.457		(0%-20%)	JW2	08/29/23	11:54
Bicarbonate alkalinity (CaCO3)			65.8	65.5	mg/L	0.457		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502342	634643001	DUP									
Alkalinity, Total as CaCO3			80.2	80.4	mg/L	0.249		(0%-20%)		08/29/23	12:16
Bicarbonate alkalinity (CaCO3)			80.2	80.4	mg/L	0.249		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205502339	LCS										
Alkalinity, Total as CaCO3	50.0			51.8	mg/L		104	(90%-110%)		08/29/23	11:37
QC1205502344	LCS										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L		98.7	(90%-110%)		08/29/23	11:38
QC1205502341	634448001	MS									
Alkalinity, Total as CaCO3	50.0		65.8	118	mg/L		104	(80%-120%)		08/29/23	11:54
QC1205502343	634643001	MS									
Alkalinity, Total as CaCO3	50.0		80.2	132	mg/L		103	(80%-120%)		08/29/23	12:17

Notes:

The Qualifiers in this report are defined as follows:

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QC Summary

Workorder: 634649

Page 7 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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									
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 #: 634649**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482705

Preparation Method: SW846 3005A

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

Preparation Batch: 2482704

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205499169	Method Blank (MB)ICP-MS
1205499170	Laboratory Control Sample (LCS)
1205499173	634615001(BRA-BRGWC-17SL) Serial Dilution (SD)
1205499171	634615001(BRA-BRGWC-17SS) Matrix Spike (MS)
1205499172	634615001(BRA-BRGWC-17SSD) 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 634649001 (BRA-PZ-76I) and 634649002 (BRA-PZ-77I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634649	
	001	002
Boron	20X	20X
Calcium	20X	20X

Manganese	20X	20X
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General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2482641

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205499054	Method Blank (MB)
1205499055	Laboratory Control Sample (LCS)
1205499056	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205499057	634643001(BRA-PZ-79) 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 1205499056 (BRA-PZ-79DUP), 1205499057 (BRA-PZ-79PS), 634649001 (BRA-PZ-76I) and 634649002 (BRA-PZ-77I) were diluted because target analyte concentrations exceeded the calibration range. 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	634649	
	001	002
Chloride	1X	20X
Sulfate	20X	20X

Miscellaneous Information

Manual Integrations

Sample 634649001 (BRA-PZ-76I) 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: 2484234

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205502073	Method Blank (MB)
1205502074	Laboratory Control Sample (LCS)
1205502076	634643001(BRA-PZ-79) 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 sample for interference prior to analysis. 1205502076 (BRA-PZ-79DUP).

Product: Sulfide, Total

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

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

Analytical Batch: 2482961

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-76I
634649002	BRA-PZ-77I
1205499655	Method Blank (MB)
1205499656	Laboratory Control Sample (LCS)
1205499657	634513005(NonSDG) Post Spike (PS)
1205499658	634513005(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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2484392

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634649001	BRA-PZ-761
634649002	BRA-PZ-771
1205502339	Laboratory Control Sample (LCS)
1205502340	634448001(BRA-PZ-79) Sample Duplicate (DUP)
1205502341	634448001(BRA-PZ-79) Matrix Spike (MS)
1205502342	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205502343	634643001(BRA-PZ-79) Matrix Spike (MS)
1205502344	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.

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____

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

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

GEL Work Order Number: _____
 Phone # 404-506-7116
 Fax # _____

Project/Site Name: Plant Branch Ash Ponds
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: T. Goble ACC
 D. Johnson

Sample ID: _____
 *For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (5)	Preservative Type (6)	Comments
BRA-PZ-761	08/23/23	1037	G	N	WG	Yes, please supply isotopic info) (F) Radioreactive (F) (7) Known or possible Hazards	5	EPA 300, SM 2540C Total Carb. & Bicarb Alk SM 2320B Metals * EPA 6020 Sulfide SM 4500	<--	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-OTH-20230823
BRA-PZ-771	08/23/23	1026	G	N	WG		5			

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>T. Goble</i>	8/24/23	<i>[Signature]</i>	8/24/23	8:40
<i>[Signature]</i>	8/24/23	<i>[Signature]</i>	8/24/23	12:43
<i>[Signature]</i>	8/24/23	<i>[Signature]</i>	8/24/23	12:43

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: * Metals: B,Ca,Be,Co,Al,Fe,Mg,Mn,K,Na
 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, PD = 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix
 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/Ignitable
 LW = Listed Waste
 CO = Corrosive
 RE = Reactive
 Waste code(s): _____
 TSCA Regulated
 PCB = Polychlorinated biphenyls

RCRA Metals
 As = Arsenic
 Ba = Barium
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead
 Hg = Mercury
 Se = Selenium
 Ag = Silver
 MR = Misc. RCRA metals

Listed Waste
 FL = Flammable/Ignitable
 LW = Listed Waste
 CO = Corrosive
 RE = Reactive
 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.)

634448 634443
 634652 634650
 634649
 634648 634615

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>EG</u>		Date Received: <u>8-24-23</u>		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3</u> <u>cooler 3-3</u> <u>cooler 2-3</u> <u>cooler 4-2</u> <u>cooler 8-3</u>		
		*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. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other:		
Sample Receipt Criteria		Yes	No	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 None Other: *all temperatures are recorded in Celsius TEMP: <u>See coolers above & below for temps</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR9-23</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#: <u>See continuation form</u>
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): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>				

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EG Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-511
- BRA-P2-591
- BRA-BRGWC-353
- BRA-BRGWC-365
- BRA-APE-FB-07
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-385
- BRA-P2-641
- BRA-P2-68D
- BRA-APBUD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

List of current GEL Certifications as of 07 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 08, 2023

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD
Work Orders: 634650,634444 and 634768

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 23, 2023, August 24, 2023 and August 25, 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. Samples "BRA-PZ-51I" "BRA-PZ-60I" "BRA-PZ-58I" "BRA-PZ-63I" "BRA-PZ-64I" "BRA-PZ-68D" "BRA-APBCD-FD-02" "BRA-PZ-50D" "BRA-BRGWC-50" "BRA-PZ-59I" containers for sodium hydroxide/zinc acetate did not hold preservation. Samples were preserved upon receipt and placed on a 24 hour preservation hold. 634650001(BRA-PZ-51I), 634650002(BRA-PZ-58I), 634650003(BRA-PZ-59I), 634650004(BRA-PZ-60I), 634650005(BRA-PZ-63I), 634650006(BRA-PZ-64I), 634650007(BRA-PZ-68D), 634650010(BRA-APBCD-FD-02), 634650011(BRA-BRGWC-50), 634650014(BRA-PZ-50D). 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>
634444001	BRA-PZ-57I	Ground Water	21/08/23 17:55	23/08/23 13:00
634444002	BRA-PZ-65I	Ground Water	21/08/23 17:45	23/08/23 13:00
634444003	BRA-BRGWA-23S	Ground Water	22/08/23 12:40	23/08/23 13:00
634444004	BRA-BRGWC-30I	Ground Water	22/08/23 15:22	23/08/23 13:00
634444005	BRA-BRGWC-32S	Ground Water	22/08/23 14:20	23/08/23 13:00
634444006	BRA-PZ-61I	Ground Water	22/08/23 16:15	23/08/23 13:00
634444007	BRA-APBCD-FB-01	Water	22/08/23 14:00	23/08/23 13:00
634650001	BRA-PZ-51I	Ground Water	23/08/23 15:00	24/08/23 12:43
634650002	BRA-PZ-58I	Ground Water	23/08/23 15:10	24/08/23 12:43
634650003	BRA-PZ-59I	Ground Water	23/08/23 11:40	24/08/23 12:43
634650004	BRA-PZ-60I	Ground Water	23/08/23 13:25	24/08/23 12:43
634650005	BRA-PZ-63I	Ground Water	23/08/23 16:30	24/08/23 12:43
634650006	BRA-PZ-64I	Ground Water	23/08/23 10:55	24/08/23 12:43



634650007	BRA-PZ-68D	Ground Water	23/08/23 16:08	24/08/23 12:43
634650008	BRA-APBCD-FB-02	Water	23/08/23 14:50	24/08/23 12:43
634650009	BRA-APBCD-FD-01	Ground Water	23/08/23 12:00	24/08/23 12:43
634650010	BRA-APBCD-FD-02	Ground Water	23/08/23 12:00	24/08/23 12:43
634650011	BRA-BRGWC-50	Ground Water	23/08/23 11:00	24/08/23 12:43
634650012	BRA-APBCD-EB-04	Water	23/08/23 11:35	24/08/23 12:43
634650013	BRA-PZ-44	Ground Water	23/08/23 16:40	24/08/23 12:43
634650014	BRA-PZ-50D	Ground Water	23/08/23 12:30	24/08/23 12:43
634768001	BRA-APBCD-FD-03	Ground Water	24/08/23 12:00	25/08/23 08:57
634768002	BRA-APBCD-EB-05	Ground Water	24/08/23 09:55	25/08/23 08:57
634768003	BRA-BRGWC-27I	Ground Water	24/08/23 12:25	25/08/23 08:57
634768004	BRA-BRGWC-45	Ground Water	24/08/23 12:06	25/08/23 08:57
634768005	BRA-PZ-75I	Ground Water	24/08/23 10:51	25/08/23 08:57
634768006	BRA-PZ-74I	Ground Water	24/08/23 14:15	25/08/23 08:57
634768007	BRA-BRGWC-29I	Ground Water	24/08/23 15:20	25/08/23 08:57
634768008	BRA-PZ-51D	Ground Water	24/08/23 11:00	25/08/23 08:57
634768009	BRA-APBCD-FB-03	Ground Water	24/08/23 12:55	25/08/23 08:57
634768010	BRA-APBCD-EB-06	Ground Water	24/08/23 14:00	25/08/23 08:57
634768011	BRA-BRGWC-52I	Ground Water	24/08/23 13:05	25/08/23 08:57
634768012	BRA-BRGWC-47	Ground Water	24/08/23 14:45	25/08/23 08:57
634768013	BRA-BRGWC-25I	Ground Water	24/08/23 16:47	25/08/23 08:57

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

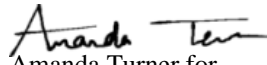
<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	25-AUG-2023
SW846 3005A	29-AUG-2023
SW846 7470A Prep	24-AUG-2023
SW846 7470A Prep	28-AUG-2023

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-AUG-2023
EPA 300.0	24-AUG-2023
EPA 300.0	25-AUG-2023
EPA 300.0	26-AUG-2023
SM 2320B	01-SEP-2023
SM 2320B	24-AUG-2023
SM 2540C	25-AUG-2023
SM 2540C	29-AUG-2023
SM 2540C	30-AUG-2023
SM 4500-S (2-) D	24-AUG-2023
SM 4500-S (2-) D	25-AUG-2023
SM 4500-S (2-) D	28-AUG-2023
SW846 3005A/6020B	01-SEP-2023
SW846 3005A/6020B	06-SEP-2023
SW846 3005A/6020B	07-SEP-2023
SW846 3005A/6020B	08-SEP-2023
SW846 3005A/6020B	31-AUG-2023
SW846 7470A	25-AUG-2023
SW846 7470A	29-AUG-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 from the end of the name.

Amanda Turner for
Erin Trent
Project Manager

Purchase Order: GPC82177-0006
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: 634650 GEL Work Order: 634650

The Qualifiers in this report are defined as follows:

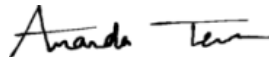
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits 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 for

GPCC001 Georgia Power Company

Client SDG: 634768 GEL Work Order: 634768

The Qualifiers in this report are defined as follows:

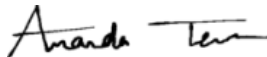
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits 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 for

GPCC001 Georgia Power Company

Client SDG: 634444 GEL Work Order: 634444

The Qualifiers in this report are defined as follows:

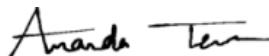
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits 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: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-511 Project: GPCC00101
Sample ID: 634650001 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 15:00
Receive Date: 24-AUG-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		9.43	0.0670	0.200	mg/L		1	LXA2	08/24/23	2002	2482641	1
Fluoride	J	0.0744	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1200	13.3	40.0	mg/L		100	LXA2	08/25/23	1742	2482641	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1108	2483666	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1317	2482707	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0149	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000679	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0259	0.000300	0.00100	mg/L	1.00	1					
Iron		0.136	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0221	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.2	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		43.6	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.430	0.0260	0.0750	mg/L	1.00	5	PRB	09/08/23	1131	2482707	5
Calcium		217	0.400	1.00	mg/L	1.00	5					
Magnesium		133	0.0500	0.150	mg/L	1.00	5					
Manganese		49.9	0.100	0.500	mg/L	1.00	100	PRB	09/08/23	1147	2482707	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1860	4.76	20.0	mg/L			CH6	08/29/23	1603	2484234	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1257	2483779	8

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51I Project: GPCC00101
Sample ID: 634650001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		23.5	0.725	2.00	mg/L			JW2	09/01/23	1044	2486265	9
Bicarbonate alkalinity (CaCO ₃)		23.5	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482706

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	
8	SM 4500-S (-) D	
9	SM 2320B	

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: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I	Project: GPCC00101
Sample ID: 634650002	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-23 15:10	
Receive Date: 24-AUG-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		1.10	0.0330	0.100	mg/L		1	LXA2	08/24/23	2033	2482641	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		11.0	0.335	1.00	mg/L		5	LXA2	08/25/23	1844	2482641	2
Sulfate		949	13.3	40.0	mg/L		100	LXA2	08/25/23	1813	2482641	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1113	2483666	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1339	2482707	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0173	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00453	0.000300	0.00100	mg/L	1.00	1					
Lead	J	0.000860	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00494	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0250	2482707	6
Lithium		0.0468	0.00300	0.0100	mg/L	1.00	1					
Potassium		7.79	0.0800	0.300	mg/L	1.00	1					
Manganese		31.4	0.100	0.500	mg/L	1.00	100	PRB	09/08/23	1209	2482707	7
Beryllium		0.0328	0.00100	0.00250	mg/L	1.00	5	PRB	09/08/23	1206	2482707	8
Boron		0.429	0.0260	0.0750	mg/L	1.00	5					
Calcium		162	0.400	1.00	mg/L	1.00	5					
Cobalt		0.556	0.00150	0.00500	mg/L	1.00	5					
Iron		52.8	0.165	0.500	mg/L	1.00	5					
Magnesium		85.8	0.0500	0.150	mg/L	1.00	5					
Sodium		34.7	0.400	1.25	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1570	4.76	20.0	mg/L			CH6	08/29/23	1603	2484234	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1257	2483779	10

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Certificate of Analysis

Report Date: September 8, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I Project: GPCC00101
Sample ID: 634650002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	09/01/23	1046	2486265	11
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
10	SM 4500-S (2-) D	
11	SM 2320B	

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: September 8, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I Project: GPCC00101
Sample ID: 634650003 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 11:40
Receive Date: 24-AUG-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1258	2483779	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	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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Report Date: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I	Project: GPCC00101
Sample ID: 634650004	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-23 13:25	
Receive Date: 24-AUG-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		1.32	0.0330	0.100	mg/L		1	LXA2	08/24/23	2104	2482641	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1830	26.6	80.0	mg/L		200	LXA2	08/25/23	1914	2482641	2
Chloride		25.0	0.670	2.00	mg/L		10	LXA2	08/25/23	1945	2482641	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1115	2483666	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium		0.0670	0.000200	0.000500	mg/L	1.00	1	PRB	09/08/23	1450	2482707	5
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0253	2482707	6
Iron		1.60	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0936	0.00300	0.0100	mg/L	1.00	1					
Manganese		175	1.00	5.00	mg/L	1.00	1000	PRB	09/08/23	1215	2482707	7
Boron		0.300	0.0520	0.150	mg/L	1.00	10	PRB	09/08/23	1212	2482707	8
Calcium		294	0.800	2.00	mg/L	1.00	10					
Cobalt		3.79	0.00300	0.0100	mg/L	1.00	10					
Magnesium		193	0.100	0.300	mg/L	1.00	10					
Potassium		13.8	0.800	3.00	mg/L	1.00	10					
Sodium		65.3	0.800	2.50	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1342	2482707	9
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0232	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.0149	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00430	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		2880	23.8	100	mg/L			CH6	08/29/23	1603	2484234	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1258	2483779	11

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Certificate of Analysis

Report Date: September 8, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I Project: GPCC00101
Sample ID: 634650004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L		JW2	09/01/23	1047	2486265		12
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

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 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I Project: GPCC00101
Sample ID: 634650005 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 16:30
Receive Date: 24-AUG-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		6.81	0.0670	0.200	mg/L		1	JLD1	08/24/23	1833	2482649	1
Fluoride		0.252	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		294	3.33	10.0	mg/L		25	JLD1	08/25/23	0358	2482649	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1116	2483666	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1345	2482707	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0221	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	J	0.000539	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					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0257	2482707	5
Cobalt		0.0309	0.000300	0.00100	mg/L	1.00	1					
Iron		1.18	0.0330	0.100	mg/L	1.00	1					
Lithium	J	0.00516	0.00300	0.0100	mg/L	1.00	1					
Potassium		7.62	0.0800	0.300	mg/L	1.00	1					
Beryllium	U	ND	0.00200	0.00500	mg/L	1.00	10	PRB	09/08/23	1218	2482707	6
Boron		0.706	0.0520	0.150	mg/L	1.00	10					
Calcium		56.8	0.800	2.00	mg/L	1.00	10					
Magnesium		37.7	0.100	0.300	mg/L	1.00	10					
Manganese		6.97	0.0100	0.0500	mg/L	1.00	10					
Sodium		18.5	0.800	2.50	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		503	2.38	10.0	mg/L			CH6	08/29/23	1603	2484234	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1259	2483779	8

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I Project: GPCC00101
Sample ID: 634650005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		29.1	0.725	2.00	mg/L			JW2	09/01/23	1049	2486265	9
Bicarbonate alkalinity (CaCO ₃)		29.1	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I Project: GPCC00101
Sample ID: 634650006 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 10:55
Receive Date: 24-AUG-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		0.135	0.0330	0.100	mg/L		1	LXA2	08/24/23	1932	2482641	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		2550	26.6	80.0	mg/L		200	LXA2	08/25/23	2118	2482641	2
Chloride		36.5	1.34	4.00	mg/L		20	LXA2	08/25/23	2149	2482641	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1118	2483666	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Cobalt		10.6	0.300	1.00	mg/L	1.00	1000	PRB	09/08/23	1224	2482707	5
Manganese		380	1.00	5.00	mg/L	1.00	1000					
Calcium		363	0.800	2.00	mg/L	1.00	10	PRB	09/08/23	1221	2482707	6
Magnesium		261	0.100	0.300	mg/L	1.00	10					
Potassium		13.5	0.800	3.00	mg/L	1.00	10					
Sodium		75.3	0.800	2.50	mg/L	1.00	10					
Boron	J	0.00834	0.00520	0.0150	mg/L	1.00	1	PRB	09/08/23	0301	2482707	7
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		3.00	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0126	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1349	2482707	8
Arsenic	J	0.00459	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0177	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.0163	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00248	0.000200	0.000500	mg/L	1.00	1	PRB	09/08/23	1454	2482707	9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4640	23.8	100	mg/L			CH6	08/29/23	1603	2484234	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1259	2483779	11

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I	Project: GPCC00101
Sample ID: 634650006	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		32.9	0.725	2.00	mg/L			JW2	09/01/23	1051	2486265	12
Bicarbonate alkalinity (CaCO3)		32.9	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 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482706

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	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

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 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D Project: GPCC00101
Sample ID: 634650007 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 16:08
Receive Date: 24-AUG-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		0.218	0.0330	0.100	mg/L		1	JLD1	08/24/23	1905	2482649	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		23.0	1.68	5.00	mg/L		25	JLD1	08/25/23	0429	2482649	2
Sulfate		298	3.33	10.0	mg/L		25					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1119	2483666	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1227	2482707	4
Arsenic	J	0.00342	0.00200	0.00500	mg/L	1.00	1					
Barium		0.107	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					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum		0.00625	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		0.318	0.0260	0.0750	mg/L	1.00	5	PRB	09/08/23	1231	2482707	5
Calcium		86.4	0.400	1.00	mg/L	1.00	5					
Manganese		0.851	0.00500	0.0250	mg/L	1.00	5					
Potassium		11.4	0.400	1.50	mg/L	1.00	5					
Sodium		59.9	0.400	1.25	mg/L	1.00	5					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0304	2482707	6
Cobalt		0.00106	0.000300	0.00100	mg/L	1.00	1					
Iron		1.04	0.0330	0.100	mg/L	1.00	1					
Lithium	J	0.00399	0.00300	0.0100	mg/L	1.00	1					
Magnesium		20.3	0.0100	0.0300	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		597	2.38	10.0	mg/L			CH6	08/30/23	1542	2484583	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1259	2483779	8

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Report Date: September 8, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D Project: GPCC00101
Sample ID: 634650007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		122	0.725	2.00	mg/L			JW2	09/01/23	1053	2486265	9
Bicarbonate alkalinity (CaCO ₃)		122	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02	Project: GPCC00101
Sample ID: 634650008	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-23 14:50	
Receive Date: 24-AUG-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	08/24/23	1936	2482649	1
Fluoride		0.516	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1121	2483666	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1234	2482707	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	J	0.00104	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	J	0.105	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					
Magnesium	J	0.0112	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00124	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		0.370	0.0800	0.250	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	08/30/23	1542	2484583	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1056	2482961	5

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02 Project: GPCC00101
Sample ID: 634650008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L		JW2	09/01/23	1056	2486265		6
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482706

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

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: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01 Project: GPCC00101
Sample ID: 634650009 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:00
Receive Date: 24-AUG-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		1220	26.6	80.0	mg/L		200	JLD1	08/25/23	0532	2482649	1
Chloride		14.7	0.335	1.00	mg/L		5	JLD1	08/25/23	0501	2482649	2
Fluoride		0.583	0.0330	0.100	mg/L		1	JLD1	08/24/23	2007	2482649	3
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1123	2483666	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1352	2482707	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0167	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00731	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00150	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0319	2482707	6
Iron		0.402	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0392	0.00300	0.0100	mg/L	1.00	1					
Potassium		9.96	0.0800	0.300	mg/L	1.00	1					
Beryllium		0.00869	0.00100	0.00250	mg/L	1.00	5	PRB	09/08/23	1243	2482707	7
Boron		0.366	0.0260	0.0750	mg/L	1.00	5					
Calcium		220	0.400	1.00	mg/L	1.00	5					
Cobalt		1.43	0.00150	0.00500	mg/L	1.00	5					
Magnesium		146	0.0500	0.150	mg/L	1.00	5					
Sodium		51.3	0.400	1.25	mg/L	1.00	5					
Manganese		78.2	0.100	0.500	mg/L	1.00	100	PRB	09/08/23	1246	2482707	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2000	23.8	100	mg/L			CH6	08/30/23	1542	2484583	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1057	2482961	10

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Certificate of Analysis

Report Date: September 8, 2023

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

Contact: Atlanta, Georgia 30308
 Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01	Project: GPCC00101
Sample ID: 634650009	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		10.9	0.725	2.00	mg/L			JW2	09/01/23	1058	2486265	11
Bicarbonate alkalinity (CaCO3)		10.9	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
10	SM 4500-S (2-) D	
11	SM 2320B	

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 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02	Project: GPCC00101
Sample ID: 634650010	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-23 12:00	
Receive Date: 24-AUG-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		6.92	0.0670	0.200	mg/L		1	JLD1	08/24/23	2039	2482649	1
Fluoride		0.255	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		295	3.33	10.0	mg/L		25	JLD1	08/25/23	0603	2482649	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1124	2483666	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1355	2482707	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0217	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	J	0.000543	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	0.00200	0.00500	mg/L	1.00	10	PRB	09/08/23	1249	2482707	5
Boron		0.699	0.0520	0.150	mg/L	1.00	10					
Calcium		53.4	0.800	2.00	mg/L	1.00	10					
Magnesium		36.0	0.100	0.300	mg/L	1.00	10					
Manganese		6.63	0.0100	0.0500	mg/L	1.00	10					
Sodium		17.8	0.800	2.50	mg/L	1.00	10					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0322	2482707	6
Cobalt		0.0300	0.000300	0.00100	mg/L	1.00	1					
Iron		1.16	0.0330	0.100	mg/L	1.00	1					
Lithium	J	0.00494	0.00300	0.0100	mg/L	1.00	1					
Potassium		7.42	0.0800	0.300	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		492	2.38	10.0	mg/L			CH6	08/30/23	1542	2484583	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1259	2483779	8

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Certificate of Analysis

Report Date: September 8, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02 Project: GPCC00101
Sample ID: 634650010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		29.7	0.725	2.00	mg/L			JW2	09/01/23	1100	2486265	9
Bicarbonate alkalinity (CaCO ₃)		29.7	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50 Project: GPCC00101
Sample ID: 634650011 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 11:00
Receive Date: 24-AUG-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		14.8	0.335	1.00	mg/L		5	JLD1	08/25/23	0738	2482649	1
Sulfate		1290	26.6	80.0	mg/L		200	JLD1	08/25/23	0809	2482649	2
Fluoride		0.499	0.0330	0.100	mg/L		1	JLD1	08/24/23	2110	2482649	3
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1126	2483666	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1358	2482707	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0166	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00744	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	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					
Manganese		103	0.100	0.500	mg/L	1.00	100	PRB	09/08/23	1255	2482707	6
Beryllium		0.00867	0.00100	0.00250	mg/L	1.00	5	PRB	09/08/23	1252	2482707	7
Boron		0.372	0.0260	0.0750	mg/L	1.00	5					
Calcium		214	0.400	1.00	mg/L	1.00	5					
Cobalt		1.38	0.00150	0.00500	mg/L	1.00	5					
Magnesium		142	0.0500	0.150	mg/L	1.00	5					
Potassium		10.6	0.400	1.50	mg/L	1.00	5					
Sodium		49.9	0.400	1.25	mg/L	1.00	5					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0326	2482707	8
Iron		0.409	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0393	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2180	23.8	100	mg/L			CH6	08/30/23	1542	2484583	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1259	2483779	10

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Certificate of Analysis

Report Date: September 8, 2023

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

Contact: Atlanta, Georgia 30308
 Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50	Project: GPCC00101
Sample ID: 634650011	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		11.0	0.725	2.00	mg/L			JW2	09/01/23	1101	2486265	11
Bicarbonate alkalinity (CaCO3)		11.0	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
10	SM 4500-S (2-) D	
11	SM 2320B	

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 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04	Project: GPCC00101
Sample ID: 634650012	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-23 11:35	
Receive Date: 24-AUG-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	08/24/23	2142	2482649	1
Fluoride		0.503	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1128	2483666	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1259	2482707	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	J	0.00138	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	J	0.143	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					
Magnesium	J	0.0165	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00140	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		0.359	0.0800	0.250	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	08/30/23	1542	2484583	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1057	2482961	5

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04 Project: GPCC00101
Sample ID: 634650012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	09/01/23	1104	2486265	6
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482706

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

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: September 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44 Project: GPCC00101
Sample ID: 634650013 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 16:40
Receive Date: 24-AUG-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		49.5	0.665	2.00	mg/L		5	JLD1	08/25/23	1308	2482649	1
Chloride		6.83	0.0670	0.200	mg/L		1	JLD1	08/24/23	2213	2482649	2
Fluoride		0.195	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1133	2483666	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1302	2482707	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0555	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					
Calcium		26.5	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	0.0501	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00560	0.00300	0.0100	mg/L	1.00	1					
Magnesium		10.1	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.478	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.44	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.3	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.35	0.0520	0.150	mg/L	1.00	10	PRB	09/08/23	1305	2482707	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		184	2.38	10.0	mg/L			CH6	08/30/23	1542	2484583	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1058	2482961	7

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44	Project: GPCC00101
Sample ID: 634650013	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		81.3	0.725	2.00	mg/L			JW2	09/01/23	1105	2486265	8
Bicarbonate alkalinity (CaCO3)		81.3	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 8, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D Project: GPCC00101
Sample ID: 634650014 Client ID: GPCC001
Matrix: WG
Collect Date: 23-AUG-23 12:30
Receive Date: 24-AUG-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		10.1	0.335	1.00	mg/L		5	JLD1	08/25/23	1340	2482649	1
Sulfate		854	13.3	40.0	mg/L		100	JLD1	08/25/23	1411	2482649	2
Fluoride		0.193	0.0330	0.100	mg/L		1	JLD1	08/24/23	2244	2482649	3
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1134	2483666	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	PRB	09/08/23	0337	2482707	5
Cobalt		0.00991	0.000300	0.00100	mg/L	1.00	1					
Iron		4.37	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0232	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/08/23	1401	2482707	6
Arsenic	J	0.00300	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0312	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	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	0.00100	0.00250	mg/L	1.00	5	PRB	09/08/23	1308	2482707	7
Boron		0.285	0.0260	0.0750	mg/L	1.00	5					
Calcium		211	0.400	1.00	mg/L	1.00	5					
Magnesium		73.3	0.0500	0.150	mg/L	1.00	5					
Manganese		2.56	0.00500	0.0250	mg/L	1.00	5					
Potassium		12.0	0.400	1.50	mg/L	1.00	5					
Sodium		39.5	0.400	1.25	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1360	4.76	20.0	mg/L			CH6	08/30/23	1542	2484583	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1300	2483779	9

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 8, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D	Project: GPCC00101
Sample ID: 634650014	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		72.2	0.725	2.00	mg/L			JW2	09/01/23	1107	2486265	10
Bicarbonate alkalinity (CaCO3)		72.2	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	CD3	08/25/23	0735	2482706
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483665

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	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

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

Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-03	Project: GPCC00101
Sample ID: 634768001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-23 12:00	
Receive Date: 25-AUG-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		16.4	0.670	2.00	mg/L		10	JLD1	08/26/23	1600	2483105	1
Sulfate		112	1.33	4.00	mg/L		10					
Fluoride		0.198	0.0330	0.100	mg/L		1	JLD1	08/25/23	1644	2483105	2
Nitrate-N	J	0.0476	0.0330	0.100	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	AXS5	08/29/23	1212	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1808	2483979	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0543	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0442	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		34.5	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00228	0.000300	0.00100	mg/L	1.00	1					
Iron		0.170	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					
Magnesium		16.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.220	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000375	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.04	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		14.8	0.0800	0.250	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		246	2.38	10.0	mg/L			CH6	08/30/23	1648	2484591	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1413	2483133	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-03 Project: GPCC00101
Sample ID: 634768001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		45.1	0.725	2.00	mg/L			JW2	09/01/23	1112	2486267	7
Bicarbonate alkalinity (CaCO ₃)		45.1	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05 Project: GPCC00101
Sample ID: 634768002 Client ID: GPCC001
Matrix: WQ
Collect Date: 24-AUG-23 09:55
Receive Date: 25-AUG-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	08/25/23	1826	2483105	1
Fluoride	J	0.0798	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1213	2483668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1811	2483979	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					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	J	0.104	0.0800	0.250	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	08/30/23	1718	2484594	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1413	2483133	5

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05 Project: GPCC00101
Sample ID: 634768002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	09/01/23	1112	2486267	6
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	08/29/23	1515	2483978
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I	Project: GPCC00101
Sample ID: 634768003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-23 12:25	
Receive Date: 25-AUG-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		4.81	0.0670	0.200	mg/L		1	JLD1	08/25/23	1857	2483105	1
Fluoride		0.302	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0657	0.0330	0.100	mg/L		1					
Sulfate		94.5	1.33	4.00	mg/L		10	JLD1	08/26/23	1631	2483105	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1215	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.25	0.104	0.300	mg/L	1.00	20	PRB	09/06/23	1840	2483979	4
Calcium		74.4	1.60	4.00	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1815	2483979	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0151	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		0.00601	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0749	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					
Magnesium		6.53	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.458	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.90	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.3	0.0800	0.250	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		309	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1301	2483779	7

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
 Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I	Project: GPCC00101
Sample ID: 634768003	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		35.6	0.725	2.00	mg/L			JW2	09/01/23	1114	2486267	8
Bicarbonate alkalinity (CaCO3)		35.6	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	08/29/23	1515	2483978
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45 Project: GPCC00101
Sample ID: 634768004 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 12:06
Receive Date: 25-AUG-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		16.5	0.670	2.00	mg/L		10	JLD1	08/26/23	1702	2483105	1
Sulfate		114	1.33	4.00	mg/L		10					
Fluoride		0.185	0.0330	0.100	mg/L		1	JLD1	08/25/23	1928	2483105	2
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1217	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1855	2483979	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0524	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0444	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		34.0	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00221	0.000300	0.00100	mg/L	1.00	1					
Iron		0.160	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					
Magnesium		16.4	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.211	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000356	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.00	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		14.5	0.0800	0.250	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		242	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1413	2483133	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45 Project: GPCC00101
Sample ID: 634768004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		45.2	0.725	2.00	mg/L			JW2	09/01/23	1116	2486267	7
Bicarbonate alkalinity (CaCO ₃)		45.2	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-75I	Project: GPCC00101
Sample ID: 634768005	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-23 10:51	
Receive Date: 25-AUG-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		6.84	0.0670	0.200	mg/L		1	JLD1	08/25/23	2102	2483105	1
Fluoride		0.140	0.0330	0.100	mg/L		1					
Nitrate-N		0.794	0.0330	0.100	mg/L		1					
Sulfate		275	2.66	8.00	mg/L		20	JLD1	08/26/23	1734	2483105	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1218	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.51	0.104	0.300	mg/L	1.00	20	PRB	09/06/23	1902	2483979	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1858	2483979	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0513	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					
Calcium		47.0	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00105	0.000300	0.00100	mg/L	1.00	1					
Iron		0.464	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00579	0.00300	0.0100	mg/L	1.00	1					
Magnesium		33.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0957	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.45	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0696	0.00150	0.00500	mg/L	1.00	1					
Sodium		25.9	0.0800	0.250	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		430	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1302	2483779	7

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-75I Project: GPCC00101
Sample ID: 634768005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		27.2	0.725	2.00	mg/L			JW2	09/01/23	1118	2486267	8
Bicarbonate alkalinity (CaCO ₃)		27.2	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I Project: GPCC00101
Sample ID: 634768006 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 14:15
Receive Date: 25-AUG-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		14.8	1.68	5.00	mg/L		25	JLD1	08/26/23	1805	2483105	1
Sulfate		309	3.33	10.0	mg/L		25					
Fluoride		0.157	0.0330	0.100	mg/L		1	JLD1	08/25/23	2134	2483105	2
Nitrate-N	J	0.0475	0.0330	0.100	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	AXS5	08/29/23	1220	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1906	2483979	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0346	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	J	0.000590	0.000300	0.00100	mg/L	1.00	1					
Iron		0.148	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00711	0.00300	0.0100	mg/L	1.00	1					
Magnesium		33.4	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0585	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000597	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.66	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0423	0.00150	0.00500	mg/L	1.00	1					
Sodium		25.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.47	0.104	0.300	mg/L	1.00	20	PRB	09/06/23	1909	2483979	5
Calcium		69.2	1.60	4.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		506	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1415	2483133	7

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I Project: GPCC00101
Sample ID: 634768006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		42.6	0.725	2.00	mg/L			JW2	09/01/23	1122	2486267	8
Bicarbonate alkalinity (CaCO ₃)		42.6	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	08/29/23	1515	2483978
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I Project: GPCC00101
Sample ID: 634768007 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 15:20
Receive Date: 25-AUG-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		288	3.33	10.0	mg/L		25	JLD1	08/26/23	1837	2483105	1
Chloride		6.08	0.0670	0.200	mg/L		1	JLD1	08/25/23	2205	2483105	2
Fluoride	J	0.0849	0.0330	0.100	mg/L		1					
Nitrate-N		0.297	0.0330	0.100	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	AXS5	08/29/23	1222	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.34	0.104	0.300	mg/L	1.00	20	PRB	09/06/23	1924	2483979	4
Calcium		71.4	1.60	4.00	mg/L	1.00	20					
Manganese		1.38	0.0200	0.100	mg/L	1.00	20					
Sodium		18.2	0.0800	0.250	mg/L	1.00	1	PRB	09/07/23	1036	2483979	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1920	2483979	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0174	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00113	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		0.00724	0.000300	0.00100	mg/L	1.00	1					
Iron		23.3	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00349	0.00300	0.0100	mg/L	1.00	1					
Magnesium		8.02	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		9.76	0.0800	0.300	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		418	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/28/23	1302	2483779	8

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I Project: GPCC00101
Sample ID: 634768007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	0.725	2.00	mg/L			JW2	09/01/23	1124	2486267	9
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 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D Project: GPCC00101
Sample ID: 634768008 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 11:00
Receive Date: 25-AUG-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		22.2	2.68	8.00	mg/L		40	HXC1	08/25/23	2133	2483150	1
Sulfate		346	5.32	16.0	mg/L		40					
Fluoride		0.395	0.0330	0.100	mg/L		1	HXC1	08/25/23	1439	2483150	2
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1223	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1927	2483979	4
Arsenic	J	0.00408	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0448	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0387	0.00520	0.0150	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	J	0.000427	0.000300	0.00100	mg/L	1.00	1					
Iron		1.82	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00667	0.00300	0.0100	mg/L	1.00	1					
Magnesium		26.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00142	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.3	0.0800	0.300	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					
Sodium		52.2	1.60	5.00	mg/L	1.00	20	PRB	09/07/23	1038	2483979	5
Calcium		120	1.60	4.00	mg/L	1.00	20	PRB	09/06/23	1931	2483979	6
Manganese		1.34	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		638	4.76	20.0	mg/L			CH6	08/30/23	1718	2484594	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide		0.192	0.0330	0.100	mg/L		1	JW2	08/25/23	1416	2483133	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D Project: GPCC00101
Sample ID: 634768008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		134	0.725	2.00	mg/L			JW2	09/01/23	1125	2486267	9
Bicarbonate alkalinity (CaCO ₃)		134	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
8	SM 4500-S (-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03	Project: GPCC00101
Sample ID: 634768009	Client ID: GPCC001
Matrix: WQ	
Collect Date: 24-AUG-23 12:55	
Receive Date: 25-AUG-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	HXC1	08/25/23	1510	2483150	1
Fluoride		0.233	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1225	2483668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1935	2483979	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					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	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					
Sodium	J	0.185	0.0800	0.250	mg/L	1.00	1	PRB	09/07/23	1040	2483979	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1416	2483133	6

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Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03 Project: GPCC00101
Sample ID: 634768009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	09/01/23	1129	2486267	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06 Project: GPCC00101
Sample ID: 634768010 Client ID: GPCC001
Matrix: WQ
Collect Date: 24-AUG-23 14:00
Receive Date: 25-AUG-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		0.282	0.0670	0.200	mg/L		1	HXC1	08/25/23	1541	2483150	1
Fluoride		0.435	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1227	2483668	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium	J	0.115	0.0800	0.200	mg/L	1.00	1	PRB	09/07/23	1042	2483979	3
Sodium		0.352	0.0800	0.250	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1938	2483979	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	J	0.000812	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					
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					
Magnesium	J	0.0180	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	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	08/30/23	1718	2484594	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1417	2483133	6

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Certificate of Analysis

Report Date: September 7, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06 Project: GPCC00101
Sample ID: 634768010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	09/01/23	1130	2486267	7
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	08/29/23	1515	2483978
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I	Project: GPCC00101
Sample ID: 634768011	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-23 13:05	
Receive Date: 25-AUG-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		150	1.33	4.00	mg/L		10	HXC1	08/25/23	2204	2483150	1
Fluoride	J	0.188	0.0660	0.200	mg/L		2	HXC1	08/25/23	2234	2483150	2
Chloride		6.28	0.0670	0.200	mg/L		1	HXC1	08/25/23	1612	2483150	3
Nitrate-N	U	ND	0.0330	0.100	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	AXS5	08/29/23	1232	2483668	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.87	0.104	0.300	mg/L	1.00	20	PRB	09/06/23	1945	2483979	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1942	2483979	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0415	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					
Calcium		37.4	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000317	0.000300	0.00100	mg/L	1.00	1					
Iron		0.956	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0131	0.00300	0.0100	mg/L	1.00	1					
Magnesium		18.1	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.549	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000782	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.65	0.0800	0.300	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					
Sodium		19.0	0.0800	0.250	mg/L	1.00	1	PRB	09/07/23	1044	2483979	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		281	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1418	2483133	9

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I Project: GPCC00101
Sample ID: 634768011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		53.3	0.725	2.00	mg/L			JW2	09/01/23	1133	2486267	10
Bicarbonate alkalinity (CaCO ₃)		53.3	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	08/29/23	1515	2483978
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667

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	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

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 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47 Project: GPCC00101
Sample ID: 634768012 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 14:45
Receive Date: 25-AUG-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		4.67	0.0670	0.200	mg/L		1	HXC1	08/25/23	1643	2483150	1
Fluoride		0.243	0.0330	0.100	mg/L		1					
Nitrate-N		0.117	0.0330	0.100	mg/L		1					
Sulfate		1300	26.6	80.0	mg/L		200	HXC1	08/25/23	2305	2483150	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1233	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	1956	2483979	4
Arsenic	J	0.00380	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0280	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		0.291	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0532	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.00873	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000296	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.9	0.0800	0.300	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		0.689	0.0520	0.150	mg/L	1.00	10	PRB	09/06/23	2000	2483979	5
Calcium		347	0.800	2.00	mg/L	1.00	10					
Magnesium		133	0.100	0.300	mg/L	1.00	10					
Sodium		44.2	0.0800	0.250	mg/L	1.00	1	PRB	09/07/23	1046	2483979	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1970	23.8	100	mg/L			CH6	08/30/23	1718	2484594	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1418	2483133	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47 Project: GPCC00101
Sample ID: 634768012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		27.3	0.725	2.00	mg/L			JW2	09/01/23	1135	2486267	9
Bicarbonate alkalinity (CaCO ₃)		27.3	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
8	SM 4500-S (-) D	
9	SM 2320B	

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: September 7, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I Project: GPCC00101
Sample ID: 634768013 Client ID: GPCC001
Matrix: WG
Collect Date: 24-AUG-23 16:47
Receive Date: 25-AUG-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		8.47	0.0670	0.200	mg/L		1	HXC1	08/25/23	1726	2483150	1
Fluoride		0.250	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		174	2.66	8.00	mg/L		20	HXC1	08/25/23	2336	2483150	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	AXS5	08/29/23	1235	2483668	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/06/23	2004	2483979	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0271	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		0.00343	0.000300	0.00100	mg/L	1.00	1					
Iron		0.101	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					
Magnesium		23.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00141	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.79	0.0800	0.300	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		1.95	0.104	0.300	mg/L	1.00	20	PRB	09/06/23	2007	2483979	5
Calcium		69.6	1.60	4.00	mg/L	1.00	20					
Manganese		2.14	0.0200	0.100	mg/L	1.00	20					
Sodium		20.6	0.0800	0.250	mg/L	1.00	1	PRB	09/07/23	1048	2483979	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		354	2.38	10.0	mg/L			CH6	08/30/23	1718	2484594	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/25/23	1419	2483133	8

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Certificate of Analysis

Report Date: September 7, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I Project: GPCC00101
Sample ID: 634768013 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		98.8	0.725	2.00	mg/L			JW2	09/01/23	1137	2486267	9
Bicarbonate alkalinity (CaCO ₃)		98.8	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/28/23	1155	2483667
SW846 3005A	ICP-MS 3005A PREP	JM13	08/29/23	1515	2483978

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	
8	SM 4500-S (-) D	
9	SM 2320B	

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: September 6, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID:	BRA-PZ-57I	Project:	GPCC00101
Sample ID:	634444001	Client ID:	GPCC001
Matrix:	WG		
Collect Date:	21-AUG-23 17:55		
Receive Date:	23-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1741	2481696	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	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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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2023

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

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID:	BRA-PZ-65I	Project:	GPCC00101
Sample ID:	634444002	Client ID:	GPCC001
Matrix:	WG		
Collect Date:	21-AUG-23 17:45		
Receive Date:	23-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1742	2481696	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	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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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S Project: GPCC00101
Sample ID: 634444003 Client ID: GPCC001
Matrix: WG
Collect Date: 22-AUG-23 12:40
Receive Date: 23-AUG-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		2.41	0.0670	0.200	mg/L		1	JLD1	08/23/23	1959	2481584	1
Fluoride		0.114	0.0330	0.100	mg/L		1					
Nitrate-N		0.212	0.0330	0.100	mg/L		1					
Sulfate		11.3	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	08/25/23	1209	2482624	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00405	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0916	2482703	3
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2308	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0434	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0390	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		5.95	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	0.0877	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00596	0.00300	0.0100	mg/L	1.00	1					
Magnesium		3.18	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		1.81	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		8.63	0.0800	0.250	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		70.0	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1742	2481696	6

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S Project: GPCC00101
Sample ID: 634444003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		32.9	0.725	2.00	mg/L			JW2	08/24/23	1610	2482476	7
Bicarbonate alkalinity (CaCO ₃)		32.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

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 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I	Project: GPCC00101
Sample ID: 634444004	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 15:22	
Receive Date: 23-AUG-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		3.35	0.0670	0.200	mg/L		1	JLD1	08/23/23	2030	2481584	1
Fluoride		0.116	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1250	13.3	40.0	mg/L		100	JLD1	08/24/23	1118	2481584	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/25/23	1211	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.05	0.104	0.300	mg/L	1.00	20	PRB	09/01/23	0918	2482703	4
Calcium		414	1.60	4.00	mg/L	1.00	20					
Magnesium		63.4	0.200	0.600	mg/L	1.00	20					
Manganese		1.40	0.0200	0.100	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2312	2482703	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0400	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		0.00183	0.000300	0.00100	mg/L	1.00	1					
Iron		0.992	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0253	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00111	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.06	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		30.7	0.0800	0.250	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		1920	4.76	20.0	mg/L			CH6	08/25/23	1010	2482655	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1743	2481696	7

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Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I Project: GPCC00101
Sample ID: 634444004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		126	0.725	2.00	mg/L			JW2	08/24/23	1612	2482476	8
Bicarbonate alkalinity (CaCO ₃)		126	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S	Project: GPCC00101
Sample ID: 634444005	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 14:20	
Receive Date: 23-AUG-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		256	3.33	10.0	mg/L		25	JLD1	08/24/23	1150	2481584	1
Chloride		4.30	0.0670	0.200	mg/L		1	JLD1	08/23/23	2102	2481584	2
Fluoride	J	0.0477	0.0330	0.100	mg/L		1					
Nitrate-N		0.184	0.0330	0.100	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	08/25/23	1216	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2315	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0243	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					
Calcium		45.1	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	J	0.0935	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00392	0.00300	0.0100	mg/L	1.00	1					
Magnesium		29.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.03	0.0800	0.300	mg/L	1.00	1					
Selenium		0.210	0.00150	0.00500	mg/L	1.00	1					
Sodium		26.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	J	0.00207	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0920	2482703	5
Boron		1.13	0.0520	0.150	mg/L	1.00	10	PRB	09/01/23	0922	2482703	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		412	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1744	2481696	8

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Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S Project: GPCC00101
Sample ID: 634444005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		28.6	0.725	2.00	mg/L			JW2	08/24/23	1615	2482476	9
Bicarbonate alkalinity (CaCO ₃)		28.6	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
8	SM 4500-S (2-) D	
9	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I	Project: GPCC00101
Sample ID: 634444006	Client ID: GPCC001
Matrix: WG	
Collect Date: 22-AUG-23 16:15	
Receive Date: 23-AUG-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		1440	26.6	80.0	mg/L		200	HXC1	08/24/23	1638	2481608	1
Chloride		15.7	0.335	1.00	mg/L		5	HXC1	08/25/23	0258	2481608	2
Fluoride		0.188	0.0330	0.100	mg/L		1	HXC1	08/23/23	1911	2481608	3
Nitrate-N	U	ND	0.0330	0.100	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	08/25/23	1218	2482624	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese		107	0.500	2.50	mg/L	1.00	500	PRB	09/01/23	0928	2482703	5
Sodium		59.6	0.800	2.50	mg/L	1.00	10	PRB	09/01/23	1032	2482703	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2319	2482703	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0127	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00145	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000496	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.757	0.000300	0.00100	mg/L	1.00	1					
Iron		0.348	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0106	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.30	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00483	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.331	0.0260	0.0750	mg/L	1.00	5	PRB	09/01/23	0951	2482703	8
Calcium		209	0.400	1.00	mg/L	1.00	5					
Magnesium		172	0.0500	0.150	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2220	4.76	20.0	mg/L			CH6	08/25/23	1010	2482655	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1744	2481696	10

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-611 Project: GPCC00101
Sample ID: 634444006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		11.3	0.725	2.00	mg/L			JW2	08/24/23	1616	2482476	11
Bicarbonate alkalinity (CaCO ₃)		11.3	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	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	CD3	08/25/23	0735	2482702
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623

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	
10	SM 4500-S (2-) D	
11	SM 2320B	

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: September 6, 2023

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01 Project: GPCC00101
Sample ID: 634444007 Client ID: GPCC001
Matrix: WQ
Collect Date: 22-AUG-23 14:00
Receive Date: 23-AUG-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		0.388	0.0330	0.100	mg/L		1	HXC1	08/25/23	0227	2481608	1
Sulfate	U	ND	0.133	0.400	mg/L		1					
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	08/23/23	1941	2481608	2
Nitrate-N	U	ND	0.0330	0.100	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	08/25/23	1219	2482624	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	08/31/23	2330	2482703	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	J	0.000729	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00673	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					
Magnesium	J	0.0283	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		0.291	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1	PRB	09/01/23	0934	2482703	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/25/23	1010	2482655	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	08/24/23	1745	2481696	7

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Certificate of Analysis

Report Date: September 6, 2023

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01 Project: GPCC00101
Sample ID: 634444007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃	U	ND	0.725	2.00	mg/L			JW2	08/24/23	1618	2482476	8
Bicarbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/24/23	1200	2482623
SW846 3005A	ICP-MS 3005A PREP	CD3	08/25/23	0735	2482702

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	
7	SM 4500-S (2-) D	
8	SM 2320B	

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: September 7, 2023

Page 1 of 13

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

Contact: Joju Abraham

Workorder: 634768

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2483105										
QC1205499912	634768007	DUP									
Chloride		6.08		5.97	mg/L	1.71		(0%-20%)	JLD1	08/25/23	22:37
Fluoride	J	0.0849	J	0.0881	mg/L	3.7	^	(+/-0.100)			
Nitrate-N		0.297		0.293	mg/L	1.36	^	(+/-0.100)			
Sulfate		288		292	mg/L	1.47		(0%-20%)		08/26/23	19:08
QC1205499911	LCS										
Chloride	5.00			4.84	mg/L			96.7 (90%-110%)		08/26/23	00:42
Fluoride	2.50			2.57	mg/L			103 (90%-110%)			
Nitrate-N	2.50			2.40	mg/L			96 (90%-110%)			
Sulfate	10.0			9.88	mg/L			98.8 (90%-110%)			
QC1205499910	MB										
Chloride			U	ND	mg/L					08/26/23	00:11
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499913	634768007	PS									
Chloride	5.00	6.08		11.6	mg/L			110 (90%-110%)		08/25/23	23:08

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QC Summary

Workorder: 634768

Page 2 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2483105										
Fluoride	2.50	J	0.0849	2.82	mg/L		109	(90%-110%)	JLD1	08/25/23	23:08
Nitrate-N	2.50		0.297	2.74	mg/L		97.6	(90%-110%)			
Sulfate	10.0		11.5	21.8	mg/L		103	(90%-110%)		08/26/23	19:39
Batch	2483150										
QC1205499980	634784001 DUP										
Chloride			4.43	4.44	mg/L	0.11		(0%-20%)	HXC1	08/25/23	18:28
Fluoride			0.334	0.337	mg/L	0.983	^	(+/-0.100)			
Nitrate-N		J	0.0807	J	0.0778	mg/L	3.66	^	(+/-0.100)		
Sulfate			293	294	mg/L	0.0981		(0%-20%)		08/26/23	00:38
QC1205499979	LCS										
Chloride	5.00			4.79	mg/L		95.9	(90%-110%)		08/25/23	21:02
Fluoride	2.50			2.49	mg/L		99.6	(90%-110%)			
Nitrate-N	2.50			2.38	mg/L		95.4	(90%-110%)			
Sulfate	10.0			9.79	mg/L		97.9	(90%-110%)			
QC1205499978	MB										
Chloride			U	ND	mg/L					08/25/23	19:29
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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QC Summary

Workorder: 634768

Page 3 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2483150										
Sulfate			U	ND	mg/L				HXC1	08/25/23	19:29
QC1205499981 634784001 PS											
Chloride	5.00	4.43		9.90	mg/L		109	(90%-110%)		08/25/23	18:59
Fluoride	2.50	0.334		2.76	mg/L		97	(90%-110%)			
Nitrate-N	2.50	J 0.0807		2.45	mg/L		94.7	(90%-110%)			
Sulfate	10.0	7.33		17.7	mg/L		103	(90%-110%)		08/26/23	01:09

Metals Analysis - ICPMS

Batch	2483979										
QC1205501592 LCS											
Antimony	0.0500			0.0501	mg/L		100	(80%-120%)	PRB	09/06/23	18:04
Arsenic	0.0500			0.0507	mg/L		101	(80%-120%)			
Barium	0.0500			0.0497	mg/L		99.5	(80%-120%)			
Beryllium	0.0500			0.0581	mg/L		116	(80%-120%)			
Boron	0.100			0.110	mg/L		110	(80%-120%)			
Cadmium	0.0500			0.0516	mg/L		103	(80%-120%)			
Calcium	2.00			2.10	mg/L		105	(80%-120%)			
Chromium	0.0500			0.0509	mg/L		102	(80%-120%)			
Cobalt	0.0500			0.0507	mg/L		101	(80%-120%)			

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QC Summary

Workorder: 634768

Page 4 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Iron	2.00			2.01	mg/L		101	(80%-120%)	PRB	09/06/23	18:04
Lead	0.0500			0.0517	mg/L		103	(80%-120%)			
Lithium	0.0500			0.0563	mg/L		113	(80%-120%)			
Magnesium	2.00			2.08	mg/L		104	(80%-120%)			
Manganese	0.0500			0.0498	mg/L		99.6	(80%-120%)			
Molybdenum	0.0500			0.0532	mg/L		106	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Selenium	0.0500			0.0495	mg/L		98.9	(80%-120%)			
Sodium	2.00			2.25	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0496	mg/L		99.2	(80%-120%)			
QC1205501591	MB										
Antimony			U	ND	mg/L					09/06/23	18:00
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						

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QC Summary

Workorder: 634768

Page 5 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Cadmium			U	ND	mg/L				PRB	09/06/23	18:00
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						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205501593	634768003	MS									
Antimony	0.0500	U	ND	0.0513	mg/L		103	(75%-125%)		09/06/23	18:18

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QC Summary

Workorder: 634768

Page 6 of 13

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2483979											
Arsenic	0.0500	U	ND		0.0514	mg/L		99.8	(75%-125%)	PRB	09/06/23	18:18
Barium	0.0500		0.0151		0.0634	mg/L		96.5	(75%-125%)			
Beryllium	0.0500	U	ND		0.0551	mg/L		110	(75%-125%)			
Boron	0.100		1.25		1.39	mg/L		N/A	(75%-125%)		09/06/23	18:44
Cadmium	0.0500	U	ND		0.0492	mg/L		98.3	(75%-125%)		09/06/23	18:18
Calcium	2.00		74.4		76.1	mg/L		N/A	(75%-125%)		09/06/23	18:44
Chromium	0.0500	U	ND		0.0497	mg/L		99	(75%-125%)		09/06/23	18:18
Cobalt	0.0500		0.00601		0.0548	mg/L		97.6	(75%-125%)			
Iron	2.00	J	0.0749		2.05	mg/L		98.8	(75%-125%)			
Lead	0.0500	U	ND		0.0503	mg/L		101	(75%-125%)			
Lithium	0.0500	U	ND		0.0547	mg/L		107	(75%-125%)			
Magnesium	2.00		6.53		8.41	mg/L		94.2	(75%-125%)			
Manganese	0.0500		0.458		0.511	mg/L		N/A	(75%-125%)			
Molybdenum	0.0500	U	ND		0.0528	mg/L		105	(75%-125%)			
Potassium	2.00		4.90		6.94	mg/L		102	(75%-125%)			

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QC Summary

Workorder: 634768

Page 7 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Selenium	0.0500	U	ND	0.0488	mg/L		97.5	(75%-125%)	PRB	09/06/23	18:18
Sodium	2.00		16.3	18.1	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0490	mg/L		98	(75%-125%)			
QC1205501594	634768003 MSD										
Antimony	0.0500	U	ND	0.0500	mg/L	2.65	99.9	(0%-20%)		09/06/23	18:22
Arsenic	0.0500	U	ND	0.0495	mg/L	3.85	96	(0%-20%)			
Barium	0.0500		0.0151	0.0615	mg/L	3	92.7	(0%-20%)			
Beryllium	0.0500	U	ND	0.0552	mg/L	0.165	110	(0%-20%)			
Boron	0.100		1.25	1.36	mg/L	2.5	N/A	(0%-20%)		09/06/23	18:47
Cadmium	0.0500	U	ND	0.0481	mg/L	2.27	96.1	(0%-20%)		09/06/23	18:22
Calcium	2.00		74.4	74.0	mg/L	2.8	N/A	(0%-20%)		09/06/23	18:47
Chromium	0.0500	U	ND	0.0482	mg/L	3.1	96	(0%-20%)		09/06/23	18:22
Cobalt	0.0500		0.00601	0.0529	mg/L	3.54	93.8	(0%-20%)			
Iron	2.00	J	0.0749	1.96	mg/L	4.48	94.3	(0%-20%)			
Lead	0.0500	U	ND	0.0491	mg/L	2.44	98.1	(0%-20%)			
Lithium	0.0500	U	ND	0.0532	mg/L	2.78	104	(0%-20%)			

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QC Summary

Workorder: 634768

Page 8 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Magnesium	2.00	6.53		8.23	mg/L	2.18	85.2	(0%-20%)	PRB	09/06/23	18:22
Manganese	0.0500	0.458		0.493	mg/L	3.49	N/A	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0513	mg/L	2.83	102	(0%-20%)			
Potassium	2.00	4.90		6.74	mg/L	2.93	92.1	(0%-20%)			
Selenium	0.0500	U	ND	0.0468	mg/L	4.28	93.4	(0%-20%)			
Sodium	2.00	16.3		17.9	mg/L	0.949	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0473	mg/L	3.67	94.4	(0%-20%)			
QC1205501595 634768003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	18:29
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium		15.1	J	3.20	ug/L	5.84		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron		62.7	J	13.1	ug/L	4.57		(0%-20%)		09/06/23	18:51
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	18:29
Calcium		3720		786	ug/L	5.58		(0%-20%)		09/06/23	18:51
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/23	18:29

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QC Summary

Workorder: 634768

Page 9 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2483979										
Cobalt		6.01		1.25	ug/L	4.24		(0%-20%)	PRB	09/06/23	18:29
Iron	J	74.9	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		6530		1280	ug/L	1.77		(0%-20%)			
Manganese		458		91.7	ug/L	.114		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		4900		968	ug/L	1.19		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		16300		3340	ug/L	2.56		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2483668										
QC1205500965	634563009	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			AXS5	08/29/23	11:59
QC1205500964	LCS										
Mercury		0.00200		0.00214	mg/L		107	(80%-120%)		08/29/23	11:56
QC1205500963	MB										
Mercury			U	ND	mg/L					08/29/23	11:54

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QC Summary

Workorder: 634768

Page 10 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2483668										
QC1205500966	634563009	MS									
Mercury	0.00200	U	ND	0.00211	mg/L		106	(75%-125%)	AXS5	08/29/23	12:00
QC1205500967	634563009	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/29/23	12:02
Solids Analysis											
Batch	2484591										
QC1205502656	634511009	DUP									
Total Dissolved Solids			190	201	mg/L	5.63*		(0%-5%)	CH6	08/30/23	16:48
QC1205502655	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/30/23	16:48
QC1205502654	MB										
Total Dissolved Solids			U	ND	mg/L					08/30/23	16:48
Batch	2484594										
QC1205502665	634784001	DUP									
Total Dissolved Solids			499	515	mg/L	3.16		(0%-5%)	CH6	08/30/23	17:18
QC1205502664	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/30/23	17:18
QC1205502663	MB										
Total Dissolved Solids			U	ND	mg/L					08/30/23	17:18
Spectrometric Analysis											
Batch	2483133										
QC1205499947	LCS										
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	JW2	08/25/23	14:10
QC1205499946	MB										
Total Sulfide			U	ND	mg/L					08/25/23	14:10

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QC Summary

Workorder: 634768

Page 11 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch 2483133											
QC1205499950	634768004	PS									
Total Sulfide	0.400	U	ND	0.266	mg/L		65.8*	(75%-125%)	JW2	08/25/23	14:14
Batch 2483779											
QC1205501209	LCS										
Total Sulfide	0.400			0.398	mg/L		99.4	(85%-115%)	JW2	08/28/23	12:54
QC1205501208	MB										
Total Sulfide			U	ND	mg/L					08/28/23	12:54
QC1205501210	634615002	PS									
Total Sulfide	0.400	U	ND	0.118	mg/L		29.4*	(75%-125%)		08/28/23	12:55
QC1205501212	634650011	PS									
Total Sulfide	0.400	U	ND	0.111	mg/L		27.7*	(75%-125%)		08/28/23	12:59
QC1205501211	634615002	PSD									
Total Sulfide	0.400	U	ND	0.113	mg/L	3.73	28.3*	(0%-15%)		08/28/23	12:55
QC1205501213	634650011	PSD									
Total Sulfide	0.400	U	ND	0.109	mg/L	1.96	27.2*	(0%-15%)		08/28/23	13:00
Titration and Ion Analysis											
Batch 2486267											
QC1205505693	LCS										
Alkalinity, Total as CaCO3	50.0			51.2	mg/L		102	(90%-110%)	JW2	09/01/23	11:10
QC1205505710	LCS										
Alkalinity, Total as CaCO3	15.0			15.3	mg/L		102	(90%-110%)		09/01/23	11:11

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QC Summary

Workorder: 634768

Page 12 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2486267										
QC1205506027	LCSD										
Alkalinity, Total as CaCO3	50.0			51.5	mg/L	0.584	103	(0%-20%)	JW2	09/01/23	11:11
QC1205506195	LCSD										
Alkalinity, Total as CaCO3	15.0			14.8	mg/L	3.32	98.7	(0%-20%)		09/01/23	11:11

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
- 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

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QC Summary

Workorder: 634768

Page 13 of 13

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	--------------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

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.

GEL LABORATORIES LLC

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

QC Summary

Report Date: September 6, 2023

Page 1 of 12

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

Contact: Joju Abraham

Workorder: 634444

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481584										
QC1205497354	634441001	DUP									
Chloride		32.7		32.5	mg/L	0.522	^	(+/-10.0)	JLD1	08/24/23	01:49
Fluoride		0.123		0.124	mg/L	1.13	^	(+/-0.100)		08/24/23	00:14
Nitrate-N	J	0.0707	J	0.0739	mg/L	4.43	^	(+/-0.100)			
Sulfate		466		474	mg/L	1.69		(0%-20%)		08/24/23	01:49
QC1205497353	LCS										
Chloride	5.00			4.64	mg/L			92.8 (90%-110%)		08/23/23	23:42
Fluoride	2.50			2.37	mg/L			94.6 (90%-110%)			
Nitrate-N	2.50			2.27	mg/L			91 (90%-110%)			
Sulfate	10.0			9.48	mg/L			94.8 (90%-110%)			
QC1205497352	MB										
Chloride			U	ND	mg/L					08/23/23	23:10
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205497355	634441001	PS									
Chloride	5.00	0.654		5.10	mg/L			88.9* (90%-110%)		08/24/23	02:21

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QC Summary

Workorder: 634444

Page 2 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481584										
Fluoride	2.50	0.123		2.56	mg/L		97.3	(90%-110%)	JLD1	08/24/23	00:45
Nitrate-N	2.50	J 0.0707		2.29	mg/L		88.7*	(90%-110%)			
Sulfate	10.0	9.32		18.8	mg/L		94.3	(90%-110%)		08/24/23	02:21
Batch	2481608										
QC1205497371	634145003 DUP										
Nitrite-N		0.000		0.000	mg/L	0	^	(+/-2.50)	HXC1	08/24/23	15:05
Chloride		78.8		79.7	mg/L	1.1		(0%-20%)			
Fluoride		0.719		0.719	mg/L	0.0417		(0%-20%)		08/23/23	20:43
Nitrate-N		10.9		11.0	mg/L	0.894	^	(+/-2.50)		08/24/23	15:05
Sulfate		37.6		37.5	mg/L	0.306	^	(+/-10.0)			
QC1205497369	LCS										
Chloride	5.00			4.78	mg/L		95.6	(90%-110%)		08/23/23	23:18
Fluoride	2.50			2.46	mg/L		98.3	(90%-110%)			
Nitrate-N	2.50			2.36	mg/L		94.3	(90%-110%)			
Sulfate	10.0			9.76	mg/L		97.6	(90%-110%)			
QC1205497368	MB										
Chloride			U	ND	mg/L					08/23/23	22:47
Fluoride			U	ND	mg/L						

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634444

Page 3 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2481608										
Nitrate-N			U	ND	mg/L				HXC1	08/23/23	22:47
Sulfate			U	ND	mg/L						
QC1205497373 634145003 PS											
Nitrite-N	2.50	0.000		2.54	mg/L		101	(90%-110%)		08/24/23	15:36
Chloride	5.00	3.15		8.45	mg/L		106	(90%-110%)			
Fluoride	2.50	0.719		3.17	mg/L		98	(90%-110%)		08/23/23	21:14
Nitrate-N	2.50	0.434		2.85	mg/L		96.5	(90%-110%)		08/24/23	15:36
Sulfate	10.0	1.51		11.3	mg/L		98.4	(90%-110%)			
Metals Analysis - ICPMS											
Batch	2482703										
QC1205499165 LCS											
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	08/31/23	22:21
Arsenic	0.0500			0.0500	mg/L		99.9	(80%-120%)			
Barium	0.0500			0.0522	mg/L		104	(80%-120%)			
Beryllium	0.0500			0.0527	mg/L		105	(80%-120%)			
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0502	mg/L		100	(80%-120%)			
Calcium	2.00			1.96	mg/L		98	(80%-120%)			

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QC Summary

Workorder: 634444

Page 4 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)	PRB	08/31/23	22:21
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0518	mg/L		104	(80%-120%)			
Lithium	0.0500			0.0506	mg/L		101	(80%-120%)			
Magnesium	2.00			1.97	mg/L		98.4	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)		09/01/23	08:52
Molybdenum	0.0500			0.0499	mg/L		99.8	(80%-120%)		08/31/23	22:21
Potassium	2.00			1.94	mg/L		97	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.7	(80%-120%)			
Sodium	2.00			1.95	mg/L		97.6	(80%-120%)			
Thallium	0.0500			0.0507	mg/L		101	(80%-120%)			
QC1205499164	MB										
Antimony			U	ND	mg/L					08/31/23	22:18
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						

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QC Summary

Workorder: 634444

Page 5 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Beryllium			U	ND	mg/L				PRB	08/31/23	22:18
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						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/01/23	08:50
Molybdenum			U	ND	mg/L					08/31/23	22:18
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						

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QC Summary

Workorder: 634444

Page 6 of 12

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Thallium			U	ND	mg/L				PRB	08/31/23	22:18
QC1205499166 634441003 MS											
Antimony	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Arsenic	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)			
Barium	0.0500		0.0268	0.0800	mg/L		106	(75%-125%)			
Beryllium	0.0500	U	ND	0.0531	mg/L		106	(75%-125%)			
Boron	0.100		1.90	2.08	mg/L		N/A	(75%-125%)		09/01/23	09:00
Cadmium	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)		08/31/23	22:36
Calcium	2.00		83.4	88.8	mg/L		N/A	(75%-125%)		09/01/23	09:00
Chromium	0.0500	U	ND	0.0518	mg/L		103	(75%-125%)		08/31/23	22:36
Cobalt	0.0500		0.00384	0.0554	mg/L		103	(75%-125%)			
Iron	2.00	U	ND	2.06	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND	0.0521	mg/L		102	(75%-125%)			
Magnesium	2.00		18.9	21.3	mg/L		N/A	(75%-125%)			
Manganese	0.0500		3.33	3.48	mg/L		N/A	(75%-125%)		09/01/23	09:00

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QC Summary

Workorder: 634444

Page 7 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Molybdenum	0.0500	U	ND	0.0527	mg/L		105	(75%-125%)	PRB	08/31/23	22:36
Potassium	2.00		3.52	5.59	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND	0.0531	mg/L		106	(75%-125%)			
Sodium	2.00		20.7	23.1	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)			
QC1205499167 634441003 MSD											
Antimony	0.0500	U	ND	0.0491	mg/L	4.07	98.1	(0%-20%)		08/31/23	22:39
Arsenic	0.0500	U	ND	0.0508	mg/L	3.79	101	(0%-20%)			
Barium	0.0500		0.0268	0.0757	mg/L	5.49	97.8	(0%-20%)			
Beryllium	0.0500	U	ND	0.0506	mg/L	4.96	101	(0%-20%)			
Boron	0.100		1.90	2.00	mg/L	4.07	N/A	(0%-20%)		09/01/23	09:02
Cadmium	0.0500	U	ND	0.0496	mg/L	2.97	98.7	(0%-20%)		08/31/23	22:39
Calcium	2.00		83.4	84.1	mg/L	5.45	N/A	(0%-20%)		09/01/23	09:02
Chromium	0.0500	U	ND	0.0504	mg/L	2.88	101	(0%-20%)		08/31/23	22:39
Cobalt	0.0500		0.00384	0.0540	mg/L	2.65	100	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	2.95	98.6	(0%-20%)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634444

Page 8 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Lead	0.0500	U	ND	0.0493	mg/L	3.6	98.5	(0%-20%)	PRB	08/31/23	22:39
Lithium	0.0500	U	ND	0.0509	mg/L	2.35	99.9	(0%-20%)			
Magnesium	2.00		18.9	20.7	mg/L	2.55	N/A	(0%-20%)			
Manganese	0.0500		3.33	3.35	mg/L	3.62	N/A	(0%-20%)		09/01/23	09:02
Molybdenum	0.0500	U	ND	0.0512	mg/L	2.82	102	(0%-20%)		08/31/23	22:39
Potassium	2.00		3.52	5.37	mg/L	4.12	92.4	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	3.53	102	(0%-20%)			
Sodium	2.00		20.7	22.6	mg/L	2.28	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0488	mg/L	3.06	97.5	(0%-20%)			
QC1205499168 634441003 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			26.8	5.04	ug/L	6.03		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			95.1	20.6	ug/L	8.16		(0%-20%)		09/01/23	09:04
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/23	22:46

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

QC Summary

Workorder: 634444

Page 9 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482703										
Calcium		4170		869	ug/L	4.2		(0%-20%)	PRB	09/01/23	09:04
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/23	22:46
Cobalt		3.84	J	0.796	ug/L	3.56		(0%-20%)			
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		18900		3500	ug/L	7.29		(0%-20%)			
Manganese		167		33.7	ug/L	1.09		(0%-20%)		09/01/23	09:04
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/23	22:46
Potassium		3520		680	ug/L	3.4		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		20700		3830	ug/L	7.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2482624										
QC1205499046	634447002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/25/23	12:24

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634444

Page 10 of 12

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2482624										
QC1205499045		LCS									
Mercury	0.00200			0.00199	mg/L		99.5	(80%-120%)	JP2	08/25/23	11:58
QC1205499044		MB									
Mercury			U	ND	mg/L					08/25/23	11:56
QC1205499047		634447002	MS								
Mercury	0.00200	U	ND	0.00199	mg/L		99.5	(75%-125%)		08/25/23	12:26
QC1205499048		634447002	SDILT								
Mercury		U	ND	U	ug/L	N/A		(0%-10%)		08/25/23	12:27
Solids Analysis											
Batch	2482655										
QC1205499077		634352015	DUP								
Total Dissolved Solids		U	ND	U	ND	mg/L	N/A		CH6	08/25/23	10:10
QC1205499076		LCS									
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/25/23	10:10
QC1205499075		MB									
Total Dissolved Solids			U	ND	mg/L					08/25/23	10:10
Spectrometric Analysis											
Batch	2481696										
QC1205497560		LCS									
Total Sulfide	0.400			0.398	mg/L		99.6	(85%-115%)	JW2	08/24/23	17:36
QC1205497559		MB									
Total Sulfide			U	ND	mg/L					08/24/23	17:36
QC1205497561		634441001	PS								
Total Sulfide	0.400	U	ND	0.363	mg/L		90.8	(75%-125%)		08/24/23	17:37

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634444

Page 11 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2481696										
QC1205497563	634447001	PS									
Total Sulfide	0.400	U	ND	0.420	mg/L		105	(75%-125%)	JW2	08/24/23	17:46
QC1205497562	634441001	PSD									
Total Sulfide	0.400	U	ND	0.367	mg/L	1.09	91.8	(0%-15%)		08/24/23	17:38
QC1205497564	634447001	PSD									
Total Sulfide	0.400	U	ND	0.412	mg/L	1.92	103	(0%-15%)		08/24/23	17:47
Titration and Ion Analysis											
Batch	2482476										
QC1205498938	LCS										
Alkalinity, Total as CaCO3	50.0			50.2	mg/L		100	(90%-110%)	JW2	08/24/23	15:56
QC1205499028	LCSD										
Alkalinity, Total as CaCO3	50.0			50.7	mg/L	0.991	101	(0%-20%)		08/24/23	15:57

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
- 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

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634444

Page 12 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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.

GEL LABORATORIES LLC

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

QC Summary

Report Date: September 8, 2023

Page 1 of 13

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

Contact: Joju Abraham

Workorder: 634650

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482641										
QC1205499056	634643001	DUP									
Chloride		2.56		2.56	mg/L	0.235		(0%-20%)	LXA2	08/24/23	23:40
Fluoride		2.34		2.35	mg/L	0.435		(0%-20%)			
Nitrate-N	J	0.0737	J	0.0724	mg/L	1.78	^	(+/-0.100)			
Sulfate		761		761	mg/L	0.0329		(0%-20%)		08/25/23	15:38
QC1205499055	LCS										
Chloride	5.00			4.61	mg/L		92.3	(90%-110%)		08/24/23	22:06
Fluoride	2.50			2.40	mg/L		96	(90%-110%)			
Nitrate-N	2.50			2.31	mg/L		92.4	(90%-110%)			
Sulfate	10.0			9.50	mg/L		95	(90%-110%)			
QC1205499054	MB										
Chloride			U	ND	mg/L					08/24/23	23:09
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205499057	634643001	PS									
Chloride	5.00	2.56		7.48	mg/L		98.4	(90%-110%)		08/25/23	00:11

GEL LABORATORIES LLC

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

QC Summary

Workorder: 634650

Page 2 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482641										
Fluoride	2.50	2.34		4.86	mg/L		101	(90%-110%)	LXA2	08/25/23	00:11
Nitrate-N	2.50	J 0.0737		2.40	mg/L		92.9	(90%-110%)			
Sulfate	10.0	7.61		17.7	mg/L		101	(90%-110%)		08/25/23	16:09
Batch	2482649										
QC1205499060	634519001 DUP										
Chloride		1.63		1.64	mg/L	0.527		(0%-20%)	JLD1	08/25/23	01:21
Fluoride		U ND	U	ND	mg/L	N/A					
Nitrate-N		U ND	U	ND	mg/L	N/A					
Sulfate		44.9		44.7	mg/L	0.427		(0%-20%)		08/25/23	12:06
QC1205499059	LCS										
Chloride	5.00			4.86	mg/L		97.2	(90%-110%)		08/25/23	03:27
Fluoride	2.50			2.58	mg/L		103	(90%-110%)			
Nitrate-N	2.50			2.42	mg/L		96.9	(90%-110%)			
Sulfate	10.0			9.95	mg/L		99.5	(90%-110%)			
QC1205499058	MB										
Chloride			U	ND	mg/L					08/25/23	02:55
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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QC Summary

Workorder: 634650

Page 3 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2482649										
Sulfate			U	ND	mg/L				JLD1	08/25/23	02:55
QC1205499061 634519001 PS											
Chloride	5.00	1.63		6.55	mg/L		98.5	(90%-110%)		08/25/23	01:52
Fluoride	2.50	U	ND	2.54	mg/L		102	(90%-110%)			
Nitrate-N	2.50	U	ND	2.52	mg/L		101	(90%-110%)			
Sulfate	10.0	8.97		24.7	mg/L		157*	(90%-110%)		08/25/23	12:37
Metals Analysis - ICPMS											
Batch	2482707										
QC1205499175 LCS											
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	09/08/23	11:22
Arsenic	0.0500			0.0510	mg/L		102	(80%-120%)			
Barium	0.0500			0.0569	mg/L		114	(80%-120%)			
Beryllium	0.0500			0.0494	mg/L		98.8	(80%-120%)			
Boron	0.100			0.0988	mg/L		98.8	(80%-120%)			
Cadmium	0.0500			0.0502	mg/L		100	(80%-120%)			
Calcium	2.00			2.11	mg/L		106	(80%-120%)			
Chromium	0.0500			0.0485	mg/L		97	(80%-120%)			
Cobalt	0.0500			0.0498	mg/L		99.6	(80%-120%)			

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QC Summary

Workorder: 634650

Page 4 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482707										
Iron	2.00			1.98	mg/L		99.2	(80%-120%)	PRB	09/08/23	11:22
Lead	0.0500			0.0508	mg/L		102	(80%-120%)			
Lithium	0.0500			0.0466	mg/L		93.2	(80%-120%)			
Magnesium	2.00			1.90	mg/L		94.8	(80%-120%)			
Manganese	0.0500			0.0485	mg/L		96.9	(80%-120%)			
Molybdenum	0.0500			0.0512	mg/L		102	(80%-120%)			
Potassium	2.00			2.08	mg/L		104	(80%-120%)			
Selenium	0.0500			0.0508	mg/L		102	(80%-120%)			
Sodium	2.00			1.97	mg/L		98.4	(80%-120%)			
Thallium	0.0500			0.0493	mg/L		98.6	(80%-120%)			
QC1205499174	MB										
Antimony			U	ND	mg/L					09/08/23	11:17
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						

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QC Summary

Workorder: 634650

Page 5 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482707										
Cadmium			U	ND	mg/L				PRB	09/08/23	11:17
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						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205499176	634650001	MS									
Antimony	0.0500	U	ND	0.0527	mg/L		105	(75%-125%)		09/08/23	13:21

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

QC Summary

Workorder: 634650

Page 6 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482707										
Arsenic	0.0500	U	ND	0.0551	mg/L		107	(75%-125%)	PRB	09/08/23	13:21
Barium	0.0500		0.0149	0.0690	mg/L		108	(75%-125%)			
Beryllium	0.0500	U	ND	0.0508	mg/L		102	(75%-125%)			
Boron	0.100		0.430	0.549	mg/L		N/A	(75%-125%)		09/08/23	11:34
Cadmium	0.0500	J	0.000679	0.0526	mg/L		104	(75%-125%)		09/08/23	13:21
Calcium	2.00		217	222	mg/L		N/A	(75%-125%)		09/08/23	11:34
Chromium	0.0500	U	ND	0.0505	mg/L		100	(75%-125%)		09/08/23	13:21
Cobalt	0.0500		0.0259	0.0776	mg/L		104	(75%-125%)			
Iron	2.00		0.136	2.16	mg/L		101	(75%-125%)			
Lead	0.0500	U	ND	0.0514	mg/L		103	(75%-125%)			
Lithium	0.0500		0.0221	0.0704	mg/L		96.6	(75%-125%)			
Magnesium	2.00		133	137	mg/L		N/A	(75%-125%)		09/08/23	11:34
Manganese	0.0500		49.9	51.3	mg/L		N/A	(75%-125%)		09/08/23	11:50
Molybdenum	0.0500	U	ND	0.0562	mg/L		112	(75%-125%)		09/08/23	13:21
Potassium	2.00		11.2	13.4	mg/L		N/A	(75%-125%)			

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

QC Summary

Workorder: 634650

Page 7 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482707										
Selenium	0.0500	U	ND	0.0554	mg/L		108	(75%-125%)	PRB	09/08/23	13:21
Sodium	2.00		43.6	46.1	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0505	mg/L		101	(75%-125%)			
QC1205499177	634650001 MSD										
Antimony	0.0500	U	ND	0.0526	mg/L	0.167	105	(0%-20%)		09/08/23	13:24
Arsenic	0.0500	U	ND	0.0552	mg/L	0.131	107	(0%-20%)			
Barium	0.0500		0.0149	0.0700	mg/L	1.5	110	(0%-20%)			
Beryllium	0.0500	U	ND	0.0509	mg/L	0.185	102	(0%-20%)			
Boron	0.100		0.430	0.530	mg/L	3.51	N/A	(0%-20%)		09/08/23	11:37
Cadmium	0.0500	J	0.000679	0.0533	mg/L	1.38	105	(0%-20%)		09/08/23	13:24
Calcium	2.00		217	222	mg/L	0.0188	N/A	(0%-20%)		09/08/23	11:37
Chromium	0.0500	U	ND	0.0513	mg/L	1.54	102	(0%-20%)		09/08/23	13:24
Cobalt	0.0500		0.0259	0.0786	mg/L	1.3	106	(0%-20%)			
Iron	2.00		0.136	2.20	mg/L	1.59	103	(0%-20%)			
Lead	0.0500	U	ND	0.0522	mg/L	1.56	104	(0%-20%)			
Lithium	0.0500		0.0221	0.0711	mg/L	0.982	98	(0%-20%)			

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QC Summary

Workorder: 634650

Page 8 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482707										
Magnesium	2.00	133		136	mg/L	0.591	N/A	(0%-20%)	PRB	09/08/23	11:37
Manganese	0.0500	49.9		51.7	mg/L	0.658	N/A	(0%-20%)		09/08/23	11:53
Molybdenum	0.0500	U	ND	0.0564	mg/L	0.314	113	(0%-20%)		09/08/23	13:24
Potassium	2.00	11.2		13.5	mg/L	0.441	N/A	(0%-20%)			
Selenium	0.0500	U	ND	0.0562	mg/L	1.52	110	(0%-20%)			
Sodium	2.00	43.6		46.9	mg/L	1.78	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0510	mg/L	0.921	102	(0%-20%)			
QC1205499178 634650001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/08/23	13:30
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium		14.9	J	2.93	ug/L	2.02		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron		86.1		19.1	ug/L	10.8		(0%-20%)		09/08/23	11:44
Cadmium		J	0.679	U	ND	ug/L	N/A	(0%-20%)		09/08/23	13:30
Calcium		43400		8860	ug/L	2.09		(0%-20%)		09/08/23	11:44
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/08/23	13:30

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

QC Summary

Workorder: 634650

Page 9 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2482707										
Cobalt		25.9		5.46	ug/L	5.64		(0%-20%)	PRB	09/08/23	13:30
Iron		136	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium		22.1	J	4.79	ug/L	8.29		(0%-20%)			
Magnesium		26700		5680	ug/L	6.41		(0%-20%)		09/08/23	11:44
Manganese		499		105	ug/L	5.59		(0%-20%)		09/08/23	11:56
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/08/23	13:30
Potassium		11200		2280	ug/L	1.26		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		43600		9440	ug/L	8.17		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2483666										
QC1205500954	LCS										
Mercury	0.00200			0.00207	mg/L		103	(80%-120%)	AXS5	08/29/23	11:03
QC1205500952	MB										
Mercury			U	ND	mg/L					08/29/23	11:02
QC1205500956	634765001	MS									
Mercury	0.0200	U	ND	0.0207	mg/L		103	(75%-125%)		08/29/23	11:37

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QC Summary

Workorder: 634650

Page 10 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2483666										
QC1205500957	634765001	MSD									
Mercury	0.0200	U	ND	0.0210	mg/L	1.82	105	(0%-20%)	AXS5	08/29/23	11:39
QC1205500958	634765001	SDILT									
Mercury		U	ND	ND	ug/L	N/A		(0%-10%)		08/29/23	11:41
Solids Analysis											
Batch	2484234										
QC1205502076	634643001	DUP									
Total Dissolved Solids			1270	1280	mg/L	0.94		(0%-5%)	CH6	08/29/23	16:03
QC1205502074	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/29/23	16:03
QC1205502073	MB										
Total Dissolved Solids			U	ND	mg/L					08/29/23	16:03
Batch	2484583										
QC1205502645	634927001	DUP									
Total Dissolved Solids		U	ND	U	ND	mg/L	N/A		CH6	08/30/23	15:42
QC1205502641	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/30/23	15:42
QC1205502642	LCSD										
Total Dissolved Solids	300			304	mg/L	1.32	101	(0%-5%)		08/30/23	15:42
QC1205502640	MB										
Total Dissolved Solids			U	ND	mg/L					08/30/23	15:42
Spectrometric Analysis											
Batch	2482961										
QC1205499656	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	08/25/23	10:42

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QC Summary

Workorder: 634650

Page 11 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2482961										
QC1205499655	MB										
Total Sulfide			U	ND	mg/L				JW2	08/25/23	10:42
QC1205499657	634513005	PS									
Total Sulfide	0.400	U	ND	0.389	mg/L		96.4	(75%-125%)		08/25/23	10:48
QC1205499658	634513005	PSD									
Total Sulfide	0.400	U	ND	0.391	mg/L	0.511	96.9	(0%-15%)		08/25/23	10:48
<hr/>											
Batch	2483779										
QC1205501209	LCS										
Total Sulfide	0.400			0.398	mg/L		99.4	(85%-115%)	JW2	08/28/23	12:54
QC1205501208	MB										
Total Sulfide			U	ND	mg/L					08/28/23	12:54
QC1205501210	634615002	PS									
Total Sulfide	0.400	U	ND	0.118	mg/L		29.4*	(75%-125%)		08/28/23	12:55
QC1205501212	634650011	PS									
Total Sulfide	0.400	U	ND	0.111	mg/L		27.7*	(75%-125%)		08/28/23	12:59
QC1205501211	634615002	PSD									
Total Sulfide	0.400	U	ND	0.113	mg/L	3.73	28.3*	(0%-15%)		08/28/23	12:55
QC1205501213	634650011	PSD									
Total Sulfide	0.400	U	ND	0.109	mg/L	1.96	27.2*	(0%-15%)		08/28/23	13:00
<hr/>											
Titration and Ion Analysis											
Batch	2486265										
QC1205505688	LCS										
Alkalinity, Total as CaCO3	50.0			51.7	mg/L		103	(90%-110%)	JW2	09/01/23	10:39

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

QC Summary

Workorder: 634650

Page 12 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2486265										
QC1205505709	LCS										
Alkalinity, Total as CaCO3	15.0			15.1	mg/L		101	(90%-110%)	JW2	09/01/23	10:41
QC1205506026	LCSD										
Alkalinity, Total as CaCO3	50.0			51.5	mg/L	0.388	103	(0%-20%)		09/01/23	10:40
QC1205506194	LCSD										
Alkalinity, Total as CaCO3	15.0			15.4	mg/L	1.97	103	(0%-20%)		09/01/23	10:42

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
- 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.

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QC Summary

Workorder: 634650

Page 13 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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 #: 634768**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2483979

Preparation Method: SW846 3005A

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

Preparation Batch: 2483978

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768001	BRA-APBCD-FD-03
634768002	BRA-APBCD-EB-05
634768003	BRA-BRGWC-27I
634768004	BRA-BRGWC-45
634768005	BRA-PZ-75I
634768006	BRA-PZ-74I
634768007	BRA-BRGWC-29I
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
1205501591	Method Blank (MB) ICP-MS
1205501592	Laboratory Control Sample (LCS)
1205501595	634768003(BRA-BRGWC-27IL) Serial Dilution (SD)
1205501593	634768003(BRA-BRGWC-27IS) Matrix Spike (MS)
1205501594	634768003(BRA-BRGWC-27ISD) 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. 634768001 (BRA-APBCD-FD-03), 634768002 (BRA-APBCD-EB-05), 634768003 (BRA-BRGWC-27I), 634768004 (BRA-BRGWC-45), 634768005 (BRA-PZ-75I), 634768006 (BRA-PZ-74I), 634768007 (BRA-BRGWC-29I), 634768008 (BRA-PZ-51D), 634768009 (BRA-APBCD-FB-03), 634768011

(BRA-BRGWC-52I), 634768012 (BRA-BRGWC-47) and 634768013 (BRA-BRGWC-25I).

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 634768003 (BRA-BRGWC-27I), 634768005 (BRA-PZ-75I), 634768006 (BRA-PZ-74I), 634768007 (BRA-BRGWC-29I), 634768008 (BRA-PZ-51D), 634768011 (BRA-BRGWC-52I), 634768012 (BRA-BRGWC-47) and 634768013 (BRA-BRGWC-25I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634768							
	003	005	006	007	008	011	012	013
Boron	20X	20X	20X	20X	1X	20X	10X	20X
Calcium	20X	1X	20X	20X	20X	1X	10X	20X
Magnesium	1X	1X	1X	1X	1X	1X	10X	1X
Manganese	1X	1X	1X	20X	20X	1X	1X	20X
Sodium	1X	1X	1X	1X	20X	1X	1X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2483668

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2483667

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768001	BRA-APBCD-FD-03
634768002	BRA-APBCD-EB-05
634768003	BRA-BRGWC-27I
634768004	BRA-BRGWC-45
634768005	BRA-PZ-75I
634768006	BRA-PZ-74I
634768007	BRA-BRGWC-29I
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
1205500963	Method Blank (MB)CVAA

1205500964	Laboratory Control Sample (LCS)
1205500967	634563009(NonSDGL) Serial Dilution (SD)
1205500965	634563009(NonSDGD) Sample Duplicate (DUP)
1205500966	634563009(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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2483105

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768001	BRA-APBCD-FD-03
634768002	BRA-APBCD-EB-05
634768003	BRA-BRGWC-27I
634768004	BRA-BRGWC-45
634768005	BRA-PZ-75I
634768006	BRA-PZ-74I
634768007	BRA-BRGWC-29I
1205499910	Method Blank (MB)
1205499911	Laboratory Control Sample (LCS)
1205499912	634768007(BRA-BRGWC-29I) Sample Duplicate (DUP)
1205499913	634768007(BRA-BRGWC-29I) 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 1205499912 (BRA-BRGWC-29IDUP), 1205499913 (BRA-BRGWC-29IPS), 634768001 (BRA-APBCD-FD-03), 634768003 (BRA-BRGWC-27I), 634768004 (BRA-BRGWC-45), 634768005 (BRA-PZ-75I), 634768006 (BRA-PZ-74I) and 634768007 (BRA-BRGWC-29I) were diluted because target analyte concentrations exceeded the calibration range. 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	634768					
	001	003	004	005	006	007
Chloride	10X	1X	10X	1X	25X	1X
Sulfate	10X	10X	10X	20X	25X	25X

Miscellaneous Information

Manual Integrations

Samples 634768001 (BRA-APBCD-FD-03) and 634768004 (BRA-BRGWC-45) were 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: 2483150

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
1205499978	Method Blank (MB)
1205499979	Laboratory Control Sample (LCS)
1205499980	634784001(BRA-PZ-53D) Sample Duplicate (DUP)
1205499981	634784001(BRA-PZ-53D) 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 1205499980 (BRA-PZ-53DDUP), 1205499981 (BRA-PZ-53DPS), 634768008 (BRA-PZ-51D), 634768011 (BRA-BRGWC-52I), 634768012 (BRA-BRGWC-47) and 634768013 (BRA-BRGWC-25I) were diluted because target analyte concentrations exceeded the calibration range. The following sample 634768011 (BRA-BRGWC-52I) in this sample group was diluted due to matrix interference. 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	634768			
	008	011	012	013

Chloride	40X	1X	1X	1X
Fluoride	1X	2X	1X	1X
Sulfate	40X	10X	200X	20X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2484591

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768001	BRA-APBCD-FD-03
1205502654	Method Blank (MB)
1205502655	Laboratory Control Sample (LCS)
1205502656	634511009(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	1205502656 (Non SDG 634511009DUP)	5.63* (0%-5%)

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2484594

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768002	BRA-APBCD-EB-05
634768003	BRA-BRGWC-27I
634768004	BRA-BRGWC-45
634768005	BRA-PZ-75I
634768006	BRA-PZ-74I

634768007	BRA-BRGWC-29I
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
1205502663	Method Blank (MB)
1205502664	Laboratory Control Sample (LCS)
1205502665	634784001(BRA-PZ-53D) 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. 634768008 (BRA-PZ-51D) and 634768012 (BRA-BRGWC-47).

Product: Sulfide, Total

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

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

Analytical Batch: 2483133

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768001	BRA-APBCD-FD-03
634768002	BRA-APBCD-EB-05
634768004	BRA-BRGWC-45
634768006	BRA-PZ-74I
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
1205499946	Method Blank (MB)
1205499947	Laboratory Control Sample (LCS)
1205499950	634768004(BRA-BRGWC-45) Post Spike (PS)
1205499951	634768004(BRA-BRGWC-45) Post Spike Duplicate (PSD)

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
Total Sulfide	1205499950 (BRA-BRGWC-45PS)	65.8* (75%-125%)
	1205499951 (BRA-BRGWC-45PSD)	67.5* (75%-125%)

Product: Sulfide, Total

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

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

Analytical Batch: 2483779

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768003	BRA-BRGWC-27I
634768005	BRA-PZ-75I
634768007	BRA-BRGWC-29I
1205501208	Method Blank (MB)
1205501209	Laboratory Control Sample (LCS)
1205501210	634615002(BRA-BRGWC-35S) Post Spike (PS)
1205501211	634615002(BRA-BRGWC-35S) Post Spike Duplicate (PSD)
1205501212	634650011(BRA-BRGWC-50) Post Spike (PS)
1205501213	634650011(BRA-BRGWC-50) Post Spike Duplicate (PSD)

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
Total Sulfide	1205501210 (BRA-BRGWC-35SPS)	29.4* (75%-125%)
	1205501211 (BRA-BRGWC-35SPSD)	28.3* (75%-125%)

	1205501212 (BRA-BRGWC-50PS)	27.7* (75%-125%)
	1205501213 (BRA-BRGWC-50PSD)	27.2* (75%-125%)

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2486267

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634768001	BRA-APBCD-FD-03
634768002	BRA-APBCD-EB-05
634768003	BRA-BRGWC-27I
634768004	BRA-BRGWC-45
634768005	BRA-PZ-75I
634768006	BRA-PZ-74I
634768007	BRA-BRGWC-29I
634768008	BRA-PZ-51D
634768009	BRA-APBCD-FB-03
634768010	BRA-APBCD-EB-06
634768011	BRA-BRGWC-52I
634768012	BRA-BRGWC-47
634768013	BRA-BRGWC-25I
1205505693	Laboratory Control Sample (LCS)
1205505710	Laboratory Control Sample (LCS)
1205506027	Laboratory Control Sample Duplicate (LCSD)
1205506195	Laboratory Control Sample Duplicate (LCSD)

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

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume. 634768001 (BRA-APBCD-FD-03), 634768002 (BRA-APBCD-EB-05), 634768003 (BRA-BRGWC-27I), 634768004 (BRA-BRGWC-45), 634768005 (BRA-PZ-75I), 634768006 (BRA-PZ-74I), 634768007 (BRA-BRGWC-29I), 634768008 (BRA-PZ-51D), 634768009 (BRA-APBCD-FB-03), 634768010 (BRA-APBCD-EB-06), 634768011 (BRA-BRGWC-52I), 634768012 (BRA-BRGWC-47) and 634768013 (BRA-BRGWC-25I).

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.

**Technical Case Narrative
Georgia Power Company
SDG #: 634650**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482707

Preparation Method: SW846 3005A

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

Preparation Batch: 2482706

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650001	BRA-PZ-51I
634650002	BRA-PZ-58I
634650004	BRA-PZ-60I
634650005	BRA-PZ-63I
634650006	BRA-PZ-64I
634650007	BRA-PZ-68D
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
634650014	BRA-PZ-50D
1205499174	Method Blank (MB) ICP-MS
1205499175	Laboratory Control Sample (LCS)
1205499178	634650001(BRA-PZ-51IL) Serial Dilution (SD)
1205499176	634650001(BRA-PZ-51IS) Matrix Spike (MS)
1205499177	634650001(BRA-PZ-51ISD) 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 634650001 (BRA-PZ-51I), 634650002 (BRA-PZ-58I), 634650004 (BRA-PZ-60I), 634650005 (BRA-PZ-63I), 634650006 (BRA-PZ-64I), 634650007 (BRA-PZ-68D), 634650009 (BRA-APBCD-FD-01), 634650010 (BRA-APBCD-FD-02), 634650011 (BRA-BRGWC-50), 634650013 (BRA-PZ-44) and 634650014 (BRA-PZ-50D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, samples 634650005 (BRA-PZ-63I), 634650009 (BRA-APBCD-FD-01), 634650010 (BRA-APBCD-FD-02), 634650011 (BRA-BRGWC-50) and 634650014 (BRA-PZ-50D) were diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	634650									
	001	002	004	005	006	007	009	010	011	013
Beryllium	1X	5X	1X	10X	1X	1X	5X	10X	5X	1X
Boron	5X	5X	10X	10X	1X	5X	5X	10X	5X	10X
Calcium	5X	5X	10X	10X	10X	5X	5X	10X	5X	1X
Cobalt	1X	5X	10X	1X	1000X	1X	5X	1X	5X	1X
Iron	1X	5X	1X	1X	1X	1X	1X	1X	1X	1X
Magnesium	5X	5X	10X	10X	10X	1X	5X	10X	5X	1X
Manganese	100X	100X	1000X	10X	1000X	5X	100X	10X	100X	1X
Potassium	1X	1X	10X	1X	10X	5X	1X	1X	5X	1X
Sodium	1X	5X	10X	10X	10X	5X	5X	10X	5X	1X

Analyte	634650
	014
Beryllium	5X
Boron	5X
Calcium	5X
Magnesium	5X
Manganese	5X
Potassium	5X
Sodium	5X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

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

Analytical Batch: 2483666

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2483665

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

GEL Sample ID#

634650001

Client Sample Identification

BRA-PZ-51I

634650002	BRA-PZ-58I
634650004	BRA-PZ-60I
634650005	BRA-PZ-63I
634650006	BRA-PZ-64I
634650007	BRA-PZ-68D
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
634650014	BRA-PZ-50D
1205500952	Method Blank (MB)CVAA
1205500954	Laboratory Control Sample (LCS)
1205500958	634765001(NonSDGL) Serial Dilution (SD)
1205500956	634765001(NonSDGS) Matrix Spike (MS)
1205500957	634765001(NonSDGSD) 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.

Technical Information

Preparation Information

Samples in this SDG were prepared at a ten times dilution factor due to the miscellaneous liquid classification. 1205500956 (Non SDG 634765001MS), 1205500957 (Non SDG 634765001MSD) and 1205500958 (Non SDG 634765001SDILT).

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2482641

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650001	BRA-PZ-51I
634650002	BRA-PZ-58I
634650004	BRA-PZ-60I
634650006	BRA-PZ-64I
1205499054	Method Blank (MB)
1205499055	Laboratory Control Sample (LCS)
1205499056	634643001(BRA-PZ-79) Sample Duplicate (DUP)
1205499057	634643001(BRA-PZ-79) 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 1205499056 (BRA-PZ-79DUP), 1205499057 (BRA-PZ-79PS), 634650001 (BRA-PZ-51I), 634650002 (BRA-PZ-58I), 634650004 (BRA-PZ-60I) and 634650006 (BRA-PZ-64I) were diluted because target analyte concentrations exceeded the calibration range. 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	634650			
	001	002	004	006
Chloride	1X	5X	10X	20X
Sulfate	100X	100X	200X	200X

Miscellaneous Information

Manual Integrations

Samples 634650001 (BRA-PZ-51I), 634650002 (BRA-PZ-58I) and 634650004 (BRA-PZ-60I) were 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: 2482649

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650005	BRA-PZ-63I
634650007	BRA-PZ-68D
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
634650014	BRA-PZ-50D
1205499058	Method Blank (MB)
1205499059	Laboratory Control Sample (LCS)
1205499060	634519001(NonSDG) Sample Duplicate (DUP)
1205499061	634519001(NonSDG) 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
Sulfate	1205499061 (Non SDG 634519001PS)	157* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205499060 (Non SDG 634519001DUP), 1205499061 (Non SDG 634519001PS), 634650005 (BRA-PZ-63I), 634650007 (BRA-PZ-68D), 634650009 (BRA-APBCD-FD-01), 634650010 (BRA-APBCD-FD-02), 634650011 (BRA-BRGWC-50), 634650013 (BRA-PZ-44) and 634650014 (BRA-PZ-50D) were diluted because target analyte concentrations exceeded the calibration range. 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	634650						
	005	007	009	010	011	013	014
Chloride	1X	25X	5X	1X	5X	1X	5X
Sulfate	25X	25X	200X	25X	200X	5X	100X

Miscellaneous Information

Manual Integrations

Samples 1205499060 (Non SDG 634519001DUP), 1205499061 (Non SDG 634519001PS), 634650005 (BRA-PZ-63I), 634650007 (BRA-PZ-68D), 634650009 (BRA-APBCD-FD-01), 634650010 (BRA-APBCD-FD-02), 634650011 (BRA-BRGWC-50), 634650013 (BRA-PZ-44) and 634650014 (BRA-PZ-50D) 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: 2484234

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650001	BRA-PZ-51I
634650002	BRA-PZ-58I

634650004	BRA-PZ-60I
634650005	BRA-PZ-63I
634650006	BRA-PZ-64I
1205502073	Method Blank (MB)
1205502074	Laboratory Control Sample (LCS)
1205502076	634643001(BRA-PZ-79) 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. 1205502076 (BRA-PZ-79DUP), 634650001 (BRA-PZ-51I), 634650002 (BRA-PZ-58I), 634650004 (BRA-PZ-60I) and 634650006 (BRA-PZ-64I).

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2484583

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650007	BRA-PZ-68D
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
634650014	BRA-PZ-50D
1205502640	Method Blank (MB)
1205502641	Laboratory Control Sample (LCS)
1205502642	Laboratory Control Sample Duplicate (LCSD)
1205502645	634927001(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. 634650009 (BRA-APBCD-FD-01), 634650011 (BRA-BRGWC-50) and 634650014 (BRA-PZ-50D).

Product: Sulfide, Total

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

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

Analytical Batch: 2482961

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
1205499655	Method Blank (MB)
1205499656	Laboratory Control Sample (LCS)
1205499657	634513005(NonSDG) Post Spike (PS)
1205499658	634513005(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.

Product: Sulfide, Total

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

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

Analytical Batch: 2483779

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650001	BRA-PZ-51I
634650002	BRA-PZ-58I
634650003	BRA-PZ-59I
634650004	BRA-PZ-60I
634650005	BRA-PZ-63I
634650006	BRA-PZ-64I
634650007	BRA-PZ-68D
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650014	BRA-PZ-50D
1205501208	Method Blank (MB)
1205501209	Laboratory Control Sample (LCS)
1205501210	634615002(BRA-BRGWC-35S) Post Spike (PS)
1205501211	634615002(BRA-BRGWC-35S) Post Spike Duplicate (PSD)
1205501212	634650011(BRA-BRGWC-50) Post Spike (PS)
1205501213	634650011(BRA-BRGWC-50) Post Spike Duplicate (PSD)

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
Total Sulfide	1205501210 (BRA-BRGWC-35SPS)	29.4* (75%-125%)
	1205501211 (BRA-BRGWC-35SPSD)	28.3* (75%-125%)
	1205501212 (BRA-BRGWC-50PS)	27.7* (75%-125%)
	1205501213 (BRA-BRGWC-50PSD)	27.2* (75%-125%)

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2486265

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634650001	BRA-PZ-51I
634650002	BRA-PZ-58I
634650004	BRA-PZ-60I
634650005	BRA-PZ-63I
634650006	BRA-PZ-64I
634650007	BRA-PZ-68D
634650008	BRA-APBCD-FB-02
634650009	BRA-APBCD-FD-01
634650010	BRA-APBCD-FD-02
634650011	BRA-BRGWC-50
634650012	BRA-APBCD-EB-04
634650013	BRA-PZ-44
634650014	BRA-PZ-50D
1205505688	Laboratory Control Sample (LCS)
1205505709	Laboratory Control Sample (LCS)
1205506026	Laboratory Control Sample Duplicate (LCSD)
1205506194	Laboratory Control Sample Duplicate (LCSD)

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

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume. 634650001 (BRA-PZ-51I), 634650002 (BRA-PZ-58I), 634650004 (BRA-PZ-60I), 634650005 (BRA-PZ-63I), 634650006 (BRA-PZ-64I), 634650007 (BRA-PZ-68D), 634650008 (BRA-APBCD-FB-02), 634650009 (BRA-APBCD-FD-01), 634650010 (BRA-APBCD-FD-02), 634650011 (BRA-BRGWC-50), 634650012 (BRA-APBCD-EB-04), 634650013 (BRA-PZ-44) and 634650014 (BRA-PZ-50D).

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.

**Technical Case Narrative
Georgia Power Company
SDG #: 634444**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2482703

Preparation Method: SW846 3005A

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

Preparation Batch: 2482702

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01
1205499164	Method Blank (MB) ICP-MS
1205499165	Laboratory Control Sample (LCS)
1205499168	634441003(BRA-BRGWC-34SL) Serial Dilution (SD)
1205499166	634441003(BRA-BRGWC-34SS) Matrix Spike (MS)
1205499167	634441003(BRA-BRGWC-34SSD) 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 634444004 (BRA-BRGWC-30I), 634444005 (BRA-BRGWC-32S) and 634444006 (BRA-PZ-61I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	634444		
	004	005	006
Boron	20X	10X	5X
Calcium	20X	1X	5X
Magnesium	20X	1X	5X
Manganese	20X	1X	500X
Sodium	1X	1X	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: 2482624

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2482623

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01
1205499044	Method Blank (MB)CVAA
1205499045	Laboratory Control Sample (LCS)
1205499048	634447002(BRA-BRGWA-5SL) Serial Dilution (SD)
1205499046	634447002(BRA-BRGWA-5SD) Sample Duplicate (DUP)
1205499047	634447002(BRA-BRGWA-5SS) 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.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 32

Analytical Batch: 2481584

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2481584

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
1205497352	Method Blank (MB)
1205497353	Laboratory Control Sample (LCS)
1205497354	634441001(BRA-BRGWC-33S) Sample Duplicate (DUP)
1205497355	634441001(BRA-BRGWC-33S) 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
Chloride	1205497355 (BRA-BRGWC-33SPS)	88.9* (90%-110%)
Nitrate-N	1205497355 (BRA-BRGWC-33SPS)	88.7* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205497354 (BRA-BRGWC-33SDUP), 1205497355 (BRA-BRGWC-33SPS), 634444004 (BRA-BRGWC-30I) and 634444005 (BRA-BRGWC-32S) were diluted because target analyte concentrations exceeded the calibration range. 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	634444	
	004	005
Sulfate	100X	25X

Miscellaneous Information

Manual Integrations

Samples 634444003 (BRA-BRGWA-23S) and 634444005 (BRA-BRGWC-32S) were 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# 32

Analytical Batch: 2481608

Product: Ion Chromatography

Analytical Method: EPA 300.0

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

Analytical Batch: 2481608

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01
1205497368	Method Blank (MB)
1205497369	Laboratory Control Sample (LCS)
1205497371	634145003(NonSDG) Sample Duplicate (DUP)
1205497373	634145003(NonSDG) 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 1205497371 (Non SDG 634145003DUP), 1205497373 (Non SDG 634145003PS) and 634444006 (BRA-PZ-61I) were diluted because target analyte concentrations exceeded the calibration range. 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	634444
	006
Chloride	5X
Sulfate	200X

Sample Re-analysis

Sample 634444007 (BRA-APBCD-FB-01) was re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2482655

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01
1205499075	Method Blank (MB)
1205499076	Laboratory Control Sample (LCS)
1205499077	634352015(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. 634444004 (BRA-BRGWC-30I) and 634444006 (BRA-PZ-61I).

Product: Sulfide, Total

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

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

Analytical Batch: 2481696

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444001	BRA-PZ-57I
634444002	BRA-PZ-65I
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01
1205497559	Method Blank (MB)
1205497560	Laboratory Control Sample (LCS)
1205497561	634441001(BRA-BRGWC-33S) Post Spike (PS)
1205497562	634441001(BRA-BRGWC-33S) Post Spike Duplicate (PSD)
1205497563	634447001(BRA-BRGWA-2S) Post Spike (PS)
1205497564	634447001(BRA-BRGWA-2S) 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.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2482476

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
634444003	BRA-BRGWA-23S
634444004	BRA-BRGWC-30I
634444005	BRA-BRGWC-32S
634444006	BRA-PZ-61I
634444007	BRA-APBCD-FB-01
1205498938	Laboratory Control Sample (LCS)
1205499028	Laboratory Control Sample Duplicate (LCSD)

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

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume. 634444003 (BRA-BRGWA-23S), 634444004 (BRA-BRGWC-30I), 634444005 (BRA-BRGWC-32S), 634444006 (BRA-PZ-61I) and 634444007 (BRA-APBCD-FB-01).

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.

634652

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: *D. Benjfield ACC*

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: *Erin Trent*
 Phone # 404-506-7116
 Fax # _____
 Address: 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID <i>*For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments
						Yes, please supply isotopic info.	Radioactive (if possible)		Known or (7)	Possible Hazards	Metals *	EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	
BRA-PZ-51I	08/23/23	1500	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-PZ-58I	08/23/23	1510	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-PZ-59I	08/23/23	1140	G	N	WG			1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-PZ-60I	08/23/23	1325	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-PZ-63I	08/23/23	1630	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-PZ-64I	08/23/23	1055	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-PZ-68D	08/23/23	1608	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-APBCD-FB-02	08/23/23	1450	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-APBCD-FD-01	08/23/23	---	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
BRA-APBCD-FD-02	08/23/23	---	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	08/24/23	<i>[Signature]</i>	08/24/23	8:41 AM
<i>[Signature]</i>	08/24/23	<i>[Signature]</i>	08/24/23	12:43 PM

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: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg
 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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/Ignitable, LW = Listed Waste / (F,K,P and U-listed wastes), 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.)

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____



Laboratories LLC
 Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

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

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308
 Collected By: J. Bennett ACC

Phone # 404-506-7116
 Fax # _____
 Send Results To: SCS & Geosyntec Contacts

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 isotopic info.)	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-BR6WC-50	08/23/23	1100	G	N	WG		8	NI NI Metals * Total, Carb. & Biocarb Alk SM 2320B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	NI	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
BRA-APBCD-EB-04	08/23/23	1135	G	N	WG		8	NI NI Metals * Total, Carb. & Biocarb Alk SM 2320B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	NI	
BRA-P2-44	08/23/23	1640	G	N	WG		8	NI NI Metals * Total, Carb. & Biocarb Alk SM 2320B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	NI	
BRA-P2-50D	08/23/23	1230	G	N	WG		8	NI NI Metals * Total, Carb. & Biocarb Alk SM 2320B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	NI	
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
[Signature]	8/24/23	[Signature]	8/24/23	8:41
[Signature]	8/24/23	[Signature]	8/24/23	12:49
[Signature]	8/24/23	[Signature]	8/24/23	12:53

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: * Metals: B,Ca,Sh,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Mo,Se,Tl,Fe,Mn,K,Na,Hg
 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Seiment, SL=Sludge, WQ=Water Quality Control Matrix
 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, BX = 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: _____

RCRA Metals
 As = Arsenic Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCRA metals
 Pb = Lead biphentyls

TSCA Regulated
 PCB = Polychlorinated biphenyls

SAMPLE RECEIPT & REVIEW FORM

634448 634443
 634652 634650
 634649
~~64~~ 634648 634615

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>EG</u>		Date Received: <u>8-24-23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>cooler 1-3</u> <u>cooler 3-3</u> <u>cooler 2-3</u> <u>cooler 4-2</u> <u>cooler 5-3</u>	
Suspected Hazard Information		*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 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. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes	No
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>
Comments (Use Continuation Form if needed): <u>cooler 6-1</u> <u>cooler 7-2</u> <u>cooler 8-4</u> <u>cooler 9-1</u>			

TEMP: See coolers above & below for temps

Sample ID's and Containers Affected: See continuation form

PM (or PMA) review: Initials AT Date 8/28/23 Page 1 of 2



Client: GPCC Received By: EG Date Received: 8/24/23 SDG/AR/COC/Work Order: _____

- BRA-P2-511
- BRA-P2-591
- BRA-BRGWC-355
- BRA-BRGWC-365
- BRA-APE-FB-07
- BRA-P2-601
- BRA-P2-581
- BRA-P2-631
- BRA-BRGWC-385
- BRA-P2-641
- BRA-P2-68D
- BRA-APBCD-FD-02
- BRA-P2-50D
- BRA-BRGWC-50
- BRA-APE-FD-05

↳ containers for sodium hydroxide/zinc acetate did not hold preservation. Were preserved & placed in 24 hr hold preservation

PM (or PMA) review: Initials AT Date 8/28/23 Page 2 of 2

ET

Relog for Radium

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number: **GEL Project Manager: Erin Trent**

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: ACC

Send Results To: SCS & Geosyntec Contacts

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

Sample Analysis Requested (2) (Fill in the number of containers for each test)

Preservative Type (6)

Comments
 Note: extra sample is required for sample specific QC
 Task Code: BRA-CCR-ASSMT-2023S2

Sample ID <small>* For compatibilities - indicate start and stop date/time</small>	Date Collected (mm/dd/yy)	*Time Collected (Military)	QC Code (b)	Field Filtered (b)	Sample Matrix (b)	Radioactive (if isotopic info) (7) Known or possible hazards	Should this sample be considered:	Sample Analysis Requested (2)		Comments
								Yes, please supply isotopic info	Total number of containers	
BRA-APBCD-FD-03	08/24/23		G	N	WG			8	8	SW-646 913, 930 Sulfide
BRA-APBCD-E3-05	08/24/23	0955	G	N	WQ			8	8	SW-646 913, 930 Sulfide
BRA-BRGWL-27I	08/24/23	1225	G	N	W6			8	8	SW-646 913, 930 Sulfide
BRA-BRGWL-45	08/24/23	1206	G	N	W6			8	8	SW-646 913, 930 Sulfide
BRA-PZ-75I	08/24/23	1051	G	N	W6			8	8	SW-646 913, 930 Sulfide
BRA-PZ-74I	08/24/23	1415	G	N	W6			8	8	SW-646 913, 930 Sulfide
BRA-BR6WC-29I	08/24/23	1520	G	N	W6			8	8	SW-646 913, 930 Sulfide
BRA-PZ-51D	08/24/23	1100	G	N	W6			8	8	SW-646 913, 930 Sulfide
BRA-APBCD-FB-03	08/24/23	1255	G	N	WQ			8	8	SW-646 913, 930 Sulfide
BRA-APBCD-E3-06	08/24/23	1400	G	N	WQ			8	8	SW-646 913, 930 Sulfide

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

Relinquished By (Signed) _____ Date 08/24/23 Time _____

Received by (signed) _____ Date _____ Time _____

1 0857

2

3

> 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, FB = 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 L & Y - for yet the sample was field filtered to - N - for sample was not field filtered

4.) Matrix Codes: WD=Drinking Water, WC=Cooling Water, WS=Surface Water, WW=Waste Water, WL=Lachate, SO=Soil, SE=Soil, SF=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. #240B, #610B7470A) and number of containers provided for each (i.e. #240B - 3, #610B7470A - 4)

6.) Preservative Type: HA = Hydrofluoric Acid, NI = Nitric Acid, SH = Sulfuric Acid, AA = Acetic Acid, BX = Ilex acid, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

Characteristics Hazards: FL = Flammable/ignitable, LW = Listed Waste (F, K, P and U-haz waste), CO = Corrosive, RE = Reactive

Listed Waste: 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.)

034768 & 034781

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analyticals
 Chain of Custody and Analytical Request
 GEL Project Manager: Erik Trent

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

Project # _____ of _____
 GEL Quote # _____
 COC Number (1) _____
 PO Number _____

GEL Work Order Number: _____

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: ACC

Phone # 404-506-7116
 Fax # _____

Sample Analysis Requested (2) (Fill in the number of containers for each test)

Sample ID <small>* For comparison - indicate start and stop date/time</small>	Date Collected (mm/dd/yyyy)	Time Collected (Military)	QC Code in (Library)	Field Filtered (N)	Sample Matrix (WG)	Total number of containers		Should this sample be considered: (If yes, please supply rationale info)	Radiocative (If known or probable)	Comments
						(7) Known or Probable Hazards	(8) Other			
BRA- BR6WC-52I	08/24/23	1305	G	N	WG	3	3			Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
BRA- BR6WC-47	08/24/23	1445	G	N	WG	3	3			
BRA- BR6WC-25I	08/24/23	1647	G	N	WG	3	3			
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										
BRA-										

Send Results To: SCS & Geosynce Contacts

Task Code: BRA-CCR-ASSMT-2023S2

Additional Remarks: * Metals: B, Co, Sb, Ba, Be, Cd, Cr, Cu, Pb, Li, Mn, Se, Ti, Fe, Mg, Mo, K, Na, Hg
 For Lab Receiving Use Only: Custody Seal Prices? [] Yes [] No Cooler Temp: _____ °C
 Sample Collection Time Zone: [] Eastern [] Pacific [] Central [] Mountain [] Other:

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

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received By (Signed)	Date	Time
<i>[Signature]</i>	8/24/23				

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

1) Chain of Custody Number = Client Determined
 2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EM = Equipment Blank, MS = Matrix Spike Sample, MSP = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3) Field Notes: For liquid matrices, indicate vials as - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4) Matrix Codes: W = Drinking Water, WC = Ground Water, WS = Surface Water, WTS = Treated Water, WTS-Sediment, SO = Soil, SPS = Sediment, SL = Sludge, WQ = Water Quality Control Matrix
 5) Sample Analysis Requested: Analytical method requested (i.e. H4603, 6010B, 4710A) and number of containers provided for each (i.e. 2/603 - 3, 4010B/4710A - 1).
 6) Preservative Type: BA = Hydrochloric Acid, NI = Nitric Acid, SB = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, BX = Hexose, ST = Sodium Thiosulfate. The preservative is added = have field blank
 7) KNOWN OR POSSIBLE HAZARDS

Characteristics 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.)

634768 634781

Page: 1 of 2
 Project # _____
 GEL Quote #: _____
 COC Number 0: _____
 PO Number: _____

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics
 Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

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

GEL Work Order Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: ACC

Phone # 404-506-7116
 Fax # _____

Sample ID <i>* For composites - indicate start and stop date/time</i>	Date Collected (mm/dd/yy)	*Time Collected (Military/abun)	QC Code	Field		Sample Matrix	Total number of containers	Should this sample be considered:		Comments
				Filtered	N			Yes, please supply isotopic info.	(?) Known or possible hazards	
BRA-APBCD-FD-03	08/24/23	0955	G	N	WG	8	✓	✓	SM 4500	← Preservative Type (6) Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
BRA-APBCD-EB-05	08/24/23	1225	G	N	WG	8	✓	✓	SM 4500	
BRA-BRGWC-27I	08/24/23	1206	G	N	WG	8	✓	✓	SM 4500	
BRA-BRGWC-45	08/24/23	1051	G	N	WG	8	✓	✓	SM 4500	
BRA-PZ-75I	08/24/23	1415	G	N	WG	8	✓	✓	SM 4500	
BRA-PZ-74I	08/24/23	1520	G	N	WG	8	✓	✓	SM 4500	
BRA-BRGWC-29J	08/24/23	1100	G	N	WG	8	✓	✓	SM 4500	
BRA-PZ-51D	08/24/23	1255	G	N	WG	8	✓	✓	SM 4500	
BRA-APBCD-FB-03	08/24/23	1400	G	N	WG	8	✓	✓	SM 4500	
BRA-APBCD-EB-06	08/24/23	1400	G	N	WG	8	✓	✓	SM 4500	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	08/24/23	<i>[Signature]</i>	08/24/23	1730
<i>[Signature]</i>	08/25/23	<i>[Signature]</i>	08/24/23	0857

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: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SQ=Soil, SF=Sediment, ST=Sludge, WQ=Water Quality Control Matrix
 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, EX = 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 (F, K, P and U-listed wastes.)
 RE = Reactive
 TSCA Regulated
 PCB = Polychlorinated biphenyls

Other
 OT = Other / Unknown
 (i.e.: High/Low pH, asbestos, beryllium, tritium, other misc. health hazards, etc.)
 Description:

cooler 1-4
 cooler 2-4
 cooler 3-1
 cooler 4-1
 cooler 5-3

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.)

Page: 2 of 2
 Project # _____
 GEL Quote #: _____
 COC Number (C): _____
 PO Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: ACC

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*

GEL Work Order Number: Phone # 404-506-7116
 Fax # _____

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

Sample ID <i>* For composites - indicate start and stop date/time</i>	Date Collected (mm/dd/yyyy)	*Time Collected (Military (hhmm))	QC Code (S)	Field Filtered (S)	Sample Matrix (S)	Total number of containers		Should this sample be considered: (Yes, please supply isotopic info.)	3) Known or possible hazards	Total number of containers	Comments
						Metals * BPA 6020, 6010, 7470	SM 2320B				
BRA- <i>BR6WC-52E</i>	<i>08/24/23</i>	<i>1305</i>	<i>G</i>	<i>N</i>	<i>WG</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BRA- <i>BR6WC-47</i>	<i>08/24/23</i>	<i>1445</i>	<i>G</i>	<i>N</i>	<i>WG</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BRA- <i>BR6WC-25J</i>	<i>08/24/23</i>	<i>1647</i>	<i>G</i>	<i>N</i>	<i>WG</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BRA-											
BRA-											
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BRA-											
BRA-											
BRA-											

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	<i>8/24/23</i>	<i>[Signature]</i>	<i>8/24/23</i>	<i>1730</i>
<i>[Signature]</i>	<i>8/25/23</i>	<i>[Signature]</i>	<i>8/25/23</i>	<i>0857</i>

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

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, indicates with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WTW=Water, WL=Leachate, SO=Soil, SE=Soil, SI=Sludge, WQ=Water Quality Control Matrix

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, EX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

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 = Clear Determined

1.) Chain of Custody Number = Clear 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, indicates with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WTW=Water, WL=Leachate, SO=Soil, SE=Soil, SI=Sludge, WQ=Water Quality Control Matrix

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, EX = 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:

Additional Remarks: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Fe, Mg, Mn, K, Na, Hg

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

Sample Collection Time Zone: [] Eastern [] Pacific [] Central [] Mountain [] Other.

Handwritten notes: Cooler 1-4
Cooler 2-4
Cooler 3-1
Cooler 4-1
Cooler 5-3

Additional Remarks: 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

634784

634789

634768

634781

Client: GPCCL	SDG/AR/COC/Work Order:
Received By: EG	Date Received: 8/25/23 0857
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other cooler 1-4° cooler 3-1° cooler 5-3° cooler 2-4° cooler 4-1°

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?		<input checked="" 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"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCBs 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: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: See above
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: IR6-23 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#: See below
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)
			<input checked="" type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
			<input checked="" type="checkbox"/>	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: COC says BRA-P2-74I bottles say BRA-P2-74
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):
containers BRA-P2-751, BRA-BRGWC-271, BRA-P2-53D, & BRA-BRGWC-291 preserved with NaOH/Zinc Acetate did not hold preservation

PM (or PMA) review: Initials **AT** Date **8/28/23** Page **1** of **1**

034444 034446

Page: _____ of _____
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____

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

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

GEL Work Order Number: _____
 Phone # 404-506-7116
 Fax # _____
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - BCD
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: J. B. Perdue ACC

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)		Total number of containers	Should this sample be considered: (7) Known or possible hazards (8) Yes, please supply isotopic info.	Comments
						Z	N			
BRA-P2-57J	08/21/23	1755	G	N	WG			1		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S2
BRA-P2-65I	08/21/23	1745	G	N	WG			1		
BRA-BRCWA-23S	08/22/23	1240	G	N	WG			8		
BRA-BR6WC-30I	08/22/23	1522	G	N	WG			8		
BRA-BR6WC-32S	08/22/23	1420	G	N	WG			8		
BRA-P2-61I	08/22/23	1615	G	N	WG			8		
BRA-APBCD-FB-01	08/22/23	1400	G	N	WQ			8		
BRA-										
BRA-										
BRA-										

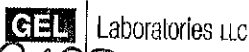
Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	8/23/23	0812	<u>[Signature]</u>	8/23/23	8:35
<u>[Signature]</u>	8/23/23	100	<u>[Signature]</u>	8/23/23	1300

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: * Metals: B,Ca,Sh,As,Ba,Be,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg
 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: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 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/Ignitable, LW = Listed Waste (F,K,P and U-listed wastes), 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.)

63444 634643
 634448 634447
 634443 634450
 634441 634444
 634446



SAMPLE RECEIPT & REVIEW FORM

Client: <u>CDDP</u>		SDG/AR/COC/Work Order: _____			
Received By: <u>MVH</u>		Date Received: <u>8/23/2023</u>			
Carrier and Tracking Number		Circle Applicable: <input type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Service <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Other <u>COOLR2-3</u> <u>COOLR4-1</u> <u>COOLR6-1</u> <u>COOLR1-2</u> <u>COOLR3-1</u> <u>COOLR5-2</u>			
Suspected Hazard Information		*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 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. PCBs Plammable 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 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 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 type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	Sample IDs and containers affected: <u>VOA-P2-G11, BRA-BREWAW-51, BRA-BREWAW-23S,</u>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<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 IDs and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<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 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 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): <u>BRA-P2-13S, BRA-BREWAW-2S, BRA-BREWAW-6S,</u> <u>BRA-BREWAW-32S, BRA-BREWAW-2I, BRA-BREWAW-37S,</u> <u>BRA-BREWAW-34S, BRA-BREWAW-30I Sulfide</u> <u>Samples didnt hold proper preservation.</u>					

PM (or PMA) review: Initials AT Date 8/25/23 Page 1 of 1

Amanda Turner

From: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>
Sent: Friday, August 25, 2023 8:52 AM
To: Amanda Turner; Jurinko, Kristen Nichole; Smilley, Michael Jay; Gangi, Noelia S.; Midkiff, Laura B.
Cc: Team Trent
Subject: RE: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re-preserve and analyze for sulfide in all samples.

JA

From: Amanda Turner <Amanda.Turner@gel.com>
Sent: Friday, August 25, 2023 8:29 AM
To: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Gangi, Noelia S. <NSMUSKUS@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>
Cc: Team Trent <Team.Trent@gel.com>
Subject: Samples did not hold preservation (634441, 634443, 634444, 634446, 634447, 634450)

Good morning,

I wanted to notify you of the following preservation issues. These samples did not hold proper sulfide preservation. Please advise.

"BRA-GWC-34S" "BRA-BRGWC-37S" "BRA-PZ-13S" on work orders 634441 and 634443
"BRA-BRGWC-32S" "BRA-BRGWC-30I" "BRA-PZ-61I" "BRA-BRGWA-23S" on work orders 634444 and 634446
"BRA-BRGWA-2S" "BRA-BRGWA-6S" "BRA-BRGWA-2I" "BRA-BRAW-5I" on work orders 634447 and 634450

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com [gel.com]

Analytical Testing



[gellaboratories.com]



[linkedin.com]

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Amanda Turner

From: Amanda Turner
Sent: Tuesday, August 29, 2023 10:04 AM
To: JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM;
MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com
Cc: Team Trent
Subject: Preservation issues (634652, 634650, 634648, 634615)
Attachments: 634648 634615.pdf; 634652 634650.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning!

I wanted to notify you of the following preservation issues. The samples containers for sodium hydroxide/zinc acetate listed below did not hold preservation. The samples were preserved upon receipt and placed on a 24-hour preservation hold.

"BRA-PZ-51I" "BRA-PZ-60I" "BRA-PZ-58I" "BRA-PZ-63I" "BRA-PZ-64I" "BRA-PZ-68D" "BRA-APBCD-FD-02" "BRA-PZ-50D"
"BRA-BRGWC-50" for work orders 634652 and 634650

"BRA-PZ-59I" for work order 634650

"BRA-BRGWC-35S" "BRA-BRGWC-36S" "BRA-APE-FB-08" "BRA-BRGWC-38S" "BRA-APE-FD-05" for work orders 634648
and 634615

See attachments for reference.

Thank you!
Amanda

Amanda Turner
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: amanda.turner@gel.com | Website: www.gel.com

Analytical Testing



List of current GEL Certifications as of 07 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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



ANALYTICAL REPORT

PREPARED FOR

Attn: Lauren Fitzgerald
Geosyntec Consultants Inc
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Generated 11/7/2023 1:47:46 PM

JOB DESCRIPTION

Plant Branch Ash Ponds

JOB NUMBER

680-242425-1

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

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Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Method Summary	6
Definitions/Glossary	7
Detection Summary	8
Client Sample Results	9
QC Sample Results	22
QC Association Summary	23
Lab Chronicle	24
Chain of Custody	27
Receipt Checklists	29
Certification Summary	30

Case Narrative

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Job ID: 680-242425-1

Laboratory: Eurofins Savannah

Narrative

**Job Narrative
680-242425-1**

Receipt

The samples were received on 11/1/2023 1:00 PM. 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 2.8°C

General Chemistry

Method SM4500_S2_F: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-806681 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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Sample Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242425-1	BRA-BRGWA-2S	Water	10/30/23 15:20	11/01/23 13:00
680-242425-2	BRA-BRGWA-2I	Water	10/30/23 14:25	11/01/23 13:00
680-242425-3	BRA-PZ-44	Water	10/30/23 16:30	11/01/23 13:00
680-242425-4	BRA-PZ-64I	Water	10/31/23 15:15	11/01/23 13:00
680-242425-5	BRA-PZ-66I	Water	10/31/23 10:55	11/01/23 13:00
680-242425-6	BRA-PZ-59I	Water	10/31/23 16:50	11/01/23 13:00
680-242425-7	BRA-PZ-58I	Water	11/01/23 09:40	11/01/23 13:00
680-242425-8	BRA-BRGWA-6S	Water	10/30/23 14:15	11/01/23 13:00
680-242425-9	BRA-PZ-51I	Water	10/31/23 14:30	11/01/23 13:00
680-242425-10	BRA-PZ-51D	Water	10/31/23 12:45	11/01/23 13:00
680-242425-11	BRA-PZ-57I	Water	10/30/23 16:40	11/01/23 13:00
680-242425-12	BRA-PZ-65I	Water	10/31/23 10:45	11/01/23 13:00
680-242425-13	BRA-PZ-61I	Water	10/31/23 17:05	11/01/23 13:00



Method Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

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



Definitions/Glossary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

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

Detection Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-BRGWA-2S **Lab Sample ID: 680-242425-1**

No Detections.

Client Sample ID: BRA-BRGWA-2I **Lab Sample ID: 680-242425-2**

No Detections.

Client Sample ID: BRA-PZ-44 **Lab Sample ID: 680-242425-3**

No Detections.

Client Sample ID: BRA-PZ-64I **Lab Sample ID: 680-242425-4**

No Detections.

Client Sample ID: BRA-PZ-66I **Lab Sample ID: 680-242425-5**

No Detections.

Client Sample ID: BRA-PZ-59I **Lab Sample ID: 680-242425-6**

No Detections.

Client Sample ID: BRA-PZ-58I **Lab Sample ID: 680-242425-7**

No Detections.

Client Sample ID: BRA-BRGWA-6S **Lab Sample ID: 680-242425-8**

No Detections.

Client Sample ID: BRA-PZ-51I **Lab Sample ID: 680-242425-9**

No Detections.

Client Sample ID: BRA-PZ-51D **Lab Sample ID: 680-242425-10**

No Detections.

Client Sample ID: BRA-PZ-57I **Lab Sample ID: 680-242425-11**

No Detections.

Client Sample ID: BRA-PZ-65I **Lab Sample ID: 680-242425-12**

No Detections.

Client Sample ID: BRA-PZ-61I **Lab Sample ID: 680-242425-13**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Savannah

Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-BRGWA-2S

Lab Sample ID: 680-242425-1

Date Collected: 10/30/23 15:20

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-BRGWA-2I

Lab Sample ID: 680-242425-2

Date Collected: 10/30/23 14:25

Matrix: Water

Date Received: 11/01/23 13:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.81	F1	0.81	0.81	mg/L			11/06/23 12:37	1

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- 13
- 14

Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-44

Lab Sample ID: 680-242425-3

Date Collected: 10/30/23 16:30

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

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- 12
- 13
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-64I

Lab Sample ID: 680-242425-4

Date Collected: 10/31/23 15:15

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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- 13
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-66I

Lab Sample ID: 680-242425-5

Date Collected: 10/31/23 10:55

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-59I

Lab Sample ID: 680-242425-6

Date Collected: 10/31/23 16:50

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-58I

Lab Sample ID: 680-242425-7

Date Collected: 11/01/23 09:40

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-BRGWA-6S

Lab Sample ID: 680-242425-8

Date Collected: 10/30/23 14:15

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-511

Lab Sample ID: 680-242425-9

Date Collected: 10/31/23 14:30

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-51D

Lab Sample ID: 680-242425-10

Date Collected: 10/31/23 12:45

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-57I

Lab Sample ID: 680-242425-11

Date Collected: 10/30/23 16:40

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-65I

Lab Sample ID: 680-242425-12

Date Collected: 10/31/23 10:45

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-611

Lab Sample ID: 680-242425-13

Date Collected: 10/31/23 17:05

Matrix: Water

Date Received: 11/01/23 13:00

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			11/06/23 12:37	1

- 1
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QC Sample Results

Client: Geosyntec Consultants Inc
 Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-806681/1
Matrix: Water
Analysis Batch: 806681

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			11/06/23 12:37	1

Lab Sample ID: LCS 680-806681/2
Matrix: Water
Analysis Batch: 806681

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	8.62		mg/L		86	75 - 125

Lab Sample ID: LCSD 680-806681/3
Matrix: Water
Analysis Batch: 806681

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	8.87		mg/L		89	75 - 125	3	30

Lab Sample ID: 680-242425-2 MS
Matrix: Water
Analysis Batch: 806681

Client Sample ID: BRA-BRGWA-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<0.81	F1	6.30	4.18	F1	mg/L		66	75 - 125

Lab Sample ID: 680-242425-2 MSD
Matrix: Water
Analysis Batch: 806681

Client Sample ID: BRA-BRGWA-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.81	F1	6.30	4.18	F1	mg/L		66	75 - 125	0	30

Lab Sample ID: 680-242425-1 DU
Matrix: Water
Analysis Batch: 806681

Client Sample ID: BRA-BRGWA-2S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	<0.81		<0.81		mg/L		NC	30

QC Association Summary

Client: Geosyntec Consultants Inc
 Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

General Chemistry

Analysis Batch: 806681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242425-1	BRA-BRGWA-2S	Total/NA	Water	4500 S2 F-2011	
680-242425-2	BRA-BRGWA-2I	Total/NA	Water	4500 S2 F-2011	
680-242425-3	BRA-PZ-44	Total/NA	Water	4500 S2 F-2011	
680-242425-4	BRA-PZ-64I	Total/NA	Water	4500 S2 F-2011	
680-242425-5	BRA-PZ-66I	Total/NA	Water	4500 S2 F-2011	
680-242425-6	BRA-PZ-59I	Total/NA	Water	4500 S2 F-2011	
680-242425-7	BRA-PZ-58I	Total/NA	Water	4500 S2 F-2011	
680-242425-8	BRA-BRGWA-6S	Total/NA	Water	4500 S2 F-2011	
680-242425-9	BRA-PZ-51I	Total/NA	Water	4500 S2 F-2011	
680-242425-10	BRA-PZ-51D	Total/NA	Water	4500 S2 F-2011	
680-242425-11	BRA-PZ-57I	Total/NA	Water	4500 S2 F-2011	
680-242425-12	BRA-PZ-65I	Total/NA	Water	4500 S2 F-2011	
680-242425-13	BRA-PZ-61I	Total/NA	Water	4500 S2 F-2011	
MB 680-806681/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-806681/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-806681/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-242425-2 MS	BRA-BRGWA-2I	Total/NA	Water	4500 S2 F-2011	
680-242425-2 MSD	BRA-BRGWA-2I	Total/NA	Water	4500 S2 F-2011	
680-242425-1 DU	BRA-BRGWA-2S	Total/NA	Water	4500 S2 F-2011	



Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-BRGWA-2S

Lab Sample ID: 680-242425-1

Date Collected: 10/30/23 15:20

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWA-2I

Lab Sample ID: 680-242425-2

Date Collected: 10/30/23 14:25

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-44

Lab Sample ID: 680-242425-3

Date Collected: 10/30/23 16:30

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-64I

Lab Sample ID: 680-242425-4

Date Collected: 10/31/23 15:15

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-66I

Lab Sample ID: 680-242425-5

Date Collected: 10/31/23 10:55

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-59I

Lab Sample ID: 680-242425-6

Date Collected: 10/31/23 16:50

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-58I

Lab Sample ID: 680-242425-7

Date Collected: 11/01/23 09:40

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-BRGWA-6S

Lab Sample ID: 680-242425-8

Date Collected: 10/30/23 14:15

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-51I

Lab Sample ID: 680-242425-9

Date Collected: 10/31/23 14:30

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-51D

Lab Sample ID: 680-242425-10

Date Collected: 10/31/23 12:45

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-57I

Lab Sample ID: 680-242425-11

Date Collected: 10/30/23 16:40

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Client Sample ID: BRA-PZ-65I

Lab Sample ID: 680-242425-12

Date Collected: 10/31/23 10:45

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Client Sample ID: BRA-PZ-611

Lab Sample ID: 680-242425-13

Date Collected: 10/31/23 17:05

Matrix: Water

Date Received: 11/01/23 13:00

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	320 mL	806681	11/06/23 12:37	NVF	EET SAV
Instrument ID: NoEquip										

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

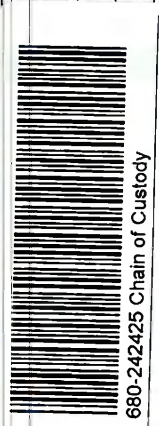
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Eurofins Savannah

5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

Client Information		Sampler: <i>Silberstein A. Schmitt</i> ACC		Lab PM: Fuller, David		Carrier Tracking No(s):		COC No: <i>1 of 2</i>	
Client Contact: Lauren Fitzgerald		Phone: <i>770-594-5990</i>		E-Mail: david.fuller@et.eurofinsus.com				Page:	
Company: Geosyntec Consultants Inc				Analysis Requested				Job #:	
Address: 1255 Roberts Blvd, NW Suite 200		Due Date Requested:		Field Filtered Sample (Yes or No) Matrix (WG=ground water, WS=surface water, WQ=quality control) Sulfide (SM 4500-S2-F)				Total Number of containers Task_Code: BRA-CCR-OTH-2023 Special Instructions/Note: Sulfide only	
City: Kennesaw		TAT Requested (days): <i>Standard</i>							
State, Zip: GA, 30144		Lab Project #: 68029735							
Phone:		PO #:							
Email: SCS Contacts / Geosyntec Contacts		Project #:							
Project Name: Plant Branch Ash Ponds		SSOW#:							
Site: Georgia									
Sample Identification		Sample Date (mm/dd/yy)		Sample Time (hhmm)		Sample Type (C=comp, G=grab)		Matrix	
								Field Filtered Sample (Yes or No)	
								Sulfide (SM 4500-S2-F)	
								BC	
BRA- <i>BR6WA-25</i>		<i>10/30/23</i>		<i>1520</i>		G WG		N N ✓	
BRA- <i>BR6WA-2I</i>		<i>10/30/23</i>		<i>1425</i>		G WG		N N ✓	
BRA- <i>PZ-44</i>		<i>10/30/23</i>		<i>1630</i>		G WG		N N ✓	
BRA- <i>PZ-64I</i>		<i>10/31/23</i>		<i>1515</i>		G WG		N N ✓	
BRA- <i>PZ-66I</i>		<i>10/31/23</i>		<i>1055</i>		G WG		N N ✓	
BRA- <i>PZ-59I</i>		<i>10/31/23</i>		<i>1650</i>		G WG		N N ✓	
BRA- <i>PZ-58I</i>		<i>11/01/23</i>		<i>0940</i>		G WG		N N ✓	
BRA-						G WG		N N	
BRA-						G WG		N N	
BRA-						G WG		N N	
BRA-						G WG		N N	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested: I, II, III, IV, Other (specify)				<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>11/1/23 1300</i>		Company: <i>ACC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>11/1/23 1300</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>2.5/2.8</i>					



Eurofins Savannah

5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

Client Information		Sampler: <i>A Schmittler, J. Decker</i> ACC		Lab PM: Fuller, David		Carrier Tracking No(s):		COC No:	
Client Contact: Lauren Fitzgerald		Phone: <i>770 594 5948</i>		E-Mail: david.fuller@et.eurofinsus.com				Page: <i>2 of 2</i>	
Company: Geosyntec Consultants Inc		Address: 1255 Roberts Blvd, NW Suite 200		City: Kennesaw		State, Zip: GA, 30144		Phone:	
Email: SCS Contacts / Geosyntec Contacts		Project Name: Plant Branch Ash Ponds		Site: Georgia		Due Date Requested:		Analysis Requested	
Lab Project #: 68029735		TAT Requested (days): <i>Standard</i>		PO #:		Job #:		Preservation Codes:	
Project #:		SSOW#:		Matrix (WG=ground water, WS=surface water, WQ=quality control)		Field Filtered Sample (Yes or No)		Sulfide (SM 4500-S2-F)	
Sample Identification		Sample Date (mm/dd/yy)		Sample Time (hhmm)		Sample Type (C=comp, G=grab)		Total Number of Containers	
						Preservation Code:		Task Code: BRA-CCR-OTH-2023 Special Instructions/Note: Sulfide only	
BRA- <i>BROWA-6S</i>		<i>10/30/23</i>		<i>1415</i>		G WG N N ✓		<i>2</i>	
BRA- <i>PZ-51I</i>		<i>10/31/23</i>		<i>1430</i>		G WG N N ✓		<i>2</i>	
BRA- <i>PZ-51D</i>		<i>10/31/23</i>		<i>1245</i>		G WG N N ✓		<i>2</i>	
BRA- <i>PZ-51I</i>		<i>10/30/23</i>		<i>1640</i>		G WG N N ✓		<i>2</i>	
BRA- <i>PZ-65I</i>		<i>10/31/23</i>		<i>1045</i>		G WG N N ✓		<i>2</i>	
BRA- <i>PZ-61I</i>		<i>10/31/23</i>		<i>1705</i>		G WG N N ✓		<i>2</i>	
BRA-						G WG N N			
BRA-						G WG N N			
BRA-						G WG N N			
BRA-						G WG N N			
BRA-						G WG N N			
BRA-						G WG N N			
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab		Archive For _____ Months	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>11/1/23 1300</i>		Company: <i>ACC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>11/1/23 1300</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				<i>2.5/2.8</i>	

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 680-242425-1

Login Number: 242425

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	

Accreditation/Certification Summary

Client: Geosyntec Consultants Inc
Project/Site: Plant Branch Ash Ponds

Job ID: 680-242425-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2H0
Phone: 705-652-2000 FAX: 705-652-6365

SiREM Laboratory
Attn : Jacques Smith

180B Market Place Blvd
Knoxville, Tennessee
37922, USA

Phone: 865-291-4695
Fax:

Trace Metals - Strong Acid Digest, ICP-MS

Project : PO#SIREMLABUS.02.01.8151

01-November-2023

Date Rec. : 20 September 2023
LR Report: CA19188-SEP23
Reference: Plant Branch -
PO#SIREMLABUS.02.01.8151

Copy: #1

CERTIFICATE OF ANALYSIS

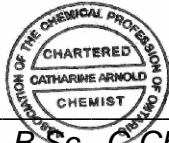
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-76I	6: PZ-77I
Sample Date & Time					30-Aug-23 12:06	30-Aug-23 12:06
Ag [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	< 0.5	< 0.5
Al [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	89000	92000
As [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	1.2	< 0.5
Ba [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	1000	1100
Be [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	3.2	2.6
Bi [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	0.21	0.18
Ca [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	12000	15000
Cd [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	0.07	0.06
Co [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	9.6	9.2
Cr [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	13	16
Cu [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	5.5	27
Fe [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	27000	20000
K [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	28000	28000
Li [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	16	15
Mg [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	7800	6700

OnLine LIMS

0003519168

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-76I	6: PZ-77I
Mn [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	570	450
Mo [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	1.0	1.0
Ni [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	18	18
Pb [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	26	29
Sb [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	< 0.8	< 0.8
Se [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	< 0.1	< 0.1
Sn [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	< 6	< 6
Sr [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	290	380
Ti [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	3000	2400
Tl [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	0.51	0.49
U [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	2.7	3.3
V [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	55	41
Y [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	12	9.8
Zn [µg/g]	31-Oct-23	00:19	31-Oct-23	16:55	60	47

Catharine Arnold

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety



SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - K0L 2H0
Phone: 705-652-2000 FAX: 705-652-6365

Trace Metals - Strong Acid Digest, ICP-MS

Project : PO#SIREMLABUS.02.01.8151

LR Report : CA19188-SEP23

Method Descriptions

Units	Description	SGS Method Code
µg/g	Al by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-013
µg/g	Sb by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	As by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Ba by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Be by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Bi by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Cd by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Calcium by ICP-MS low-mineralized strong acid	ME-CA-[ENV]SPE-LAK-AN-013
µg/g	Cr by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Co by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Cu by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Fe by ICP-MS pulp	ME-CA-[ENV]SPE-LAK-AN-013
µg/g	Pb by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Li by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Mg by ICP-MS pulp	ME-CA-[ENV]SPE-LAK-AN-013
µg/g	Mn by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Mo by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Ni by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Potassium by ICP-MS low-mineralized strong aci	ME-CA-[ENV]SPE-LAK-AN-001
µg/g	Se by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Ag by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Sr by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Tl by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Sn by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Ti by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	U by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	V by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Y by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007
µg/g	Zn by ICP-MS Pulp	ME-CA-[ENV]SPE-LAK-AN-007



ANALYSIS REPORT BBM23-32524

To F400101 SGS CANADA INC
LISA THOMPSON
185 Concession Street
Lakefield K0L 2H0
ON
CANADA

Order Number	PO#	Date Received	06-Oct-2023
Submission Number	CA19191-SEP23 / 2 Soil	Date Analysed	10-Oct-2023 - 30-Oct-2023
Number of Samples	2	Date Completed	30-Oct-2023
		SGS Order Number	BBM23-32524

Methods Summary

Number of Sample	Method Code	Description
2	G_WGH_KG	Weight of samples received
2	G_PHY01V	Loss on ignition (LOI), Furnace, variable wt, variable temp
2	GO_XRF72	Borate Fusion, XRF, Ore Grade

Comments

Preparation of samples was performed at the SGS Lakefield site.
Analysis of samples was performed at the SGS Burnaby site.

Authorised Signatory

John Chiang
Laboratory Operations Manager



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WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Order Number PO#
 Submission Number CA19191-SEP23 / 2 Soil
 Number of Samples 2

ANALYSIS REPORT BBM23-32524

Element	WTKG	LOI	@Al2O3	@CaO	@Cr2O3	@Fe2O3
Method	G_WGH_KG	G_PHY01V	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72
Lower Limit	0.01	-10	0.01	0.01	0.01	0.01
Upper Limit	--	100	100	60	5	100
Unit	kg	%	%	%	%	%
PZ-76I	0.03	3.78000	16.01	1.61	<0.01	3.84
PZ-77I	0.03	2.77917	16.29	1.75	<0.01	2.61
*Rep PZ-77I	-	2.82972	-	-	-	-
*Std OREAS 70b	-	6.74933	-	-	-	-
*Std OREAS 751	-	-	16.00	1.06	<0.01	2.42
*Rep PZ-77I	-	-	15.96	1.72	<0.01	2.55
*Blk BLANK	-	-	<0.01	<0.01	<0.01	<0.01

Element	@K2O	@MgO	Mn3O4	@Na2O	@P2O5	@SiO2
Method	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72
Lower Limit	0.01	0.01	0.01	0.01	0.01	0.01
Upper Limit	70	100	100	60	55	100
Unit	%	%	%	%	%	%
PZ-76I	3.73	1.25	0.09	1.73	0.11	66.65
PZ-77I	3.94	0.97	0.06	2.39	0.13	68.13
*Std OREAS 751	2.92	0.51	0.10	3.44	0.29	71.68
*Rep PZ-77I	3.95	0.95	0.05	2.32	0.12	68.74
*Blk BLANK	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Element	@TiO2	@V2O5	Sum
Method	GO_XRF72	GO_XRF72	GO_XRF72
Lower Limit	0.01	0.01	0.01
Upper Limit	100	10	100
Unit	%	%	%
PZ-76I	0.47	<0.01	95.63
PZ-77I	0.37	<0.01	96.80
*Std OREAS 751	0.24	<0.01	98.86
*Rep PZ-77I	0.35	<0.01	96.85
*Blk BLANK	<0.01	<0.01	0.02

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Order Number PO#
Submission Number CA19191-SEP23 / 2 Soil
Number of Samples 2

ANALYSIS REPORT BBM23-32524

SGS Canada Minerals Burnaby conforms to the requirements of ISO/IEC17025 for specific tests as listed on their scope of accreditation found at <https://www.scc.ca/en/search/laboratories/sgs>

Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

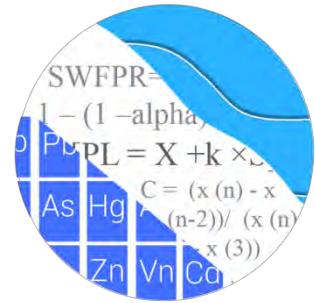
APPENDIX D

Statistical Analysis Reports

GROUNDWATER STATS CONSULTING

February 28, 2024

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374



Re: Plant Branch Pond E – August/September 2023 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting (GSC), formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August/September 2023 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical Analysis of groundwater data for Georgia Power Company's Plant Branch Pond E. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. A list of all parameters is provided below.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** BRGWA-2I, BRGWA-2S, BRGWA-5I, BRGWA-5S, and BRGWA-6S
- **Downgradient wells:** BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, and BRGWC-38S
- **Assessment wells:** PZ-13S, PZ-52D, PZ-53D, and PZ-70I

Data from assessment wells are evaluated using confidence intervals when a minimum of 4 samples are available. Currently, only assessment well PZ-13S has the required minimum number of samples.

Data were sent electronically to GSC, and the statistical analysis was reviewed by Andrew Collins, Project Manager of GSC.

The Coal Combustion Residuals (CCR) monitoring program consists of the following constituents:

- **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 summary of Appendix IV downgradient and assessment well/constituent pairs with 100% non-detects follows this letter.

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. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. 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 – Appendix III Parameters:

Based on the earlier evaluation described above, the following methods were selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Parametric prediction limits 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 distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- 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 careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect 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.

Summary of Background Screening – Conducted in March 2019

Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified either visually or by Tukey's test, flagged in the computer database with "o" and deselected prior to construction of statistical limits. A list of flagged values is provided in the outlier summary (Figure C). Although outliers were screened for all wells, only outliers in upgradient wells will affect the interwell prediction limits.

When suspected outliers were evaluated using the Tukey box plot method during the previous screening, a few outliers were identified. In cases where the most recent value was identified as an outlier, values were not flagged in the database as they may represent a future trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Test Evaluation

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the

absence of suspected contamination, significant trending data in upgradient wells are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a number of statistically significant decreasing and increasing trends for the Appendix III parameters. All trends noted were relatively low in magnitude when compared to average concentrations and were in downgradient wells; therefore, they did not affect the interwell limits, and no adjustments were made to the data sets. Trend test results were included with the background screening report.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified no variation among upgradient well data for fluoride, making this constituent eligible for interwell analyses. Variation was noted for boron, calcium, chloride, pH, sulfate and TDS. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

Evaluation of Appendix III Parameters – August/September 2023

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through August 2023 (Figure D). Background

(upgradient) well data were re-assessed for potential outliers during this analysis and the highest value for TDS at well BRGWA-6S was flagged in order to construct a statistical limit that is conservative (i.e., lower) from a regulatory perspective and representative of present-day groundwater quality conditions. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August 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 resamples confirm 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 background prediction limits follows this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- Calcium: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- Chloride: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- Fluoride: BRGWC-17S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- pH (lower limit): BRGWC-33S and BRGWC-38S
- Sulfate: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- TDS: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site which is an indication of variability in groundwater

unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Boron: BRGWC-35S and BRGWC-36S
- Calcium: BRGWA-6S (upgradient), BRGWC-17S, and BRGWC-35S
- Chloride: BRGWC-17S and BRGWC-36S
- Fluoride: BRGWC-5I (upgradient)
- Sulfate: BRGWC-17S

Decreasing:

- Calcium: BRGWC-34S and BRGWC-38S
- Chloride: BRGWA-5I (upgradient) and BRGWC-5S (upgradient)
- pH: BRGWA-2I (upgradient), BRGWA-2S (upgradient), BRGWA-5S (upgradient), and BRGWC-38S
- Sulfate: BRGWC-34S, BRGWC-36S, and BRGWC-38S
- TDS: BRGWA-5S (upgradient), BRGWC-34S, BRGWC-36S, and BRGWC-38S

A summary of the trend test results follows this letter.

Evaluation of Appendix IV Parameters – August/September 2023

For Appendix IV parameters, confidence intervals for each downgradient well/constituent were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs containing 100% non-detects do not require analysis, which includes all downgradient wells for molybdenum. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No additional values were flagged and no changes to previously flagged values were made. A summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through August 2023 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well with detections (Figure H). As mentioned above, well/constituent pairs containing 100% non-detects do not require analysis, which includes all downgradient wells for molybdenum.

The Sanitas software was used to calculate the tolerance limits and 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. Statistical exceedances were identified for the following well/constituent pairs:

- Beryllium: BRGWC-38S
- Cobalt: BRGWC-33S and BRGWC-38S

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 I). 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. Statistically significant trends were noted for the following well/constituent pairs:

Increasing:

- None

Decreasing:

- Beryllium: BRGWC-38S
- Cobalt: BRGWA-2S (upgradient), BRGWC-5I (upgradient), BRGWC-33S, and BRGWC-38S

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Branch Pond E. 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 10/16/2023 6:06 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

Antimony (mg/L)

BRGWC-33S, BRGWC-34S, BRGWC-35S, PZ-13S

Arsenic (mg/L)

BRGWC-34S

Beryllium (mg/L)

BRGWC-17S, BRGWC-37S

Cadmium (mg/L)

BRGWC-17S, BRGWC-35S, BRGWC-37S

Chromium (mg/L)

BRGWC-34S

Cobalt (mg/L)

BRGWC-17S, BRGWC-36S, BRGWC-37S

Lithium (mg/L)

BRGWC-37S

Mercury (mg/L)

PZ-13S

Molybdenum (mg/L)

BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, BRGWC-38S, PZ-13S

Selenium (mg/L)

BRGWC-34S, BRGWC-35S, BRGWC-37S

Thallium (mg/L)

BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, PZ-13S

Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	9/6/2023	0.0601	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	9/1/2023	0.946	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	9/1/2023	1.9	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	9/7/2023	2.36	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	9/7/2023	1.04	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	9/7/2023	1.37	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/7/2023	47.9	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/1/2023	135	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/1/2023	83.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/7/2023	71.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/6/2023	43.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/7/2023	28.7	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2023	5.18	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/24/2023	32.7	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2023	13.2	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2023	6.21	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2023	8.26	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/24/2023	6.44	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.289	n/a	8/24/2023	0.484	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.289	n/a	8/24/2023	0.347	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.289	n/a	8/25/2023	0.301	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.289	n/a	8/24/2023	0.748	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	8/22/2023	4.58	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	8/23/2023	3.91	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/25/2023	180	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/24/2023	466	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2023	299	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/25/2023	269	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/25/2023	223	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/25/2023	274	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	180	n/a	8/28/2023	391	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	180	n/a	8/25/2023	778	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	180	n/a	8/25/2023	495	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	180	n/a	8/29/2023	485	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	180	n/a	8/29/2023	398	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	180	n/a	8/29/2023	459	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2

Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	9/6/2023	0.0601	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	9/1/2023	0.946	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	9/1/2023	1.9	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	9/7/2023	2.36	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	9/7/2023	1.04	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.0187	n/a	8/31/2023	0.00802J	No	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	9/7/2023	1.37	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/7/2023	47.9	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/1/2023	135	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/1/2023	83.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/7/2023	71.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/6/2023	43.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	8/31/2023	3.47	No	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/7/2023	28.7	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2023	5.18	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/24/2023	32.7	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2023	13.2	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2023	6.21	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2023	8.26	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	8/23/2023	1.89	No	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/24/2023	6.44	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.289	n/a	8/24/2023	0.484	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.289	n/a	8/23/2023	0.123	No	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.289	n/a	8/24/2023	0.0816J	No	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.289	n/a	8/24/2023	0.347	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.289	n/a	8/25/2023	0.301	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.289	n/a	8/23/2023	0.0445J	No	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.289	n/a	8/24/2023	0.748	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.44	5.26	8/23/2023	6.16	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	8/22/2023	4.58	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.44	5.26	8/22/2023	5.72	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.44	5.26	8/23/2023	5.9	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.44	5.26	8/23/2023	5.26	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.44	5.26	8/22/2023	5.42	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	8/23/2023	3.91	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/25/2023	180	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/24/2023	466	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2023	299	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/25/2023	269	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/25/2023	223	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	8/23/2023	0.355J	No	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/25/2023	274	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	180	n/a	8/28/2023	391	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	180	n/a	8/25/2023	778	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	180	n/a	8/25/2023	495	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	180	n/a	8/29/2023	485	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	180	n/a	8/29/2023	398	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	180	n/a	8/25/2023	42	No	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	180	n/a	8/29/2023	459	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2

Appendix III Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Alpha	Method
Boron (mg/L)	BRGWC-35S	0.1599	130	68	Yes	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.02911	79	74	Yes	19	0	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1264	80	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	2.068	100	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-3.241	-93	-68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	1.905	76	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.949	-109	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.1548	-84	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07449	-75	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2106	82	68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.6997	105	68	Yes	18	0	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0.006424	91	81	Yes	20	65	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.07157	-82	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.03999	-100	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05423	-104	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.105	-112	-81	Yes	20	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	6.447	75	68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-26.58	-116	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13	-94	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-31.94	-116	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-8.69	-93	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-37.39	-83	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-18.58	-124	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.42	-129	-68	Yes	18	0	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.0001886	17	68	No	18	27.78	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-16	-68	No	18	83.33	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-15	-68	No	18	72.22	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-8	-68	No	18	55.56	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	-11	-68	No	18	72.22	n/a	0.01	NP
Boron (mg/L)	BRGWC-17S	0	-10	-74	No	19	36.84	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	-0.01403	-29	-68	No	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0	2	68	No	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1599	130	68	Yes	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.02911	79	74	Yes	19	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.03883	-55	-68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.3318	33	68	No	18	5.556	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.149	63	68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.103	21	68	No	18	5.556	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.5359	-55	-68	No	18	5.556	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1264	80	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	2.068	100	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-0.5742	-7	-68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-3.241	-93	-68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	1.905	76	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.754	-56	-68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.949	-109	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.03364	-41	-68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	0	2	68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.1548	-84	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07449	-75	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.001816	-21	-68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2106	82	68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-33S	0.9635	39	68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2147	-51	-68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.05887	45	68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.6997	105	68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1287	31	68	No	18	0	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	3	81	No	20	50	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0.005022	75	81	No	20	60	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0.006424	91	81	Yes	20	65	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	15	81	No	20	35	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0.003384	66	81	No	20	55	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-17S	0.006949	26	81	No	20	5	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-35S	-0.005237	-23	-81	No	20	15	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-36S	0.006762	48	81	No	20	45	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0	1	81	No	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.07157	-82	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.03999	-100	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.01794	-48	-81	No	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05423	-104	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	-0.006594	-9	-74	No	19	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-33S	-0.01321	-69	-87	No	21	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.105	-112	-81	Yes	20	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.1349	-35	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	-4	-68	No	18	33.33	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.2786	-63	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.0299	-41	-68	No	18	33.33	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.00337	-11	-68	No	18	22.22	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	6.447	75	68	Yes	18	0	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:19 AM

<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>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	BRGWC-33S	-11.07	-20	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-26.58	-116	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-0.1537	-3	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13	-94	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-31.94	-116	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-8.462	-53	-68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	-0.5826	-5	-68	No	18	5.556	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-4.727	-44	-68	No	18	5.556	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-8.69	-93	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-1.676	-17	-63	No	17	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-17S	5.817	44	68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-33S	-14.96	-14	-68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-37.39	-83	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	1.416	10	68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-18.58	-124	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.42	-129	-68	Yes	18	0	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/16/2023, 6:01 PM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	95	92.63	n/a	0.007651	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	n/a	n/a	95	77.89	n/a	0.007651	NP Inter(NDs)
Barium (mg/L)	0.063	n/a	n/a	n/a	n/a	95	0	n/a	0.007651	NP Inter(normality)
Beryllium (mg/L)	0.0005	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)
Chromium (mg/L)	0.016	n/a	n/a	n/a	n/a	95	15.79	n/a	0.007651	NP Inter(normality)
Cobalt (mg/L)	0.0034	n/a	n/a	n/a	n/a	93	44.09	n/a	0.008478	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	1.792	n/a	n/a	n/a	n/a	95	0	sqrt(x)	0.05	Inter
Fluoride (mg/L)	0.289	n/a	n/a	n/a	n/a	100	53	n/a	0.005921	NP Inter(NDs)
Lead (mg/L)	0.002	n/a	n/a	n/a	n/a	95	82.11	n/a	0.007651	NP Inter(NDs)
Lithium (mg/L)	0.089	n/a	n/a	n/a	n/a	95	46.32	n/a	0.007651	NP Inter(normality)
Mercury (mg/L)	0.00021	n/a	n/a	n/a	n/a	85	88.24	n/a	0.01278	NP Inter(NDs)
Molybdenum (mg/L)	0.008	n/a	n/a	n/a	n/a	95	67.37	n/a	0.007651	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)
Thallium (mg/L)	0.002	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)

PLANT BRANCH POND E 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		0.005	0.01
Barium, Total (mg/L)	2		0.063	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.016	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0034	0.006
Combined Radium, Total (pCi/L)	5		1.79	5
Fluoride, Total (mg/L)	4		0.29	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.089	0.089
Mercury, Total (mg/L)	0.002		0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.008	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

**Highlighted cells indicate Background is higher than MCLs*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

Confidence Intervals Summary Table - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.00921	0.007874	0.004	Yes	20	0.001177	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05417	0.03986	0.006	Yes	20	0.01261	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2471	0.194	0.006	Yes	19	0.04535	0	None	No	0.01	Param.

Confidence Intervals Summary Table - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	19	0.0004818	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	19	0.0009666	78.95	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	19	0.000789	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	19	0.0006945	89.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	19	0.001642	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	20	0.001515	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	19	0.001694	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	19	0.001607	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.003	0.01	No	19	0.001691	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003082	0.001775	0.01	No	19	0.00148	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	PZ-13S	0.005	0.00388	0.01	No	5	0.0005009	80	Kaplan-Meier	No	0.031	NP (NDs)
Barium (mg/L)	BRGWC-17S	0.04392	0.03945	2	No	19	0.003817	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.0243	0.02	2	No	20	0.006312	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.0347	0.0232	2	No	19	0.006782	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-35S	0.0518	0.0339	2	No	19	0.01889	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.04103	0.03052	2	No	19	0.01054	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-37S	0.0253	0.02342	2	No	19	0.001607	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.0141	2	No	19	0.009453	0	None	No	0.01	NP (normality)
Barium (mg/L)	PZ-13S	0.1394	0.03177	2	No	5	0.03557	0	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	BRGWC-33S	0.001999	0.001607	0.004	No	20	0.0003452	5	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0005	0.00012	0.004	No	19	0.0001657	26.32	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.00021	0.0001	0.004	No	19	0.000139	15.79	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.0005	0.000087	0.004	No	20	0.0001993	35	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.00921	0.007874	0.004	Yes	20	0.001177	0	None	No	0.01	Param.
Beryllium (mg/L)	PZ-13S	0.0005359	0.0002289	0.004	No	5	0.00009162	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.000461	0.0003314	0.005	No	20	0.0001141	5	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0009	0.00017	0.005	No	19	0.0003391	21.05	None	No	0.01	NP (normality)
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	20	0.0002801	90	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0005911	0.0004804	0.005	No	19	0.00009452	5.263	None	No	0.01	Param.
Cadmium (mg/L)	PZ-13S	0.001	0.00011	0.005	No	5	0.000398	80	None	No	0.031	NP (NDs)
Chromium (mg/L)	BRGWC-17S	0.01253	0.01002	0.1	No	19	0.002256	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	20	0.002127	95	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006534	0.004579	0.1	No	19	0.001669	5.263	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008156	0.00709	0.1	No	19	0.0009102	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	19	0.00406	31.58	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.00408	0.003489	0.1	No	19	0.0007046	0	None	x^3	0.01	Param.
Chromium (mg/L)	PZ-13S	0.02633	0.007353	0.1	No	5	0.005662	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05417	0.03986	0.006	Yes	20	0.01261	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.00447	0.003398	0.006	No	19	0.001057	5.263	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	19	0.0003815	73.68	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2471	0.194	0.006	Yes	19	0.04535	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-13S	0.001	0.00037	0.006	No	5	0.0002817	80	None	No	0.031	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.8945	0.3662	5	No	19	0.4511	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.379	0.6385	5	No	19	0.7172	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.232	0.7771	5	No	19	0.4221	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.448	0.5121	5	No	19	1.018	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.572	0.7046	5	No	19	1.154	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9584	0.4076	5	No	19	0.5369	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.781	2.111	5	No	19	1.568	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-13S	4.383	0.1171	5	No	5	1.718	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.177	0.09001	4	No	20	0.0998	5	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2171	0.1117	4	No	21	0.1065	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1485	0.08037	4	No	20	0.07849	5	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1511	0.07005	4	No	20	0.09165	15	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.1575	0.0486	4	No	20	0.1104	45	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	20	0.0283	40	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9199	0.7223	4	No	20	0.1939	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	PZ-13S	0.128	0.06	4	No	5	0.02427	60	None	No	0.031	NP (NDs)
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	19	0.0006064	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.000087	0.015	No	20	0.0009526	40	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	19	0.0006892	84.21	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	19	0.0007835	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	19	0.000448	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	19	0.0005991	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.002	0.00035	0.015	No	19	0.000729	26.32	None	No	0.01	NP (normality)
Lead (mg/L)	PZ-13S	0.002	0.00035	0.015	No	5	0.0007379	80	None	No	0.031	NP (NDs)
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	19	0.004471	63.16	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.01036	0.00927	0.089	No	20	0.0009573	0	None	No	0.01	Param.

Confidence Intervals Summary Table - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	19	0.004362	68.42	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.0021	0.089	No	19	0.002946	15.79	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.01	0.0024	0.089	No	19	0.003163	21.05	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02256	0.0204	0.089	No	19	0.001851	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-13S	0.01	0.001	0.089	No	5	0.004744	60	None	No	0.031	NP (NDs)
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	17	0.00004717	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	18	0.00004929	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00015	0.002	No	17	0.00005064	76.47	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	17	0.00003949	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	17	0.0000407	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	17	0.00004058	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.0001524	0.00009621	0.002	No	17	0.00004963	23.53	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002466	0.001797	0.05	No	19	0.00129	21.05	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.004385	0.002576	0.05	No	20	0.001287	45	Kaplan-Meier	x^2	0.01	Param.
Selenium (mg/L)	BRGWC-36S	0.00474	0.002801	0.05	No	19	0.001814	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.0398	0.03077	0.05	No	19	0.007711	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-13S	0.003346	0.001094	0.05	No	5	0.001316	20	Kaplan-Meier	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	19	0.0004437	94.74	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	20	0.000802	25	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.0002	0.002	No	19	0.0008718	36.84	None	No	0.01	NP (normality)

Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:38 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>
Beryllium (mg/L)	BRGWC-38S	-0.0004092	-106	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003364	-119	-58	Yes	19	10.53	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001008	-66	-49	Yes	17	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-33S	-0.005452	-72	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-38S	-0.02054	-133	-58	Yes	19	0	n/a	n/a	0.05	NP

Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:38 PM

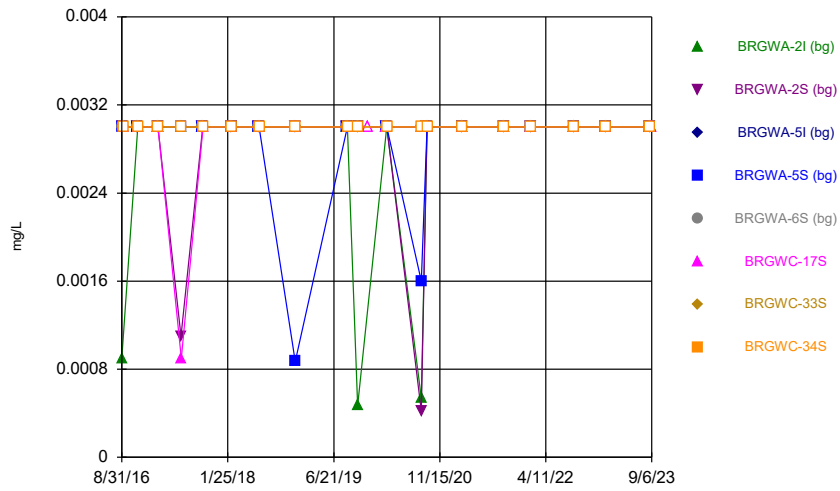
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWC-38S	-0.0004092	-106	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-41	-58	No	19	63.16	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003364	-119	-58	Yes	19	10.53	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001008	-66	-49	Yes	17	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	13	58	No	19	68.42	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	15	58	No	19	73.68	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-33S	-0.005452	-72	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-38S	-0.02054	-133	-58	Yes	19	0	n/a	n/a	0.05	NP

Table of Contents

Figure A. Time Series	24
Figure B. Box Plots	78
Figure C. Outlier Summary	90
Figure D. Appendix III Interwell Prediction Limits	92
Figure E. Appendix III Trend Tests	125
Figure F. Upper Tolerance Limits	147
Figure G. Groundwater Protection Standards	149
Figure H. Appendix IV Confidence Intervals	151
Figure I. Appendix IV Trend Tests	178

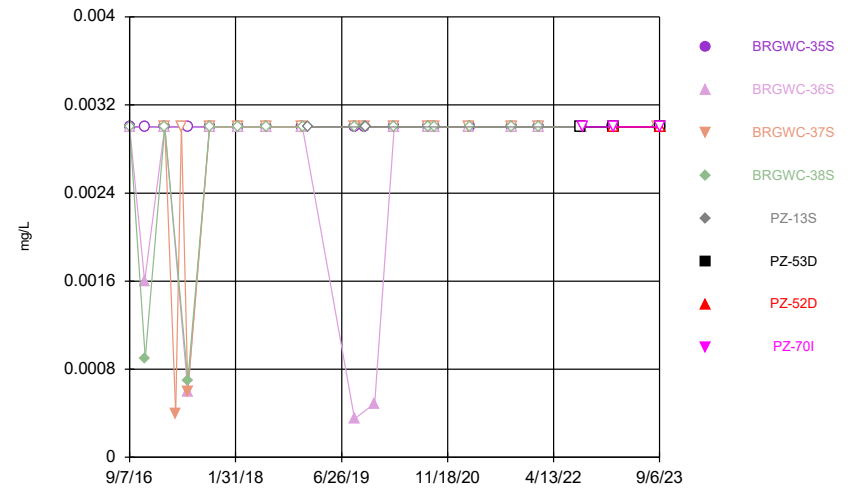
FIGURE A.

Time Series



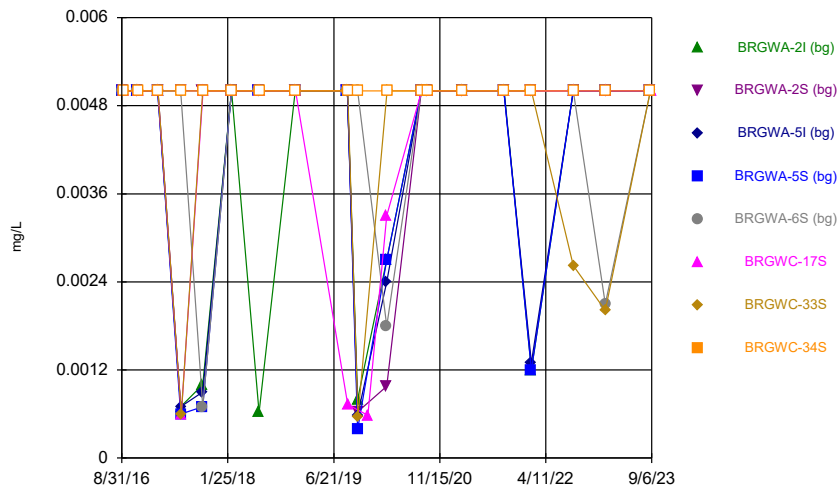
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



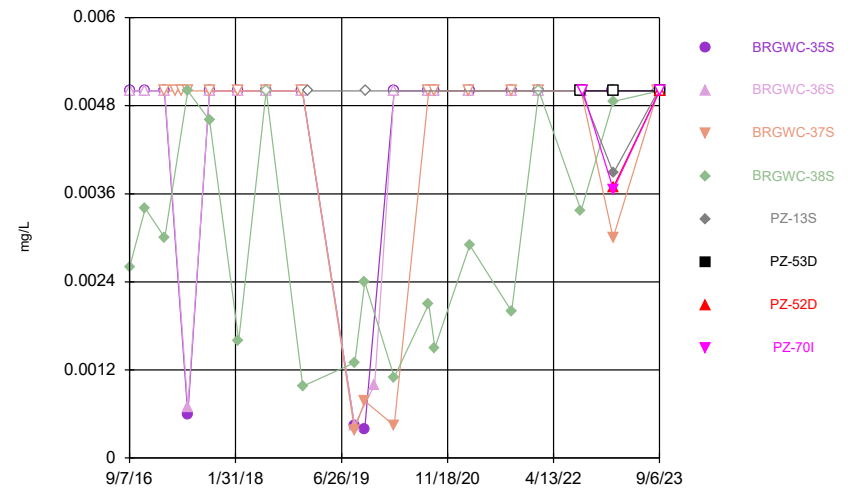
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



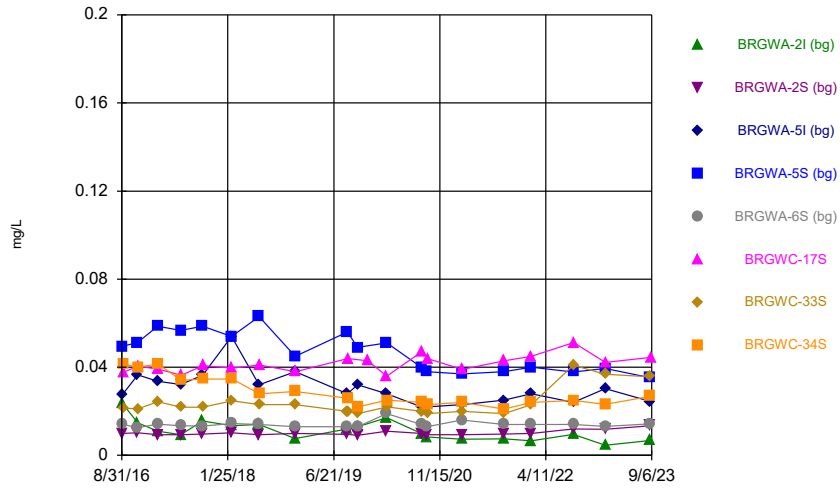
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



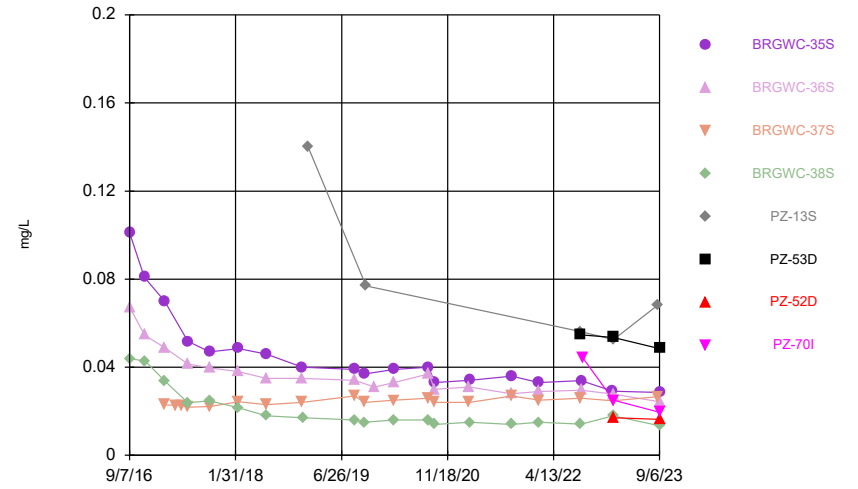
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Time Series



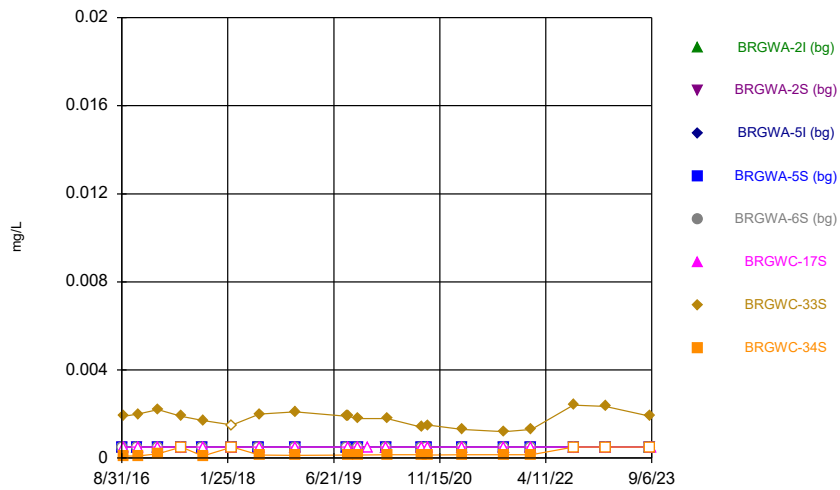
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Time Series



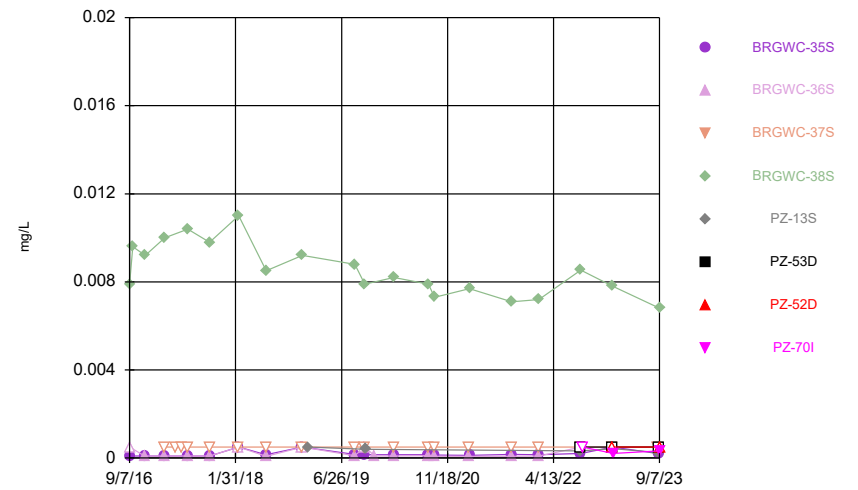
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Time Series



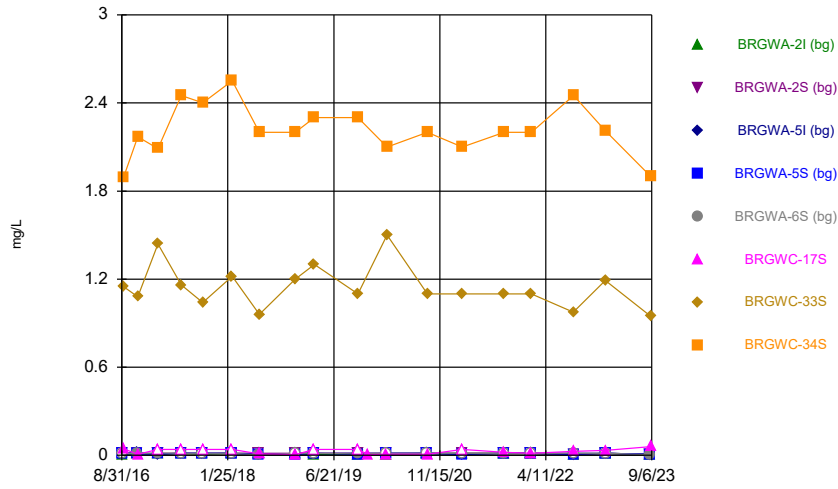
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Time Series



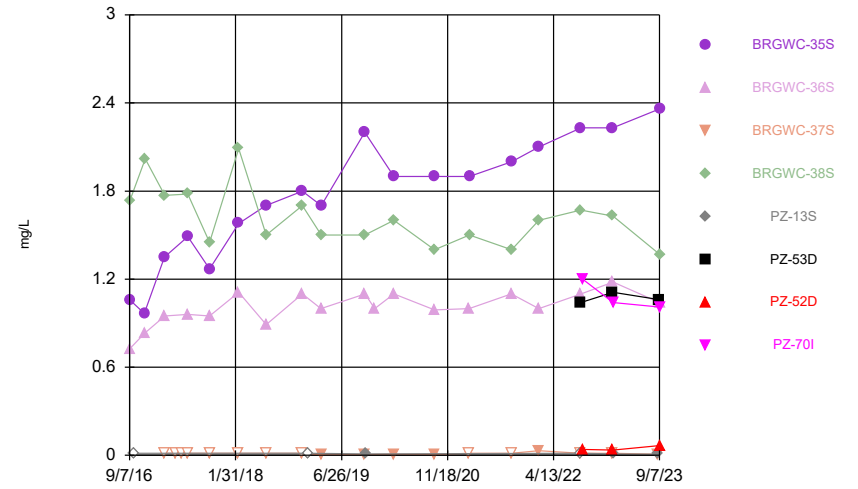
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Time Series



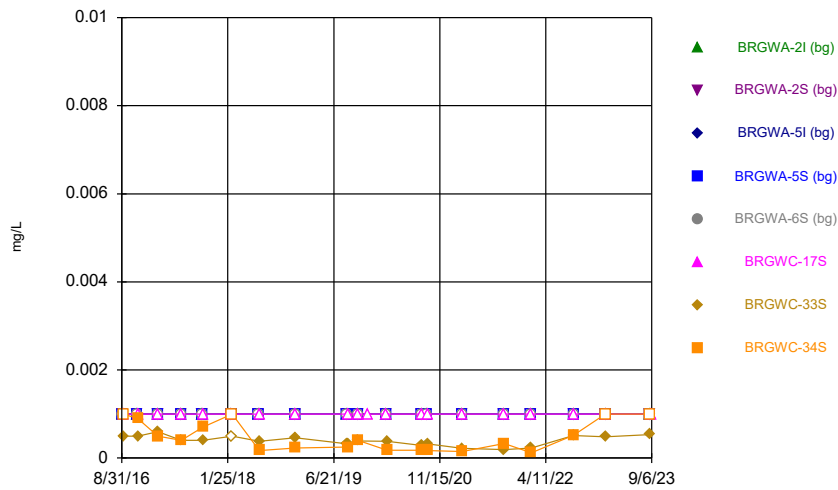
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



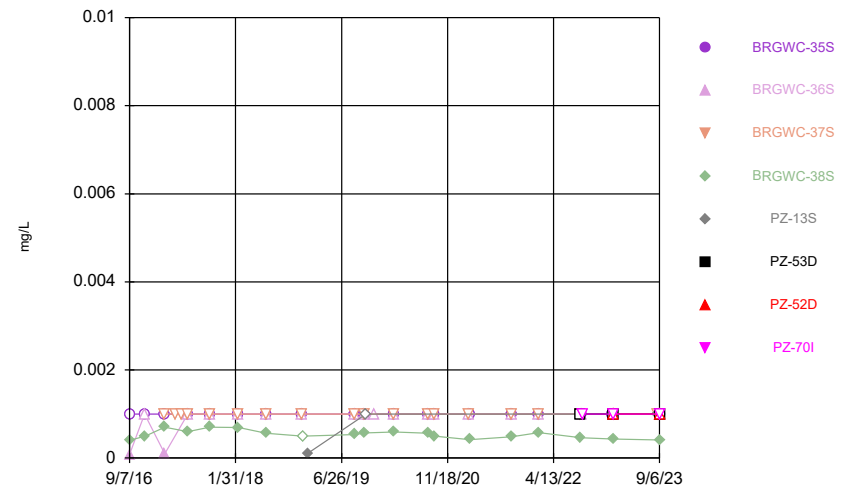
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



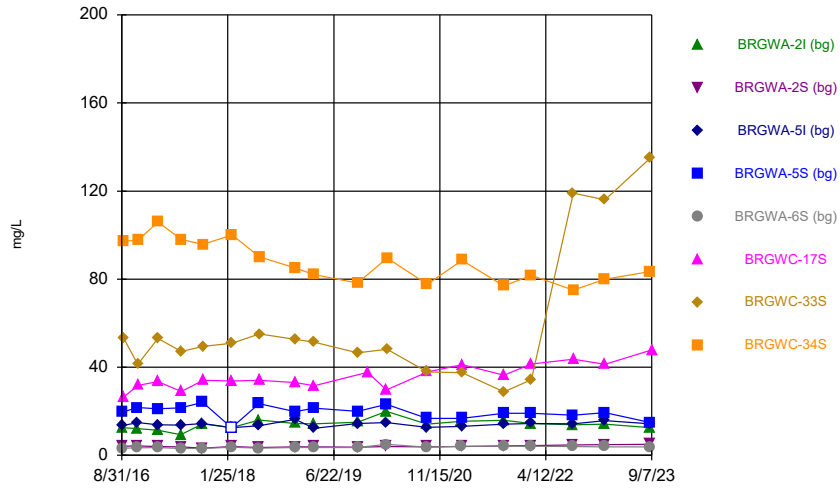
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



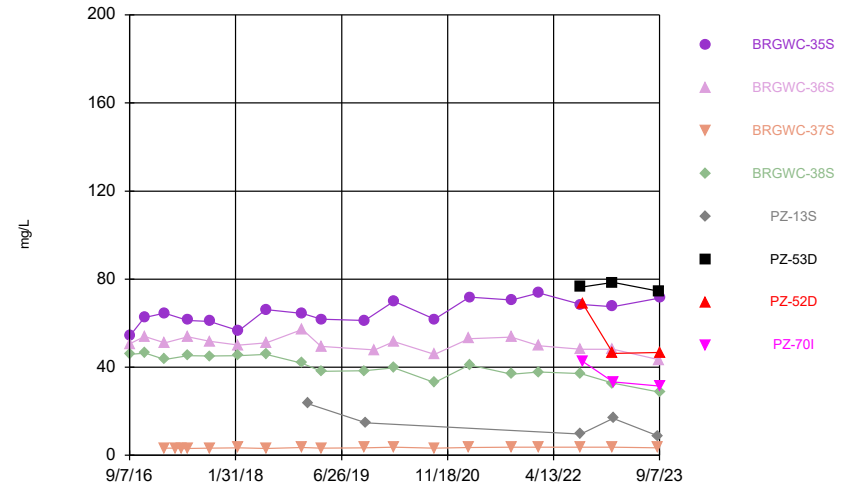
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Time Series



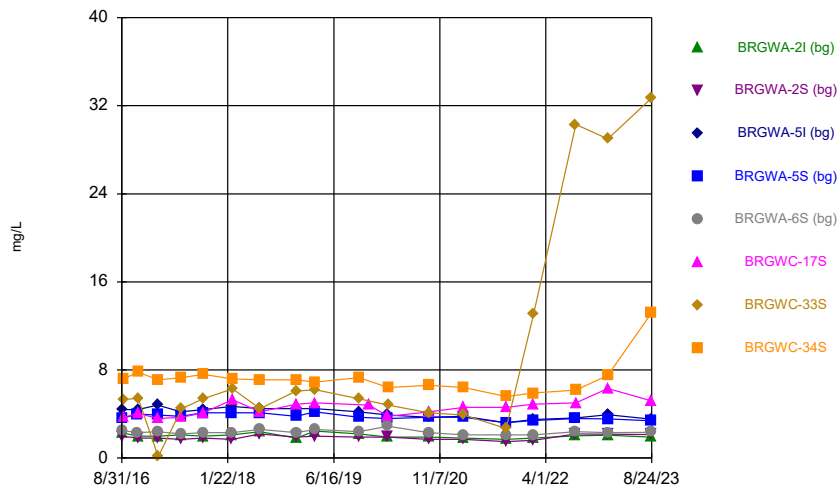
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Time Series



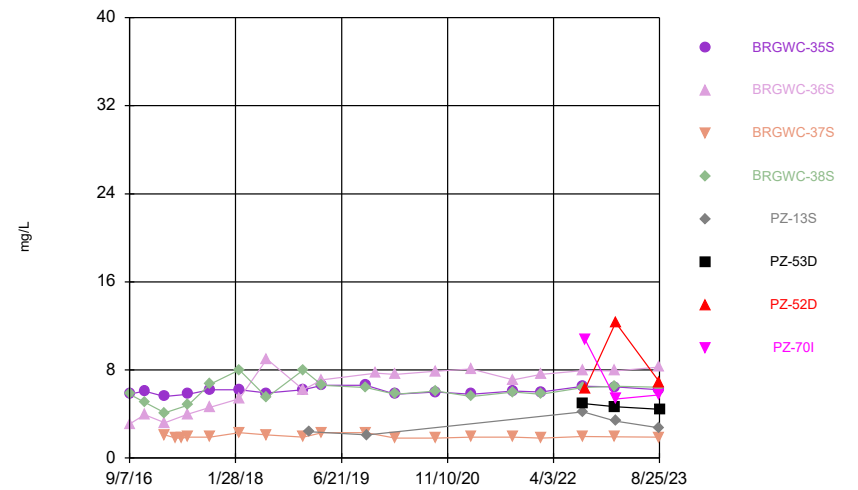
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



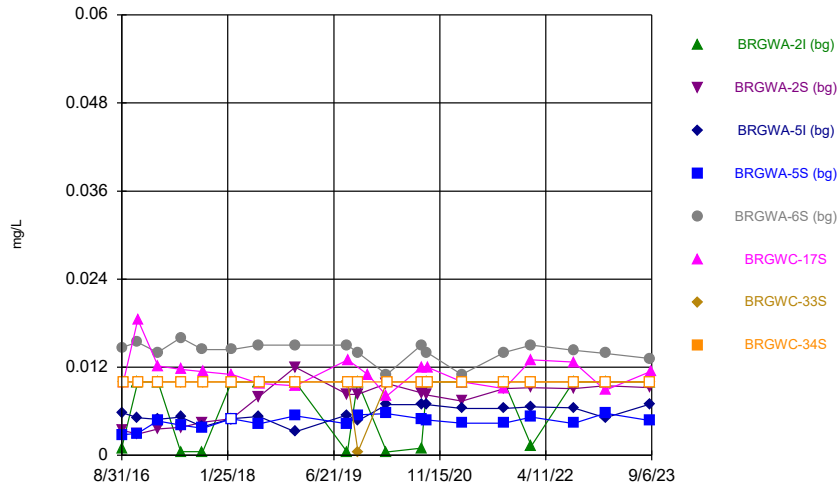
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Time Series



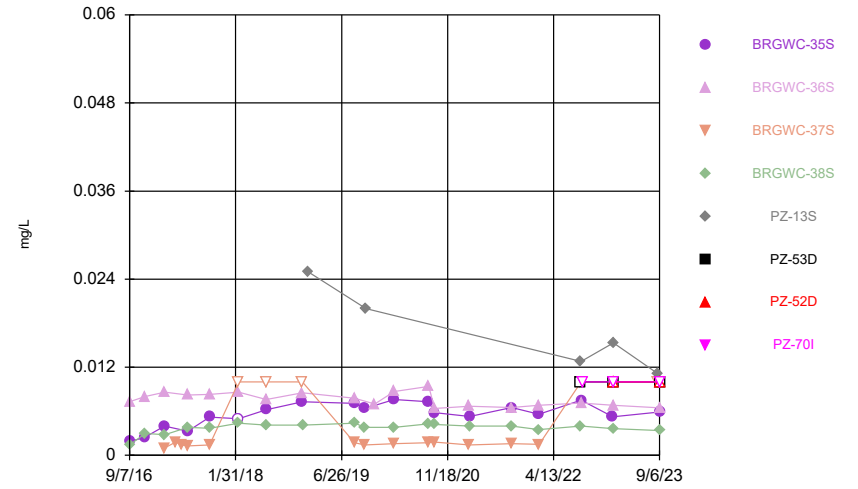
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



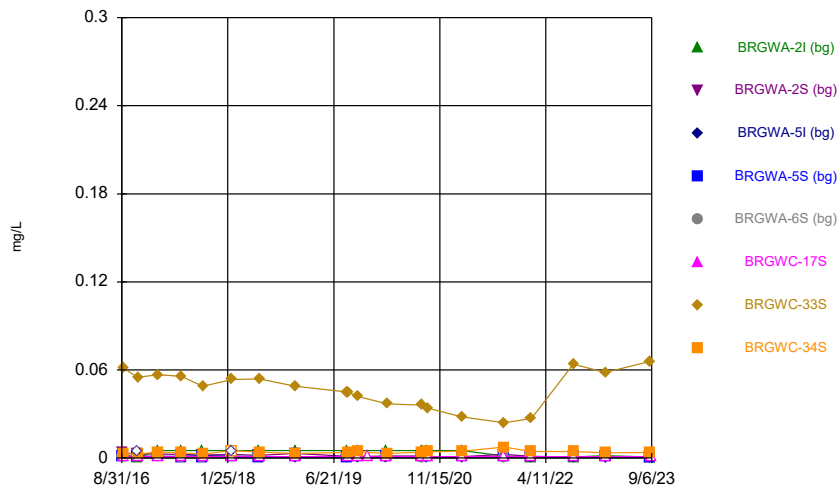
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Time Series



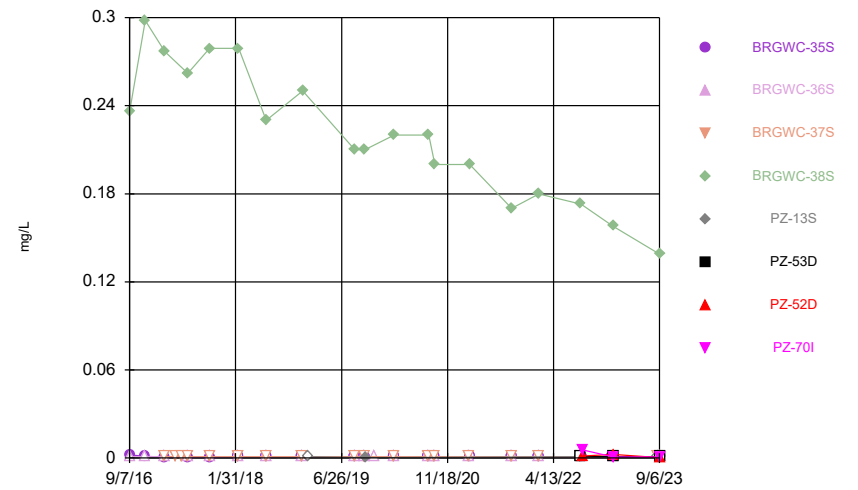
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



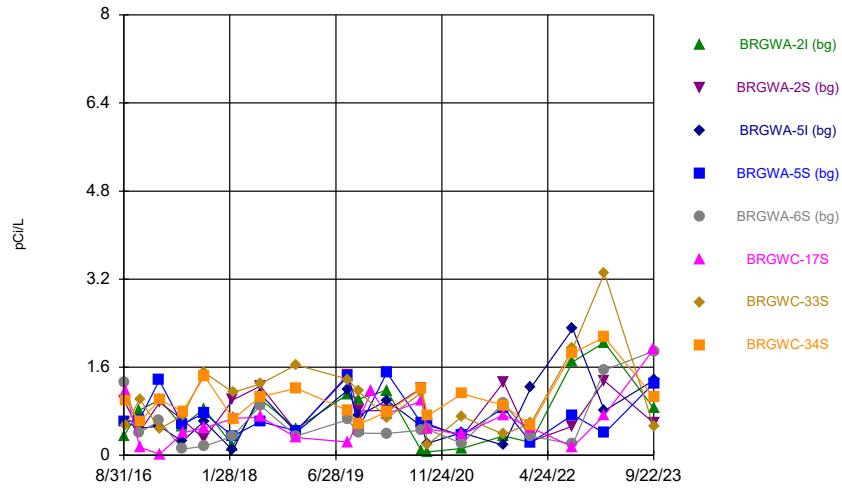
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



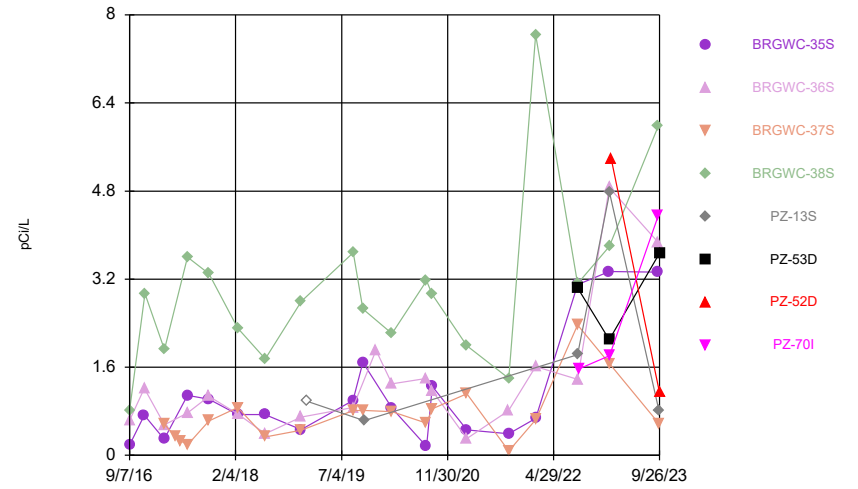
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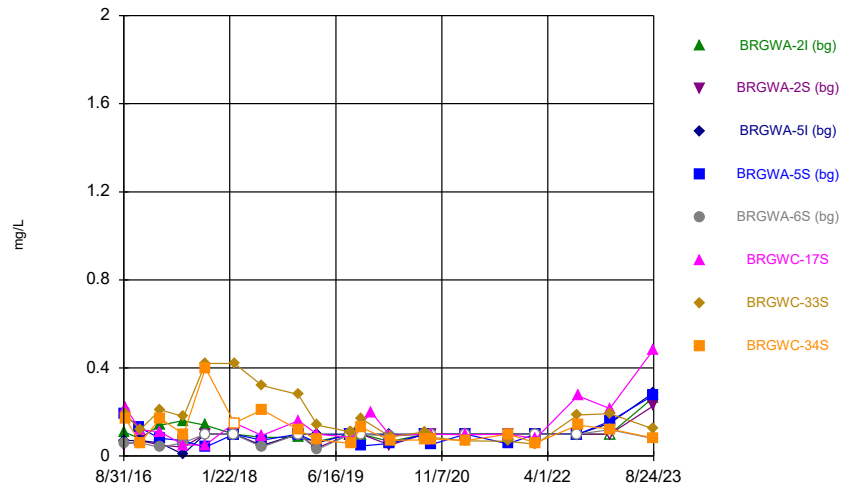
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



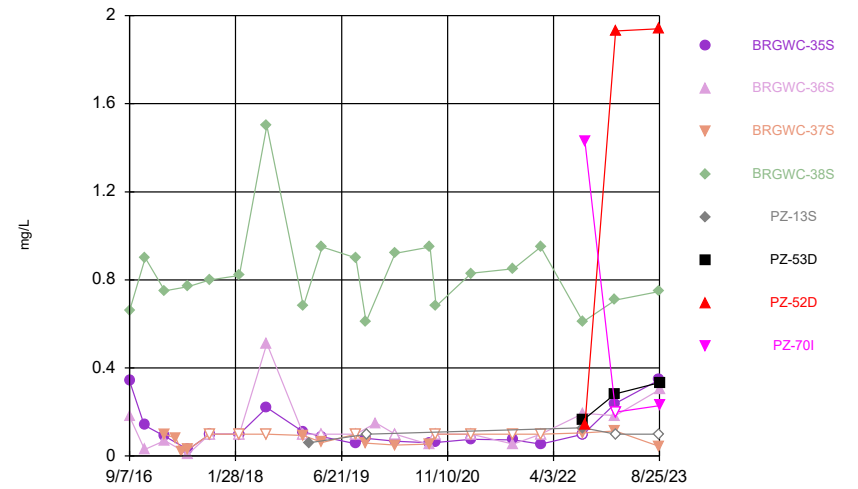
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Time Series



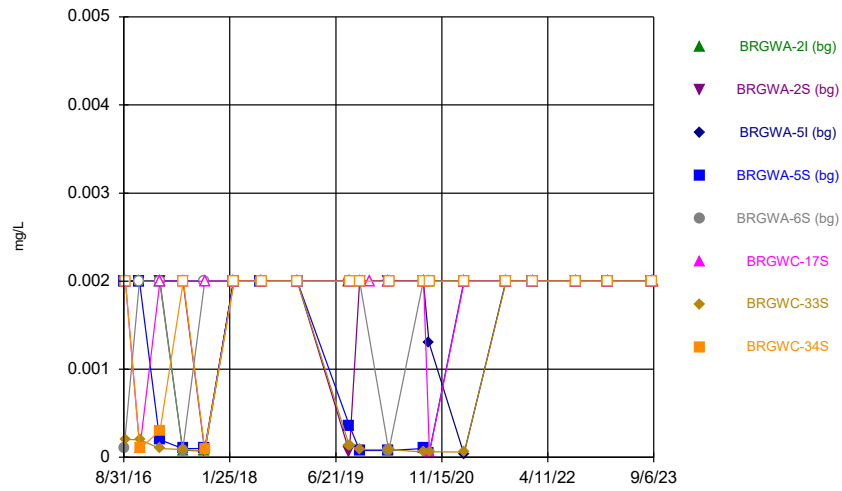
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Time Series



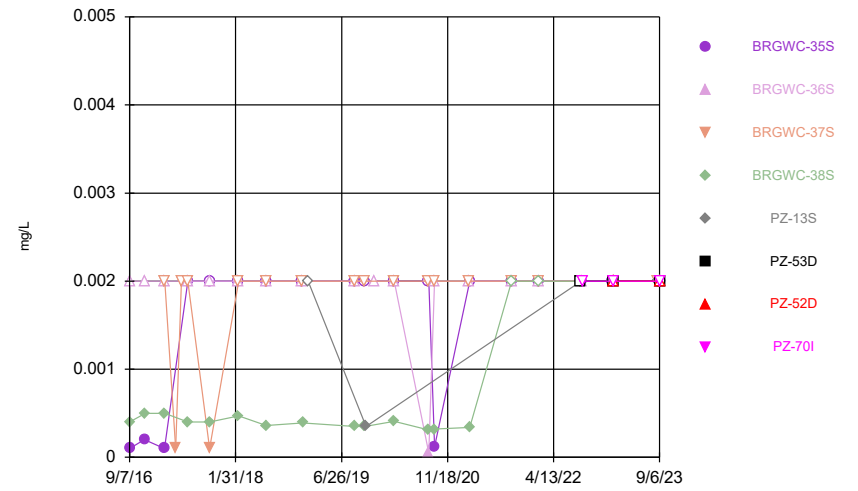
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Time Series



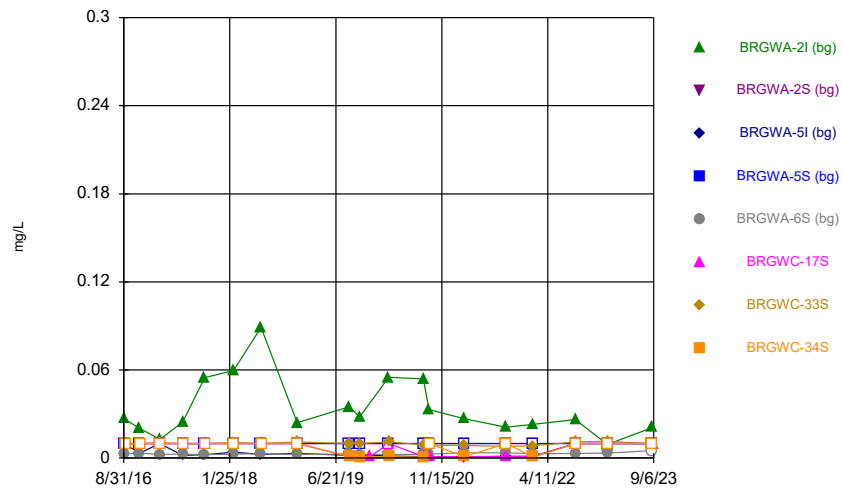
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Time Series



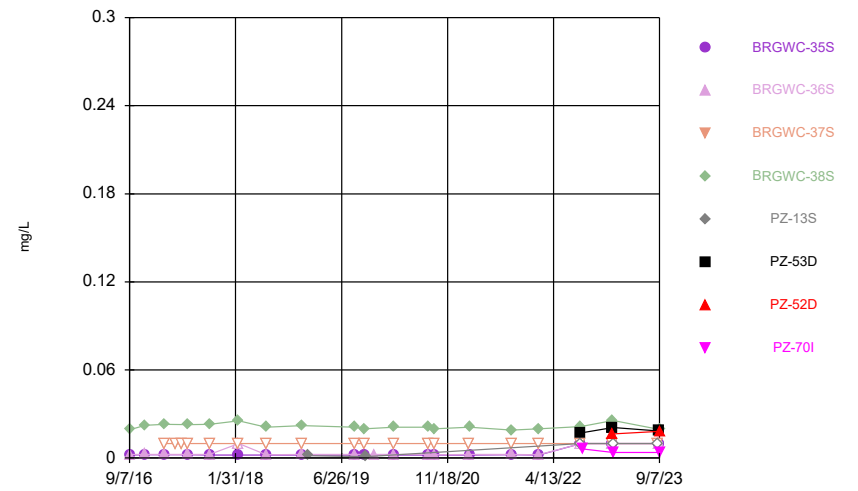
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Time Series



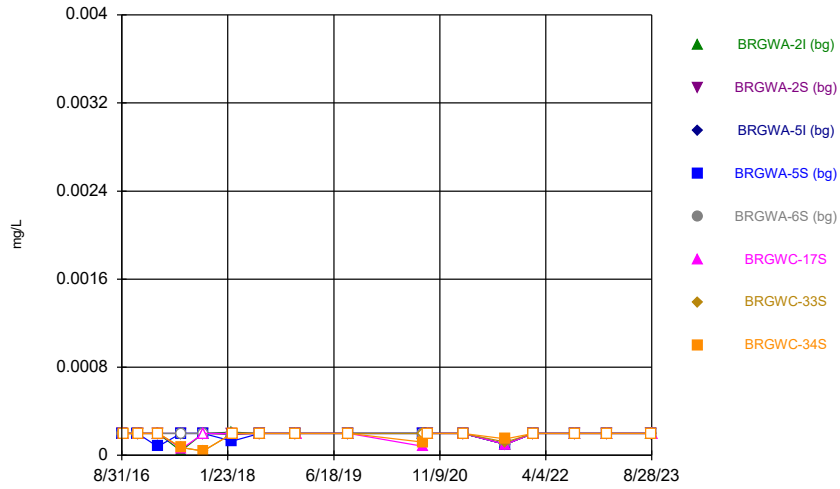
Constituent: Lithium Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



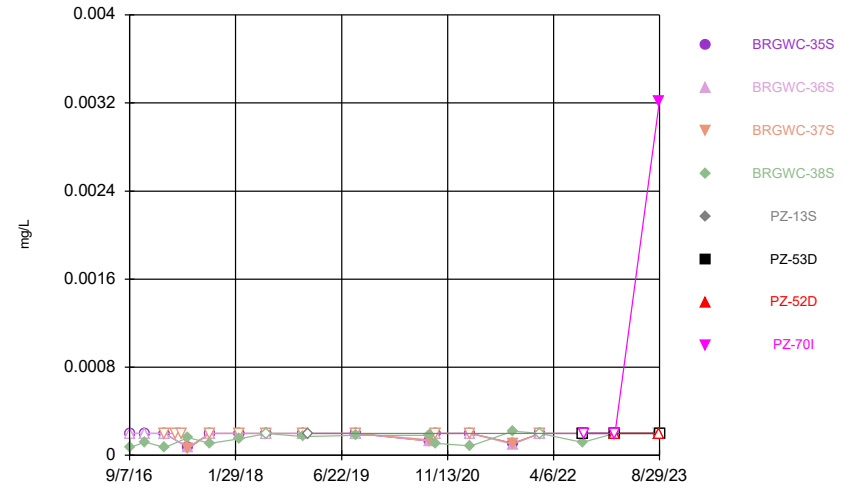
Constituent: Lithium Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



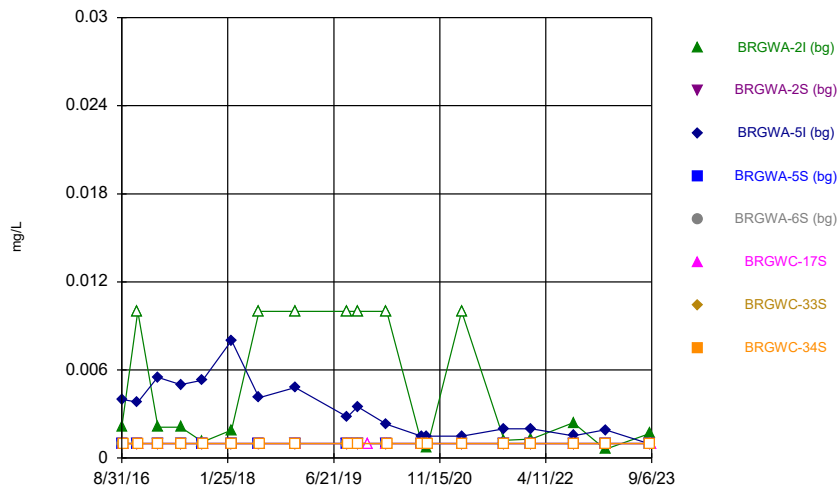
Constituent: Mercury Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



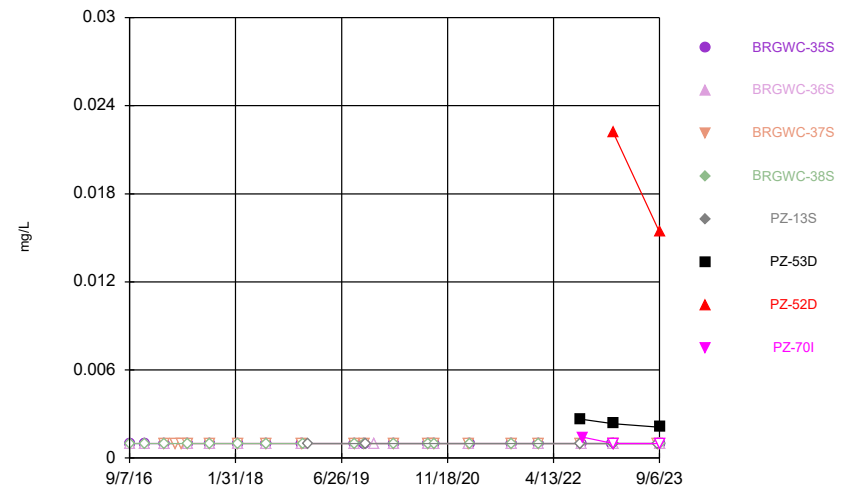
Constituent: Mercury Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



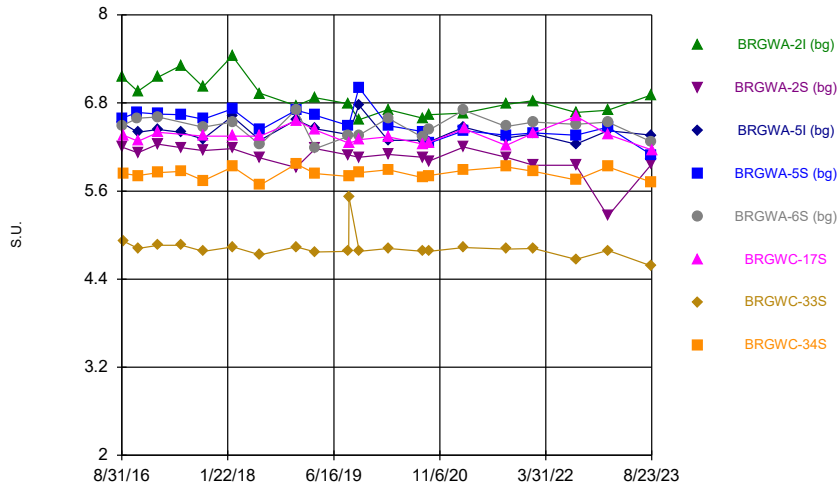
Constituent: Molybdenum Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



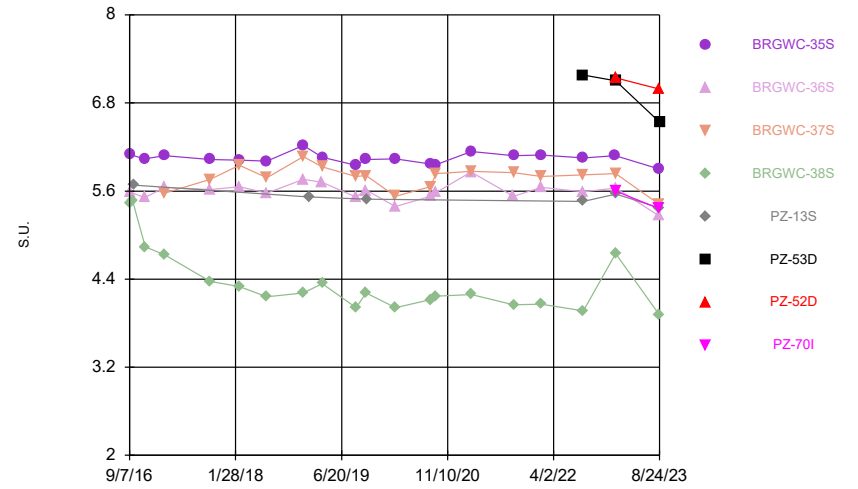
Constituent: Molybdenum Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



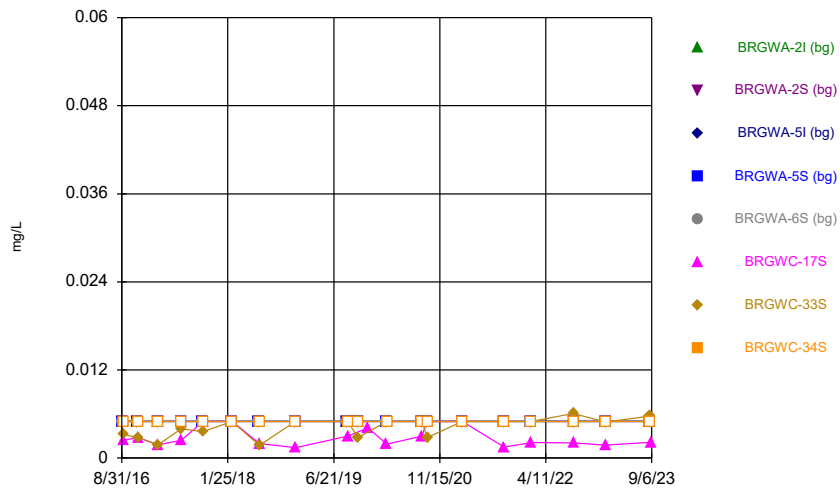
Constituent: pH, Field Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



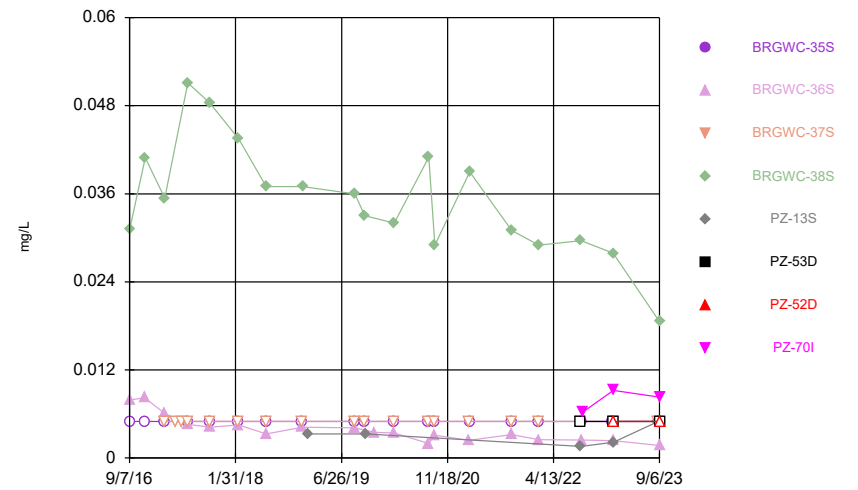
Constituent: pH, Field Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



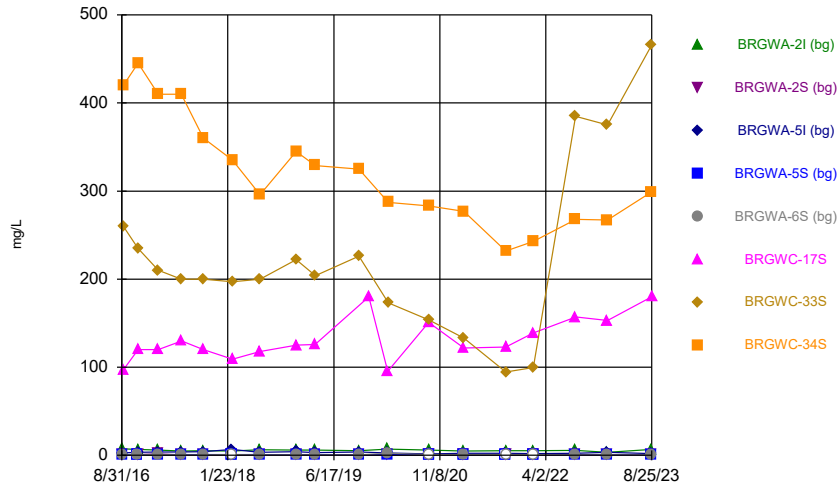
Constituent: Selenium Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



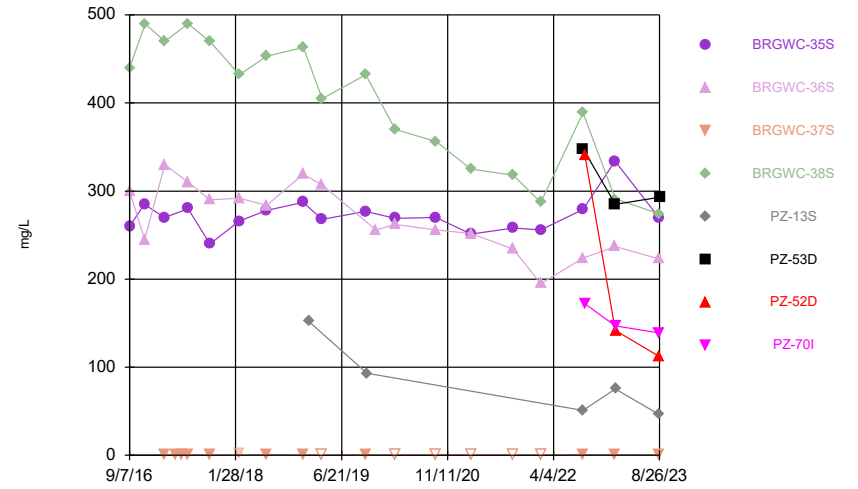
Constituent: Selenium Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



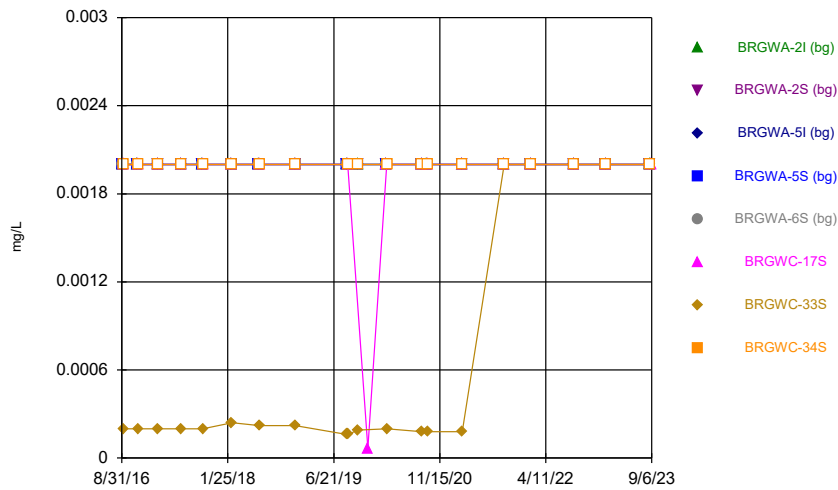
Constituent: Sulfate Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



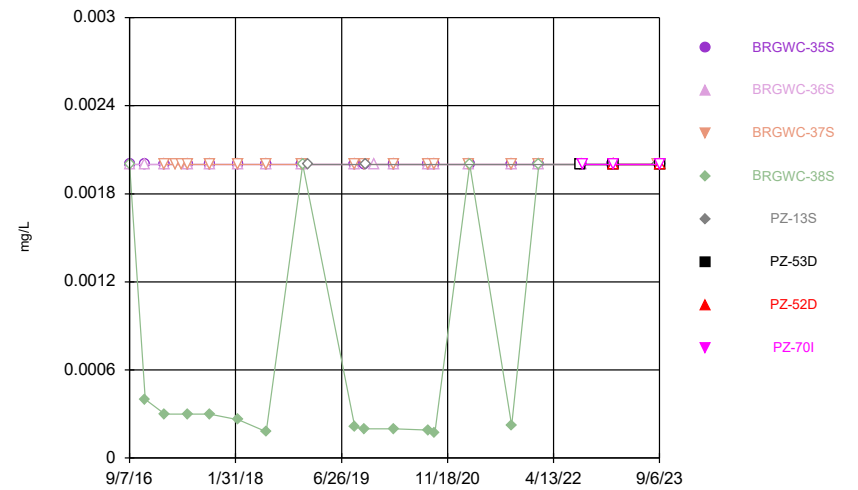
Constituent: Sulfate Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



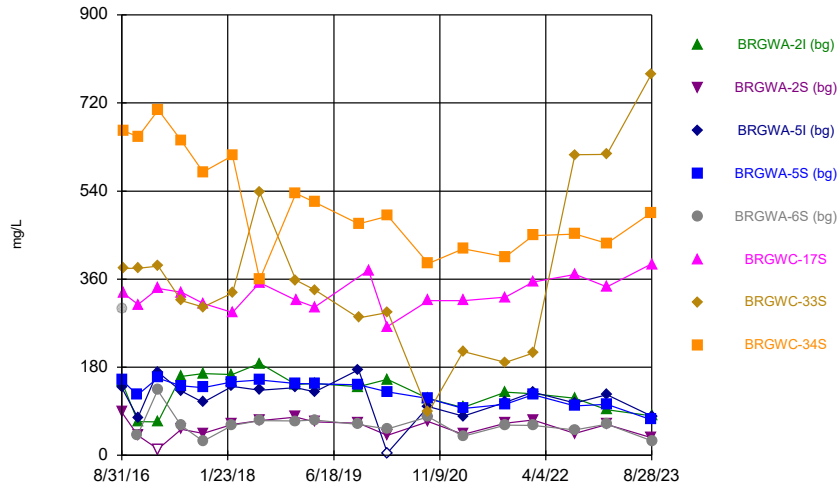
Constituent: Thallium Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



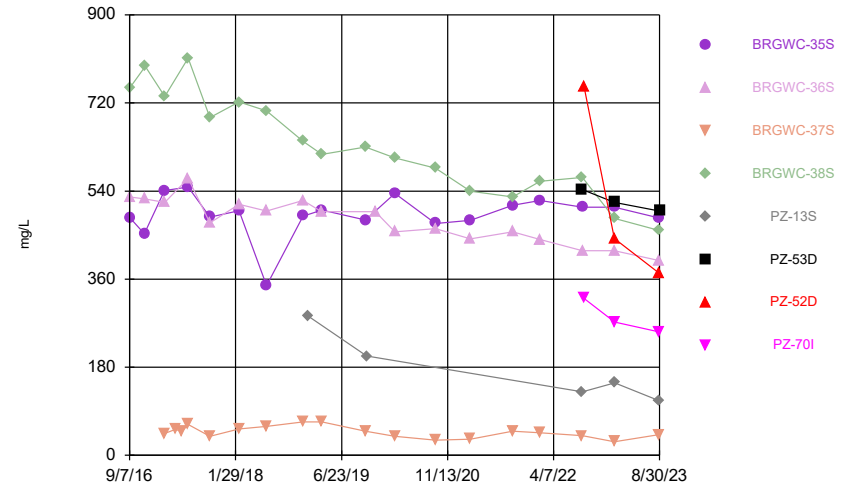
Constituent: Thallium Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.0009 (J)	<0.003	<0.003	<0.003				
9/1/2016					<0.003			
9/7/2016						<0.003	<0.003	
9/8/2016								<0.003
11/15/2016				<0.003	<0.003			
11/16/2016	<0.003	<0.003	<0.003					
11/17/2016						<0.003	<0.003	<0.003
2/20/2017			<0.003	<0.003	<0.003			
2/21/2017	<0.003	<0.003						
2/22/2017						<0.003	<0.003	<0.003
6/12/2017	<0.003		<0.003	<0.003	<0.003			
6/13/2017		0.0011 (J)						
6/14/2017							<0.003	<0.003
6/15/2017						0.0009 (J)		
9/26/2017	<0.003	<0.003	<0.003	<0.003	<0.003			
9/27/2017							<0.003	<0.003
9/28/2017						<0.003		
2/13/2018	<0.003	<0.003	<0.003	<0.003	<0.003			
2/15/2018						<0.003	<0.003	<0.003
6/26/2018	<0.003	<0.003	<0.003	<0.003	<0.003			
6/27/2018						<0.003	<0.003	<0.003
12/18/2018	<0.003	<0.003	<0.003	0.00087 (J)	<0.003		<0.003	<0.003
12/19/2018						<0.003		
8/27/2019	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	
8/28/2019						<0.003	<0.003	<0.003
10/15/2019	0.00047 (J)	<0.003	<0.003	<0.003	<0.003			
10/16/2019							<0.003	<0.003
12/3/2019						<0.003		
3/3/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
3/5/2020							<0.003	<0.003
8/18/2020	0.00054 (J)	0.00042 (J)	<0.003	0.0016 (J)	<0.003			
8/19/2020						<0.003	<0.003	<0.003
9/15/2020	<0.003	<0.003	<0.003	<0.003	<0.003			
9/16/2020						<0.003	<0.003	<0.003
3/1/2021	<0.003				<0.003			
3/2/2021		<0.003	<0.003	<0.003				
3/3/2021							<0.003	<0.003
3/4/2021						<0.003		
9/21/2021			<0.003	<0.003				
9/22/2021	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003
2/1/2022	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/23/2022	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	
8/24/2022						<0.003		<0.003
1/24/2023	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/31/2023	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
9/6/2023						<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.003	<0.003		<0.003				
11/17/2016	<0.003							
11/18/2016		0.0016 (J)						
11/21/2016				0.0009 (J)				
2/22/2017	<0.003							
2/23/2017		<0.003	<0.003	<0.003				
4/17/2017			0.0004 (J)					
5/15/2017			<0.003					
6/15/2017	<0.003	0.0006 (J)	0.0006 (J)	0.0007 (J)				
9/28/2017	<0.003	<0.003	<0.003	<0.003				
2/15/2018	<0.003	<0.003	<0.003	<0.003				
6/27/2018	<0.003							
6/28/2018		<0.003	<0.003	<0.003				
12/19/2018	<0.003	<0.003	<0.003					
12/20/2018				<0.003				
1/15/2019					<0.003			
8/28/2019	<0.003	0.00035 (J)	<0.003					
8/29/2019				<0.003				
10/16/2019	<0.003		<0.003	<0.003				
10/22/2019					<0.003			
12/3/2019		0.00049 (J)						
3/5/2020	<0.003	<0.003	<0.003	<0.003				
8/19/2020	<0.003	<0.003	<0.003	<0.003				
9/16/2020	<0.003	<0.003	<0.003					
9/17/2020				<0.003				
3/3/2021		<0.003	<0.003					
3/4/2021	<0.003			<0.003				
9/22/2021		<0.003						
9/23/2021	<0.003		<0.003	<0.003				
2/1/2022	<0.003	<0.003		<0.003				
2/2/2022			<0.003					
8/23/2022			<0.003	<0.003	<0.003	<0.003		
8/24/2022	<0.003	<0.003						
9/1/2022								<0.003
1/24/2023	<0.003							
1/25/2023		<0.003	<0.003	<0.003		<0.003	<0.003	
1/26/2023					<0.003			<0.003
8/31/2023			<0.003		<0.003			
9/6/2023	<0.003	<0.003		<0.003		<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.005	<0.005	<0.005	<0.005				
9/1/2016					<0.005			
9/7/2016						<0.005	<0.005	
9/8/2016								<0.005
11/15/2016				<0.005	<0.005			
11/16/2016	<0.005	<0.005	<0.005					
11/17/2016						<0.005	<0.005	<0.005
2/20/2017			<0.005	<0.005	<0.005			
2/21/2017	<0.005	<0.005						
2/22/2017						<0.005	<0.005	<0.005
6/12/2017	0.0007 (J)		0.0007 (J)	0.0006 (J)	<0.005			
6/13/2017		<0.005						
6/14/2017							0.0006 (J)	<0.005
6/15/2017						0.0006 (J)		
9/26/2017	0.001 (J)	<0.005	0.0009 (J)	0.0007 (J)	0.0007 (J)			
9/27/2017							<0.005	<0.005
9/28/2017						<0.005		
2/13/2018	<0.005	<0.005	<0.005	<0.005	<0.005			
2/15/2018						<0.005	<0.005	<0.005
6/26/2018	0.00062 (J)	<0.005	<0.005	<0.005	<0.005			
6/27/2018						<0.005	<0.005	<0.005
12/18/2018	<0.005	<0.005 (X)	<0.005 (X)	<0.005 (X)	<0.005 (X)		<0.005 (X)	<0.005
12/19/2018						<0.005		
8/27/2019	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	
8/28/2019						0.00073 (J)	<0.005	<0.005
10/15/2019	0.0008 (J)	0.00063 (J)	0.00058 (J)	0.00039 (J)	<0.005			
10/16/2019							0.00056 (J)	<0.005
12/3/2019						0.00058 (J)		
3/3/2020	0.0027 (J)	0.00098 (J)	0.0024 (J)	0.0027 (J)	0.0018 (J)	0.0033 (J)		
3/5/2020							<0.005	<0.005
8/18/2020	<0.005	<0.005	<0.005	<0.005	<0.005			
8/19/2020						<0.005	<0.005	<0.005
9/15/2020	<0.005	<0.005	<0.005	<0.005	<0.005			
9/16/2020						<0.005	<0.005	<0.005
3/1/2021	<0.005				<0.005			
3/2/2021		<0.005	<0.005	<0.005				
3/3/2021							<0.005	<0.005
3/4/2021						<0.005		
9/21/2021			<0.005	<0.005				
9/22/2021	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005
2/1/2022	0.0012 (J)	<0.005	0.0013 (J)	0.0012 (J)	<0.005	<0.005	<0.005	<0.005
8/23/2022	<0.005	<0.005	<0.005	<0.005	<0.005		0.00262 (J)	
8/24/2022						<0.005		<0.005
1/24/2023	<0.005	<0.005	<0.005	<0.005	0.0021 (J)	<0.005	0.00201 (J)	<0.005
8/31/2023	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
9/6/2023						<0.005		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.005	<0.005		0.0026 (J)				
11/17/2016	<0.005							
11/18/2016		<0.005						
11/21/2016				0.0034 (J)				
2/22/2017	<0.005							
2/23/2017		<0.005	<0.005	0.003 (J)				
4/17/2017			<0.005					
5/15/2017			<0.005					
6/15/2017	0.0006 (J)	0.0007 (J)	<0.005	0.005 (J)				
9/28/2017	<0.005	<0.005	<0.005	0.0046 (J)				
2/15/2018	<0.005	<0.005	<0.005	0.0016 (J)				
6/27/2018	<0.005							
6/28/2018		<0.005 (X)	<0.005 (X)	<0.005 (X)				
12/19/2018	<0.005	<0.005	<0.005					
12/20/2018				0.00098 (J)				
1/15/2019					<0.005			
8/28/2019	0.00044 (J)	0.00045 (J)	0.00038 (J)					
8/29/2019				0.0013 (J)				
10/16/2019	0.0004 (J)		0.00078 (J)	0.0024 (J)				
10/22/2019					<0.005			
12/3/2019		0.001 (J)						
3/5/2020	<0.005	<0.005	0.00044 (J)	0.0011 (J)				
8/19/2020	<0.005	<0.005	<0.005	0.0021 (J)				
9/16/2020	<0.005	<0.005	<0.005					
9/17/2020				0.0015 (J)				
3/3/2021		<0.005	<0.005					
3/4/2021	<0.005			0.0029 (J)				
9/22/2021		<0.005						
9/23/2021	<0.005		<0.005	0.002 (J)				
2/1/2022	<0.005	<0.005		<0.005				
2/2/2022			<0.005					
8/23/2022			<0.005	0.00337 (J)	<0.005	<0.005		
8/24/2022	<0.005	<0.005						
9/1/2022								<0.005
1/24/2023	<0.005							
1/25/2023		<0.005	0.003 (J)	0.00486 (J)		<0.005	0.00368 (J)	
1/26/2023					0.00388 (J)			0.00366 (J)
8/31/2023			<0.005		<0.005			
9/6/2023	<0.005	<0.005		<0.005		<0.005	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.0239	0.0099 (J)	0.0273	0.0495				
9/1/2016					0.0142			
9/7/2016						0.0377	0.0214	
9/8/2016								0.0415
11/15/2016				0.0512	0.0126			
11/16/2016	0.0147	0.0102	0.0365					
11/17/2016						0.0405	0.0211	0.04
2/20/2017			0.0336	0.0586	0.0142			
2/21/2017	0.0109	0.0094 (J)						
2/22/2017						0.0392	0.0243	0.0415
6/12/2017	0.0094 (J)		0.0322	0.0567	0.0134			
6/13/2017		0.0094 (J)						
6/14/2017							0.0218	0.0341
6/15/2017						0.0364		
9/26/2017	0.0156	0.0096 (J)	0.0364	0.0586	0.0133			
9/27/2017							0.0219	0.0347
9/28/2017						0.0408		
2/13/2018	0.0134	0.0102	0.054	0.054	0.0145			
2/15/2018						0.0396	0.0248	0.0346
6/26/2018	0.014	0.0093 (J)	0.032	0.063	0.014			
6/27/2018						0.041	0.023	0.028
12/18/2018	0.0076 (J)	0.01	0.038	0.045	0.013		0.023	0.029
12/19/2018						0.038		
8/27/2019	0.012	0.0095 (J)	0.028	0.056	0.013		0.02	
8/28/2019						0.044	0.02	0.026
10/15/2019	0.013	0.0091 (J)	0.032	0.049	0.013			
10/16/2019							0.019	0.022
12/3/2019						0.043		
3/3/2020	0.017	0.011	0.028	0.051	0.019	0.036		
3/5/2020							0.022	0.025
8/18/2020	0.01 (J)	0.01	0.022	0.04	0.014			
8/19/2020						0.047	0.02	0.024
9/15/2020	0.0083 (J)	0.0094 (J)	0.022	0.038	0.013			
9/16/2020						0.044	0.019	0.023
3/1/2021	0.0074				0.016			
3/2/2021		0.0094	0.023	0.037				
3/3/2021							0.02	0.024
3/4/2021						0.039		
9/21/2021			0.025	0.038				
9/22/2021	0.0075	0.0097			0.014	0.043	0.019	0.021
2/1/2022	0.0066	0.01	0.028	0.04	0.014	0.045	0.023	0.024
8/23/2022	0.00954	0.012	0.0241	0.0379	0.014		0.0409	
8/24/2022						0.0512		0.0249
1/24/2023	0.00453	0.0118	0.0303	0.0394	0.0132	0.0422	0.0368	0.0232
8/31/2023	0.0068	0.0135	0.0245	0.0352	0.0143		0.0357	0.0268
9/6/2023						0.0445		

Time Series

Constituent: Barium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.101	0.0674		0.044				
11/17/2016	0.0808							
11/18/2016		0.0546						
11/21/2016				0.0428 (J)				
2/22/2017	0.0701							
2/23/2017		0.0489	0.0229	0.0338				
4/17/2017			0.0227					
5/15/2017			0.0227					
6/15/2017	0.0518	0.0415	0.0218	0.0239				
9/28/2017	0.047	0.0397	0.0222	0.0247				
2/15/2018	0.0485	0.038	0.0243	0.0215				
6/27/2018	0.046							
6/28/2018		0.035	0.023	0.018				
12/19/2018	0.04	0.035	0.024					
12/20/2018				0.017				
1/15/2019					0.14			
8/28/2019	0.039	0.034	0.027					
8/29/2019				0.016				
10/16/2019	0.037		0.024	0.015				
10/22/2019					0.077			
12/3/2019		0.031						
3/5/2020	0.039	0.033	0.025	0.016				
8/19/2020	0.04	0.037	0.026	0.016				
9/16/2020	0.033	0.03	0.024					
9/17/2020				0.014				
3/3/2021		0.031	0.024					
3/4/2021	0.034			0.015				
9/22/2021		0.028						
9/23/2021	0.036		0.027	0.014				
2/1/2022	0.033	0.029		0.015				
2/2/2022			0.025					
8/23/2022			0.026	0.0141	0.0562	0.0547		
8/24/2022	0.0339	0.0296						
9/1/2022								0.0444
1/24/2023	0.0291							
1/25/2023		0.0278	0.0247	0.018		0.0536	0.0171	
1/26/2023					0.0525			0.025
8/31/2023			0.0266		0.0683			
9/6/2023	0.0286	0.0243		0.0134		0.0485	0.0163	0.0196

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.0005	<0.0005	<0.0005	<0.0005				
9/1/2016					<0.0005			
9/7/2016						<0.0005	0.0019 (J)	
9/8/2016								0.0001 (J)
11/15/2016				<0.0005	<0.0005			
11/16/2016	<0.0005	<0.0005	<0.0005					
11/17/2016						<0.0005	0.002 (J)	0.0001 (J)
2/20/2017			<0.0005	<0.0005	<0.0005			
2/21/2017	<0.0005	<0.0005						
2/22/2017						<0.0005	0.0022 (J)	0.0002 (J)
6/12/2017	<0.0005		<0.0005	<0.0005	<0.0005			
6/13/2017		<0.0005						
6/14/2017							0.0019 (J)	<0.0005
6/15/2017						<0.0005		
9/26/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
9/27/2017							0.0017 (J)	0.0001 (J)
9/28/2017						<0.0005		
2/13/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
2/15/2018						<0.0005	<0.003	<0.0005
6/26/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
6/27/2018						<0.0005	0.002 (J)	0.00013 (J)
12/18/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		0.0021 (J)	0.00012 (J)
12/19/2018						<0.0005		
8/27/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		0.0019 (J)	
8/28/2019						<0.0005	0.0019 (J)	0.00014 (J)
10/15/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
10/16/2019							0.0018 (J)	0.00014 (J)
10/17/2019						<0.0005		
12/3/2019						<0.0005		
3/3/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
3/5/2020							0.0018 (J)	0.00015 (J)
8/18/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
8/19/2020						<0.0005	0.0014 (J)	0.00015 (J)
9/15/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
9/16/2020						<0.0005	0.0015 (J)	0.00014 (J)
3/1/2021	<0.0005				<0.0005			
3/2/2021		<0.0005	<0.0005	<0.0005				
3/3/2021							0.0013	0.00015 (J)
3/4/2021						<0.0005		
9/21/2021			<0.0005	<0.0005				
9/22/2021	<0.0005	<0.0005			<0.0005	<0.0005	0.0012	0.00015 (J)
2/1/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0013	0.00015 (J)
8/23/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		0.00241	
8/24/2022						<0.0005		<0.0005
1/24/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00235	<0.0005
8/31/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		0.0019	<0.0005
9/6/2023						<0.0005		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	9E-05 (J)	<0.0005		0.0079				
9/23/2016				0.0096 (R)				
11/17/2016	0.0001 (J)							
11/18/2016		0.0001 (J)						
11/21/2016				0.0092				
2/22/2017	0.0001 (J)							
2/23/2017		0.0001 (J)	<0.0005	0.01				
4/17/2017			<0.0005					
5/15/2017			<0.0005					
6/15/2017	0.0001 (J)	9E-05 (J)	<0.0005	0.0104				
9/28/2017	0.0001 (J)	0.0001 (J)	<0.0005	0.0098				
2/15/2018	<0.0005	<0.0005	<0.0005	0.011 (J)				
6/27/2018	0.00015 (J)							
6/28/2018		8.1E-05 (J)	<0.0005	0.0085				
12/19/2018	<0.0005 (X)	<0.0005 (X)	<0.0005					
12/20/2018				0.0092				
1/15/2019					0.0005 (J)			
8/28/2019	0.00016 (J)	0.00011 (J)	<0.0005					
8/29/2019				0.0088				
10/16/2019	0.00015 (J)		<0.0005	0.0079				
10/17/2019		<0.0005						
10/22/2019					0.0004 (J)			
12/3/2019		9.7E-05 (J)						
3/5/2020	0.00015 (J)	9.2E-05 (J)	<0.0005	0.0082				
8/19/2020	0.00015 (J)	0.00011 (J)	<0.0005	0.0079				
9/16/2020	0.00014 (J)	8E-05 (J)	<0.0005					
9/17/2020				0.0073				
3/3/2021		7.9E-05 (J)	<0.0005					
3/4/2021	0.00012 (J)			0.0077				
9/22/2021		8.4E-05 (J)						
9/23/2021	0.00016 (J)		<0.0005	0.0071				
2/1/2022	0.00015 (J)	8.7E-05 (J)		0.0072				
2/2/2022			<0.0005					
8/23/2022			<0.0005	0.00854	0.000331 (J)	<0.0005		
8/24/2022	0.00021 (J)	<0.0005						
9/1/2022								<0.0005
1/24/2023	<0.0005							
1/25/2023		<0.0005	<0.0005	0.0078		<0.0005	<0.0005	
1/26/2023					0.000422 (J)			0.000217 (J)
8/31/2023			<0.0005		0.000259 (J)			
9/6/2023	0.0002 (J)	<0.0005				<0.0005		
9/7/2023				0.0068		<0.0005	<0.0005	0.000325 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.0072 (J)	<0.015	<0.015	<0.015				
9/1/2016					<0.015			
9/7/2016						0.0449 (J)	1.15	
9/8/2016								1.89
11/15/2016				0.0085 (J)	0.0123 (J)			
11/16/2016	0.0117 (J)	0.0109 (J)	0.0187 (J)					
11/17/2016						0.0067 (J)	1.08	2.17
2/20/2017			0.0066 (J)	0.0093 (J)	0.0157 (J)			
2/21/2017	0.0088 (J)	<0.015						
2/22/2017						<0.04	1.44	2.09
6/12/2017	0.0133 (J)		<0.015	<0.015	<0.015			
6/13/2017		<0.015						
6/14/2017							1.16	2.45
6/15/2017						<0.04		
9/26/2017	0.0093 (J)	<0.015	<0.015	<0.015	<0.015			
9/27/2017							1.04	2.4
9/28/2017						<0.04		
2/13/2018	0.0141 (J)	<0.015	<0.015	<0.015	<0.015			
2/15/2018						<0.04	1.22	2.55
6/26/2018	0.012 (J)	<0.015	0.0042 (J)	0.0056 (J)	0.0041 (J)			
6/27/2018						0.0088 (J+X)	0.96 (J+X)	2.2 (J+X)
12/18/2018	0.0086 (J)	<0.015	<0.015	0.0062 (J)	<0.015		1.2	2.2
12/19/2018						0.0045 (J)		
3/19/2019	0.00565 (JD)	<0.015	<0.015	<0.015	<0.015	<0.04		
3/20/2019							1.3	2.3
10/15/2019	0.0067 (J)	<0.015	<0.015	0.006 (J)	0.01 (J)			
10/16/2019							1.1	2.3
10/17/2019						<0.04		
12/3/2019						0.0063 (J)		
3/3/2020	0.0082 (J)	<0.015	<0.015	<0.015	<0.015	0.0075 (J)		
3/5/2020							1.5	2.1
9/15/2020	<0.015	<0.015	<0.015	<0.015	<0.015			
9/16/2020						0.0066 (J)	1.1	2.2
3/1/2021	<0.015				<0.015			
3/2/2021		<0.015	0.0053 (J)	0.0071 (J)				
3/3/2021							1.1	2.1
3/4/2021						<0.04		
9/21/2021			<0.015	<0.015				
9/22/2021	<0.015	<0.015			<0.015	0.02 (J)	1.1	2.2
2/1/2022	<0.015	<0.015	<0.015	<0.015	<0.015	0.013 (J)	1.1	2.2
8/23/2022	0.00592 (J)	0.00532 (J)	<0.015	0.00538 (J)	<0.015		0.975	
8/24/2022						0.0273		2.45
1/24/2023	<0.015	<0.015	<0.015	<0.015	<0.015	0.0326	1.19	2.21
8/31/2023	0.00649 (J)	0.00738 (J)	0.0073 (J)	0.00764 (J)	0.00611 (J)			
9/1/2023							0.946	1.9
9/6/2023						0.0601		

Time Series

Constituent: Boron (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	1.06	0.725		1.73				
9/26/2016					<0.015			
11/17/2016	0.967							
11/18/2016		0.831						
11/21/2016				2.02				
2/22/2017	1.35							
2/23/2017		0.949	<0.015	1.77				
4/17/2017			<0.015					
5/15/2017			<0.015					
6/15/2017	1.49	0.961	<0.015	1.78				
9/28/2017	1.27	0.948	<0.015	1.45				
2/15/2018	1.58	1.11	<0.015	2.09				
6/27/2018	1.7 (J+X)							
6/28/2018		0.89	<0.015 (X)	1.5				
12/19/2018	1.8	1.1	<0.015					
12/20/2018				1.7				
1/15/2019					<0.015			
3/19/2019		1						
3/20/2019	1.7		0.004 (J)	1.5				
10/16/2019	2.2		0.0055 (J)	1.5				
10/17/2019		1.1						
10/22/2019					0.0098 (J)			
12/3/2019		1						
3/5/2020	1.9	1.1	0.0076 (J)	1.6				
9/16/2020	1.9	0.99	0.0062 (J)					
9/17/2020				1.4				
3/3/2021		1	<0.015					
3/4/2021	1.9			1.5				
9/22/2021		1.1						
9/23/2021	2		<0.015	1.4				
2/1/2022	2.1	1		1.6				
2/2/2022			0.032 (J)					
8/23/2022			<0.015	1.67	<0.015	1.04		
8/24/2022	2.23	1.1						
9/1/2022							0.0403	1.2
1/24/2023	2.23							
1/25/2023		1.18	<0.015	1.63		1.11	0.0362	
1/26/2023					0.0104 (J)			1.04
8/31/2023			0.00802 (J)		0.00855 (J)			
9/6/2023						1.06		
9/7/2023	2.36	1.04		1.37			0.0668	1.01

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.001	<0.001	<0.001	<0.001				
9/1/2016					<0.001			
9/7/2016						<0.001	0.0005 (J)	
9/8/2016								<0.001
11/15/2016				<0.001	<0.001			
11/16/2016	<0.001	<0.001	<0.001					
11/17/2016						<0.001	0.0005 (J)	0.0009 (J)
2/20/2017			<0.001	<0.001	<0.001			
2/21/2017	<0.001	<0.001						
2/22/2017						<0.001	0.0006 (J)	0.0005 (J)
6/12/2017	<0.001		<0.001	<0.001	<0.001			
6/13/2017		<0.001						
6/14/2017							0.0004 (J)	0.0004 (J)
6/15/2017						<0.001		
9/26/2017	<0.001	<0.001	<0.001	<0.001	<0.001			
9/27/2017							0.0004 (J)	0.0007 (J)
9/28/2017						<0.001		
2/13/2018	<0.001	<0.001	<0.001	<0.001	<0.001			
2/15/2018						<0.001	<0.001	<0.001
6/26/2018	<0.001	<0.001	<0.001	<0.001	<0.001			
6/27/2018						<0.001	0.00038 (J)	0.00017 (J)
12/18/2018	<0.001	<0.001	<0.001	<0.001	<0.001		0.00046 (J)	0.00023 (J)
12/19/2018						<0.001		
8/27/2019	<0.001	<0.001	<0.001	<0.001	<0.001		0.00032 (J)	
8/28/2019						<0.001	0.00032 (J)	0.00025 (J)
10/15/2019	<0.001	<0.001	<0.001	<0.001	<0.001			
10/16/2019							0.00039 (J)	0.0004 (J)
10/17/2019						<0.001		
12/3/2019						<0.001		
3/3/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
3/5/2020							0.00038 (J)	0.00018 (J)
8/18/2020	<0.001	<0.001	<0.001	<0.001	<0.001			
8/19/2020						<0.001	0.00029 (J)	0.00018 (J)
9/15/2020	<0.001	<0.001	<0.001	<0.001	<0.001			
9/16/2020						<0.001	0.00032 (J)	0.00017 (J)
3/1/2021	<0.001				<0.001			
3/2/2021		<0.001	<0.001	<0.001				
3/3/2021							0.00022 (J)	0.00015 (J)
3/4/2021						<0.001		
9/21/2021			<0.001	<0.001				
9/22/2021	<0.001	<0.001			<0.001	<0.001	0.00019 (J)	0.00033 (J)
2/1/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00023 (J)	0.00012 (J)
8/23/2022	<0.001	<0.001	<0.001	<0.001	<0.001		0.000509 (J)	
8/24/2022						<0.001		0.000517 (J)
1/24/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000482 (J)	<0.001
8/31/2023	<0.001	<0.001	<0.001	<0.001	<0.001		0.000533 (J)	<0.001
9/6/2023						<0.001		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.001	8E-05 (J)		0.0004 (J)				
11/17/2016	<0.001							
11/18/2016		<0.001						
11/21/2016				0.0005 (J)				
2/22/2017	<0.001							
2/23/2017		0.0001 (J)	<0.001	0.0007 (J)				
4/17/2017			<0.001					
5/15/2017			<0.001					
6/15/2017	<0.001	<0.001	<0.001	0.0006 (J)				
9/28/2017	<0.001	<0.001	<0.001	0.0007 (J)				
2/15/2018	<0.001	<0.001	<0.001	0.00069 (J)				
6/27/2018	<0.001							
6/28/2018		<0.001	<0.001	0.00056 (J)				
12/19/2018	<0.001	<0.001 (X)	<0.001					
12/20/2018				<0.001 (X)				
1/15/2019					0.00011 (J)			
8/28/2019	<0.001	<0.001	<0.001					
8/29/2019				0.00053 (J)				
10/16/2019	<0.001		<0.001	0.00057 (J)				
10/17/2019		<0.001						
10/22/2019					<0.001			
12/3/2019		<0.001						
3/5/2020	<0.001	<0.001	<0.001	0.00059 (J)				
8/19/2020	<0.001	<0.001	<0.001	0.00056 (J)				
9/16/2020	<0.001	<0.001	<0.001					
9/17/2020				0.0005 (J)				
3/3/2021		<0.001	<0.001					
3/4/2021	<0.001			0.00042 (J)				
9/22/2021		<0.001						
9/23/2021	<0.001		<0.001	0.00048 (J)				
2/1/2022	<0.001	<0.001		0.00058				
2/2/2022			<0.001					
8/23/2022			<0.001	0.000459 (J)	<0.001	<0.001		
8/24/2022	<0.001	<0.001						
9/1/2022								<0.001
1/24/2023	<0.001							
1/25/2023		<0.001	<0.001	0.00043 (J)		<0.001	<0.001	
1/26/2023					<0.001			<0.001
8/31/2023			<0.001		<0.001			
9/6/2023	<0.001	<0.001		0.00041 (J)		<0.001	<0.001	<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	12.6	4.09	13.5	19.6				
9/1/2016					3.3			
9/7/2016						26.3	53.4	
9/8/2016								97.3
11/15/2016				21.7	3.44			
11/16/2016	12.1	4.25	14.9					
11/17/2016						31.8	41.3	97.6
2/20/2017			13.9	21.1	3.52			
2/21/2017	11.4	4.02						
2/22/2017						33.5	53.1	106
6/12/2017	9.34		13.7	21.5	3.11			
6/13/2017		3.84						
6/14/2017							47.1	98
6/15/2017						29		
9/26/2017	14.3	3.31	14.4	24	3.15			
9/27/2017							49.5	95.8
9/28/2017						34.1		
2/13/2018	<25	3.94	<25	<25	3.65			
2/15/2018						33.8	50.9	100
6/26/2018	16 (J)	3.6	13.5 (J)	23.5 (J)	3.3			
6/27/2018						34.1	55.1	90.1
12/18/2018	14.5 (J)	3.8	16.4 (J)	19.8 (J)	3.5		52.7	85.1
12/19/2018						33.1		
3/19/2019	14.3 (JD)	3.9	12.3 (J)	21.4 (J)	3.6	31.6		
3/20/2019							51.4	82
10/15/2019	15.1	3.7	14.4	20	3.5			
10/16/2019							46.5	78.2
12/3/2019						37.7		
3/3/2020	20	4	14.9	23.2	5	29.7		
3/5/2020							48.1	89.6
9/15/2020	14.1	3.9	12.7	16.8	3.7			
9/16/2020						37.9	37.9	77.7
3/1/2021	15.4				4.2			
3/2/2021		4	13.2	16.8				
3/3/2021							37.5	88.6
3/4/2021						41.2		
9/21/2021			14.1	19.1				
9/22/2021	15.9	4.3			4.1	36.4	28.9	76.9
2/1/2022	14.4	4.4	14.5	19.1	4.2	41.5	34.3	81.7
8/23/2022	13.9	4.65	14.3	18.2	3.97		119	
8/24/2022						43.6		75
1/24/2023	14.2	4.86	15.8	19.4	3.9	41.3	116	80
8/31/2023	12.6	5.02	14.3	14.9	3.79			
9/1/2023							135	83.4
9/7/2023						47.9		

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	54.1	50.6		45.9				
11/17/2016	62.6							
11/18/2016		53.9						
11/21/2016				46.4				
2/22/2017	64.6							
2/23/2017		51	3.26	43.5				
4/17/2017			3.23					
5/15/2017			2.97 (B-01)					
6/15/2017	61.3	53.8	3.15	45.3				
9/28/2017	60.8	51.8	3.26	45.1				
2/15/2018	56.6	50.1	3.39	45.3				
6/27/2018	66.2							
6/28/2018		51	3.1	45.9				
12/19/2018	64.4	57.1	3.6					
12/20/2018				41.8				
1/15/2019					23.5 (J)			
3/19/2019		49.5						
3/20/2019	61.8		3.3	38.2				
10/16/2019	61.2		3.4	38.4				
10/22/2019					14.8			
12/3/2019		47.8						
3/5/2020	69.9	51.7	3.7	39.8				
9/16/2020	61.8	45.9	3.2					
9/17/2020				33.1				
3/3/2021		53	3.6					
3/4/2021	71.8			41				
9/22/2021		53.7						
9/23/2021	70.5		3.7	36.8				
2/1/2022	73.8	49.7		37.8				
2/2/2022			3.7					
8/23/2022			3.7	37.1	9.69	76.4		
8/24/2022	68.5	48.1						
9/1/2022							69	42.6
1/24/2023	67.5							
1/25/2023		48.2	3.65	32.8		78.5	46.3	
1/26/2023					16.8			33.4
8/31/2023			3.47		8.74			
9/6/2023		43.4				74.4		
9/7/2023	71.4			28.7			46.7	31.4

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	2.3	2	4.4	3.6				
9/1/2016					2.5			
9/7/2016						3.7	5.3	
9/8/2016								7.2
11/15/2016				4	2.3			
11/16/2016	2	1.8	4.4					
11/17/2016						4.05 (D)	5.45 (D)	7.8 (D)
2/20/2017			4.8	3.9	2.4			
2/21/2017	2	1.8						
2/22/2017						3.6	0.12 (J)	7.1
6/12/2017	2.1		4.2	3.8	2.2			
6/13/2017		1.7						
6/14/2017							4.5	7.3
6/15/2017						3.7		
9/26/2017	2	1.8	4.4	4.1	2.3			
9/27/2017							5.4	7.6
9/28/2017						4.1		
2/13/2018	2.1	1.7	4.7	4.1	2.3			
2/15/2018						5.3	6.3	7.2
6/26/2018	2.4	2.2	4.5	4.1	2.6			
6/27/2018						4.2	4.5	7.1
12/18/2018	1.8	1.9	4.5	3.8	2.3		6.1	7.1
12/19/2018						4.9 (J-X)		
3/19/2019	2.45 (D)	2	4.5	4.2	2.6	5		
3/20/2019							6.2	6.9
10/15/2019	2.2	1.9	4.2	3.7	2.4			
10/16/2019							5.4	7.3
12/3/2019						4.8		
3/3/2020	1.9	1.9	3.9	3.6	2.9	3.8		
3/5/2020							4.8	6.4
9/15/2020	1.9	1.7	3.7	3.7	2.3			
9/16/2020						4.2	4.1	6.6
3/1/2021	1.8				2.1			
3/2/2021		1.7	3.8	3.7				
3/3/2021							3.9	6.4
3/4/2021						4.6		
9/21/2021			3.2	3.2				
9/22/2021	1.7	1.5			2.1	4.6	2.7	5.6
2/1/2022	1.8	1.6	3.5	3.4	2.1	4.9	13.1	5.9
8/23/2022	2.02	2.18	3.64	3.59	2.39		30.3	
8/24/2022						5		6.17
1/24/2023	2.09	2.16	3.93	3.56	2.3	6.31	29	7.5
8/23/2023	1.9	2.14	3.53	3.37	2.34			
8/24/2023						5.18	32.7	13.2

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	5.8	3.1		5.8				
11/17/2016	6.1 (D)							
11/18/2016		3.95 (D)						
11/21/2016				5.05 (D)				
2/22/2017	5.6							
2/23/2017		3.2	2.1	4.1				
4/17/2017			1.8					
5/15/2017			1.8					
6/15/2017	5.8	4	1.9	4.8				
9/28/2017	6.2	4.6	1.9	6.7				
2/15/2018	6.2	5.4	2.3	8				
6/27/2018	5.9							
6/28/2018		9 (J-X)	2.1 (J-X)	5.5 (J-X)				
12/19/2018	6.2 (J-X)	6.2 (J-X)	1.9 (J-X)					
12/20/2018				8 (J-X)				
1/15/2019					2.4			
3/19/2019		7.1						
3/20/2019	6.6		2.3	6.6				
10/16/2019	6.6		2.3	6.4				
10/22/2019					2.1			
12/3/2019		7.7						
3/5/2020	5.8	7.6	1.8	5.8				
9/16/2020	6	7.9	1.8					
9/17/2020				6.1				
3/3/2021		8.1	1.9					
3/4/2021	5.8			5.6				
9/22/2021		7.1						
9/23/2021	6.1		1.9	6				
2/1/2022	6	7.6		5.8				
2/2/2022			1.8					
8/23/2022			1.97	6.42	4.2	4.94		
8/24/2022	6.53	7.96						
9/1/2022						6.24	10.8	
1/24/2023	6.46							
1/25/2023		7.93	1.92	6.53		4.66		
1/26/2023					3.36		12.3	5.37
8/23/2023			1.89		2.73			
8/24/2023	6.21	8.26		6.44			6.9	5.75
8/25/2023						4.43		

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.001 (J)	0.0034 (J)	0.0058 (J)	0.0028 (J)				
9/1/2016					0.0147			
9/7/2016						0.01 (J)	<0.01	
9/8/2016								<0.01
11/15/2016				0.003 (J)	0.0154 (B)			
11/16/2016	<0.01	0.0029 (J)	0.0051 (J)					
11/17/2016						0.0185	<0.01	<0.01
2/20/2017			0.0049 (J)	0.0047 (J)	0.014			
2/21/2017	<0.01	0.0036 (J)						
2/22/2017						0.0122	<0.01	<0.01
6/12/2017	0.0005 (J)		0.0052 (J)	0.0041 (J)	0.016			
6/13/2017		0.0038 (J)						
6/14/2017							<0.01	<0.01
6/15/2017						0.0117		
9/26/2017	0.0005 (J)	0.0045 (J)	0.0039 (J)	0.0037 (J)	0.0144			
9/27/2017							<0.01	<0.01
9/28/2017						0.0114		
2/13/2018	<0.01	<0.01	<0.01	<0.01	0.0144			
2/15/2018						0.011	<0.01	<0.01
6/26/2018	<0.01	0.008 (J)	0.0053 (J)	0.0043 (J)	0.015			
6/27/2018						0.0098 (J)	<0.01	<0.01
12/18/2018	<0.01	0.012	0.0032 (J)	0.0054 (J)	0.015		<0.01	<0.01
12/19/2018						0.0095 (J)		
8/27/2019	0.0004 (J)	0.0083 (J)	0.0055 (J)	0.0043 (J)	0.015		<0.01	
8/28/2019						0.013	<0.01	<0.01
10/15/2019	<0.01	0.0083 (J)	0.0047 (J)	0.0055 (J)	0.014			
10/16/2019							0.00049 (J)	<0.01
12/3/2019						0.011		
3/3/2020	0.00047 (J)	0.0098 (J)	0.0069 (J)	0.0057 (J)	0.011	0.0081 (J)		
3/5/2020							<0.01	<0.01
8/18/2020	0.00096 (J)	0.0085 (J)	0.0069 (J)	0.005 (J)	0.015			
8/19/2020						0.012	<0.01	<0.01
9/15/2020	<0.01	0.0082 (J)	0.0069 (J)	0.0048 (J)	0.014			
9/16/2020						0.012	<0.01	<0.01
3/1/2021	<0.01				0.011			
3/2/2021		0.0074	0.0064	0.0044 (J)				
3/3/2021							<0.01	<0.01
3/4/2021						0.01		
9/21/2021			0.0064	0.0044 (J)				
9/22/2021	<0.01	0.0091			0.014	0.0091	<0.01	<0.01
2/1/2022	0.0013 (J)	0.0092	0.0066	0.0052	0.015	0.013	<0.01	<0.01
8/23/2022	<0.01	0.00908 (J)	0.00647 (J)	0.00435 (J)	0.0143		<0.01	
8/24/2022						0.0127		<0.01
1/24/2023	<0.01	0.0095 (J)	0.00513 (J)	0.00572 (J)	0.0139	0.00886 (J)	<0.01	<0.01
8/31/2023	<0.01	0.00921 (J)	0.00701 (J)	0.00472 (J)	0.0132		<0.01	<0.01
9/6/2023						0.0115		

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.0019 (J)	0.0073 (J)		0.0014 (J)				
11/17/2016	0.0024 (J)							
11/18/2016		0.008 (J)						
11/21/2016				0.003 (J)				
2/22/2017	0.004 (J)							
2/23/2017		0.0086 (J)	0.001 (J)	0.0028 (J)				
4/17/2017			0.0018 (J)					
5/15/2017			0.0014 (J)					
6/15/2017	0.0033 (J)	0.0082 (J)	0.0013 (J)	0.0038 (J)				
9/28/2017	0.0052 (J)	0.0083 (J)	0.0014 (J)	0.0037 (J)				
2/15/2018	<0.01	0.0086 (J)	<0.01	0.0044 (J)				
6/27/2018	0.0062 (J)							
6/28/2018		0.0076 (J)	<0.01	0.0041 (J)				
12/19/2018	0.0073 (J)	0.0085 (J)	<0.01					
12/20/2018				0.0041 (J)				
1/15/2019					0.025			
8/28/2019	0.0071 (J)	0.0078 (J)	0.0017 (J)					
8/29/2019				0.0044 (J)				
10/16/2019	0.0064 (J)		0.0014 (J)	0.0038 (J)				
10/22/2019					0.02			
12/3/2019		0.007 (J)						
3/5/2020	0.0076 (J)	0.0087 (J)	0.0016 (J)	0.0038 (J)				
8/19/2020	0.0073 (J)	0.0094 (J)	0.0017 (J)	0.0043 (J)				
9/16/2020	0.0058 (J)	0.0064 (J)	0.0018 (J)					
9/17/2020				0.0042 (J)				
3/3/2021		0.0067	0.0014 (J)					
3/4/2021	0.0053			0.004 (J)				
9/22/2021		0.0065						
9/23/2021	0.0065		0.0016 (J)	0.004 (J)				
2/1/2022	0.0056	0.0068		0.0035 (J)				
2/2/2022			0.0015 (J)					
8/23/2022			<0.01	0.00398 (J)	0.0128	<0.01		
8/24/2022	0.00752 (J)	0.00713 (J)						
9/1/2022								<0.01
1/24/2023	0.00524 (J)							
1/25/2023		0.00682 (J)	<0.01	0.00362 (J)		<0.01	<0.01	
1/26/2023					0.0153			<0.01
8/31/2023			<0.01		0.0111			
9/6/2023	0.00592 (J)	0.00649 (J)		0.00338 (J)		<0.01	<0.01	<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.0016 (J)	0.0034 (J)	0.0013 (J)	<0.001				
9/1/2016					<0.001			
9/7/2016						<0.001	0.0612	
9/8/2016								0.0029 (J)
11/15/2016				<0.001	<0.001			
11/16/2016	0.0006 (J)	0.003 (J)	<0.01 (o)					
11/17/2016						<0.001	0.0551	0.0028 (J)
2/20/2017			0.0012 (J)	0.0009 (J)	<0.001			
2/21/2017	<0.005	0.0028 (J)						
2/22/2017						<0.001	0.0567	0.0041 (J)
6/12/2017	<0.005		0.0011 (J)	0.0006 (J)	0.0003 (J)			
6/13/2017		0.0025 (J)						
6/14/2017							0.0557	0.0036 (J)
6/15/2017						<0.001		
9/26/2017	<0.005	0.002 (J)	0.0016 (J)	0.0005 (J)	0.0003 (J)			
9/27/2017							0.049	0.0028 (J)
9/28/2017						<0.001		
2/13/2018	<0.005	<0.005	<0.01 (o)	<0.001	<0.001			
2/15/2018						<0.001	0.0536	<0.01
6/26/2018	<0.005	0.0019 (J)	0.0009 (J)	0.00052 (J)	<0.001			
6/27/2018						<0.001	0.054	0.0041 (J)
12/18/2018	<0.005	0.0032 (J)	0.00062 (J)	<0.001	<0.001		0.049	0.0032 (J)
12/19/2018						<0.001		
8/27/2019	<0.005	0.0012 (J)	0.00068 (J)	0.00042 (J)	<0.001		0.045	
8/28/2019						<0.001	0.045	0.0037 (J)
10/15/2019	<0.005	0.00097 (J)	0.00083 (J)	<0.001	<0.001			
10/16/2019							0.042	0.0043 (J)
10/17/2019						<0.001		
12/3/2019						<0.001		
3/3/2020	<0.005	0.0015 (J)	0.00043 (J)	<0.001	0.0011 (J)	<0.001		
3/5/2020							0.037	0.0031 (J)
8/18/2020	<0.005	0.0014 (J)	0.00048 (J)	<0.001	0.00061 (J)			
8/19/2020						<0.001	0.036	0.0041 (J)
9/15/2020	<0.005	0.001 (J)	0.0005 (J)	<0.001	<0.001			
9/16/2020						<0.001	0.034	0.0042 (J)
3/1/2021	<0.005				<0.001			
3/2/2021		0.001 (J)	0.00053 (J)	<0.001				
3/3/2021							0.028	0.0046 (J)
3/4/2021						<0.001		
9/21/2021			0.00071 (J)	<0.001				
9/22/2021	0.0015 (J)	<0.005			0.00078 (J)	<0.001	0.024	0.0075
2/1/2022	0.00079 (J)	0.0011 (J)	0.0007 (J)	<0.001	<0.001	<0.001	0.027	0.0044 (J)
8/23/2022	0.000767 (J)	0.000844 (J)	0.000553 (J)	<0.001	<0.001		0.0639	
8/24/2022						<0.001		0.00438
1/24/2023	0.00154	0.000829 (J)	0.000677 (J)	<0.001	<0.001	<0.001	0.0582	0.00351
8/31/2023	0.000707 (J)	0.000707 (J)	0.000474 (J)	0.000327 (J)	<0.001		0.0659	0.00384
9/6/2023						<0.001		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.0023 (J)	<0.001		0.236				
11/17/2016	0.0012 (J)							
11/18/2016		<0.001						
11/21/2016				0.298				
2/22/2017	0.0008 (J)							
2/23/2017		<0.001	<0.001	0.277				
4/17/2017			<0.001					
5/15/2017			<0.001					
6/15/2017	0.0004 (J)	<0.001	<0.001	0.262				
9/28/2017	0.0003 (J)	<0.001	<0.001	0.279				
2/15/2018	<0.001	<0.001	<0.001	0.279				
6/27/2018	<0.001							
6/28/2018		<0.001	<0.001	0.23				
12/19/2018	<0.001	<0.001	<0.001					
12/20/2018				0.25				
1/15/2019					<0.001			
8/28/2019	<0.001	<0.001	<0.001					
8/29/2019				0.21				
10/16/2019	<0.001		<0.001	0.21				
10/17/2019		<0.001						
10/22/2019					0.00037 (J)			
12/3/2019		<0.001						
3/5/2020	<0.001	<0.001	<0.001	0.22				
8/19/2020	<0.001	<0.001	<0.001	0.22				
9/16/2020	<0.001	<0.001	<0.001					
9/17/2020				0.2				
3/3/2021		<0.001	<0.001					
3/4/2021	<0.001			0.2				
9/22/2021		<0.001						
9/23/2021	<0.001		<0.001	0.17				
2/1/2022	<0.001	<0.001		0.18				
2/2/2022			<0.001					
8/23/2022			<0.001	0.173	<0.001	<0.001		
8/24/2022	<0.001	<0.001						
9/1/2022							0.0015	0.0056
1/24/2023	<0.001							
1/25/2023		<0.001	<0.001	0.158		<0.001	0.00249	
1/26/2023					<0.001			0.000682 (J)
8/31/2023			<0.001		<0.001			
9/6/2023	<0.001	<0.001		0.139		<0.001	0.000307 (J)	0.000784 (J)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.351 (U)	1 (U)	0.62 (U)	0.603 (U)				
9/1/2016					1.33			
9/7/2016						1.18	0.541 (U)	
9/8/2016								0.998 (U)
11/15/2016				0.645 (U)	0.412 (U)			
11/16/2016	0.824 (U)	0.43 (U)	0.493 (U)					
11/17/2016						0.145 (U)	1.02 (U)	0.613
2/20/2017			0.534 (U)	1.36	0.633 (U)			
2/21/2017	1.01 (U)	0.96 (U)						
2/22/2017						0.0213 (U)	0.482 (U)	1.01 (U)
6/12/2017	0.532 (U)		0.254 (U)	0.566 (U)	0.112 (U)			
6/13/2017		0.645 (U)						
6/14/2017							0.723 (U)	0.801 (U)
6/15/2017						0.41 (U)		
9/26/2017	0.845 (U)	0.299 (U)	0.62 (U)	0.762 (U)	0.167 (U)			
9/27/2017							1.5	1.44
9/28/2017						0.496 (U)		
2/13/2018	0.176 (U)	1.01 (U)	0.0914 (U)	0.349 (U)	0.347 (U)			
2/15/2018						0.672 (U)	1.14 (U)	0.668 (U)
6/26/2018	1.02 (U)	1.26 (J+X)	1.11 (U)	0.614 (U)	0.903 (U)			
6/27/2018						0.692 (U)	1.3 (U)	1.06 (U)
12/18/2018	0.487 (U)	0.44 (U)	0.42 (U)	0.445 (U)	0.353 (U)		1.64 (UX)	1.22
12/19/2018						0.325 (U)		
8/27/2019	1.11	1.47	1.19	1.44	0.65 (U)		1.38	
8/28/2019						0.24 (U)		0.811 (U)
10/15/2019	1.02 (U)	0.807 (U)	0.714 (U)	0.467 (U)	0.402 (U)			
10/16/2019							1.16 (U)	0.561 (U)
12/18/2019						1.16 (U)		
3/3/2020	1.18 (U)	0.818 (U)	0.996 (U)	1.5	0.397 (U)	0.756 (U)		
3/5/2020							0.683 (U)	0.792 (U)
8/18/2020	0.0861 (U)	1.22 (U)	0.53 (U)	0.581 (U)	0.453 (U)			
8/19/2020						0.985 (U)	1.14 (U)	1.21 (U)
9/15/2020	0.0583 (U)	0.579 (U)	0.215 (U)	0.55 (U)	0.474 (U)			
9/16/2020						0.478 (U)	0.195 (U)	0.72 (U)
3/1/2021	0.127 (U)					0.215 (U)		
3/2/2021		0.342 (U)	0.409 (U)	0.362 (U)				
3/3/2021							0.708 (U)	1.12
3/4/2021						0.38 (U)		
9/21/2021			0.182 (U)	0.86 (U)				
9/22/2021	0.349 (U)	1.33 (U)			0.943 (U)	0.734 (U)	0.382 (U)	0.91 (U)
2/1/2022	0.233 (U)	0.251 (U)	1.23	0.23 (U)	0.349 (U)	0.503 (U)	0.583 (U)	0.535 (U)
8/23/2022	1.7	0.531	2.3	0.735	0.203		1.94	
8/24/2022						0.152		1.86
1/24/2023	2.05 (U)	1.35 (U)	0.811 (U)	0.402 (U)	1.55 (U)	0.728 (U)	3.31 (U)	2.14 (U)
9/20/2023						1.92 (U)		
9/22/2023	0.857 (U)	0.592 (U)	1.36	1.31 (U)	1.89 (U)		0.521 (U)	1.06 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.189 (U)	0.638 (U)		0.816 (U)				
11/17/2016	0.729 (U)							
11/18/2016		1.22 (U)						
11/21/2016				2.94				
2/22/2017	0.293 (U)							
2/23/2017		0.554 (U)	0.567 (U)	1.92				
4/17/2017			0.335 (U)					
5/15/2017			0.261 (U)					
6/15/2017	1.09	0.77 (U)	0.188 (U)	3.6				
9/28/2017	1.02 (U)	1.07 (U)	0.627 (U)	3.3				
2/15/2018	0.742 (U)	0.751 (U)	0.869 (U)	2.31 (J+X)				
6/27/2018	0.739 (U)							
6/28/2018		0.392 (U)	0.336 (U)	1.75 (UX)				
12/19/2018	0.465 (U)	0.693 (U)	0.454 (U)					
12/20/2018				2.8 (J+X)				
1/15/2019					<0.983			
8/28/2019	0.995 (U)	0.866 (U)	0.809 (U)					
8/29/2019				3.68				
10/16/2019	1.69		0.815 (U)	2.66				
10/22/2019					0.631 (U)			
12/18/2019		1.91						
3/5/2020	0.858 (U)	1.3	0.791 (U)	2.21				
8/19/2020	0.162 (U)	1.4	0.582 (U)	3.17				
9/16/2020	1.25 (U)	1.17 (U)	0.844 (U)					
9/17/2020				2.92				
3/3/2021		0.307 (U)	1.12					
3/4/2021	0.461 (U)			1.99				
9/22/2021		0.808 (U)						
9/23/2021	0.394 (U)		0.078 (U)	1.4				
2/1/2022	0.672 (U)	1.61 (U)		7.64				
2/2/2022			0.654 (U)					
8/23/2022			2.37	3.12	1.83	3.04		
8/24/2022	3.1	1.38						
9/1/2022								1.57
1/24/2023	3.34							
1/25/2023		4.86	1.67 (U)	3.79		2.1 (U)		
1/26/2023					4.77			1.81 (U)
2/2/2023							5.39	
9/20/2023	3.33	3.87		5.98				4.35
9/22/2023			0.578 (U)		0.823 (U)			
9/26/2023						3.67	1.14 (U)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.11 (J)	0.05 (J)	0.07 (J)	0.19 (J)				
9/1/2016					0.06 (J)			
9/7/2016						0.22 (J)	0.19 (J)	
9/8/2016								0.17 (J)
11/15/2016				0.13 (J)	0.06 (J)			
11/16/2016	0.08 (J)	0.07 (J)	0.07 (J)					
11/17/2016						0.12 (J)	0.12 (J)	0.06 (J)
2/20/2017			0.06 (J)	0.08 (J)	0.04 (J)			
2/21/2017	0.14 (J)	0.05 (J)						
2/22/2017						0.11 (J)	0.21 (J)	0.17 (J)
6/12/2017	0.16 (J)		0.008 (J)	0.07 (J)	0.06 (J)			
6/13/2017		0.04 (J)						
6/14/2017							0.18 (J)	0.1 (J)
6/15/2017						0.05 (J)		
9/26/2017	0.14 (J)	<0.1	<0.1	0.04 (J)	<0.1			
9/27/2017							0.42	0.4
9/28/2017						0.05 (J)		
2/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1			
2/15/2018						<0.3	0.42	<0.3
6/26/2018	0.085 (J)	0.048 (J)	0.045 (J)	0.072 (J)	0.041 (J)			
6/27/2018						0.093 (J)	0.32	0.21 (J)
12/18/2018	0.085 (J)	<0.1	<0.1	<0.1	<0.1		0.28 (J)	0.12 (J)
12/19/2018						0.16 (J)		
3/19/2019	0.0655 (JD)	0.037 (J)	<0.1	0.06 (J)	0.03 (J)	0.1 (J)		
3/20/2019							0.14 (J)	0.074 (J)
8/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1		0.11 (J)	
8/28/2019						0.085 (J)	0.11 (J)	0.057 (J)
10/15/2019	<0.1	<0.1	<0.1	0.045 (J)	<0.1			
10/16/2019							0.17 (J)	0.13 (J)
12/3/2019						0.2 (J)		
3/3/2020	0.066 (J)	0.05 (J)	<0.1	0.057 (J)	0.09 (J)	0.093 (J)		
3/5/2020							0.088 (J)	0.072 (J)
8/18/2020	<0.1	<0.1	<0.1	<0.1	<0.1			
8/19/2020						0.1	0.11	0.074 (J)
9/15/2020	<0.1	<0.1	<0.1	0.051 (J)	<0.1			
9/16/2020						0.1	0.085 (J)	0.077 (J)
3/1/2021	<0.1				<0.1			
3/2/2021		<0.1	<0.1	<0.1				
3/3/2021							0.069 (J)	0.071 (J)
3/4/2021						0.096 (J)		
9/21/2021			<0.1	0.056 (J)				
9/22/2021	<0.1	<0.1			<0.1	0.1	0.068 (J)	0.1
2/1/2022	<0.1	<0.1	<0.1	<0.1	<0.1	0.079 (J)	0.053 (J)	0.06 (J)
8/23/2022	<0.1	<0.1	<0.1	<0.1	<0.1		0.187	
8/24/2022						0.274		0.14
1/24/2023	<0.1	<0.1	0.149	0.158	0.12	0.216	0.193	0.122
8/23/2023	0.267	0.229	0.289	0.277	0.0787 (J)		0.123	
8/24/2023						0.484		0.0816 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.34	0.18 (J)		0.66				
11/17/2016	0.14 (J)							
11/18/2016		0.03 (J)						
11/21/2016				0.9 (D)				
2/22/2017	0.09 (J)							
2/23/2017		0.07 (J)	0.1 (J)	0.75				
4/17/2017			0.08 (J)					
5/15/2017			0.02 (J)					
6/15/2017	0.03 (J)	0.01 (J)	0.03 (J)	0.77				
9/28/2017	<0.1	<0.1	<0.1	0.8				
2/15/2018	<0.1	<0.1	<0.1	0.82				
6/27/2018	0.22 (J)							
6/28/2018		0.51 (J+X)	<0.1	1.5 (J+X)				
12/19/2018	0.11 (J)	<0.1	0.094 (J)					
12/20/2018				0.68				
1/15/2019					0.06 (J)			
3/19/2019		<0.1						
3/20/2019	0.088 (J)		0.062 (J)	0.95				
8/28/2019	0.056 (J)	<0.1	<0.1					
8/29/2019				0.9				
10/16/2019	0.08 (J)		0.059 (J)	0.61				
10/22/2019					<0.1			
12/3/2019		0.15 (J)						
3/5/2020	0.067 (J)	<0.1	0.05 (J)	0.92				
8/19/2020	0.06 (J)	0.051 (J)	0.055 (J)	0.95				
9/16/2020	0.062 (J)	<0.1	<0.1					
9/17/2020				0.68				
3/3/2021		<0.1	<0.1					
3/4/2021	0.076 (J)			0.83				
9/22/2021		0.054 (J)						
9/23/2021	0.073 (J)		<0.1	0.85				
2/1/2022	0.055 (J)	<0.1		0.95				
2/2/2022			<0.1					
8/23/2022			0.105	0.609	0.128	0.164		
8/24/2022	<0.1	0.194						
9/1/2022							0.14	1.43
1/24/2023	0.239							
1/25/2023		0.183	0.114	0.708		0.282		
1/26/2023					<0.1		1.93	<0.2
8/23/2023			0.0445 (J)		<0.1			
8/24/2023	0.347			0.748			1.94	
8/25/2023		0.301				0.334		0.229

Time Series

Constituent: Lead (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.002	<0.002	<0.002	<0.002				
9/1/2016					0.0001 (J)			
9/7/2016						<0.002	0.0002 (J)	
9/8/2016								<0.002
11/15/2016				<0.002	<0.002			
11/16/2016	<0.002	<0.002	<0.002					
11/17/2016						0.0001 (J)	0.0002 (J)	0.0001 (J)
2/20/2017			<0.002	0.0002 (J)	<0.002			
2/21/2017	<0.002	<0.002						
2/22/2017						<0.002	0.0001 (J)	0.0003 (J)
6/12/2017	8E-05 (J)		<0.002	0.0001 (J)	8E-05 (J)			
6/13/2017		<0.002						
6/14/2017							9E-05 (J)	<0.002
6/15/2017						<0.002		
9/26/2017	7E-05 (J)	7E-05 (J)	<0.002	0.0001 (J)	<0.002			
9/27/2017							7E-05 (J)	9E-05 (J)
9/28/2017						<0.002		
2/13/2018	<0.002	<0.002	<0.002	<0.002	<0.002			
2/15/2018						<0.002	<0.002	<0.002
6/26/2018	<0.002	<0.002	<0.002	<0.002	<0.002			
6/27/2018						<0.002	<0.002	<0.002
12/18/2018	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002
12/19/2018						<0.002		
8/27/2019	<0.002	5.8E-05 (J)	<0.002	0.00036 (J)	<0.002		0.00013 (J)	
8/28/2019						<0.002	0.00013 (J)	<0.002
10/15/2019	<0.002	<0.002	<0.002	7.9E-05 (J)	<0.002			
10/16/2019							8.8E-05 (J)	<0.002
12/3/2019						<0.002		
3/3/2020	<0.002	<0.002	<0.002	7.9E-05 (J)	7.3E-05 (J)	<0.002		
3/5/2020							8.7E-05 (J)	<0.002
8/18/2020	<0.002	<0.002	<0.002	0.0001 (J)	<0.002			
8/19/2020						<0.002	6E-05 (J)	<0.002
9/15/2020	<0.002	<0.002	0.0013 (J)	4.3E-05 (J)	<0.002			
9/16/2020						5.4E-05 (J)	6.3E-05 (J)	<0.002
3/1/2021	<0.002				<0.002			
3/2/2021		<0.002	3.7E-05 (J)	<0.002				
3/3/2021							5.8E-05 (J)	<0.002
3/4/2021						<0.002		
9/21/2021			<0.002	<0.002				
9/22/2021	<0.002	<0.002			<0.002	<0.002	<0.002	<0.002
2/1/2022	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/23/2022	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	
8/24/2022						<0.002		<0.002
1/24/2023	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/31/2023	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002
9/6/2023						<0.002		

Time Series

Constituent: Lead (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.0001 (J)	<0.002		0.0004 (J)				
11/17/2016	0.0002 (J)							
11/18/2016		<0.002						
11/21/2016				0.0005 (J)				
2/22/2017	0.0001 (J)							
2/23/2017		<0.002	<0.002	0.0005 (J)				
4/17/2017			0.0001 (J)					
5/15/2017			<0.002					
6/15/2017	<0.002	<0.002	<0.002	0.0004 (J)				
9/28/2017	<0.002	<0.002	0.0001 (J)	0.0004 (J)				
2/15/2018	<0.002	<0.002	<0.002	0.00047 (J)				
6/27/2018	<0.002							
6/28/2018		<0.002	<0.002	0.00036 (J)				
12/19/2018	<0.002	<0.002	<0.002					
12/20/2018				0.00039 (J)				
1/15/2019					<0.002			
8/28/2019	<0.002	<0.002	<0.002					
8/29/2019				0.00035 (J)				
10/16/2019	<0.002		<0.002	0.00035 (J)				
10/22/2019					0.00035 (J)			
12/3/2019		<0.002						
3/5/2020	<0.002	<0.002	<0.002	0.00041 (J)				
8/19/2020	<0.002	4.7E-05 (J)	<0.002	0.00031 (J)				
9/16/2020	0.00012 (J)	<0.002	<0.002					
9/17/2020				0.00032 (J)				
3/3/2021		<0.002	<0.002					
3/4/2021	<0.002			0.00034 (J)				
9/22/2021		<0.002						
9/23/2021	<0.002		<0.002	<0.002				
2/1/2022	<0.002	<0.002		<0.002				
2/2/2022			<0.002					
8/23/2022			<0.002	<0.002	<0.002	<0.002		
8/24/2022	<0.002	<0.002						
9/1/2022								<0.002
1/24/2023	<0.002							
1/25/2023		<0.002	<0.002	<0.002		<0.002	<0.002	
1/26/2023					<0.002			<0.002
8/31/2023			<0.002		<0.002			
9/6/2023	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.0268 (J)	<0.01	<0.01	<0.01				
9/1/2016					0.003 (J)			
9/7/2016						<0.01	0.0092 (J)	
9/8/2016								<0.01
11/15/2016				<0.01	0.0033 (J)			
11/16/2016	0.0201 (J)	<0.01	0.0033 (J)					
11/17/2016						<0.01	0.0097 (J)	<0.01
2/20/2017			<0.01	<0.01	0.0025 (J)			
2/21/2017	0.0128 (J)	<0.01						
2/22/2017						<0.01	0.0106 (J)	<0.01
6/12/2017	0.0245 (J)		0.0019 (J)	<0.01	0.0027 (J)			
6/13/2017		<0.01						
6/14/2017							0.0097 (J)	<0.01
6/15/2017						<0.01		
9/26/2017	0.0549	<0.01	0.0022 (J)	<0.01	0.0023 (J)			
9/27/2017							0.0099 (J)	<0.01
9/28/2017						<0.01		
2/13/2018	0.0595	<0.01	0.0041 (J)	<0.01	0.0027 (J)			
2/15/2018						<0.01	0.0106 (J)	<0.01
6/26/2018	0.089	<0.01	0.0025 (J)	<0.01	0.0029 (J)			
6/27/2018						<0.01	0.01 (J)	<0.01
12/18/2018	0.024 (J)	<0.01	0.0032 (J)	<0.01	0.0026 (J)		0.011 (J)	<0.01
12/19/2018						<0.01		
8/27/2019	0.035	<0.01	0.0019 (J)	<0.01	0.0028 (J)		0.01 (J)	
8/28/2019						0.00097 (J)	0.01 (J)	0.0009 (J)
10/15/2019	0.028 (J)	<0.01	0.002 (J)	<0.01	0.0024 (J)			
10/16/2019							0.0098 (J)	0.00078 (J)
12/3/2019						0.001 (J)		
3/3/2020	0.055	<0.01	0.0013 (J)	<0.01	0.0026 (J)	<0.01		
3/5/2020							0.011 (J)	0.00089 (J)
8/18/2020	0.054	<0.01	0.00095 (J)	<0.01	0.0026 (J)			
8/19/2020						0.001 (J)	0.009 (J)	0.00082 (J)
9/15/2020	0.033	<0.01	0.001 (J)	<0.01	0.0027 (J)			
9/16/2020						0.00096 (J)	0.0089 (J)	<0.01
3/1/2021	0.027 (J)				0.0036 (J)			
3/2/2021		<0.01	0.00081 (J)	<0.01				
3/3/2021							0.0085 (J)	0.00096 (J)
3/4/2021						0.00086 (J)		
9/21/2021			0.0012 (J)	<0.01				
9/22/2021	0.021 (J)	<0.01			0.0035 (J)	0.0011 (J)	0.008 (J)	<0.01
2/1/2022	0.023 (J)	<0.01	0.0011 (J)	<0.01	0.0029 (J)	0.00096 (J)	0.0083 (J)	0.00085 (J)
8/23/2022	0.0262	<0.01	<0.01	<0.01	0.00314 (J)		0.0109	
8/24/2022						<0.01		<0.01
1/24/2023	0.00919 (J)	<0.01	<0.01	<0.01	0.00341 (J)	<0.01	0.0115	<0.01
8/31/2023	0.0209	<0.01	<0.01	<0.01	<0.01		0.00967 (J)	<0.01
9/6/2023						<0.01		

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	0.0021 (J)	0.0024 (J)		0.0193 (J)				
11/17/2016	0.0022 (J)							
11/18/2016		0.0026 (J)						
11/21/2016				0.0223 (J)				
2/22/2017	0.0023 (J)							
2/23/2017		0.0026 (J)	<0.01	0.0229 (J)				
4/17/2017			<0.01					
5/15/2017			<0.01					
6/15/2017	0.0023 (J)	0.0026 (J)	<0.01	0.0227 (J)				
9/28/2017	0.0021 (J)	0.0025 (J)	<0.01	0.023 (J)				
2/15/2018	0.0021 (J)	<0.01	<0.01	0.0254 (J)				
6/27/2018	0.0021 (J)							
6/28/2018		0.0022 (J)	<0.01	0.021 (J)				
12/19/2018	0.0021 (J)	0.0026 (J)	<0.01					
12/20/2018				0.022 (J)				
1/15/2019					0.0017 (J)			
8/28/2019	0.0021 (J)	0.0025 (J)	<0.01					
8/29/2019				0.021 (J)				
10/16/2019	0.0022 (J)		<0.01	0.02 (J)				
10/22/2019					0.001 (J)			
12/3/2019		0.0024 (J)						
3/5/2020	0.0021 (J)	0.0025 (J)	<0.01	0.021 (J)				
8/19/2020	0.0021 (J)	0.0024 (J)	<0.01	0.021 (J)				
9/16/2020	0.002 (J)	0.0022 (J)	<0.01					
9/17/2020				0.02 (J)				
3/3/2021		0.0024 (J)	<0.01					
3/4/2021	0.0021 (J)			0.021 (J)				
9/22/2021		0.0026 (J)						
9/23/2021	0.0022 (J)		<0.01	0.019 (J)				
2/1/2022	0.0021 (J)	0.0023 (J)		0.02 (J)				
2/2/2022			<0.01					
8/23/2022			<0.01	0.0214	<0.01	0.0171		
8/24/2022	<0.01	<0.01						
9/1/2022								0.00615 (J)
1/24/2023	<0.01							
1/25/2023		<0.01	<0.01	0.0256		0.0207	0.0165	
1/26/2023					<0.01			0.00381 (J)
8/31/2023			<0.01		<0.01			
9/6/2023	<0.01	<0.01				0.0185		
9/7/2023				0.0195			0.0182	0.00385 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.0002	<0.0002	<0.0002	<0.0002				
9/1/2016					<0.0002			
9/7/2016						<0.0002	<0.0002	
9/8/2016								<0.0002
11/15/2016				<0.0002	<0.0002			
11/16/2016	<0.0002	<0.0002	<0.0002					
11/17/2016						<0.0002	<0.0002	<0.0002
2/20/2017			<0.0002	8E-05 (J)	<0.0002			
2/21/2017	<0.0002	<0.0002						
2/22/2017						<0.0002	<0.0002	<0.0002
6/12/2017	4E-05 (J)		<0.0002	<0.0002	<0.0002			
6/13/2017		<0.0002						
6/14/2017							7E-05 (J)	7E-05 (J)
6/15/2017						6E-05 (J)		
9/26/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
9/27/2017							4E-05 (J)	4E-05 (J)
9/28/2017						<0.0002		
2/13/2018	0.00021	0.00019 (J)	<0.0002	0.00013 (J)	<0.0002			
2/15/2018						<0.0002	<0.0002	<0.0002
6/26/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
6/27/2018						<0.0002	<0.0002	<0.0002
12/18/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
12/19/2018						<0.0002		
8/27/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
8/28/2019						<0.0002	<0.0002	<0.0002
8/18/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
8/19/2020						8.4E-05 (J)	<0.0002	0.00012 (J)
9/15/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
9/16/2020						<0.0002	<0.0002	<0.0002
3/1/2021	<0.0002				<0.0002			
3/2/2021		<0.0002	<0.0002	<0.0002				
3/3/2021							<0.0002	<0.0002
3/4/2021						<0.0002		
9/21/2021			0.0001 (J)	0.0001 (J)				
9/22/2021	0.0001 (J)	0.0001 (J)			0.0001 (J)	0.0001 (J)	0.00012 (J)	0.00015 (J)
2/1/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/23/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
8/24/2022						<0.0002		<0.0002
1/24/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/25/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
8/28/2023						<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.0002	<0.0002		7E-05 (J)				
11/17/2016	<0.0002							
11/18/2016		<0.0002						
11/21/2016				0.00012 (J)				
2/22/2017	<0.0002							
2/23/2017		<0.0002	<0.0002	7E-05 (J)				
4/17/2017			<0.0002					
5/15/2017			<0.0002					
6/15/2017	7E-05 (J)	7E-05 (J)	6E-05 (J)	0.00016 (J)				
9/28/2017	<0.0002	<0.0002	<0.0002	0.00011 (J)				
2/15/2018	<0.0002	<0.0002	<0.0002	0.00015 (J)				
6/27/2018	<0.0002							
6/28/2018		<0.0002	<0.0002	<0.0002 (X)				
12/19/2018	<0.0002	<0.0002	<0.0002					
12/20/2018				0.00017 (J)				
1/15/2019					<0.0002			
8/28/2019	<0.0002	<0.0002	<0.0002					
8/29/2019				0.00018 (J)				
8/19/2020	0.00013 (J)	0.00013 (J)	0.00014 (J)	0.00018 (J)				
9/16/2020	<0.0002	<0.0002	<0.0002					
9/17/2020				0.00011 (J)				
3/3/2021		<0.0002	<0.0002					
3/4/2021	<0.0002			8.5E-05 (J)				
9/22/2021		0.0001 (J)						
9/23/2021	0.00011 (J)		0.00011 (J)	0.00022				
2/1/2022	<0.0002	<0.0002		<0.0002				
2/2/2022			<0.0002					
8/23/2022			<0.0002	0.000117 (J)	<0.0002	<0.0002		
8/24/2022	<0.0002	<0.0002						
9/1/2022								<0.0002
1/24/2023	<0.0002							
1/25/2023		<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	
1/26/2023					<0.0002			<0.0002
8/25/2023			<0.0002		<0.0002			
8/28/2023	<0.0002	<0.0002		<0.0002			<0.0002	0.00322
8/29/2023						<0.0002		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	0.0021 (J)	<0.001	0.004 (J)	<0.001				
9/1/2016					<0.001			
9/7/2016						<0.001	<0.001	
9/8/2016								<0.001
11/15/2016				<0.001	<0.001			
11/16/2016	<0.01	<0.001	0.0038 (J)					
11/17/2016						<0.001	<0.001	<0.001
2/20/2017			0.0055 (J)	<0.001	<0.001			
2/21/2017	0.0021 (J)	<0.001						
2/22/2017						<0.001	<0.001	<0.001
6/12/2017	0.0021 (J)		0.005 (J)	<0.001	<0.001			
6/13/2017		<0.001						
6/14/2017							<0.001	<0.001
6/15/2017						<0.001		
9/26/2017	0.0011 (J)	<0.001	0.0053 (J)	<0.001	<0.001			
9/27/2017							<0.001	<0.001
9/28/2017						<0.001		
2/13/2018	0.0019 (J)	<0.001	0.008 (J)	<0.001	<0.001			
2/15/2018						<0.001	<0.001	<0.001
6/26/2018	<0.01	<0.001	0.0041 (J)	<0.001	<0.001			
6/27/2018						<0.001	<0.001	<0.001
12/18/2018	<0.01	<0.001	0.0048 (J)	<0.001	<0.001		<0.001	<0.001
12/19/2018						<0.001		
8/27/2019	<0.01	<0.001	0.0028 (J)	<0.001	<0.001		<0.001	
8/28/2019						<0.001	<0.001	<0.001
10/15/2019	<0.01	<0.001	0.0035 (J)	<0.001	<0.001			
10/16/2019							<0.001	<0.001
12/3/2019						<0.001		
3/3/2020	<0.01	<0.001	0.0023 (J)	<0.001	<0.001	<0.001		
3/5/2020							<0.001	<0.001
8/18/2020	0.0011 (J)	<0.001	0.0015 (J)	<0.001	<0.001			
8/19/2020						<0.001	<0.001	<0.001
9/15/2020	0.0007 (J)	<0.001	0.0015 (J)	<0.001	<0.001			
9/16/2020						<0.001	<0.001	<0.001
3/1/2021	<0.01				<0.001			
3/2/2021		<0.001	0.0015 (J)	<0.001				
3/3/2021							<0.001	<0.001
3/4/2021						<0.001		
9/21/2021			0.002 (J)	<0.001				
9/22/2021	0.0012 (J)	<0.001			<0.001	<0.001	<0.001	<0.001
2/1/2022	0.0013 (J)	<0.001	0.002 (J)	<0.001	<0.001	<0.001	<0.001	<0.001
8/23/2022	0.0024	<0.001	0.00151	<0.001	<0.001		<0.001	
8/24/2022						<0.001		<0.001
1/24/2023	0.000601 (J)	<0.001	0.00192	<0.001	<0.001	<0.001	<0.001	<0.001
8/31/2023	0.00169	<0.001	0.000953 (J)	<0.001	<0.001		<0.001	<0.001
9/6/2023						<0.001		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.001	<0.001		<0.001				
11/17/2016	<0.001							
11/18/2016		<0.001						
11/21/2016				<0.001				
2/22/2017	<0.001							
2/23/2017		<0.001	<0.001	<0.001				
4/17/2017			<0.001					
5/15/2017			<0.001					
6/15/2017	<0.001	<0.001	<0.001	<0.001				
9/28/2017	<0.001	<0.001	<0.001	<0.001				
2/15/2018	<0.001	<0.001	<0.001	<0.001				
6/27/2018	<0.001							
6/28/2018		<0.001	<0.001	<0.001				
12/19/2018	<0.001	<0.001	<0.001					
12/20/2018				<0.001				
1/15/2019					<0.001			
8/28/2019	<0.001	<0.001	<0.001					
8/29/2019				<0.001				
10/16/2019	<0.001		<0.001	<0.001				
10/22/2019					<0.001			
12/3/2019		<0.001						
3/5/2020	<0.001	<0.001	<0.001	<0.001				
8/19/2020	<0.001	<0.001	<0.001	<0.001				
9/16/2020	<0.001	<0.001	<0.001					
9/17/2020				<0.001				
3/3/2021		<0.001	<0.001					
3/4/2021	<0.001			<0.001				
9/22/2021		<0.001						
9/23/2021	<0.001		<0.001	<0.001				
2/1/2022	<0.001	<0.001		<0.001				
2/2/2022			<0.001					
8/23/2022			<0.001	<0.001	<0.001	0.00265		
8/24/2022	<0.001	<0.001						
9/1/2022								0.00142
1/24/2023	<0.001							
1/25/2023		<0.001	<0.001	<0.001		0.00234	0.0222	
1/26/2023					<0.001			<0.001
8/31/2023			<0.001		<0.001			
9/6/2023	<0.001	<0.001		<0.001		0.00211	0.0154	<0.001

Time Series

Constituent: pH, Field (S.U.) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	7.16	6.2	6.53	6.59				
9/1/2016					6.49			
9/7/2016						6.36	4.92	
9/8/2016								5.84
11/15/2016				6.67	6.59			
11/16/2016	6.96	6.12	6.4					
11/17/2016						6.28	4.82	5.81
2/20/2017			6.44	6.65	6.61			
2/21/2017	7.15	6.24						
2/22/2017						6.4	4.86	5.85
6/12/2017	7.31		6.4	6.64				
6/13/2017		6.19						
6/14/2017							4.86	5.87
9/26/2017	7.02	6.15	6.31	6.58	6.47			
9/27/2017							4.78	5.74
9/28/2017						6.35		
2/13/2018	7.44	6.18	6.62	6.72	6.54			
2/15/2018						6.35	4.84	5.93
6/26/2018	6.93	6.05	6.29	6.43	6.23			
6/27/2018						6.35	4.73	5.68
12/18/2018	6.76	5.92	6.57	6.7	6.71		4.84	5.97
12/19/2018						6.56		
3/19/2019	6.87	6.18	6.45	6.63	6.18	6.43		
3/20/2019							4.77	5.84
8/27/2019	6.79	6.09	6.37	6.49	6.35		4.78	
8/28/2019						6.25	5.52	5.8
10/15/2019	6.57	6.06	6.77	7.01	6.36			
10/16/2019							4.78	5.85
10/17/2019						6.3		
3/3/2020	6.71	6.1	6.29	6.49	6.59	6.34		
3/5/2020							4.82	5.89
8/18/2020	6.59	6.06	6.29	6.41	6.33			
8/19/2020						6.24	4.78	5.78
9/15/2020	6.64	6.01	6.27	6.25	6.43			
9/16/2020						6.26	4.78	5.81
3/1/2021	6.66				6.7			
3/2/2021		6.2	6.47	6.42				
3/3/2021							4.83	5.88
3/4/2021						6.45		
9/21/2021			6.32	6.36				
9/22/2021	6.78	6.06			6.48	6.22	4.81	5.93
2/1/2022	6.83	5.95	6.38	6.39	6.54	6.39	4.82	5.87
8/23/2022	6.67	5.95	6.24	6.36	6.51		4.67	
8/24/2022						6.62		5.75
1/24/2023	6.7	5.26	6.42	6.47	6.54	6.37	4.79	5.93
8/22/2023	6.91	5.97	6.36	6.09	6.27		4.58	5.72
8/23/2023						6.16		

Time Series

Constituent: pH, Field (S.U.) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	6.1	5.59		5.43				
9/23/2016				5.46				
9/26/2016					5.68			
11/17/2016	6.04							
11/18/2016		5.51						
11/21/2016				4.84				
2/22/2017	6.08							
2/23/2017		5.65	5.57	4.73				
9/28/2017	6.03	5.62	5.76	4.37				
2/15/2018	6.02	5.66	5.95	4.3				
6/27/2018	6.01							
6/28/2018		5.57	5.78	4.16				
12/19/2018	6.22	5.76	6.07					
12/20/2018				4.21				
1/15/2019					5.52			
3/19/2019		5.72						
3/20/2019	6.06		5.93	4.34				
8/28/2019	5.95	5.52	5.8					
8/29/2019				4.01				
10/16/2019	6.03		5.81	4.21				
10/17/2019		5.61						
10/22/2019					5.49			
3/5/2020	6.04	5.39	5.53	4.01				
8/19/2020	5.97	5.53	5.66	4.12				
9/16/2020	5.96	5.58	5.84					
9/17/2020				4.17				
3/3/2021		5.86	5.87					
3/4/2021	6.14			4.19				
9/22/2021		5.53						
9/23/2021	6.08		5.85	4.05				
2/1/2022	6.09	5.65		4.06				
2/2/2022			5.8					
8/23/2022			5.82	3.97	5.46	7.18		
8/24/2022	6.05	5.59						
1/24/2023	6.08							
1/25/2023		5.64	5.84	4.75		7.1	7.14	
1/26/2023					5.56		7.14	5.6
8/22/2023			5.42		5.37			
8/23/2023	5.9	5.26		3.91			6.99	5.36
8/24/2023						6.54		

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.005	<0.005	<0.005	<0.005				
9/1/2016					<0.005			
9/7/2016						0.0024 (J)	0.0032 (J)	
9/8/2016								<0.005
11/15/2016				<0.005	<0.005			
11/16/2016	<0.005	<0.005	<0.005					
11/17/2016						0.0028 (J)	0.0028 (J)	<0.005
2/20/2017			<0.005	<0.005	<0.005			
2/21/2017	<0.005	<0.005						
2/22/2017						0.0018 (J)	0.0018 (J)	<0.005
6/12/2017	<0.005		<0.005	<0.005	<0.005			
6/13/2017		<0.005						
6/14/2017							0.004 (J)	<0.005
6/15/2017						0.0024 (J)		
9/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005			
9/27/2017							0.0036 (J)	<0.005
9/28/2017						<0.005		
2/13/2018	<0.005	<0.005	<0.005	<0.005	<0.005			
2/15/2018						<0.005	<0.005	<0.005
6/26/2018	<0.005	<0.005	<0.005	<0.005	<0.005			
6/27/2018						0.002 (J)	0.0017 (J)	<0.005
12/18/2018	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
12/19/2018						0.0014 (J)		
8/27/2019	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	
8/28/2019						0.003 (J)	<0.005	<0.005
10/15/2019	<0.005	<0.005	<0.005	<0.005	<0.005			
10/16/2019							0.0028 (J)	<0.005
12/3/2019						0.0041 (J)		
3/3/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0019 (J)		
3/5/2020							<0.005	<0.005
8/18/2020	<0.005	<0.005	<0.005	<0.005	<0.005			
8/19/2020						0.003 (J)	<0.005	<0.005
9/15/2020	<0.005	<0.005	<0.005	<0.005	<0.005			
9/16/2020						<0.005	0.0028 (J)	<0.005
3/1/2021	<0.005				<0.005			
3/2/2021		<0.005	<0.005	<0.005				
3/3/2021							<0.005	<0.005
3/4/2021						<0.005		
9/21/2021			<0.005	<0.005				
9/22/2021	<0.005	<0.005			<0.005	0.0015 (J)	<0.005	<0.005
2/1/2022	<0.005	<0.005	<0.005	<0.005	<0.005	0.0021 (J)	<0.005	<0.005
8/23/2022	<0.005	<0.005	<0.005	<0.005	<0.005		0.0061	
8/24/2022						0.00208 (J)		<0.005
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005	0.00178 (J)	0.0049 (J)	<0.005
8/31/2023	<0.005	<0.005	<0.005	<0.005	<0.005		0.00572	<0.005
9/6/2023						0.00214 (J)		

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.005	0.0079 (J)		0.0311				
11/17/2016	<0.005							
11/18/2016		0.0082 (J)						
11/21/2016				0.0409				
2/22/2017	<0.005							
2/23/2017		0.0061 (J)	<0.005	0.0354				
4/17/2017			<0.005					
5/15/2017			<0.005					
6/15/2017	<0.005	0.0046 (J)	<0.005	0.0511				
9/28/2017	<0.005	0.0042 (J)	<0.005	0.0484				
2/15/2018	<0.005	0.0045 (J)	<0.005	0.0435				
6/27/2018	<0.005							
6/28/2018		0.0033 (J)	<0.005	0.037				
12/19/2018	<0.005	0.0042 (J)	<0.005					
12/20/2018				0.037				
1/15/2019					0.0033 (J)			
8/28/2019	<0.005	0.0041 (J)	<0.005					
8/29/2019				0.036				
10/16/2019	<0.005		<0.005	0.033				
10/22/2019					0.0033 (J)			
12/3/2019		0.0035 (J)						
3/5/2020	<0.005	0.0034 (J)	<0.005	0.032				
8/19/2020	<0.005	0.002 (J)	<0.005	0.041				
9/16/2020	<0.005	0.0031 (J)	<0.005					
9/17/2020				0.029				
3/3/2021		0.0024 (J)	<0.005					
3/4/2021	<0.005			0.039				
9/22/2021		0.0032 (J)						
9/23/2021	<0.005		<0.005	0.031				
2/1/2022	<0.005	0.0025 (J)		0.029				
2/2/2022			<0.005					
8/23/2022			<0.005	0.0296	0.00157 (J)	<0.005		
8/24/2022	<0.005	0.00246 (J)						
9/1/2022								0.00625
1/24/2023	<0.005							
1/25/2023		0.00237 (J)	<0.005	0.0279		<0.005	<0.005	
1/26/2023					0.00215 (J)			0.00921
8/31/2023			<0.005		<0.005			
9/6/2023	<0.005	0.00173 (J)		0.0186		<0.005	<0.005	0.00829

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	7.5	0.38 (J)	2.7	0.81 (J)				
9/1/2016					0.6 (J)			
9/7/2016						97	260	
9/8/2016								420
11/15/2016				<1 (J)	0.68 (J)			
11/16/2016	6.6	<1 (J)	3.4					
11/17/2016						120 (D)	235 (D)	445 (D)
2/20/2017			3.9 (B-01)	1 (B-01)	0.98 (J)			
2/21/2017	6.1	1.5						
2/22/2017						120	210	410
6/12/2017	5		3.7	0.94 (J)	0.54 (J)			
6/13/2017		0.67 (J)						
6/14/2017							200	410
6/15/2017						130		
9/26/2017	5.4	0.62 (J)	4.1	0.92 (J)	0.53 (J)			
9/27/2017							200	360
9/28/2017						120		
2/13/2018	4.7 (J)	<1	6.6	<1	<1			
2/15/2018						109	197	335
6/26/2018	6.2	0.69 (J)	3.5	0.91 (J)	0.54 (J)			
6/27/2018						118	200	296
12/18/2018	5.9	0.72 (J)	4.3	0.68 (J)	0.39 (J)		222	345
12/19/2018						125		
3/19/2019	6 (D)	0.78 (J)	3	0.74 (J)	0.68 (J)	126		
3/20/2019							204	329
10/15/2019	5.2	0.47 (J)	3.8	0.68 (J)	0.48 (J)			
10/16/2019							226	325
12/3/2019						180		
3/3/2020	7.1	0.93 (J)	2.8	0.71 (J)	2.5	95.4		
3/5/2020							173	287
9/15/2020	5.9	<1	1.7	<1	<1			
9/16/2020						151	154	283
3/1/2021	4.7				0.74 (J)			
3/2/2021		<1	2.2	<1				
3/3/2021							133	277
3/4/2021						122		
9/21/2021			2.3	<1				
9/22/2021	5.2	<1			<1	123	94.6	232
2/1/2022	5.4	<1	2	<1	<1	139	99.7	243
8/23/2022	5.66	0.452	2.21	0.521	0.479		385	
8/24/2022						157		268
1/24/2023	3.58	0.465	3.34	0.66	0.484	153	375	267
8/23/2023	6.85	0.526	1.83	0.54	0.467			
8/24/2023							466	299
8/25/2023						180		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	260	300		440				
11/17/2016	285 (D)							
11/18/2016		245 (D)						
11/21/2016				490 (D)				
2/22/2017	270							
2/23/2017		330	0.55 (J)	470				
4/17/2017			0.44 (J)					
5/15/2017			0.45 (J)					
6/15/2017	280	310	0.46 (J)	490				
9/28/2017	240	290	0.49 (J)	470				
2/15/2018	266	292	1.9 (o)	432				
6/27/2018	278							
6/28/2018		284	0.24 (J)	453				
12/19/2018	287	319	0.4 (J)					
12/20/2018				463				
1/15/2019					152			
3/19/2019		307						
3/20/2019	268		<1 (X)	405				
10/16/2019	277		0.29 (J)	432				
10/22/2019					93.2			
12/3/2019		256						
3/5/2020	269	262	<1	370				
9/16/2020	270	256	<1					
9/17/2020				356				
3/3/2021		252	<1					
3/4/2021	251			325				
9/22/2021		234						
9/23/2021	258		<1	318				
2/1/2022	256	195		287				
2/2/2022			<1					
8/23/2022			0.307 (J)	389	51	348		
8/24/2022	279	224						
9/1/2022						340		172
1/24/2023	334							
1/25/2023		237	0.325 (J)	291		285		
1/26/2023					75.3		142	147
8/23/2023			0.355 (J)					
8/24/2023					46.2			
8/25/2023	269	223		274			112	139
8/26/2023						293		

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	<0.002	<0.002	<0.002	<0.002				
9/1/2016					<0.002			
9/7/2016						<0.002	0.0002 (J)	
9/8/2016								<0.002
11/15/2016				<0.002	<0.002			
11/16/2016	<0.002	<0.002	<0.002					
11/17/2016						<0.002	0.0002 (J)	<0.002
2/20/2017			<0.002	<0.002	<0.002			
2/21/2017	<0.002	<0.002						
2/22/2017						<0.002	0.0002 (J)	<0.002
6/12/2017	<0.002		<0.002	<0.002	<0.002			
6/13/2017		<0.002						
6/14/2017							0.0002 (J)	<0.002
6/15/2017						<0.002		
9/26/2017	<0.002	<0.002	<0.002	<0.002	<0.002			
9/27/2017							0.0002 (J)	<0.002
9/28/2017						<0.002		
2/13/2018	<0.002	<0.002	<0.002	<0.002	<0.002			
2/15/2018						<0.002	0.00024 (J)	<0.002
6/26/2018	<0.002	<0.002	<0.002	<0.002	<0.002			
6/27/2018						<0.002	0.00022 (J)	<0.002
12/18/2018	<0.002	<0.002	<0.002	<0.002	<0.002		0.00022 (J)	<0.002
12/19/2018						<0.002		
8/27/2019	<0.002	<0.002	<0.002	<0.002	<0.002		0.00016 (J)	
8/28/2019						<0.002	0.00016 (J)	<0.002
10/15/2019	<0.002	<0.002	<0.002	<0.002	<0.002			
10/16/2019							0.00019 (J)	<0.002
12/3/2019						6.6E-05 (J)		
3/3/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
3/5/2020							0.0002 (J)	<0.002
8/18/2020	<0.002	<0.002	<0.002	<0.002	<0.002			
8/19/2020						<0.002	0.00018 (J)	<0.002
9/15/2020	<0.002	<0.002	<0.002	<0.002	<0.002			
9/16/2020						<0.002	0.00018 (J)	<0.002
3/1/2021	<0.002				<0.002			
3/2/2021		<0.002	<0.002	<0.002				
3/3/2021							0.00018 (J)	<0.002
3/4/2021						<0.002		
9/21/2021			<0.002	<0.002				
9/22/2021	<0.002	<0.002			<0.002	<0.002	<0.002	<0.002
2/1/2022	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/23/2022	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	
8/24/2022						<0.002		<0.002
1/24/2023	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/31/2023	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002
9/6/2023						<0.002		

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	<0.002	<0.002		<0.002				
11/17/2016	<0.002							
11/18/2016		<0.002						
11/21/2016				0.0004 (J)				
2/22/2017	<0.002							
2/23/2017		<0.002	<0.002	0.0003 (J)				
4/17/2017			<0.002					
5/15/2017			<0.002					
6/15/2017	<0.002	<0.002	<0.002	0.0003 (J)				
9/28/2017	<0.002	<0.002	<0.002	0.0003 (J)				
2/15/2018	<0.002	<0.002	<0.002	0.00026 (J)				
6/27/2018	<0.002							
6/28/2018		<0.002	<0.002	0.00018 (J)				
12/19/2018	<0.002	<0.002	<0.002					
12/20/2018				<0.002 (X)				
1/15/2019					<0.002			
8/28/2019	<0.002	<0.002	<0.002					
8/29/2019				0.00021 (J)				
10/16/2019	<0.002		<0.002	0.0002 (J)				
10/22/2019					<0.002			
12/3/2019		<0.002						
3/5/2020	<0.002	<0.002	<0.002	0.0002 (J)				
8/19/2020	<0.002	<0.002	<0.002	0.00019 (J)				
9/16/2020	<0.002	<0.002	<0.002					
9/17/2020				0.00017 (J)				
3/3/2021		<0.002	<0.002					
3/4/2021	<0.002			<0.002				
9/22/2021		<0.002						
9/23/2021	<0.002		<0.002	0.00022 (J)				
2/1/2022	<0.002	<0.002		<0.002				
2/2/2022			<0.002					
8/23/2022			<0.002	<0.002	<0.002	<0.002		
8/24/2022	<0.002	<0.002						
9/1/2022								<0.002
1/24/2023	<0.002							
1/25/2023		<0.002	<0.002	<0.002		<0.002	<0.002	
1/26/2023					<0.002			<0.002
8/31/2023			<0.002		<0.002			
9/6/2023	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S
8/31/2016	151	88	138	154				
9/1/2016					299 (o)			
9/7/2016						331	382	
9/8/2016								663
11/15/2016				123	41			
11/16/2016	69	41	77					
11/17/2016						308	382	651
2/20/2017			170	158	133			
2/21/2017	68	<25						
2/22/2017						341	387	706
6/12/2017	161		132	142	61			
6/13/2017		53						
6/14/2017							316	643
6/15/2017						333		
9/26/2017	167	45	108	138	29			
9/27/2017							303	579
9/28/2017						310		
2/13/2018	165	63	141	150	61			
2/15/2018						292	332	612
6/26/2018	188	71	133	154	71			
6/27/2018						353 (X)	538 (X)	359 (X)
12/18/2018	145 (X)	78 (X)	138 (X)	147	70 (X)		358	535
12/19/2018						317		
3/19/2019	146.5 (D)	68	130	146	72	303		
3/20/2019							338	517
10/15/2019	140	66	175	144	63			
10/16/2019							281	473
12/3/2019						378		
3/3/2020	155	41	<10	130	54	263		
3/5/2020							292	489
9/15/2020	116	69	100	116	79			
9/16/2020						316	88	392
3/1/2021	98				39			
3/2/2021		43	80	96				
3/3/2021							212	422
3/4/2021						316		
9/21/2021			108	104				
9/22/2021	129	66			62	323	190	406
2/1/2022	126	72	129	124	61	354	209	449
8/23/2022	117	45	107	101	52		614	
8/24/2022						370		452
1/24/2023	93	63	124	104	64	344	615	433
8/25/2023		36		73			778	495
8/28/2023	81		80		30	391		

Time Series

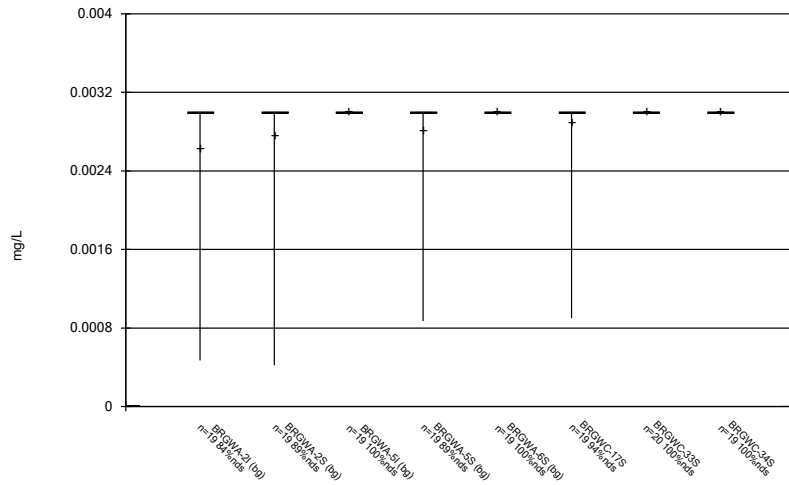
Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/23/2023 10:51 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-52D	PZ-70I
9/7/2016	486	528		750				
11/17/2016	453							
11/18/2016		524						
11/21/2016				795				
2/22/2017	541							
2/23/2017		517	45	733				
4/17/2017			53					
5/15/2017			48					
6/15/2017	548	566	63	812				
9/28/2017	487	475	39	690				
2/15/2018	500	513	54	722				
6/27/2018	347 (X)							
6/28/2018		499	59 (X)	704				
12/19/2018	489	521	68					
12/20/2018				642				
1/15/2019					284			
3/19/2019		498						
3/20/2019	501		68 (X)	615				
10/16/2019	481		49	630				
10/22/2019					203			
12/3/2019		498						
3/5/2020	535	457	39	608				
9/16/2020	474	463	31					
9/17/2020				587				
3/3/2021		442	33					
3/4/2021	480			540				
9/22/2021		457						
9/23/2021	511		49	528				
2/1/2022	521	441		560				
2/2/2022			46					
8/23/2022			40	568	130	543		
8/24/2022	507	418						
9/1/2022							754	321
1/24/2023	507							
1/25/2023		418	28	484		517	443	
1/26/2023					148			272
8/25/2023			42		112			
8/29/2023	485	398		459			372	252
8/30/2023						499		

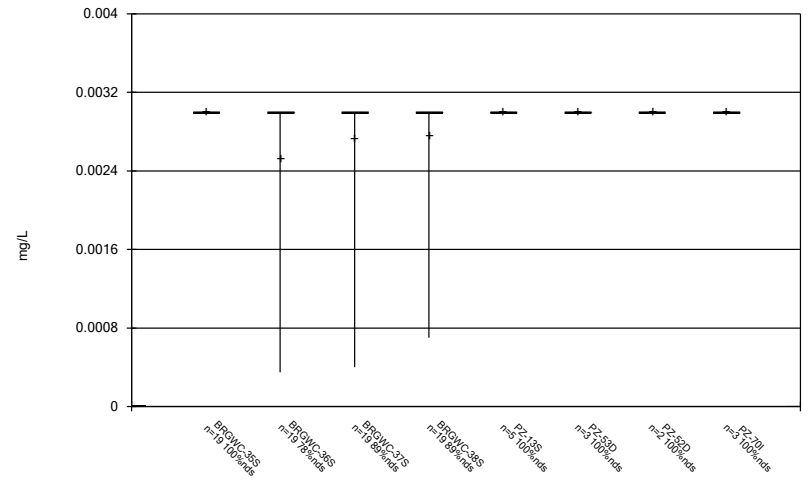
FIGURE B.

Box & Whiskers Plot



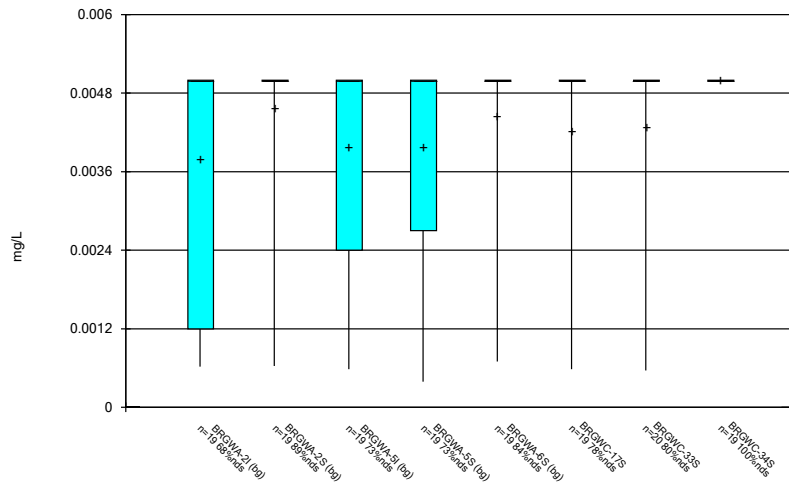
Constituent: Antimony Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



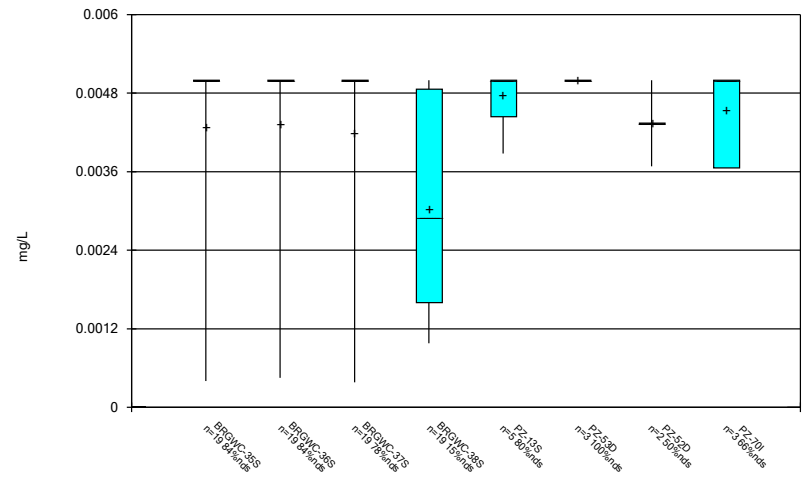
Constituent: Antimony Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



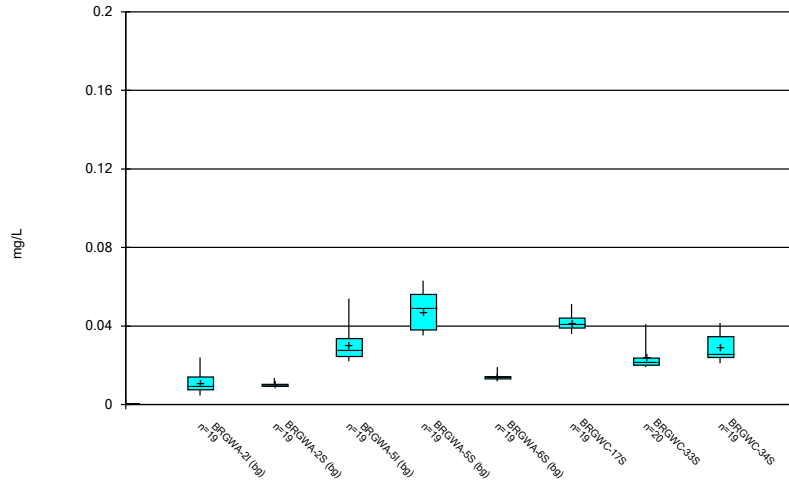
Constituent: Arsenic Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



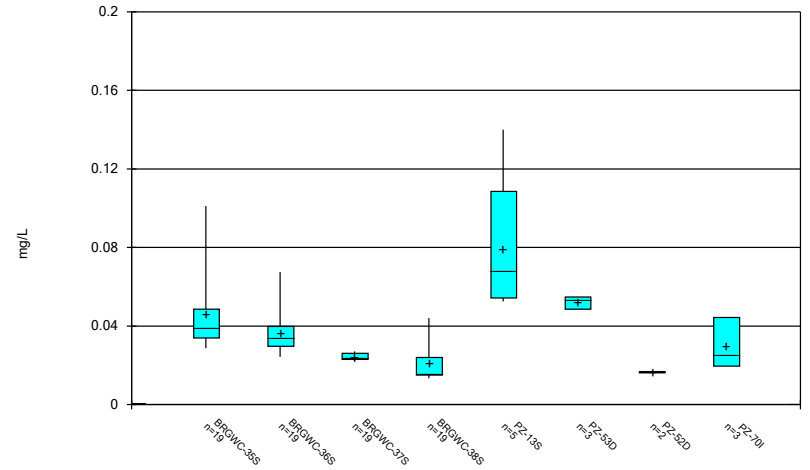
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



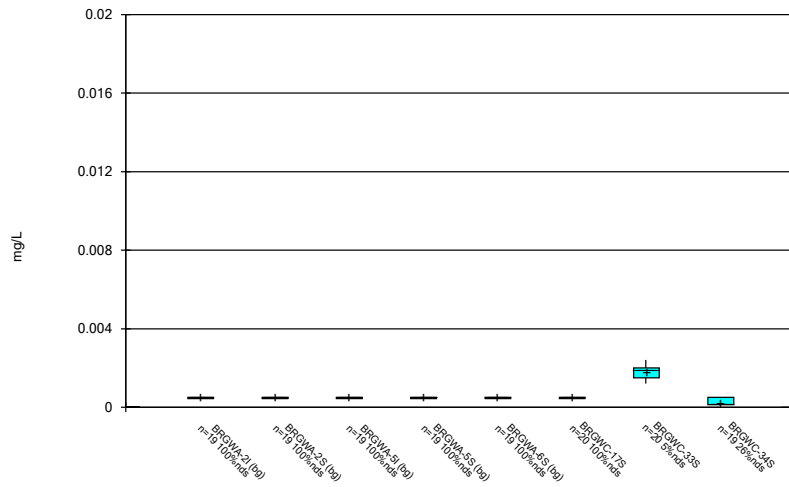
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



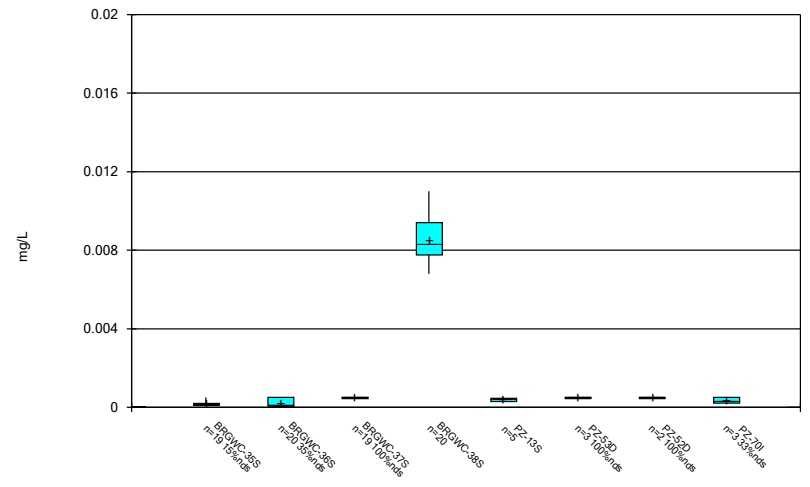
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



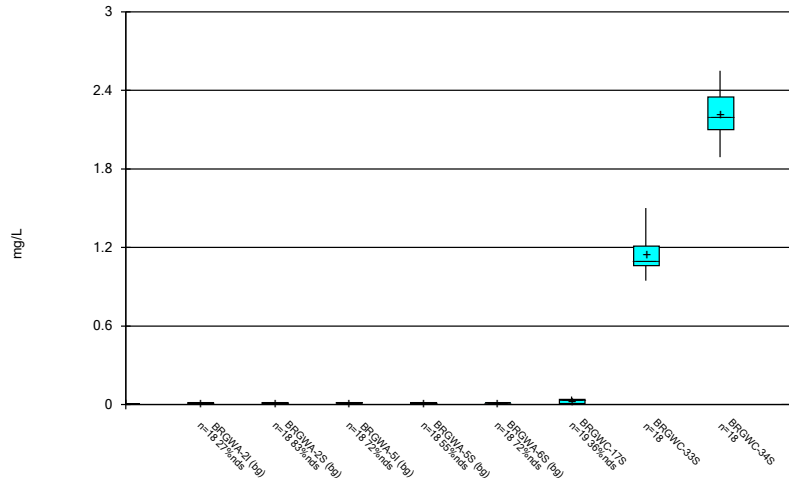
Constituent: Beryllium Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



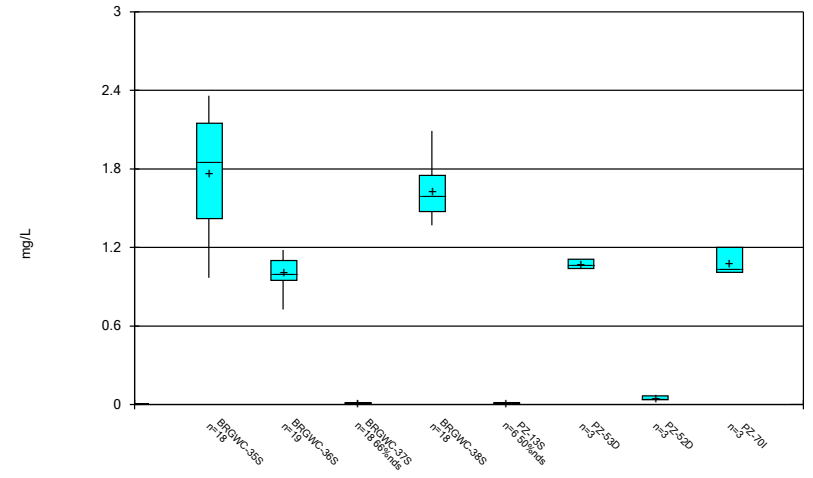
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



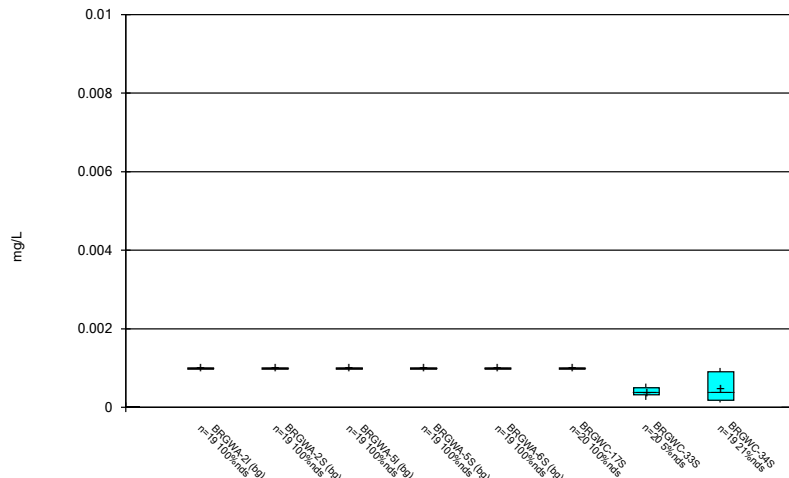
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



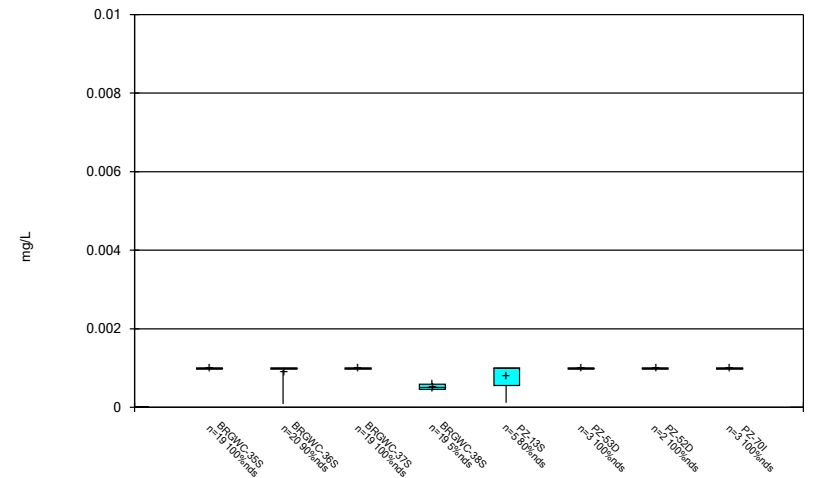
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



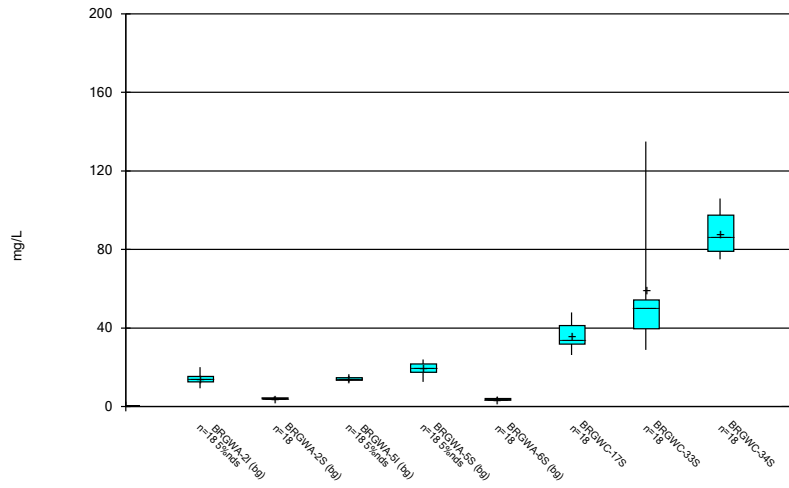
Constituent: Cadmium Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



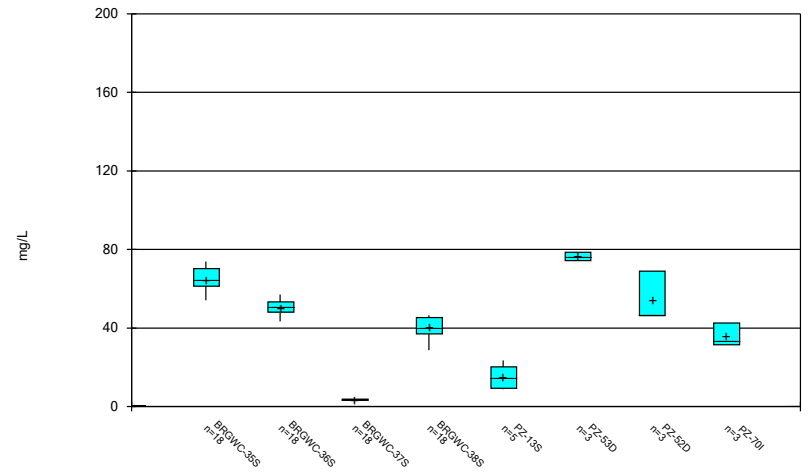
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



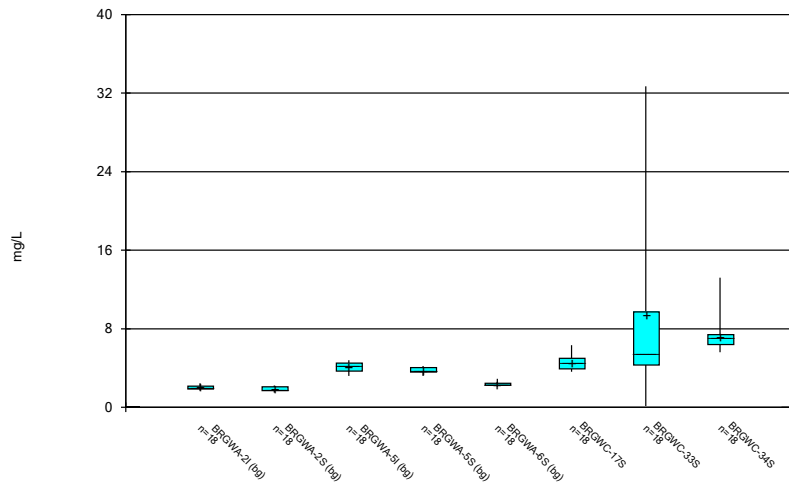
Constituent: Calcium Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



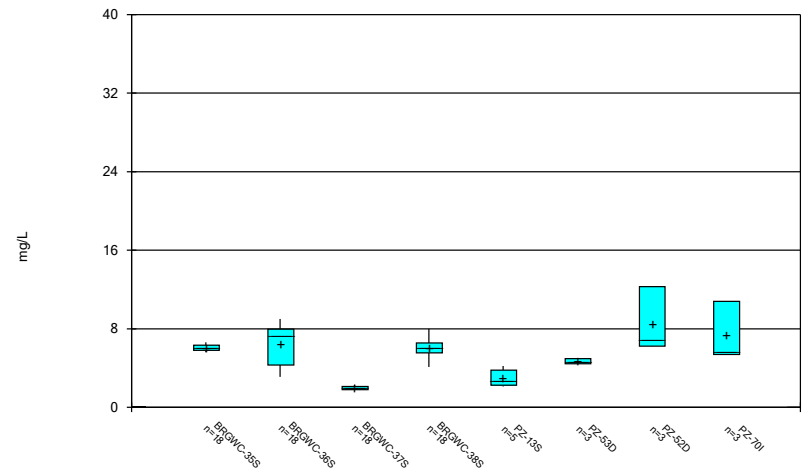
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



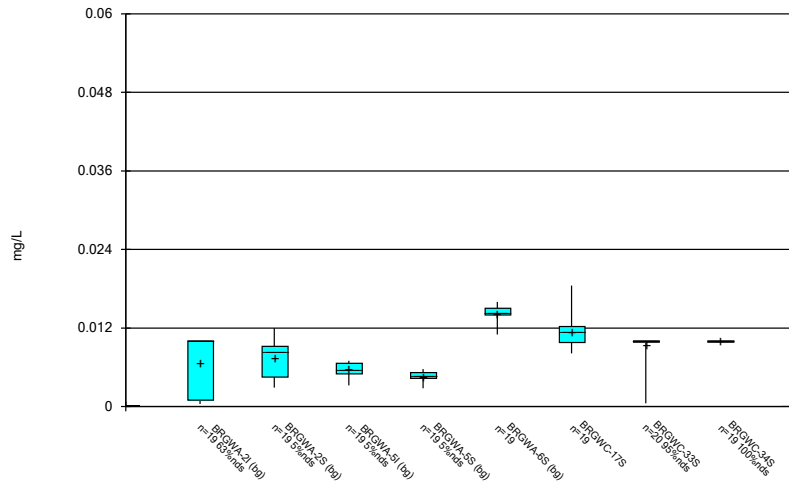
Constituent: Chloride Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



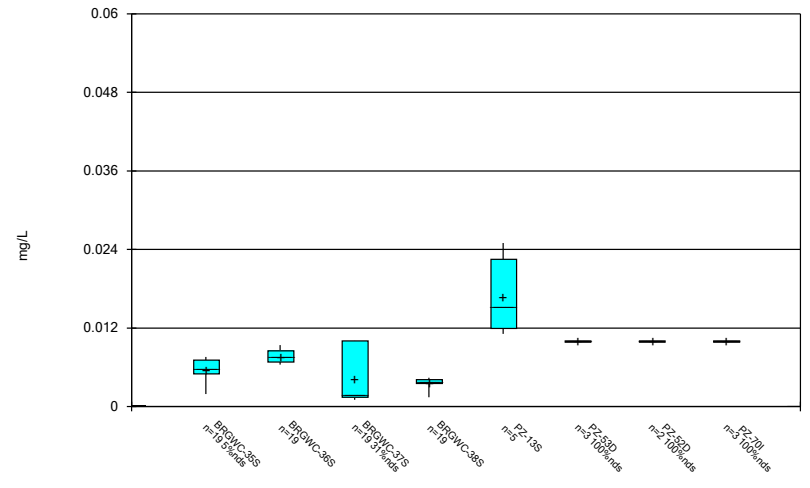
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



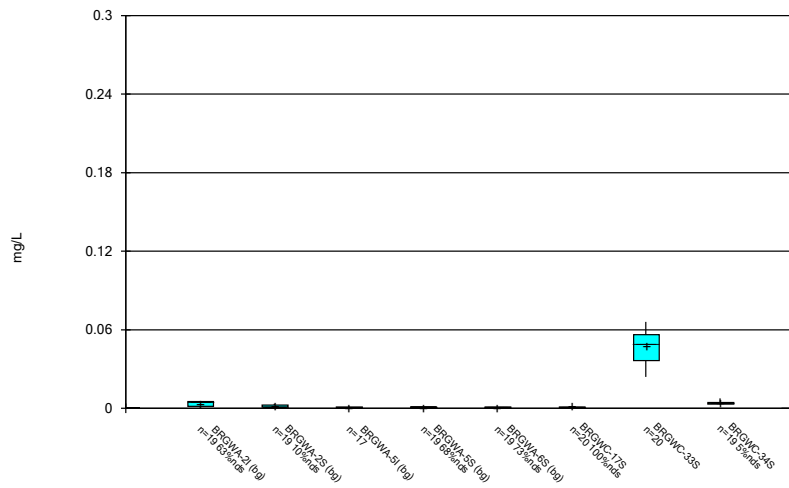
Constituent: Chromium Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



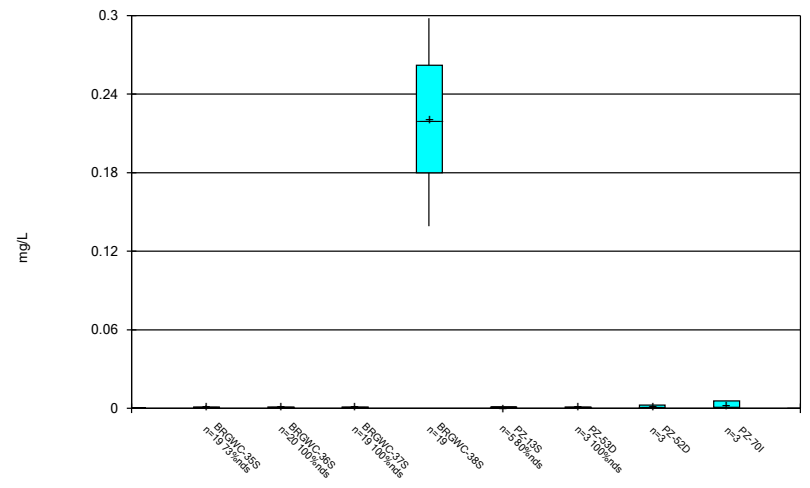
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



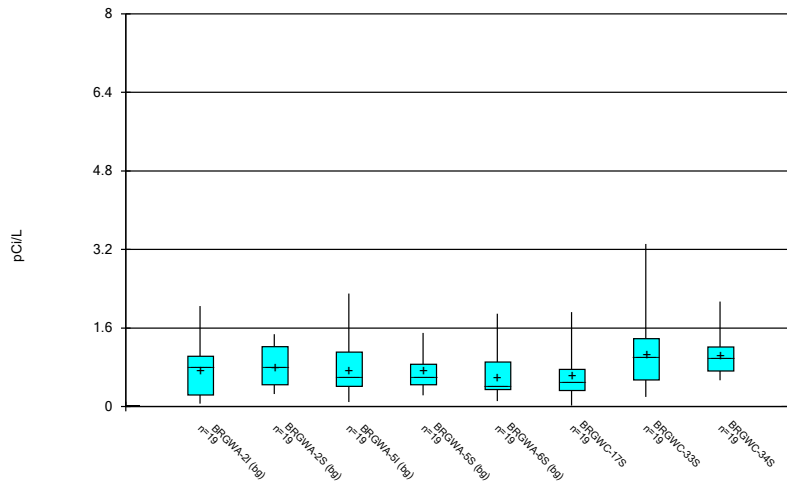
Constituent: Cobalt Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



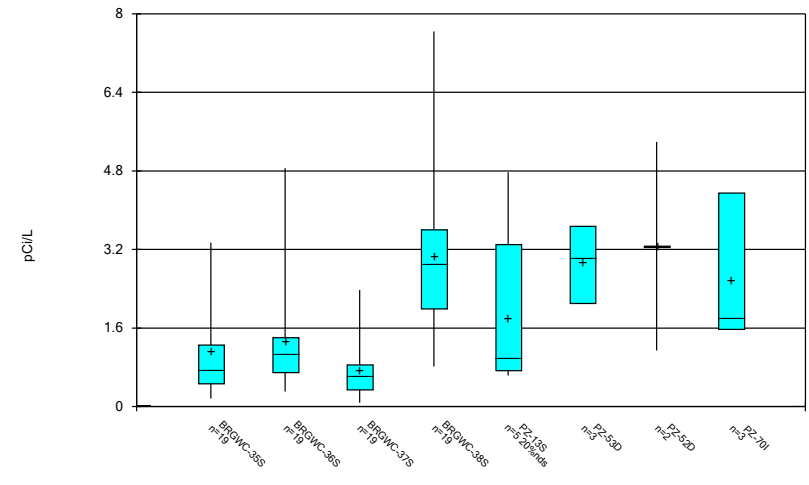
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



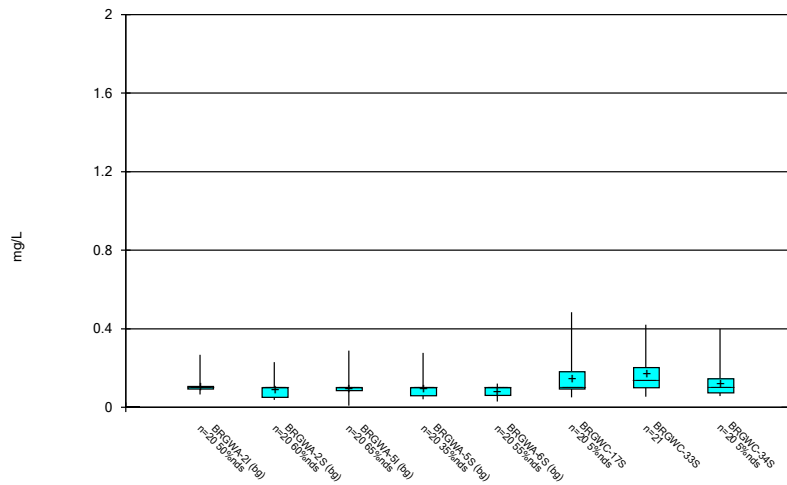
Constituent: Combined Radium 226 + 228 Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



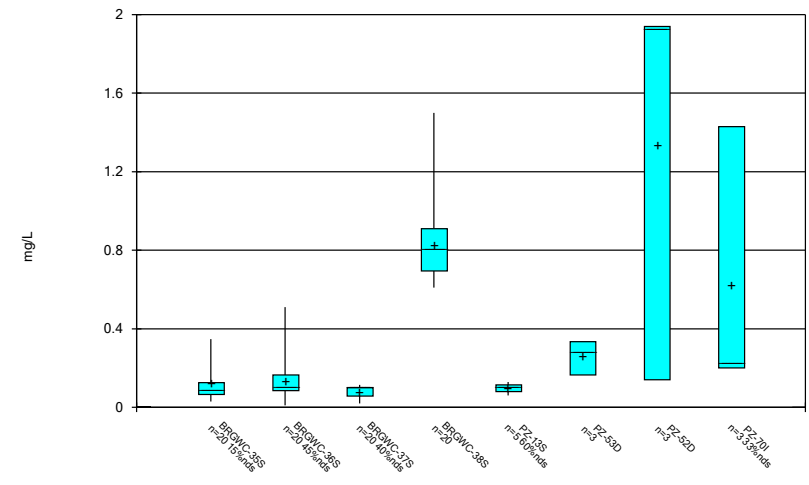
Constituent: Combined Radium 226 + 228 Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



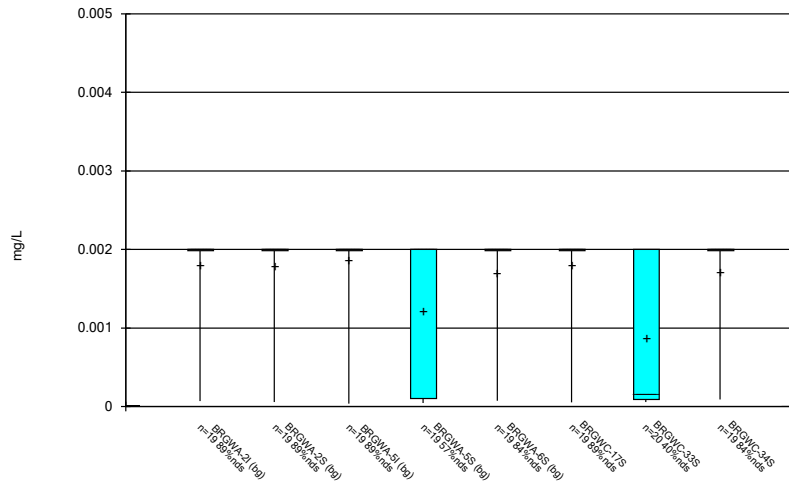
Constituent: Fluoride Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



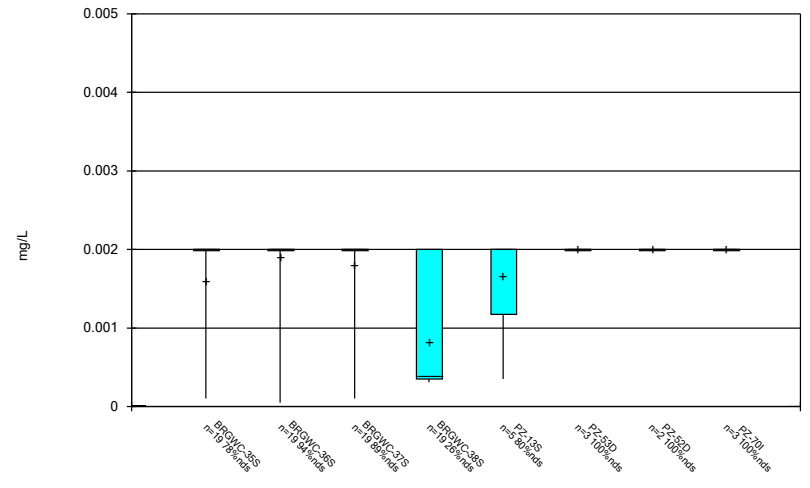
Constituent: Fluoride Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



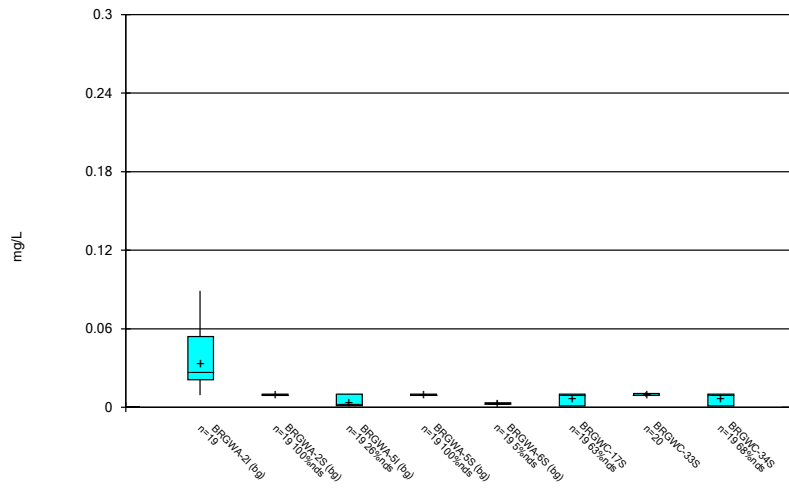
Constituent: Lead Analysis Run 10/23/2023 10:56 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



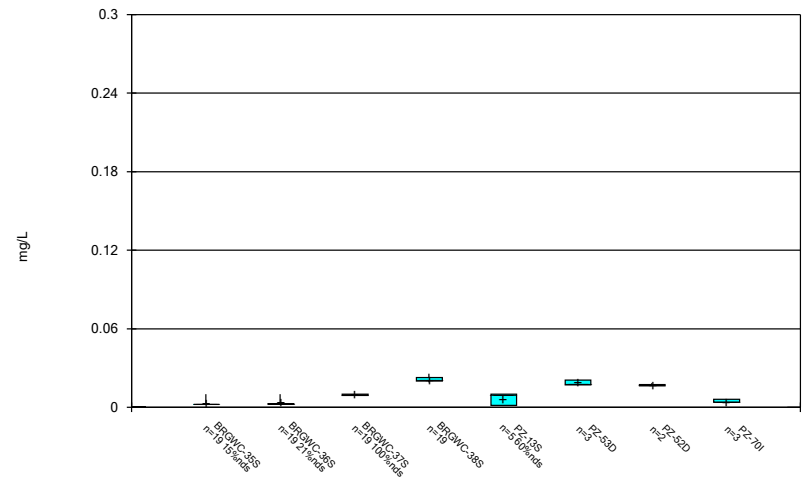
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



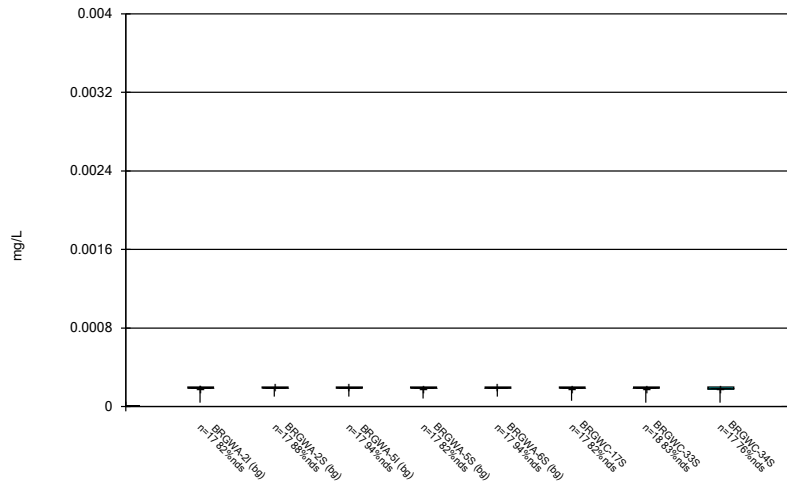
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



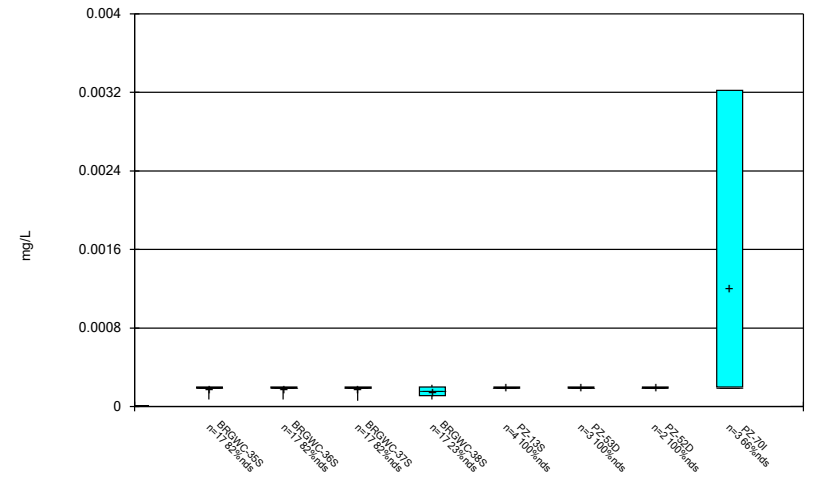
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



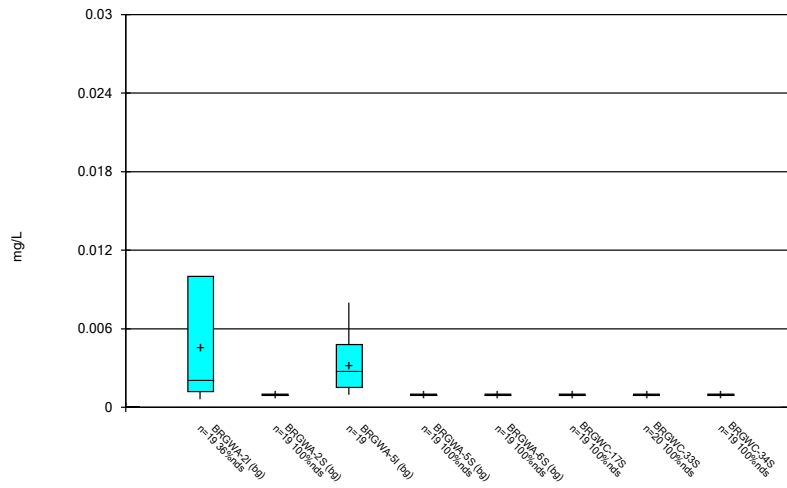
Constituent: Mercury Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



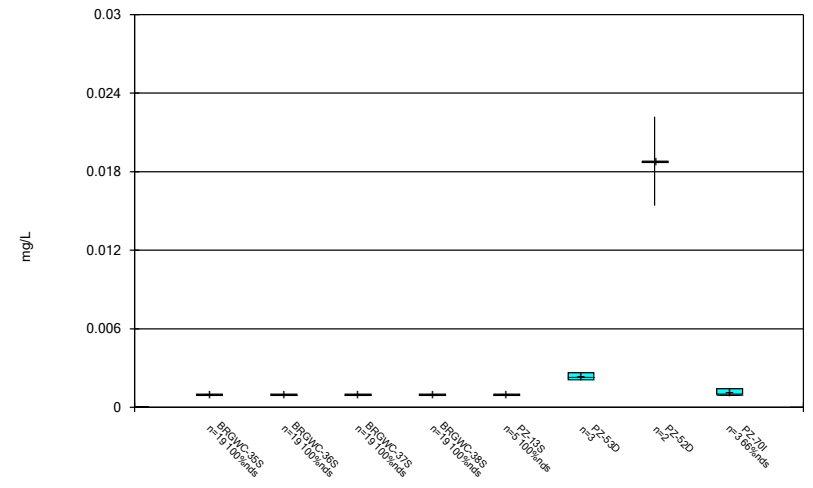
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



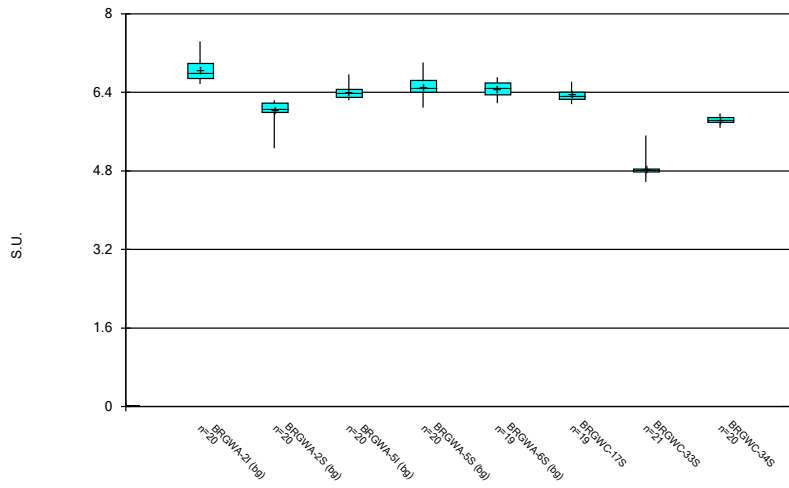
Constituent: Molybdenum Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



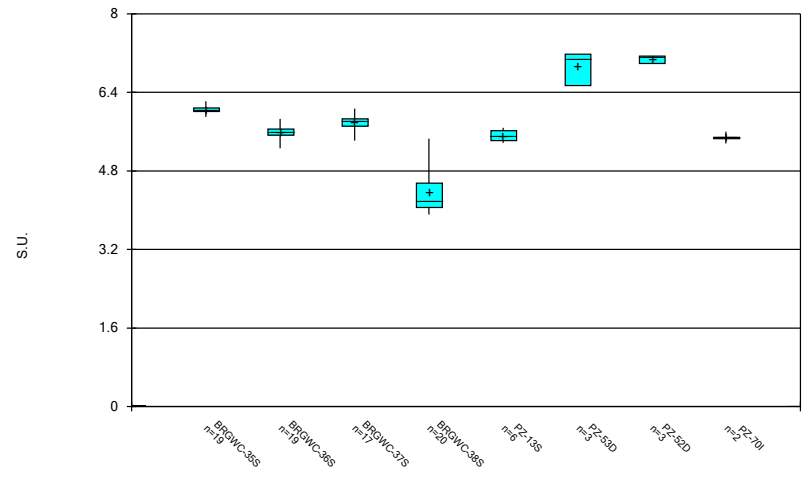
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



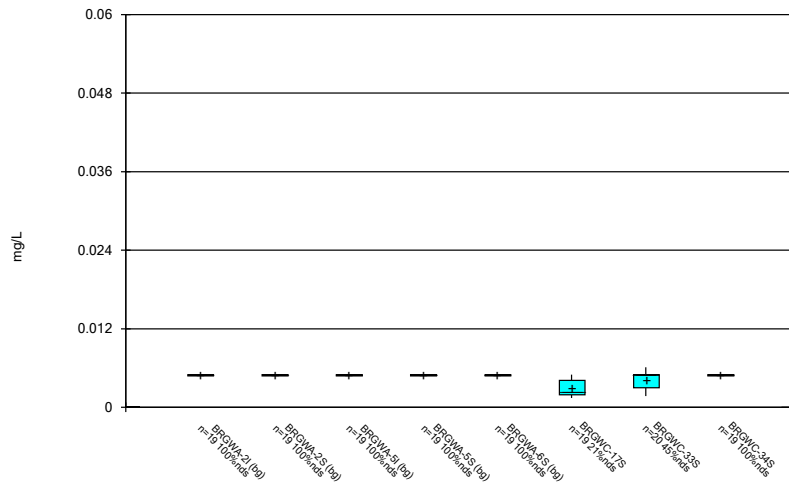
Constituent: pH, Field Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



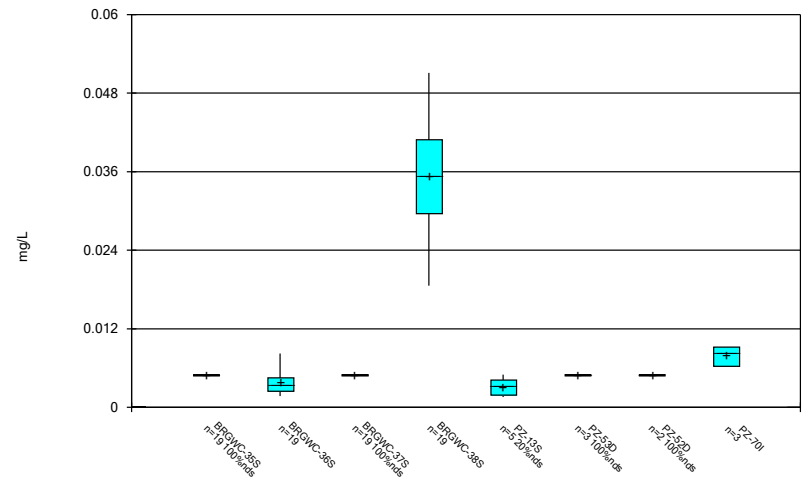
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



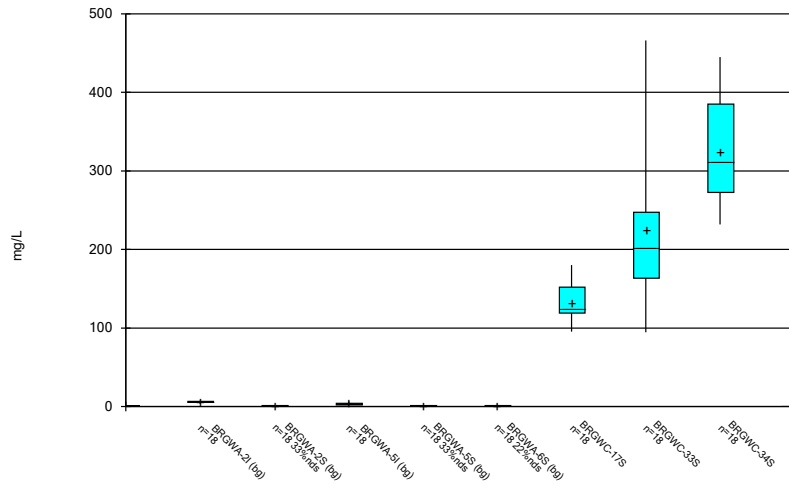
Constituent: Selenium Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



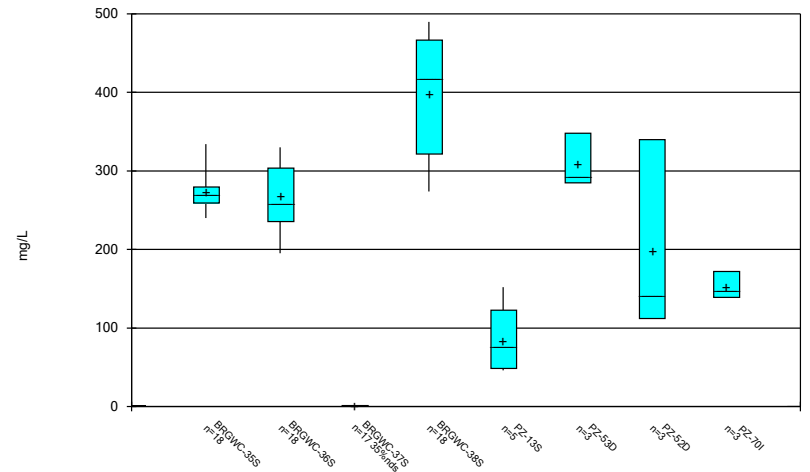
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



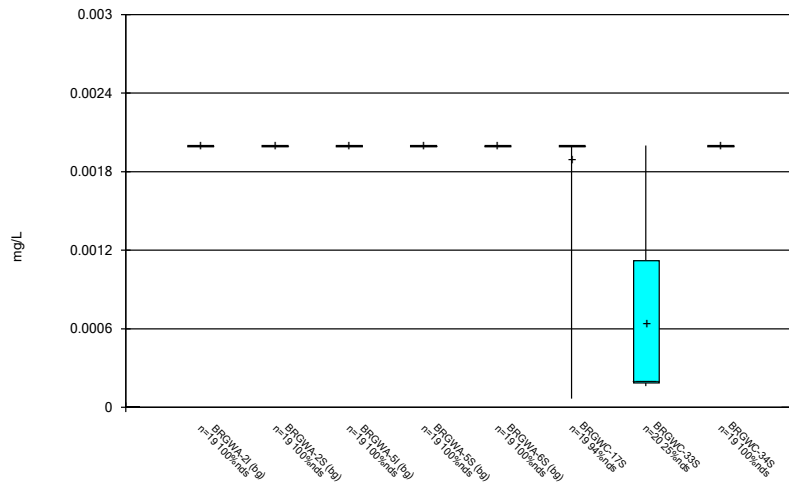
Constituent: Sulfate Analysis Run 10/23/2023 10:56 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



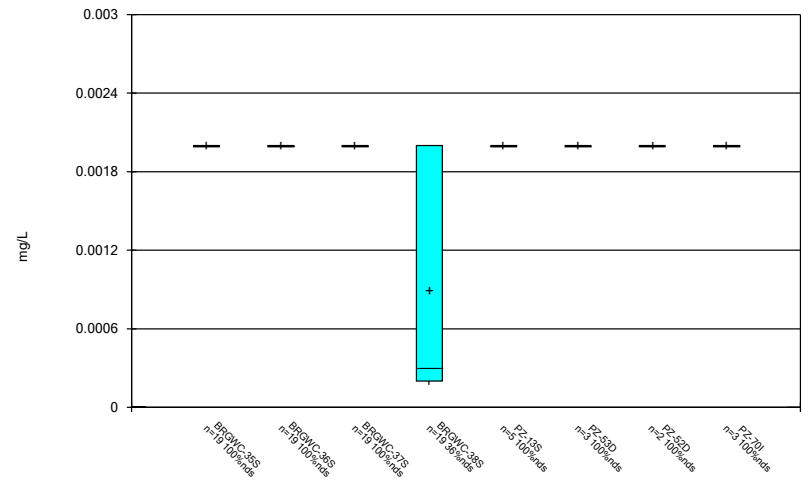
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



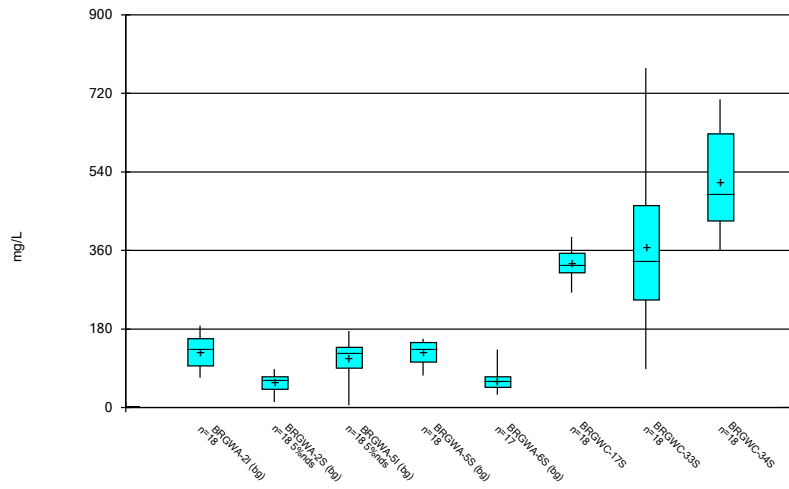
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



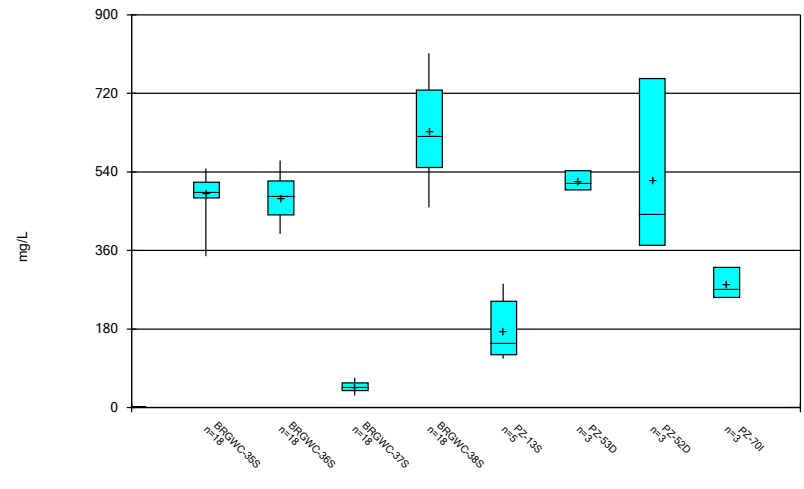
Constituent: Thallium Analysis Run 10/23/2023 10:57 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 10:57 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 10:57 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE C.

Outlier Summary

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:03 AM

	BRGWA-5I Cobalt (mg/L)	BRGWC-37S Sulfate (mg/L)	BRGWA-6S Total Dissolved Solids (mg/L)
9/1/2016			299 (o)
11/16/2016	<0.01 (o)		
2/13/2018	<0.01 (o)		
2/15/2018		1.9 (o)	

FIGURE D.

Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	9/6/2023	0.0601	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	9/1/2023	0.946	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	9/1/2023	1.9	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	9/7/2023	2.36	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	9/7/2023	1.04	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	9/7/2023	1.37	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/7/2023	47.9	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/1/2023	135	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/1/2023	83.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/7/2023	71.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/6/2023	43.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/7/2023	28.7	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2023	5.18	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/24/2023	32.7	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2023	13.2	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2023	6.21	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2023	8.26	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/24/2023	6.44	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.289	n/a	8/24/2023	0.484	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.289	n/a	8/24/2023	0.347	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.289	n/a	8/25/2023	0.301	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.289	n/a	8/24/2023	0.748	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	8/22/2023	4.58	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	8/23/2023	3.91	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/25/2023	180	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/24/2023	466	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2023	299	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/25/2023	269	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/25/2023	223	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/25/2023	274	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	180	n/a	8/28/2023	391	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	180	n/a	8/25/2023	778	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	180	n/a	8/25/2023	495	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	180	n/a	8/29/2023	485	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	180	n/a	8/29/2023	398	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	180	n/a	8/29/2023	459	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2

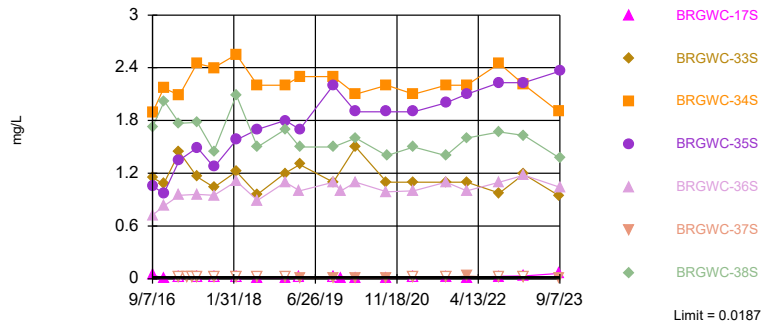
Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	9/6/2023	0.0601	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	9/1/2023	0.946	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	9/1/2023	1.9	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	9/7/2023	2.36	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	9/7/2023	1.04	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.0187	n/a	8/31/2023	0.00802J	No	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	9/7/2023	1.37	Yes	90	n/a	n/a	62.22	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/7/2023	47.9	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/1/2023	135	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/1/2023	83.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/7/2023	71.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/6/2023	43.4	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	8/31/2023	3.47	No	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/7/2023	28.7	Yes	90	n/a	n/a	3.333	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2023	5.18	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/24/2023	32.7	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2023	13.2	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2023	6.21	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2023	8.26	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	8/23/2023	1.89	No	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/24/2023	6.44	Yes	90	n/a	n/a	0	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.289	n/a	8/24/2023	0.484	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.289	n/a	8/23/2023	0.123	No	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.289	n/a	8/24/2023	0.0816J	No	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.289	n/a	8/24/2023	0.347	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.289	n/a	8/25/2023	0.301	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.289	n/a	8/23/2023	0.0445J	No	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.289	n/a	8/24/2023	0.748	Yes	100	n/a	n/a	53	n/a	n/a	0.0001929	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.44	5.26	8/23/2023	6.16	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	8/22/2023	4.58	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.44	5.26	8/22/2023	5.72	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.44	5.26	8/23/2023	5.9	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.44	5.26	8/23/2023	5.26	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.44	5.26	8/22/2023	5.42	No	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	8/23/2023	3.91	Yes	99	n/a	n/a	0	n/a	n/a	0.0003947	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/25/2023	180	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/24/2023	466	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2023	299	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/25/2023	269	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/25/2023	223	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	8/23/2023	0.355J	No	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/25/2023	274	Yes	90	n/a	n/a	17.78	n/a	n/a	0.0002371	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	180	n/a	8/28/2023	391	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	180	n/a	8/25/2023	778	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	180	n/a	8/25/2023	495	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	180	n/a	8/29/2023	485	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	180	n/a	8/29/2023	398	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	180	n/a	8/25/2023	42	No	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	180	n/a	8/29/2023	459	Yes	89	98.31	43.33	2.247	None	No	0.001075	Param Inter 1 of 2

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

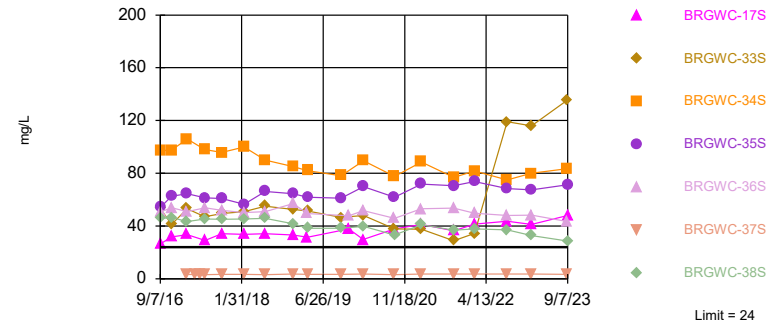


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 90 background values. 62.22% NDs. Annual per-constituent alpha = 0.003314. Individual comparison alpha = 0.0002371 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

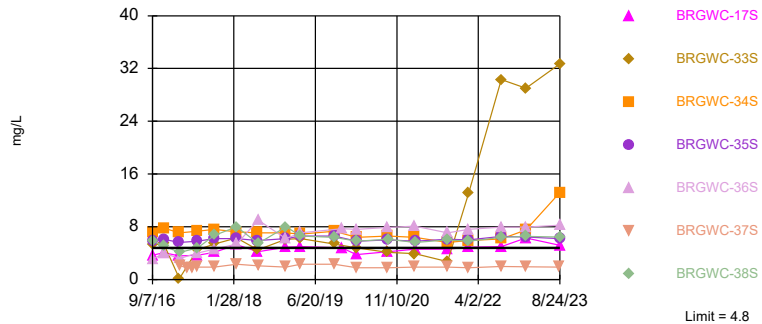


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 90 background values. 3.333% NDs. Annual per-constituent alpha = 0.003314. Individual comparison alpha = 0.0002371 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

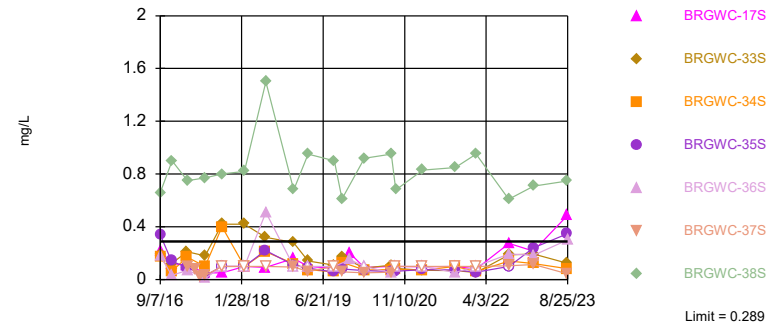


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 90 background values. Annual per-constituent alpha = 0.003314. Individual comparison alpha = 0.0002371 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

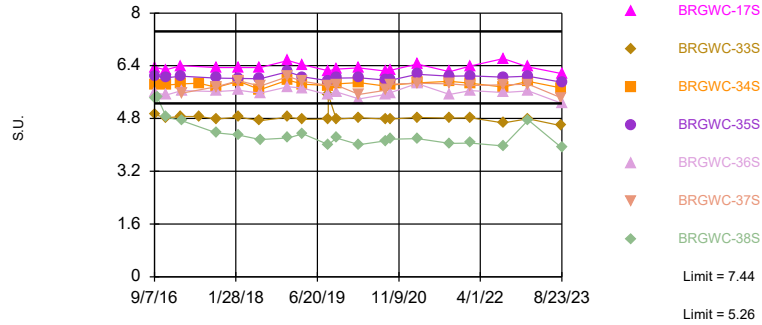


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 100 background values. 53% NDs. Annual per-constituent alpha = 0.002698. Individual comparison alpha = 0.0001929 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limits: BRGWC-33S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

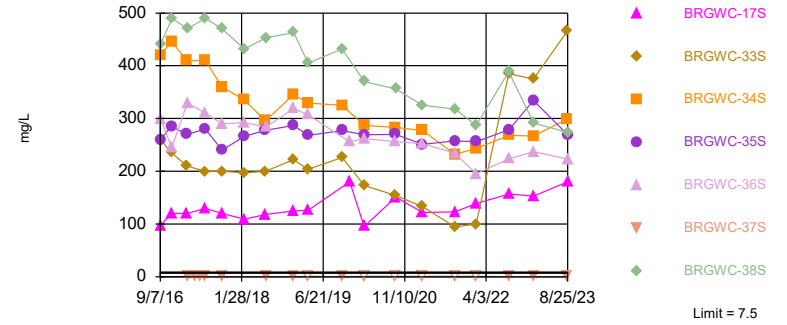


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 99 background values. Annual per-constituent alpha = 0.005519. Individual comparison alpha = 0.0003947 (1 of 2). Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

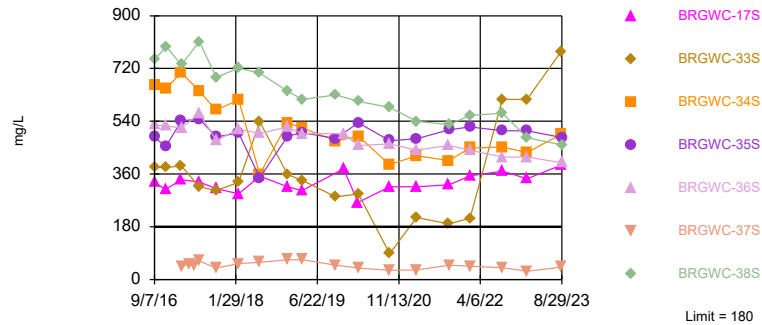


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 90 background values. 17.78% NDs. Annual per-constituent alpha = 0.003314. Individual comparison alpha = 0.0002371 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=98.31, Std. Dev.=43.33, n=89, 2.247% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9724, critical = 0.961. Kappa = 1.886 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:07 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-6S (bg)	BRGWC-33S	BRGWC-38S	BRGWC-17S	BRGWC-36S
8/31/2016	0.0072 (J)	<0.015	<0.015	<0.015					
9/1/2016					<0.015				
9/7/2016						1.15	1.73	0.0449 (J)	0.725
9/8/2016									
11/15/2016			0.0085 (J)		0.0123 (J)				
11/16/2016	0.0117 (J)	0.0109 (J)		0.0187 (J)					
11/17/2016						1.08		0.0067 (J)	
11/18/2016									0.831
11/21/2016							2.02		
2/20/2017			0.0093 (J)	0.0066 (J)	0.0157 (J)				
2/21/2017	0.0088 (J)	<0.015							
2/22/2017						1.44		<0.015	
2/23/2017							1.77		0.949
4/17/2017									
5/15/2017									
6/12/2017	0.0133 (J)		<0.015	<0.015	<0.015				
6/13/2017		<0.015							
6/14/2017						1.16			
6/15/2017							1.78	<0.015	0.961
9/26/2017	0.0093 (J)	<0.015	<0.015	<0.015	<0.015				
9/27/2017						1.04			
9/28/2017							1.45	<0.015	0.948
2/13/2018	0.0141 (J)	<0.015	<0.015	<0.015	<0.015				
2/15/2018						1.22	2.09	<0.015	1.11
6/26/2018	0.012 (J)	<0.015	0.0056 (J)	0.0042 (J)	0.0041 (J)				
6/27/2018						0.96 (J+X)		0.0088 (J+X)	
6/28/2018							1.5		0.89
12/18/2018	0.0086 (J)	<0.015	0.0062 (J)	<0.015	<0.015	1.2			
12/19/2018								0.0045 (J)	1.1
12/20/2018							1.7		
3/19/2019	0.00565 (JD)	<0.015	<0.015	<0.015	<0.015			<0.015	1
3/20/2019						1.3	1.5		
10/15/2019	0.0067 (J)	<0.015	0.006 (J)	<0.015	0.01 (J)				
10/16/2019						1.1	1.5		
10/17/2019								<0.015	1.1
12/3/2019								0.0063 (J)	1
3/3/2020	0.0082 (J)	<0.015	<0.015	<0.015	<0.015			0.0075 (J)	
3/5/2020						1.5	1.6		1.1
9/15/2020	<0.015	<0.015	<0.015	<0.015	<0.015				
9/16/2020						1.1		0.0066 (J)	0.99
9/17/2020							1.4		
3/1/2021	<0.015				<0.015				
3/2/2021		<0.015	0.0071 (J)	0.0053 (J)					
3/3/2021						1.1			1
3/4/2021							1.5	<0.015	
9/21/2021			<0.015	<0.015					
9/22/2021	<0.015	<0.015			<0.015	1.1		0.02 (J)	1.1
9/23/2021							1.4		
2/1/2022	<0.015	<0.015	<0.015	<0.015	<0.015	1.1	1.6	0.013 (J)	1
2/2/2022									
8/23/2022	0.00592 (J)	0.00532 (J)	0.00538 (J)	<0.015	<0.015	0.975	1.67		
8/24/2022								0.0273	1.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-6S (bg)	BRGWC-33S	BRGWC-38S	BRGWC-17S	BRGWC-36S
1/24/2023	<0.015	<0.015	<0.015	<0.015	<0.015	1.19		0.0326	
1/25/2023							1.63		1.18
8/31/2023	0.00649 (J)	0.00738 (J)	0.00764 (J)	0.0073 (J)	0.00611 (J)				
9/1/2023						0.946			
9/6/2023								0.0601	
9/7/2023							1.37		1.04

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	1.06		
9/8/2016		1.89	
11/15/2016			
11/16/2016			
11/17/2016	0.967	2.17	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	1.35	2.09	
2/23/2017			<0.015
4/17/2017			<0.015
5/15/2017			<0.015
6/12/2017			
6/13/2017			
6/14/2017		2.45	
6/15/2017	1.49		<0.015
9/26/2017			
9/27/2017		2.4	
9/28/2017	1.27		<0.015
2/13/2018			
2/15/2018	1.58	2.55	<0.015
6/26/2018			
6/27/2018	1.7 (J+X)	2.2 (J+X)	
6/28/2018			<0.015 (X)
12/18/2018		2.2	
12/19/2018	1.8		<0.015
12/20/2018			
3/19/2019			
3/20/2019	1.7	2.3	0.004 (J)
10/15/2019			
10/16/2019	2.2	2.3	0.0055 (J)
10/17/2019			
12/3/2019			
3/3/2020			
3/5/2020	1.9	2.1	0.0076 (J)
9/15/2020			
9/16/2020	1.9	2.2	0.0062 (J)
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021		2.1	<0.015
3/4/2021	1.9		
9/21/2021			
9/22/2021		2.2	
9/23/2021	2		<0.015
2/1/2022	2.1	2.2	
2/2/2022			0.032 (J)
8/23/2022			<0.015
8/24/2022	2.23	2.45	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-34S	BRGWC-37S
1/24/2023	2.23	2.21	
1/25/2023			<0.015
8/31/2023			0.00802 (J)
9/1/2023		1.9	
9/6/2023			
9/7/2023	2.36		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-35S	BRGWC-38S	BRGWC-36S
8/31/2016	12.6	19.6	13.5	4.09					
9/1/2016					3.3				
9/7/2016						26.3	54.1	45.9	50.6
9/8/2016									
11/15/2016		21.7			3.44				
11/16/2016	12.1		14.9	4.25					
11/17/2016						31.8	62.6		
11/18/2016									53.9
11/21/2016								46.4	
2/20/2017		21.1	13.9		3.52				
2/21/2017	11.4			4.02					
2/22/2017						33.5	64.6		
2/23/2017								43.5	51
4/17/2017									
5/15/2017									
6/12/2017	9.34	21.5	13.7		3.11				
6/13/2017				3.84					
6/14/2017									
6/15/2017						29	61.3	45.3	53.8
9/26/2017	14.3	24	14.4	3.31	3.15				
9/27/2017									
9/28/2017						34.1	60.8	45.1	51.8
2/13/2018	<25	<25	<25	3.94	3.65				
2/15/2018						33.8	56.6	45.3	50.1
6/26/2018	16 (J)	23.5 (J)	13.5 (J)	3.6	3.3				
6/27/2018						34.1	66.2		
6/28/2018								45.9	51
12/18/2018	14.5 (J)	19.8 (J)	16.4 (J)	3.8	3.5				
12/19/2018						33.1	64.4		57.1
12/20/2018								41.8	
3/19/2019	14.3 (JD)	21.4 (J)	12.3 (J)	3.9	3.6	31.6			49.5
3/20/2019							61.8	38.2	
10/15/2019	15.1	20	14.4	3.7	3.5				
10/16/2019							61.2	38.4	
12/3/2019						37.7			47.8
3/3/2020	20	23.2	14.9	4	5	29.7			
3/5/2020							69.9	39.8	51.7
9/15/2020	14.1	16.8	12.7	3.9	3.7				
9/16/2020						37.9	61.8		45.9
9/17/2020								33.1	
3/1/2021	15.4				4.2				
3/2/2021		16.8	13.2	4					
3/3/2021									53
3/4/2021						41.2	71.8	41	
9/21/2021		19.1	14.1						
9/22/2021	15.9			4.3	4.1	36.4			53.7
9/23/2021							70.5	36.8	
2/1/2022	14.4	19.1	14.5	4.4	4.2	41.5	73.8	37.8	49.7
2/2/2022									
8/23/2022	13.9	18.2	14.3	4.65	3.97			37.1	
8/24/2022						43.6	68.5		48.1
1/24/2023	14.2	19.4	15.8	4.86	3.9	41.3	67.5		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-35S	BRGWC-38S	BRGWC-36S
1/25/2023								32.8	48.2
8/31/2023	12.6	14.9	14.3	5.02	3.79				
9/1/2023									
9/6/2023									43.4
9/7/2023						47.9	71.4	28.7	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	53.4		
9/8/2016		97.3	
11/15/2016			
11/16/2016			
11/17/2016	41.3	97.6	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	53.1	106	
2/23/2017			3.26
4/17/2017			3.23
5/15/2017			2.97 (B-01)
6/12/2017			
6/13/2017			
6/14/2017	47.1	98	
6/15/2017			3.15
9/26/2017			
9/27/2017	49.5	95.8	
9/28/2017			3.26
2/13/2018			
2/15/2018	50.9	100	3.39
6/26/2018			
6/27/2018	55.1	90.1	
6/28/2018			3.1
12/18/2018	52.7	85.1	
12/19/2018			3.6
12/20/2018			
3/19/2019			
3/20/2019	51.4	82	3.3
10/15/2019			
10/16/2019	46.5	78.2	3.4
12/3/2019			
3/3/2020			
3/5/2020	48.1	89.6	3.7
9/15/2020			
9/16/2020	37.9	77.7	3.2
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	37.5	88.6	3.6
3/4/2021			
9/21/2021			
9/22/2021	28.9	76.9	
9/23/2021			3.7
2/1/2022	34.3	81.7	
2/2/2022			3.7
8/23/2022	119		3.7
8/24/2022		75	
1/24/2023	116	80	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
1/25/2023			3.65
8/31/2023			3.47
9/1/2023	135	83.4	
9/6/2023			
9/7/2023			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-33S	BRGWC-36S	BRGWC-17S	BRGWC-38S
8/31/2016	2.3	3.6	4.4	2					
9/1/2016					2.5				
9/7/2016						5.3	3.1	3.7	5.8
9/8/2016									
11/15/2016		4			2.3				
11/16/2016	2		4.4	1.8					
11/17/2016						5.45 (D)		4.05 (D)	
11/18/2016							3.95 (D)		
11/21/2016									5.05 (D)
2/20/2017		3.9	4.8		2.4				
2/21/2017	2			1.8					
2/22/2017						0.12 (J)		3.6	
2/23/2017							3.2		4.1
4/17/2017									
5/15/2017									
6/12/2017	2.1	3.8	4.2		2.2				
6/13/2017				1.7					
6/14/2017						4.5			
6/15/2017							4	3.7	4.8
9/26/2017	2	4.1	4.4	1.8	2.3				
9/27/2017						5.4			
9/28/2017							4.6	4.1	6.7
2/13/2018	2.1	4.1	4.7	1.7	2.3				
2/15/2018						6.3	5.4	5.3	8
6/26/2018	2.4	4.1	4.5	2.2	2.6				
6/27/2018						4.5		4.2	
6/28/2018							9 (J-X)		5.5 (J-X)
12/18/2018	1.8	3.8	4.5	1.9	2.3	6.1			
12/19/2018							6.2 (J-X)	4.9 (J-X)	
12/20/2018									8 (J-X)
3/19/2019	2.45 (D)	4.2	4.5	2	2.6		7.1	5	
3/20/2019						6.2			6.6
10/15/2019	2.2	3.7	4.2	1.9	2.4				
10/16/2019						5.4			6.4
12/3/2019							7.7	4.8	
3/3/2020	1.9	3.6	3.9	1.9	2.9			3.8	
3/5/2020						4.8	7.6		5.8
9/15/2020	1.9	3.7	3.7	1.7	2.3				
9/16/2020						4.1	7.9	4.2	
9/17/2020									6.1
3/1/2021	1.8				2.1				
3/2/2021		3.7	3.8	1.7					
3/3/2021						3.9	8.1		
3/4/2021								4.6	5.6
9/21/2021		3.2	3.2						
9/22/2021	1.7			1.5	2.1	2.7	7.1	4.6	
9/23/2021									6
2/1/2022	1.8	3.4	3.5	1.6	2.1	13.1	7.6	4.9	5.8
2/2/2022									
8/23/2022	2.02	3.59	3.64	2.18	2.39	30.3			6.42
8/24/2022							7.96	5	
1/24/2023	2.09	3.56	3.93	2.16	2.3	29		6.31	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-33S	BRGWC-36S	BRGWC-17S	BRGWC-38S
1/25/2023							7.93		6.53
8/23/2023	1.9	3.37	3.53	2.14	2.34				
8/24/2023						32.7	8.26	5.18	6.44

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	5.8		
9/8/2016		7.2	
11/15/2016			
11/16/2016			
11/17/2016	6.1 (D)	7.8 (D)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	5.6	7.1	
2/23/2017			2.1
4/17/2017			1.8
5/15/2017			1.8
6/12/2017			
6/13/2017			
6/14/2017		7.3	
6/15/2017	5.8		1.9
9/26/2017			
9/27/2017		7.6	
9/28/2017	6.2		1.9
2/13/2018			
2/15/2018	6.2	7.2	2.3
6/26/2018			
6/27/2018	5.9	7.1	
6/28/2018			2.1 (J-X)
12/18/2018		7.1	
12/19/2018	6.2 (J-X)		1.9 (J-X)
12/20/2018			
3/19/2019			
3/20/2019	6.6	6.9	2.3
10/15/2019			
10/16/2019	6.6	7.3	2.3
12/3/2019			
3/3/2020			
3/5/2020	5.8	6.4	1.8
9/15/2020			
9/16/2020	6	6.6	1.8
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021		6.4	1.9
3/4/2021	5.8		
9/21/2021			
9/22/2021		5.6	
9/23/2021	6.1		1.9
2/1/2022	6	5.9	
2/2/2022			1.8
8/23/2022			1.97
8/24/2022	6.53	6.17	
1/24/2023	6.46	7.5	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-34S	BRGWC-37S
1/25/2023			1.92
8/23/2023			1.89
8/24/2023	6.21	13.2	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-35S	BRGWC-17S
8/31/2016	0.11 (J)	0.19 (J)	0.07 (J)	0.05 (J)					
9/1/2016					0.06 (J)				
9/7/2016						0.66	0.18 (J)	0.34	0.22 (J)
9/8/2016									
11/15/2016		0.13 (J)			0.06 (J)				
11/16/2016	0.08 (J)		0.07 (J)	0.07 (J)					
11/17/2016								0.14 (J)	0.12 (J)
11/18/2016							0.03 (J)		
11/21/2016						0.9 (D)			
2/20/2017		0.08 (J)	0.06 (J)		0.04 (J)				
2/21/2017	0.14 (J)			0.05 (J)					
2/22/2017								0.09 (J)	0.11 (J)
2/23/2017						0.75	0.07 (J)		
4/17/2017									
5/15/2017									
6/12/2017	0.16 (J)	0.07 (J)	0.008 (J)		0.06 (J)				
6/13/2017				0.04 (J)					
6/14/2017									
6/15/2017						0.77	0.01 (J)	0.03 (J)	0.05 (J)
9/26/2017	0.14 (J)	0.04 (J)	<0.1	<0.1	<0.1				
9/27/2017									
9/28/2017						0.8	<0.1	<0.1	0.05 (J)
2/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1				
2/15/2018						0.82	<0.1	<0.1	<0.1
6/26/2018	0.085 (J)	0.072 (J)	0.045 (J)	0.048 (J)	0.041 (J)				
6/27/2018								0.22 (J)	0.093 (J)
6/28/2018						1.5 (J+X)	0.51 (J+X)		
12/18/2018	0.085 (J)	<0.1	<0.1	<0.1	<0.1				
12/19/2018							<0.1	0.11 (J)	0.16 (J)
12/20/2018						0.68			
3/19/2019	0.0655 (JD)	0.06 (J)	<0.1	0.037 (J)	0.03 (J)		<0.1		0.1 (J)
3/20/2019						0.95		0.088 (J)	
8/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1				
8/28/2019							<0.1	0.056 (J)	0.085 (J)
8/29/2019						0.9			
10/15/2019	<0.1	0.045 (J)	<0.1	<0.1	<0.1				
10/16/2019						0.61		0.08 (J)	
12/3/2019							0.15 (J)		0.2 (J)
3/3/2020	0.066 (J)	0.057 (J)	<0.1	0.05 (J)	0.09 (J)				0.093 (J)
3/5/2020						0.92	<0.1	0.067 (J)	
8/18/2020	<0.1	<0.1	<0.1	<0.1	<0.1				
8/19/2020						0.95	0.051 (J)	0.06 (J)	0.1
9/15/2020	<0.1	0.051 (J)	<0.1	<0.1	<0.1				
9/16/2020							<0.1	0.062 (J)	0.1
9/17/2020						0.68			
3/1/2021	<0.1				<0.1				
3/2/2021		<0.1	<0.1	<0.1					
3/3/2021							<0.1		
3/4/2021						0.83		0.076 (J)	0.096 (J)
9/21/2021		0.056 (J)	<0.1						
9/22/2021	<0.1			<0.1	<0.1		0.054 (J)		0.1
9/23/2021						0.85		0.073 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-35S	BRGWC-17S
2/1/2022	<0.1	<0.1	<0.1	<0.1	<0.1	0.95	<0.1	0.055 (J)	0.079 (J)
2/2/2022									
8/23/2022	<0.1	<0.1	<0.1	<0.1	<0.1	0.609			
8/24/2022							0.194	<0.1	0.274
1/24/2023	<0.1	0.158	0.149	<0.1	0.12			0.239	0.216
1/25/2023						0.708	0.183		
8/23/2023	0.267	0.277	0.289	0.229	0.0787 (J)				
8/24/2023						0.748		0.347	0.484
8/25/2023							0.301		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	0.19 (J)		
9/8/2016		0.17 (J)	
11/15/2016			
11/16/2016			
11/17/2016	0.12 (J)	0.06 (J)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	0.21 (J)	0.17 (J)	
2/23/2017			0.1 (J)
4/17/2017			0.08 (J)
5/15/2017			0.02 (J)
6/12/2017			
6/13/2017			
6/14/2017	0.18 (J)	0.1 (J)	
6/15/2017			0.03 (J)
9/26/2017			
9/27/2017	0.42	0.4	
9/28/2017			<0.1
2/13/2018			
2/15/2018	0.42	<0.1	<0.1
6/26/2018			
6/27/2018	0.32	0.21 (J)	
6/28/2018			<0.1
12/18/2018	0.28 (J)	0.12 (J)	
12/19/2018			0.094 (J)
12/20/2018			
3/19/2019			
3/20/2019	0.14 (J)	0.074 (J)	0.062 (J)
8/27/2019	0.11 (J)		
8/28/2019	0.11 (J)	0.057 (J)	<0.1
8/29/2019			
10/15/2019			
10/16/2019	0.17 (J)	0.13 (J)	0.059 (J)
12/3/2019			
3/3/2020			
3/5/2020	0.088 (J)	0.072 (J)	0.05 (J)
8/18/2020			
8/19/2020	0.11	0.074 (J)	0.055 (J)
9/15/2020			
9/16/2020	0.085 (J)	0.077 (J)	<0.1
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	0.069 (J)	0.071 (J)	<0.1
3/4/2021			
9/21/2021			
9/22/2021	0.068 (J)	0.1	
9/23/2021			<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
2/1/2022	0.053 (J)	0.06 (J)	
2/2/2022			<0.1
8/23/2022	0.187		0.105
8/24/2022		0.14	
1/24/2023	0.193	0.122	
1/25/2023			0.114
8/23/2023	0.123		0.0445 (J)
8/24/2023		0.0816 (J)	
8/25/2023			

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-33S	BRGWC-38S	BRGWC-36S	BRGWC-17S
8/23/2022	6.67	6.36	6.24	5.95	6.51	4.67	3.97		
8/24/2022								5.59	6.62
1/24/2023	6.7	6.47	6.42	5.26	6.54	4.79			6.37
1/25/2023							4.75	5.64	
8/22/2023	6.91	6.09	6.36	5.97	6.27	4.58			
8/23/2023							3.91	5.26	6.16

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	6.1		
9/8/2016		5.84	
9/23/2016			
11/15/2016			
11/16/2016			
11/17/2016	6.04	5.81	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	6.08	5.85	
2/23/2017			5.57
6/12/2017			
6/13/2017			
6/14/2017		5.87	
9/26/2017			
9/27/2017		5.74	
9/28/2017	6.03		5.76
2/13/2018			
2/15/2018	6.02	5.93	5.95
6/26/2018			
6/27/2018	6.01	5.68	
6/28/2018			5.78
12/18/2018		5.97	
12/19/2018	6.22		6.07
12/20/2018			
3/19/2019			
3/20/2019	6.06	5.84	5.93
8/27/2019			
8/28/2019	5.95	5.8	5.8
8/29/2019			
10/15/2019			
10/16/2019	6.03	5.85	5.81
10/17/2019			
3/3/2020			
3/5/2020	6.04	5.89	5.53
8/18/2020			
8/19/2020	5.97	5.78	5.66
9/15/2020			
9/16/2020	5.96	5.81	5.84
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021		5.88	5.87
3/4/2021	6.14		
9/21/2021			
9/22/2021		5.93	
9/23/2021	6.08		5.85
2/1/2022	6.09	5.87	
2/2/2022			5.8

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-34S	BRGWC-37S
8/23/2022			5.82
8/24/2022	6.05	5.75	
1/24/2023	6.08	5.93	
1/25/2023			5.84
8/22/2023		5.72	5.42
8/23/2023	5.9		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-35S	BRGWC-36S	BRGWC-38S
8/31/2016	7.5	0.81 (J)	0.38 (J)	2.7					
9/1/2016					0.6 (J)				
9/7/2016						97	260	300	440
9/8/2016									
11/15/2016		<1 (J)			0.68 (J)				
11/16/2016	6.6		<1 (J)	3.4					
11/17/2016						120 (D)	285 (D)		
11/18/2016								245 (D)	
11/21/2016									490 (D)
2/20/2017		1 (B-01)		3.9 (B-01)	0.98 (J)				
2/21/2017	6.1		1.5						
2/22/2017						120	270		
2/23/2017								330	470
4/17/2017									
5/15/2017									
6/12/2017	5	0.94 (J)		3.7	0.54 (J)				
6/13/2017			0.67 (J)						
6/14/2017									
6/15/2017						130	280	310	490
9/26/2017	5.4	0.92 (J)	0.62 (J)	4.1	0.53 (J)				
9/27/2017									
9/28/2017						120	240	290	470
2/13/2018	4.7 (J)	<1	<1	6.6	<1				
2/15/2018						109	266	292	432
6/26/2018	6.2	0.91 (J)	0.69 (J)	3.5	0.54 (J)				
6/27/2018						118	278		
6/28/2018								284	453
12/18/2018	5.9	0.68 (J)	0.72 (J)	4.3	0.39 (J)				
12/19/2018						125	287	319	
12/20/2018									463
3/19/2019	6 (D)	0.74 (J)	0.78 (J)	3	0.68 (J)	126		307	
3/20/2019							268		405
10/15/2019	5.2	0.68 (J)	0.47 (J)	3.8	0.48 (J)				
10/16/2019							277		432
12/3/2019						180		256	
3/3/2020	7.1	0.71 (J)	0.93 (J)	2.8	2.5	95.4			
3/5/2020							269	262	370
9/15/2020	5.9	<1	<1	1.7	<1				
9/16/2020						151	270	256	
9/17/2020									356
3/1/2021	4.7				0.74 (J)				
3/2/2021		<1	<1	2.2					
3/3/2021								252	
3/4/2021						122	251		325
9/21/2021		<1		2.3					
9/22/2021	5.2		<1		<1	123		234	
9/23/2021							258		318
2/1/2022	5.4	<1	<1	2	<1	139	256	195	287
2/2/2022									
8/23/2022	5.66	0.521	0.452	2.21	0.479				389
8/24/2022						157	279	224	
1/24/2023	3.58	0.66	0.465	3.34	0.484	153	334		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-35S	BRGWC-36S	BRGWC-38S
1/25/2023								237	291
8/23/2023	6.85	0.54	0.526	1.83	0.467				
8/24/2023									
8/25/2023						180	269	223	274

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	260		
9/8/2016		420	
11/15/2016			
11/16/2016			
11/17/2016	235 (D)	445 (D)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	210	410	
2/23/2017			0.55 (J)
4/17/2017			0.44 (J)
5/15/2017			0.45 (J)
6/12/2017			
6/13/2017			
6/14/2017	200	410	
6/15/2017			0.46 (J)
9/26/2017			
9/27/2017	200	360	
9/28/2017			0.49 (J)
2/13/2018			
2/15/2018	197	335	1.9 (o)
6/26/2018			
6/27/2018	200	296	
6/28/2018			0.24 (J)
12/18/2018	222	345	
12/19/2018			0.4 (J)
12/20/2018			
3/19/2019			
3/20/2019	204	329	<1 (X)
10/15/2019			
10/16/2019	226	325	0.29 (J)
12/3/2019			
3/3/2020			
3/5/2020	173	287	<1
9/15/2020			
9/16/2020	154	283	<1
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	133	277	<1
3/4/2021			
9/21/2021			
9/22/2021	94.6	232	
9/23/2021			<1
2/1/2022	99.7	243	
2/2/2022			<1
8/23/2022	385		0.307 (J)
8/24/2022		268	
1/24/2023	375	267	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
1/25/2023			0.325 (J)
8/23/2023			0.355 (J)
8/24/2023	466	299	
8/25/2023			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-35S	BRGWC-17S	BRGWC-33S
8/31/2016	151	154	138	88					
9/1/2016									
9/7/2016					750	528	486	331	382
9/8/2016									
11/15/2016		123							
11/16/2016	69		77	41					
11/17/2016							453	308	382
11/18/2016						524			
11/21/2016					795				
2/20/2017		158	170						
2/21/2017	68			<10					
2/22/2017							541	341	387
2/23/2017					733	517			
4/17/2017									
5/15/2017									
6/12/2017	161	142	132						
6/13/2017				53					
6/14/2017									316
6/15/2017					812	566	548	333	
9/26/2017	167	138	108	45					
9/27/2017									303
9/28/2017					690	475	487	310	
2/13/2018	165	150	141	63					
2/15/2018					722	513	500	292	332
6/26/2018	188	154	133	71					
6/27/2018							347 (X)	353 (X)	538 (X)
6/28/2018					704	499			
12/18/2018	145 (X)	147	138 (X)	78 (X)					358
12/19/2018						521	489	317	
12/20/2018					642				
3/19/2019	146.5 (D)	146	130	68		498		303	
3/20/2019					615		501		338
10/15/2019	140	144	175	66					
10/16/2019					630		481		281
12/3/2019						498		378	
3/3/2020	155	130	<10	41				263	
3/5/2020					608	457	535		292
9/15/2020	116	116	100	69					
9/16/2020						463	474	316	88
9/17/2020					587				
3/1/2021	98								
3/2/2021		96	80	43					
3/3/2021						442			212
3/4/2021					540		480	316	
9/21/2021		104	108						
9/22/2021	129			66		457		323	190
9/23/2021					528		511		
2/1/2022	126	124	129	72	560	441	521	354	209
2/2/2022									
8/23/2022	117	101	107	45	568				614
8/24/2022						418	507	370	
1/24/2023	93	104	124	63			507	344	615

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-35S	BRGWC-17S	BRGWC-33S
1/25/2023					484	418			
8/25/2023		73		36					778
8/28/2023	81		80					391	
8/29/2023					459	398	485		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-34S	BRGWA-6S (bg)	BRGWC-37S
8/31/2016			
9/1/2016		299 (o)	
9/7/2016			
9/8/2016	663		
11/15/2016		41	
11/16/2016			
11/17/2016	651		
11/18/2016			
11/21/2016			
2/20/2017		133	
2/21/2017			
2/22/2017	706		
2/23/2017			45
4/17/2017			53
5/15/2017			48
6/12/2017		61	
6/13/2017			
6/14/2017	643		
6/15/2017			63
9/26/2017		29	
9/27/2017	579		
9/28/2017			39
2/13/2018		61	
2/15/2018	612		54
6/26/2018		71	
6/27/2018	359 (X)		
6/28/2018			59 (X)
12/18/2018	535	70 (X)	
12/19/2018			68
12/20/2018			
3/19/2019		72	
3/20/2019	517		68 (X)
10/15/2019		63	
10/16/2019	473		49
12/3/2019			
3/3/2020		54	
3/5/2020	489		39
9/15/2020		79	
9/16/2020	392		31
9/17/2020			
3/1/2021		39	
3/2/2021			
3/3/2021	422		33
3/4/2021			
9/21/2021			
9/22/2021	406	62	
9/23/2021			49
2/1/2022	449	61	
2/2/2022			46
8/23/2022		52	40
8/24/2022	452		
1/24/2023	433	64	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/23/2023 11:11 AM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-34S	BRGWA-6S (bg)	BRGWC-37S
1/25/2023			28
8/25/2023	495		42
8/28/2023		30	
8/29/2023			

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Alpha	Method
Boron (mg/L)	BRGWC-35S	0.1599	130	68	Yes	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.02911	79	74	Yes	19	0	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1264	80	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	2.068	100	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-3.241	-93	-68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	1.905	76	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.949	-109	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.1548	-84	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07449	-75	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2106	82	68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.6997	105	68	Yes	18	0	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0.006424	91	81	Yes	20	65	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.07157	-82	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.03999	-100	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05423	-104	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.105	-112	-81	Yes	20	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	6.447	75	68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-26.58	-116	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13	-94	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-31.94	-116	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-8.69	-93	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-37.39	-83	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-18.58	-124	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.42	-129	-68	Yes	18	0	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.0001886	17	68	No	18	27.78	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-16	-68	No	18	83.33	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-15	-68	No	18	72.22	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-8	-68	No	18	55.56	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	-11	-68	No	18	72.22	n/a	0.01	NP
Boron (mg/L)	BRGWC-17S	0	-10	-74	No	19	36.84	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	-0.01403	-29	-68	No	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0	2	68	No	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1599	130	68	Yes	18	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.02911	79	74	Yes	19	0	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.03883	-55	-68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.3318	33	68	No	18	5.556	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.149	63	68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.103	21	68	No	18	5.556	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.5359	-55	-68	No	18	5.556	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1264	80	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	2.068	100	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-0.5742	-7	-68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-3.241	-93	-68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	1.905	76	68	Yes	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.754	-56	-68	No	18	0	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.949	-109	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.03364	-41	-68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	0	2	68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.1548	-84	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07449	-75	-68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.001816	-21	-68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2106	82	68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-33S	0.9635	39	68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2147	-51	-68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.05887	45	68	No	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.6997	105	68	Yes	18	0	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1287	31	68	No	18	0	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	3	81	No	20	50	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0.005022	75	81	No	20	60	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0.006424	91	81	Yes	20	65	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	15	81	No	20	35	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0.003384	66	81	No	20	55	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-17S	0.006949	26	81	No	20	5	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-35S	-0.005237	-23	-81	No	20	15	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-36S	0.006762	48	81	No	20	45	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0	1	81	No	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.07157	-82	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.03999	-100	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.01794	-48	-81	No	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05423	-104	-81	Yes	20	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	-0.006594	-9	-74	No	19	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-33S	-0.01321	-69	-87	No	21	0	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.105	-112	-81	Yes	20	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.1349	-35	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	-4	-68	No	18	33.33	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.2786	-63	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.0299	-41	-68	No	18	33.33	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.00337	-11	-68	No	18	22.22	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	6.447	75	68	Yes	18	0	n/a	0.01	NP

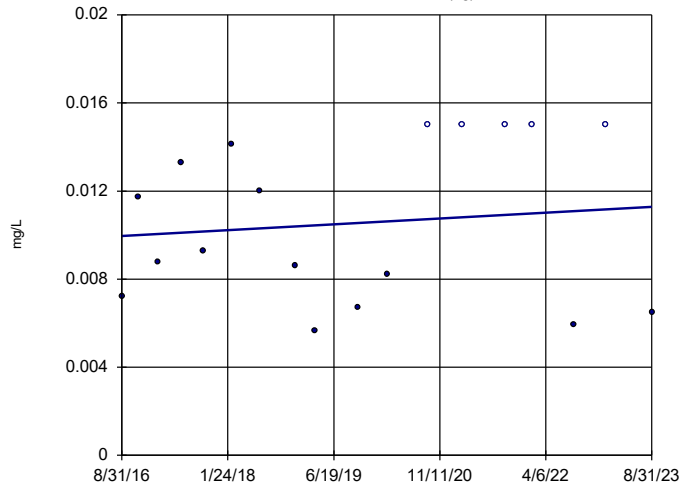
Appendix III Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/23/2023, 11:19 AM

<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>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	BRGWC-33S	-11.07	-20	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-26.58	-116	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-0.1537	-3	-68	No	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13	-94	-68	Yes	18	0	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-31.94	-116	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-8.462	-53	-68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	-0.5826	-5	-68	No	18	5.556	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-4.727	-44	-68	No	18	5.556	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-8.69	-93	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-1.676	-17	-63	No	17	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-17S	5.817	44	68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-33S	-14.96	-14	-68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-37.39	-83	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	1.416	10	68	No	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-18.58	-124	-68	Yes	18	0	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.42	-129	-68	Yes	18	0	n/a	0.01	NP

Sen's Slope Estimator

BRGWA-2I (bg)

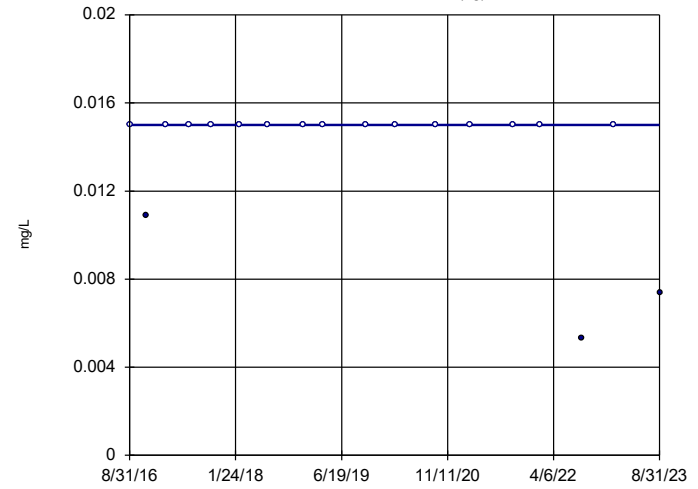


n = 18
Slope = 0.0001886
units per year.
Mann-Kendall
statistic = 17
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

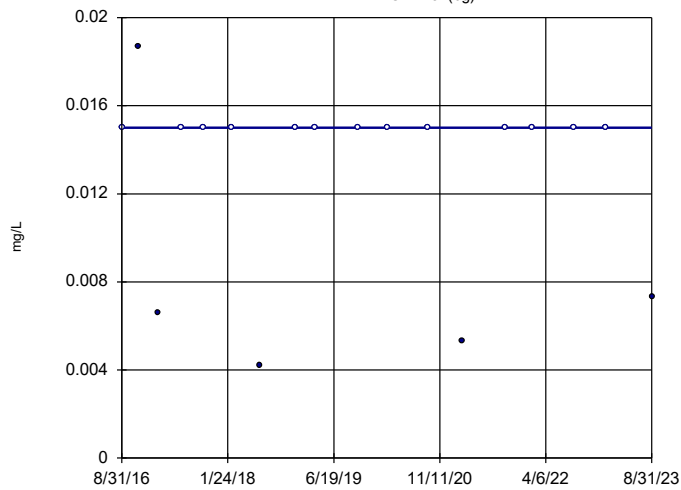


n = 18
Slope = 0
units per year.
Mann-Kendall
statistic = -16
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

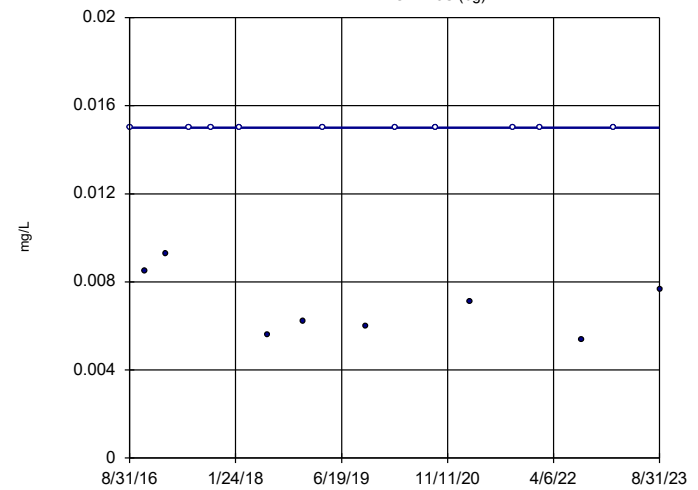


n = 18
Slope = 0
units per year.
Mann-Kendall
statistic = -15
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

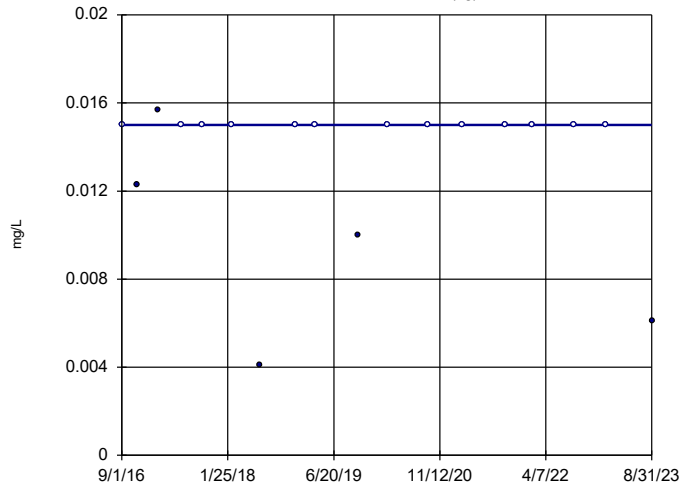


n = 18
Slope = 0
units per year.
Mann-Kendall
statistic = -8
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

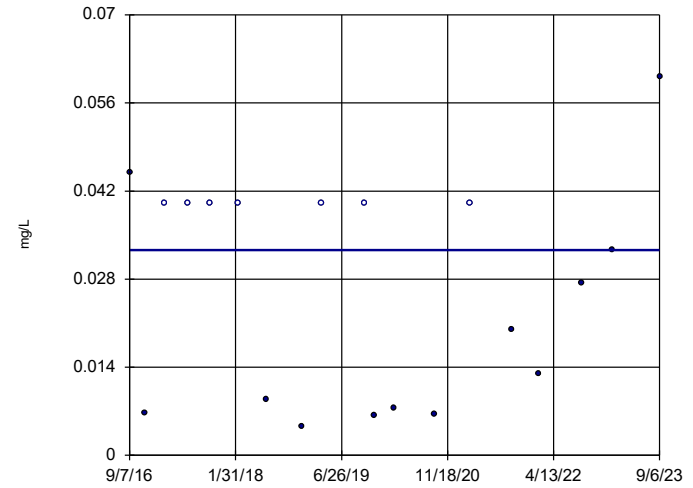


n = 18
Slope = 0
units per year.
Mann-Kendall
statistic = -11
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

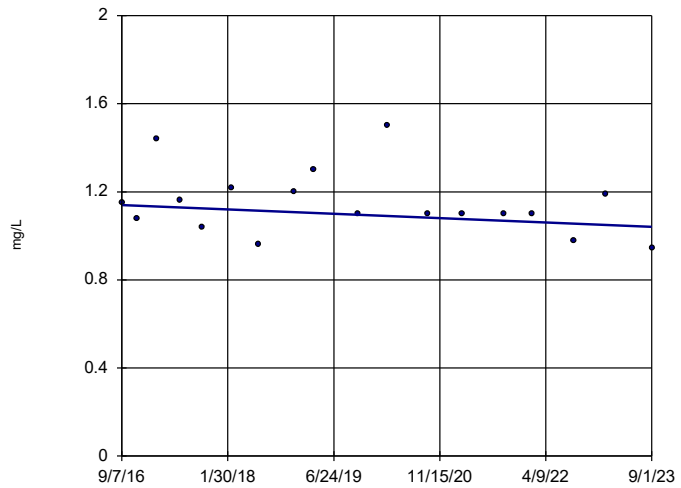


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = -10
critical = -74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

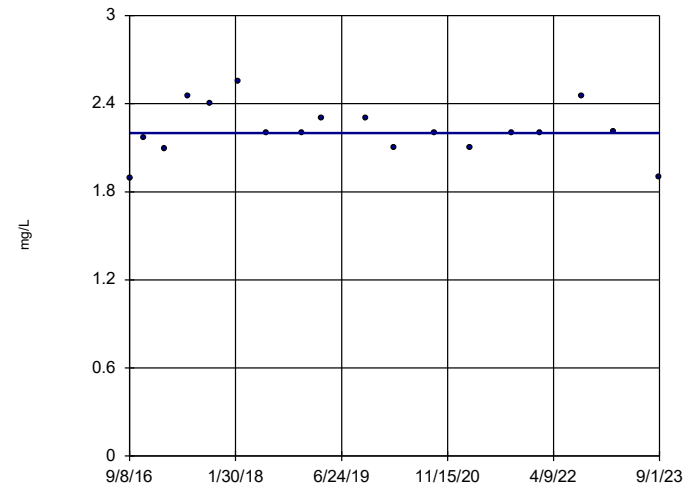


n = 18
Slope = -0.01403
units per year.
Mann-Kendall
statistic = -29
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

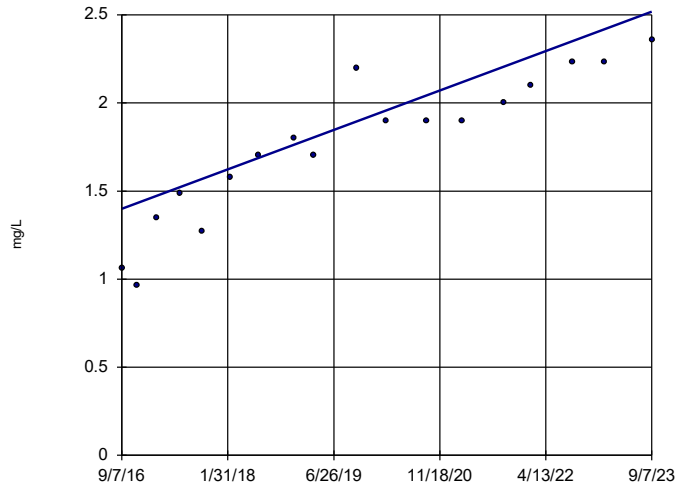


n = 18
Slope = 0
units per year.
Mann-Kendall
statistic = 2
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

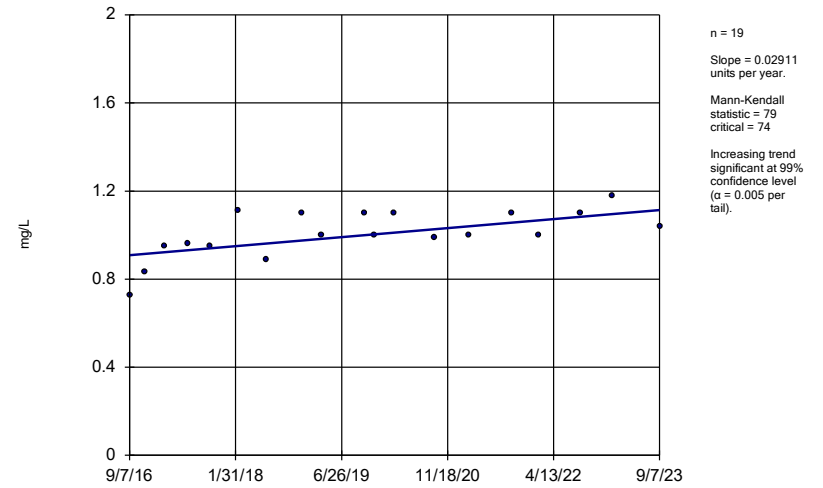
BRGWC-35S



Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

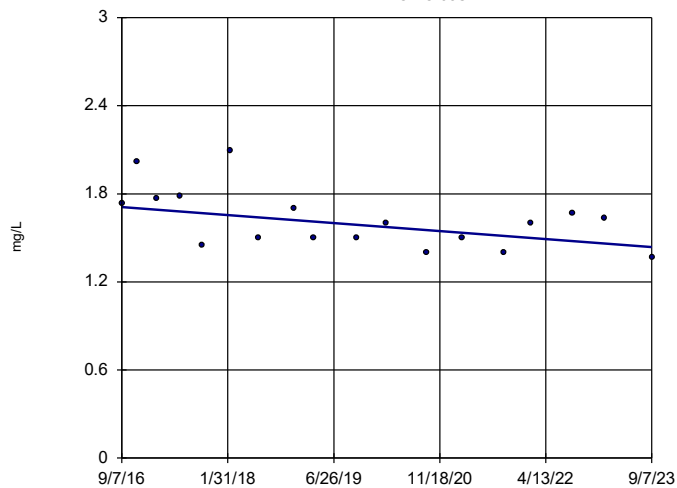
BRGWC-36S



Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

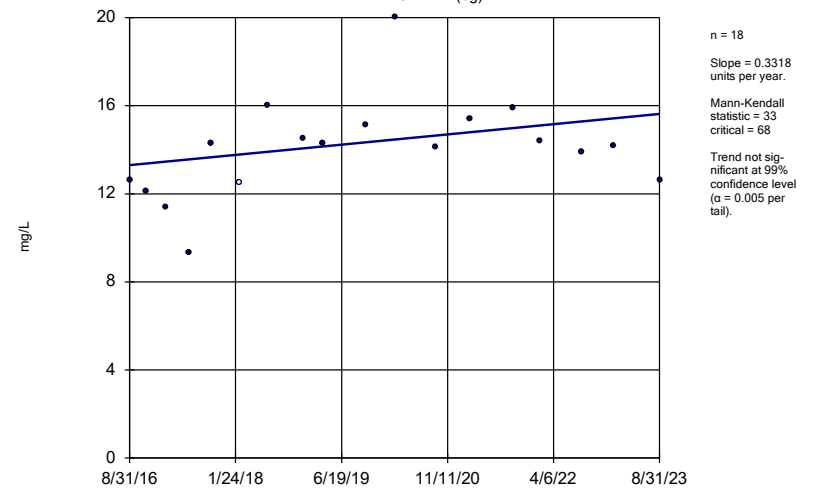


Constituent: Boron Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

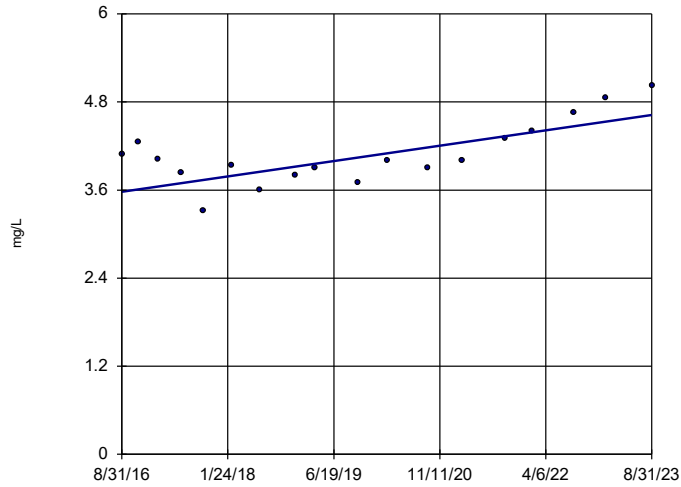
BRGWA-2I (bg)



Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

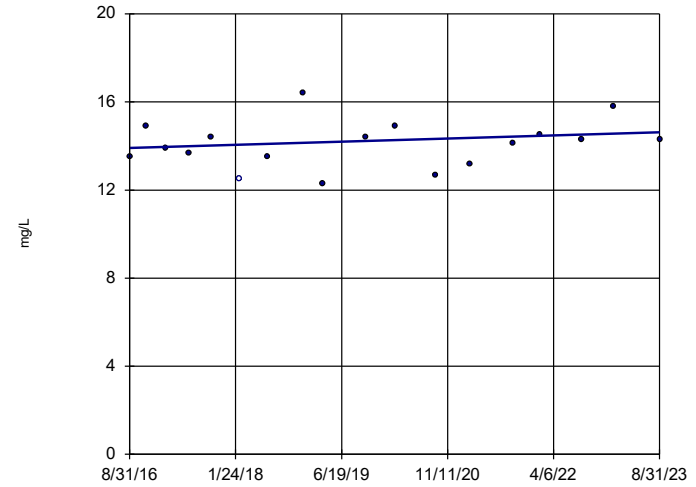


n = 18
 Slope = 0.149
 units per year.
 Mann-Kendall
 statistic = 63
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

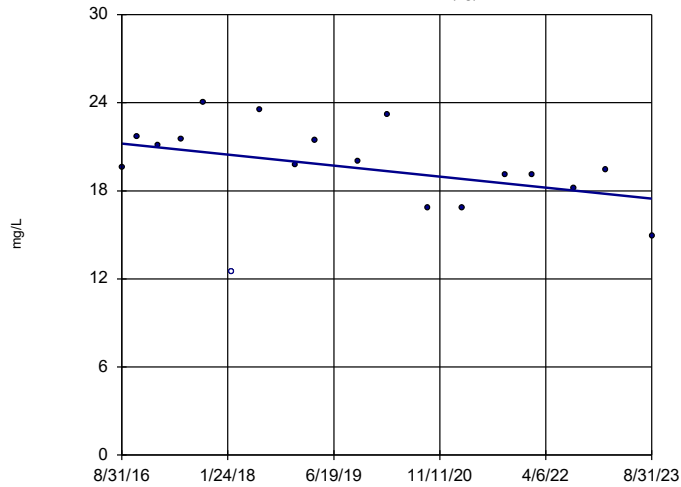


n = 18
 Slope = 0.103
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

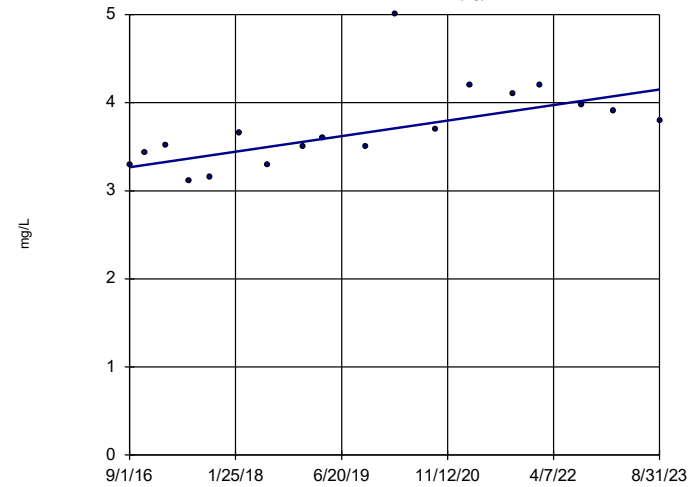


n = 18
 Slope = -0.5359
 units per year.
 Mann-Kendall
 statistic = -55
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

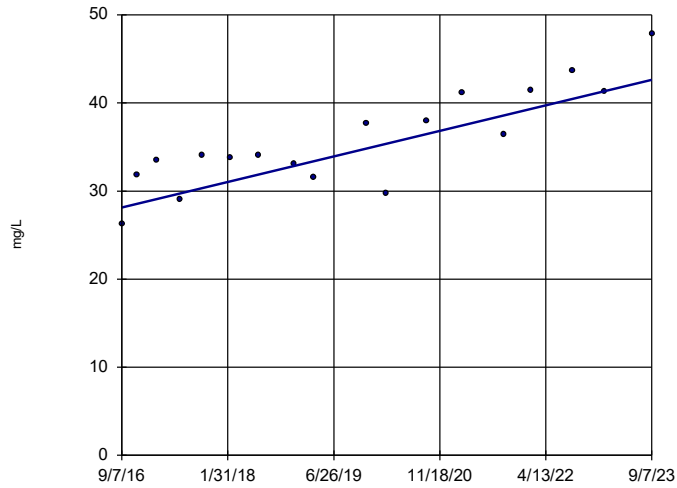


n = 18
 Slope = 0.1264
 units per year.
 Mann-Kendall
 statistic = 80
 critical = 68
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

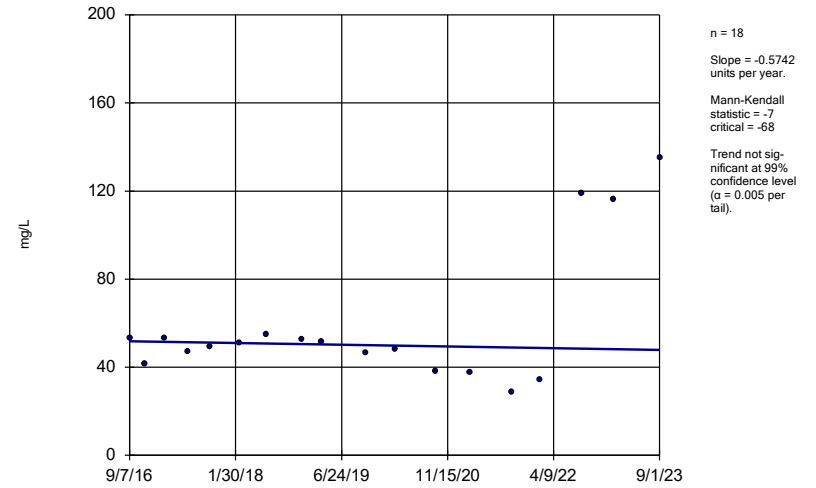
BRGWC-17S



Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

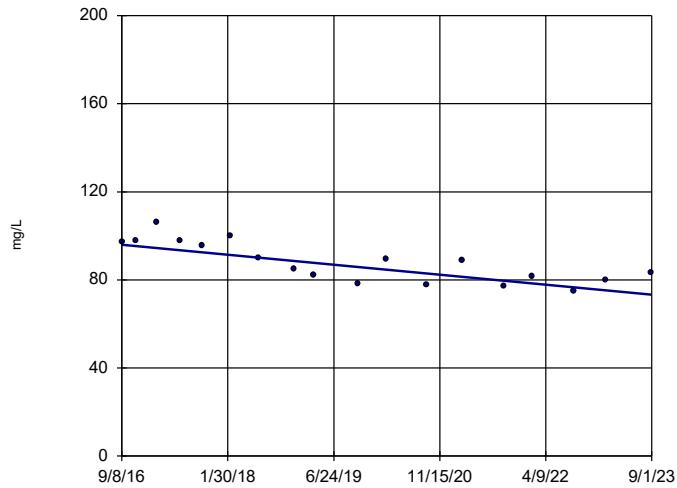
BRGWC-33S



Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

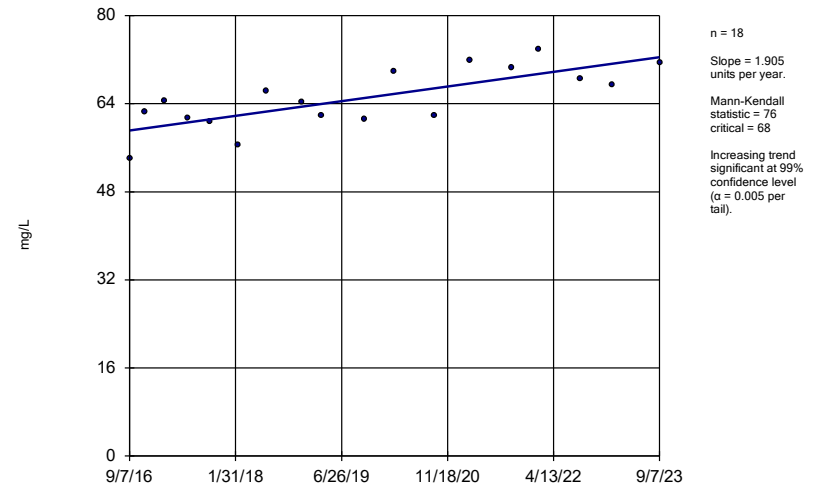
BRGWC-34S



Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

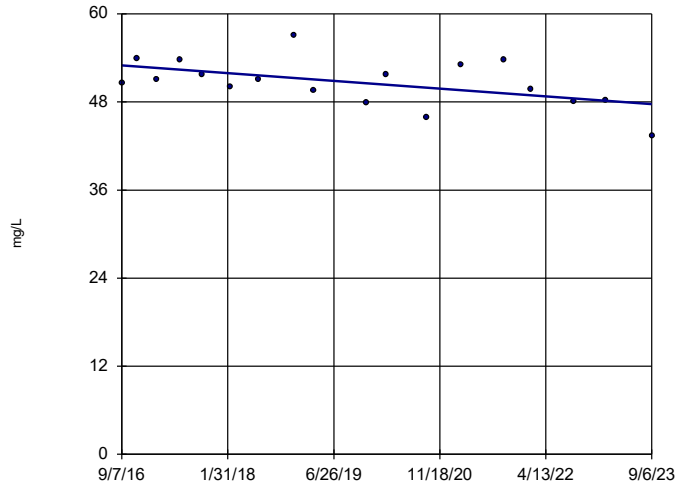
BRGWC-35S



Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

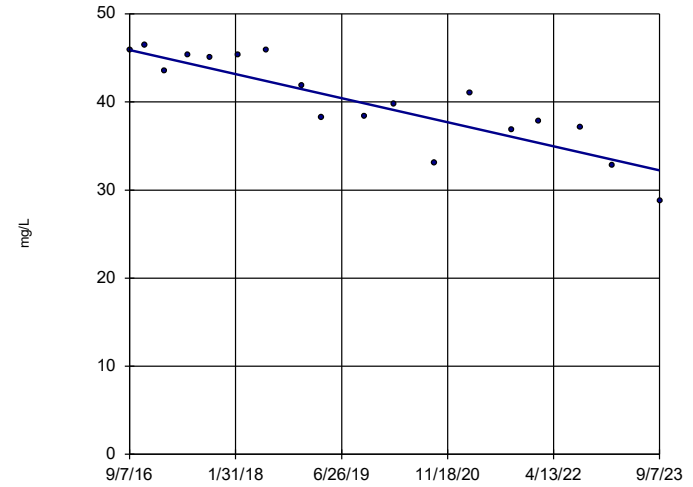


n = 18
 Slope = -0.754
 units per year.
 Mann-Kendall
 statistic = -56
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

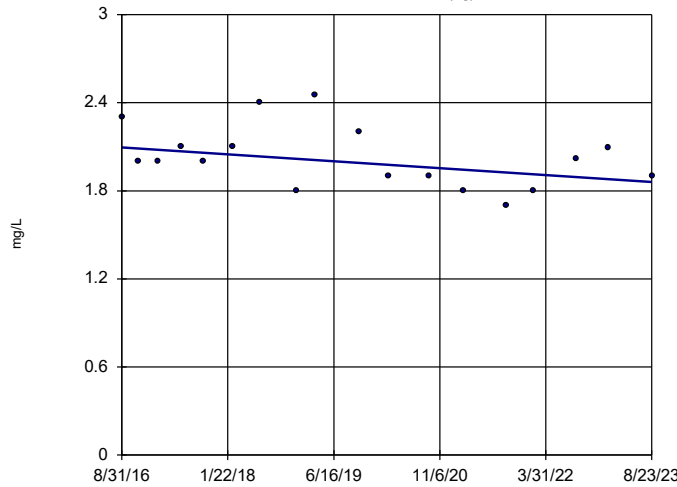


n = 18
 Slope = -1.949
 units per year.
 Mann-Kendall
 statistic = -109
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/23/2023 11:14 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

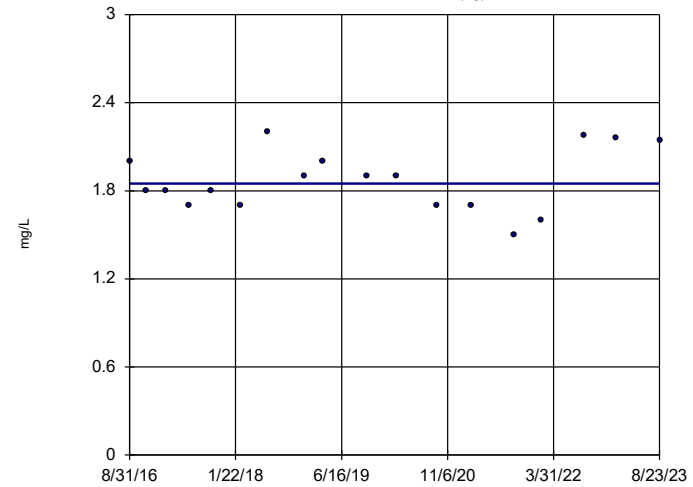


n = 18
 Slope = -0.03364
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

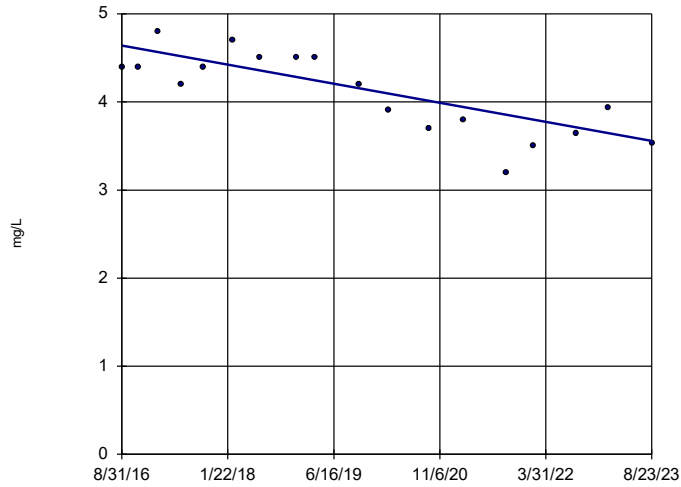


n = 18
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

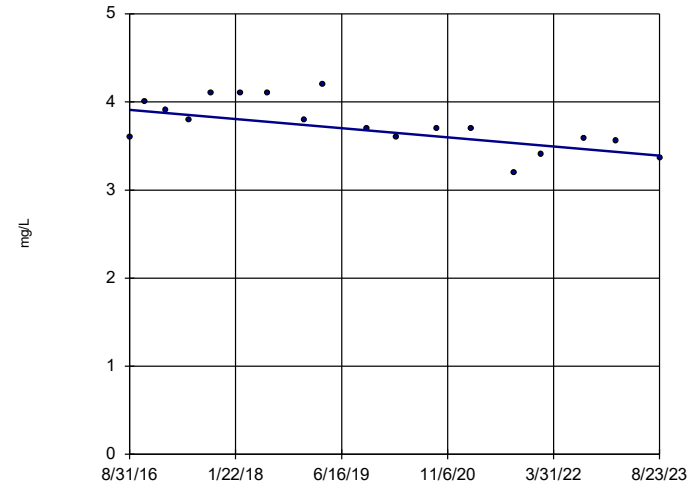


n = 18
 Slope = -0.1548
 units per year.
 Mann-Kendall
 statistic = -84
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

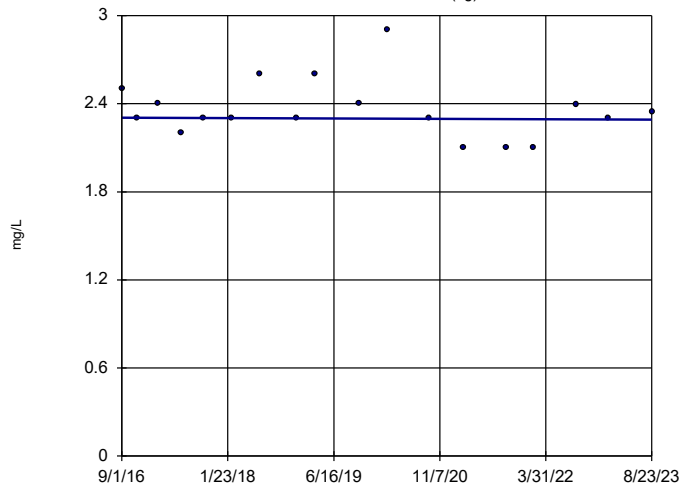


n = 18
 Slope = -0.07449
 units per year.
 Mann-Kendall
 statistic = -75
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

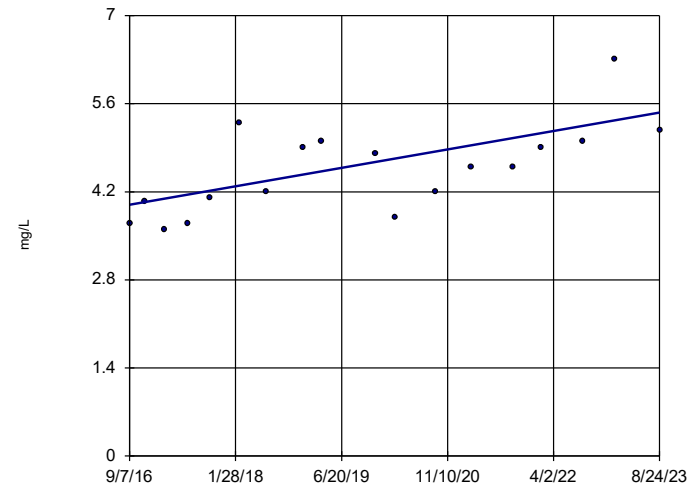


n = 18
 Slope = -0.001816
 units per year.
 Mann-Kendall
 statistic = -21
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

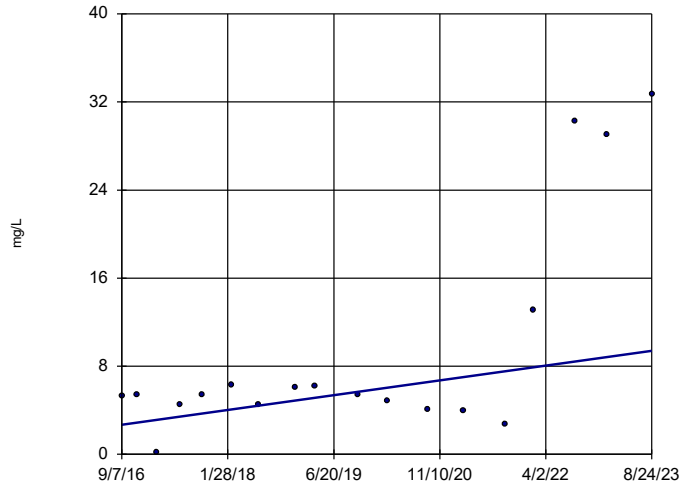


n = 18
 Slope = 0.2106
 units per year.
 Mann-Kendall
 statistic = 82
 critical = 68
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

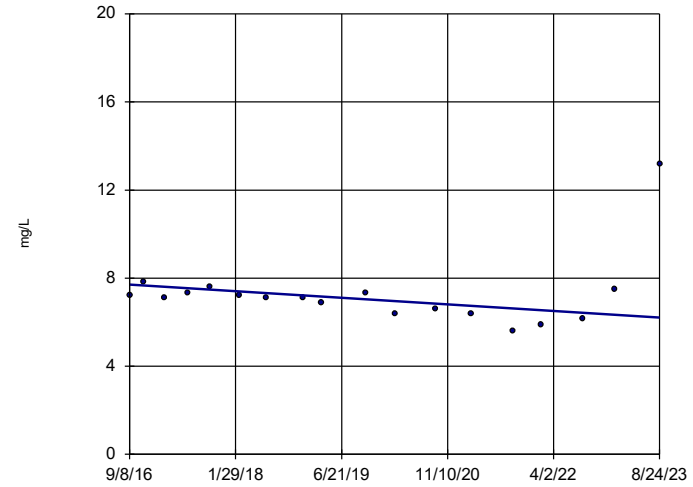


n = 18
 Slope = 0.9635
 units per year.
 Mann-Kendall
 statistic = 39
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

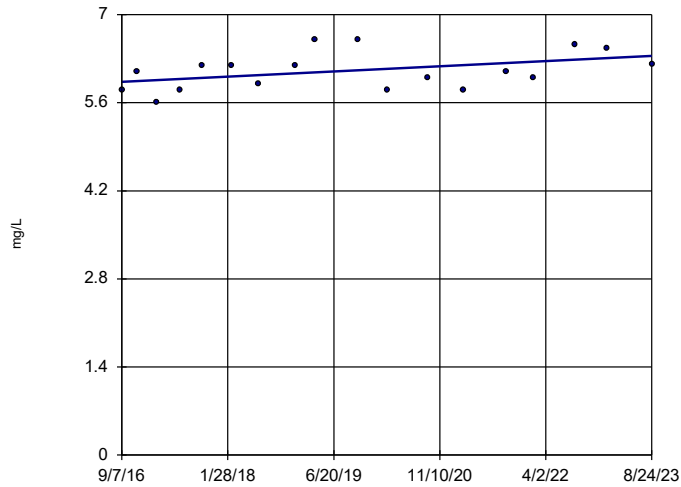


n = 18
 Slope = -0.2147
 units per year.
 Mann-Kendall
 statistic = -51
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-35S

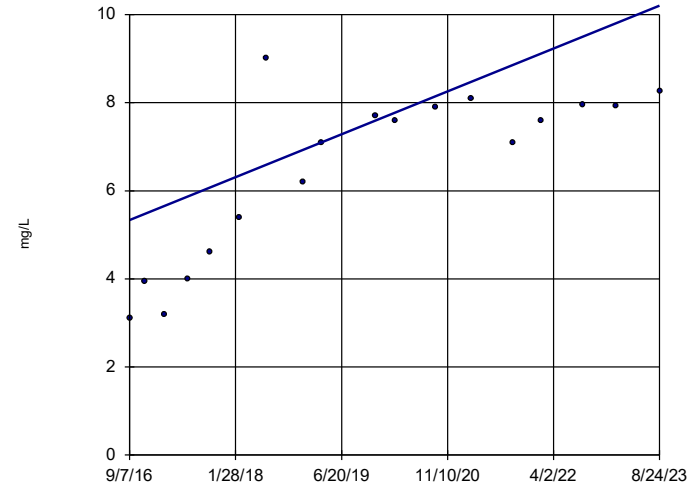


n = 18
 Slope = 0.05887
 units per year.
 Mann-Kendall
 statistic = 45
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

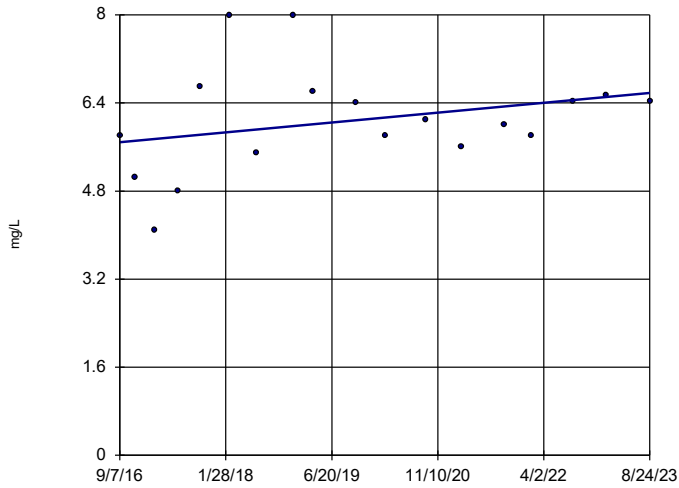


n = 18
 Slope = 0.6997
 units per year.
 Mann-Kendall
 statistic = 105
 critical = 68
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

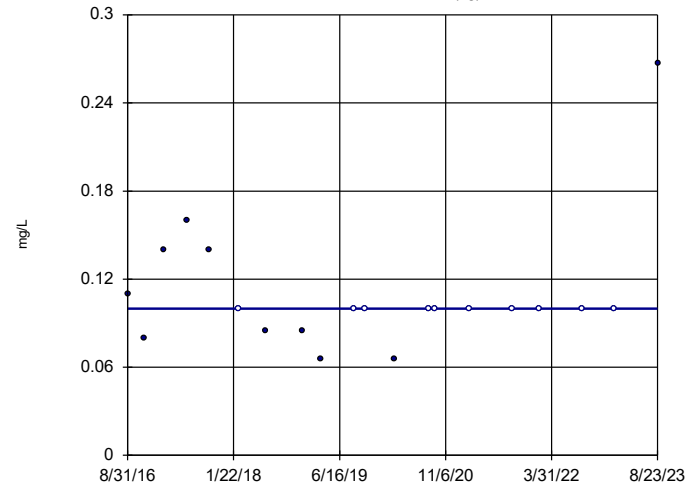


n = 18
 Slope = 0.1287
 units per year.
 Mann-Kendall
 statistic = 31
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

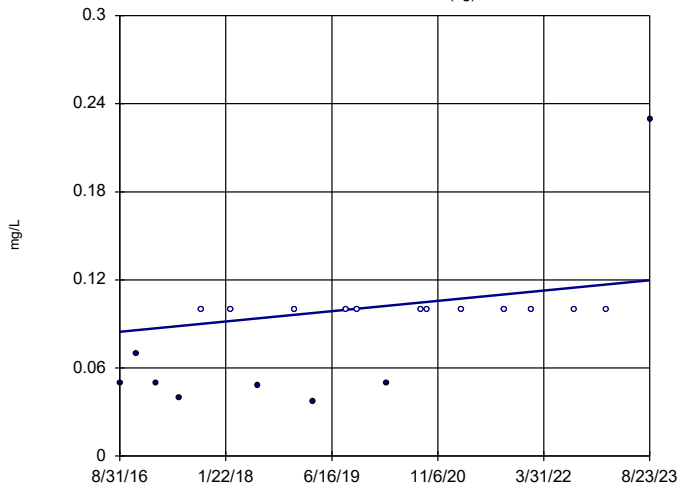


n = 20
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 3
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

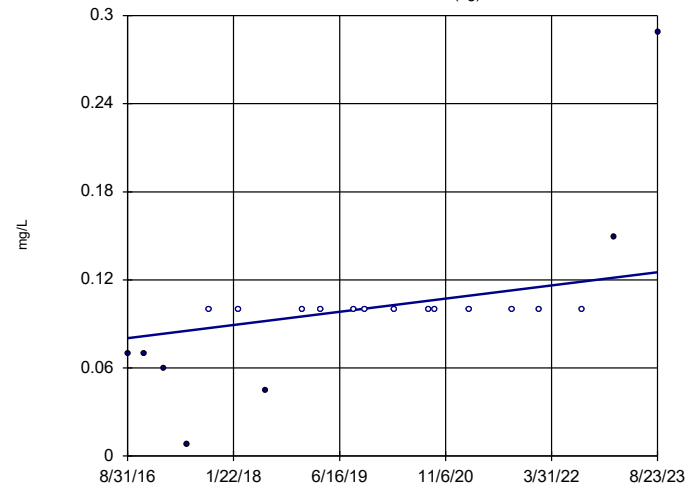


n = 20
 Slope = 0.005022
 units per year.
 Mann-Kendall
 statistic = 75
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

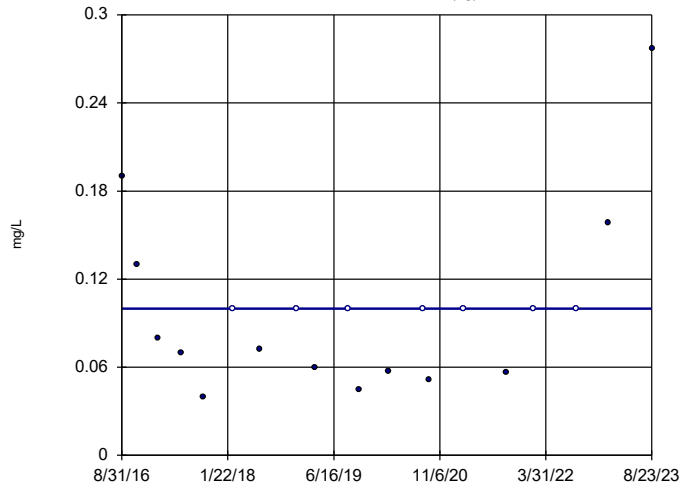


n = 20
 Slope = 0.006424
 units per year.
 Mann-Kendall
 statistic = 91
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

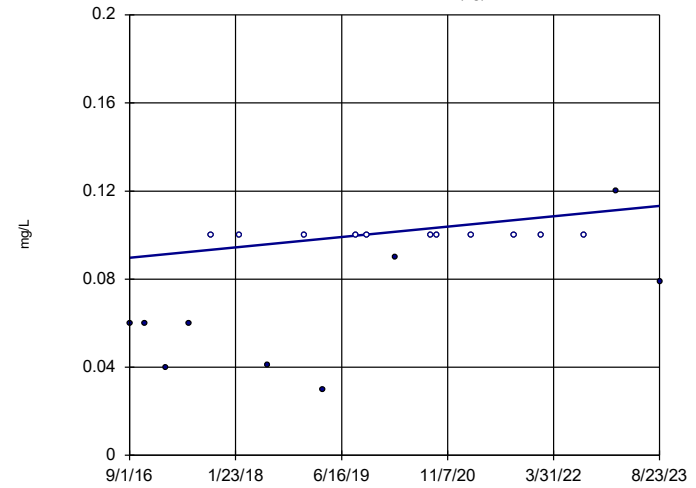


n = 20
Slope = 0
units per year.
Mann-Kendall
statistic = 15
critical = 81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

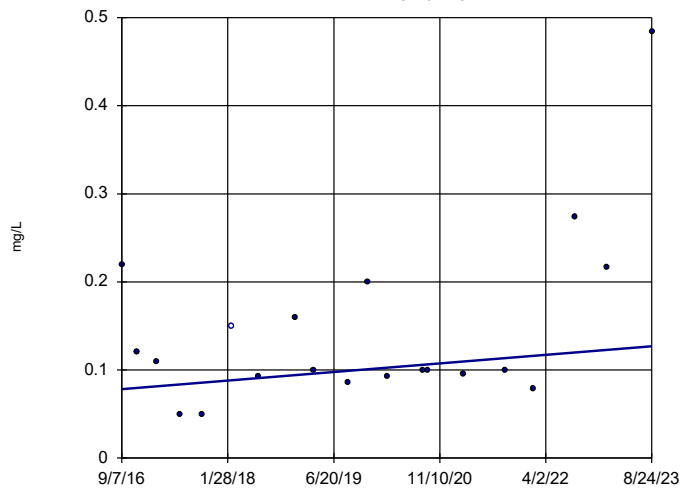


n = 20
Slope = 0.003384
units per year.
Mann-Kendall
statistic = 66
critical = 81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

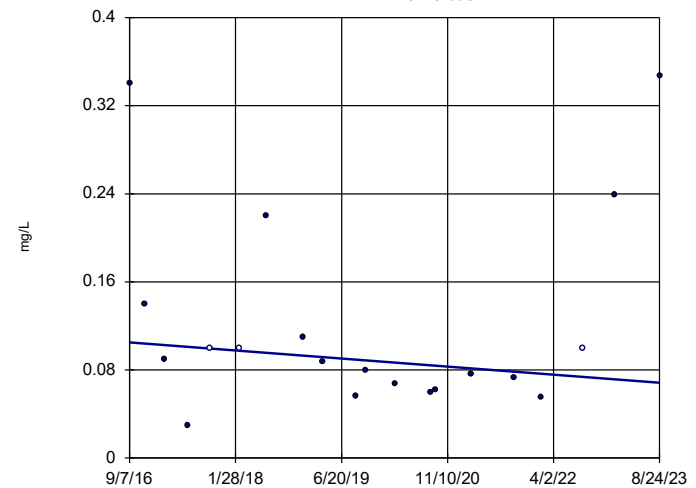


n = 20
Slope = 0.006949
units per year.
Mann-Kendall
statistic = 26
critical = 81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-35S

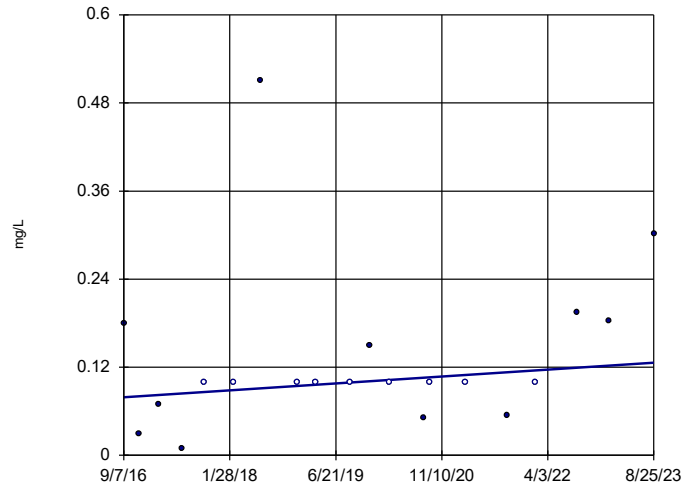


n = 20
Slope = -0.005237
units per year.
Mann-Kendall
statistic = -23
critical = -81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

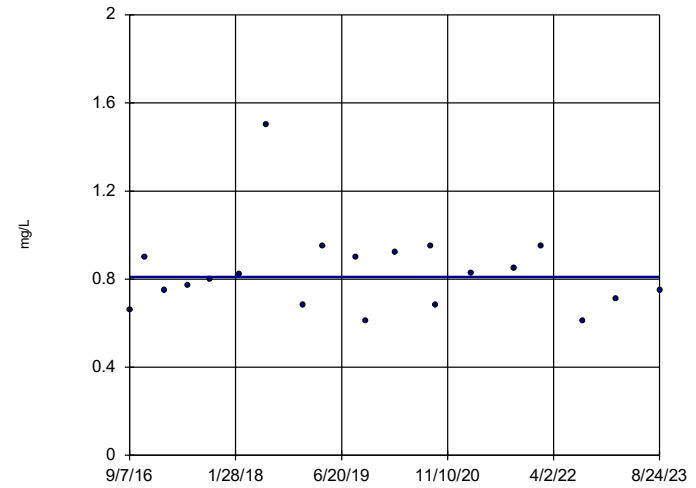


n = 20
 Slope = 0.006762
 units per year.
 Mann-Kendall
 statistic = 48
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

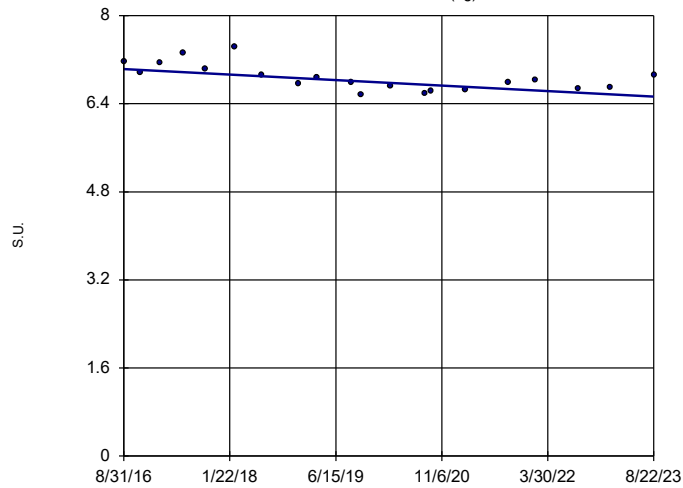


n = 20
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 1
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

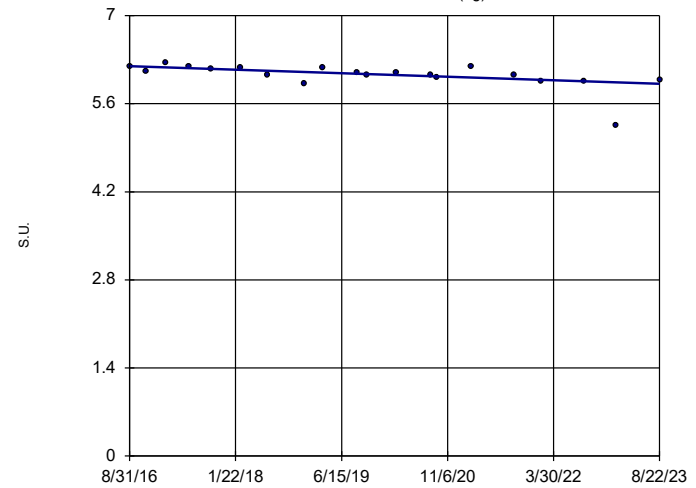


n = 20
 Slope = -0.07157
 units per year.
 Mann-Kendall
 statistic = -82
 critical = -81
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

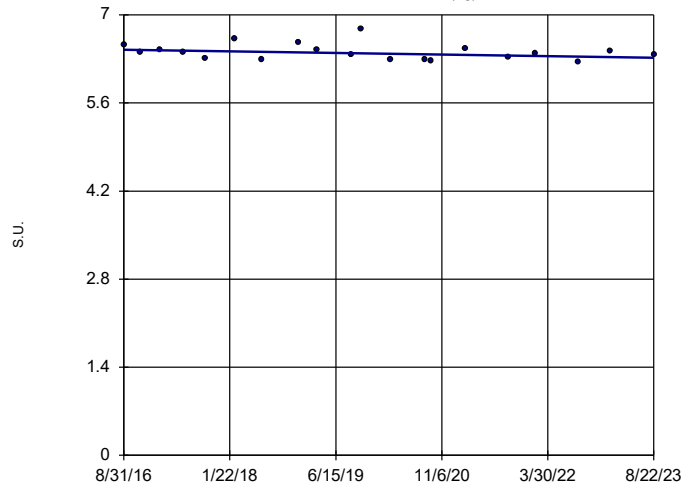


n = 20
 Slope = -0.03999
 units per year.
 Mann-Kendall
 statistic = -100
 critical = -81
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

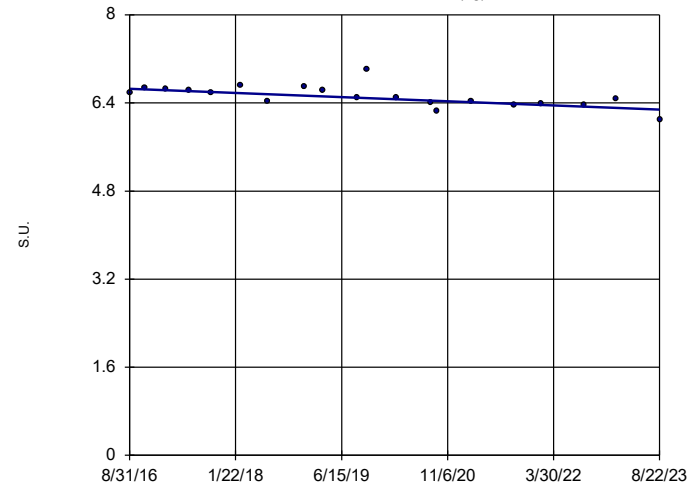


n = 20
Slope = -0.01794
units per year.
Mann-Kendall
statistic = -48
critical = -81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

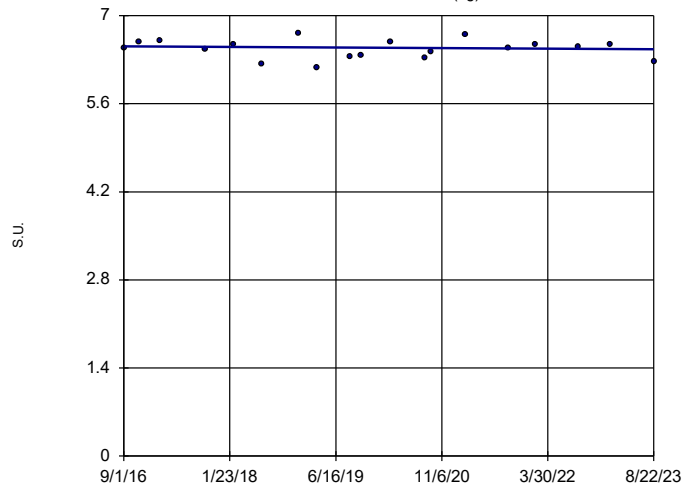


n = 20
Slope = -0.05423
units per year.
Mann-Kendall
statistic = -104
critical = -81
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

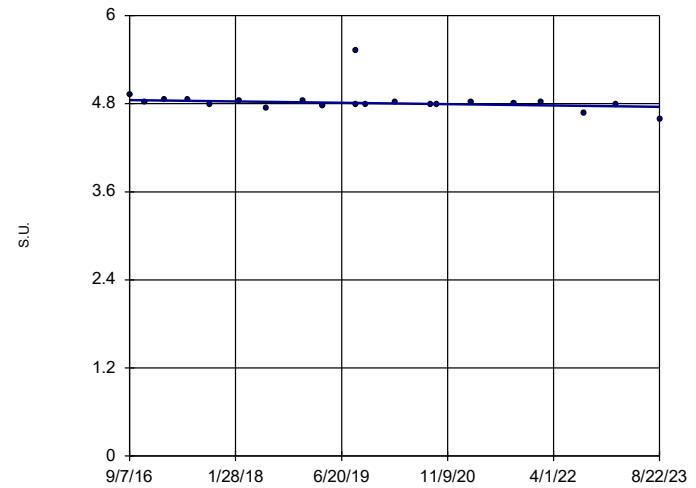


n = 19
Slope = -0.006594
units per year.
Mann-Kendall
statistic = -9
critical = -74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

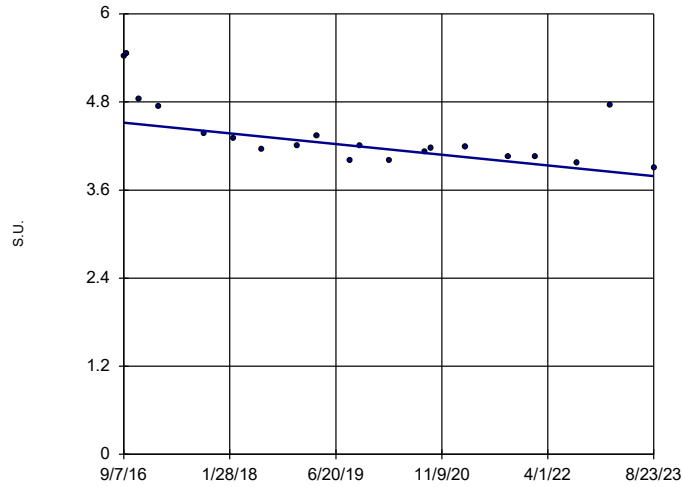


n = 21
Slope = -0.01321
units per year.
Mann-Kendall
statistic = -69
critical = -87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

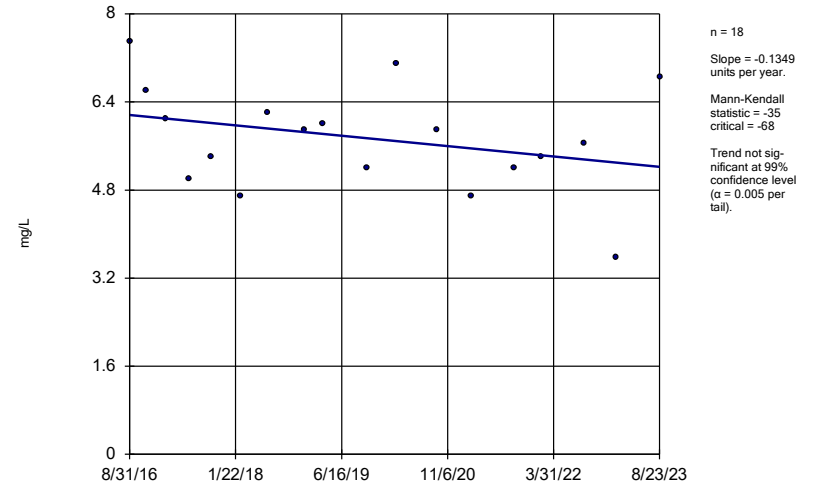
BRGWC-38S



Constituent: pH, Field Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

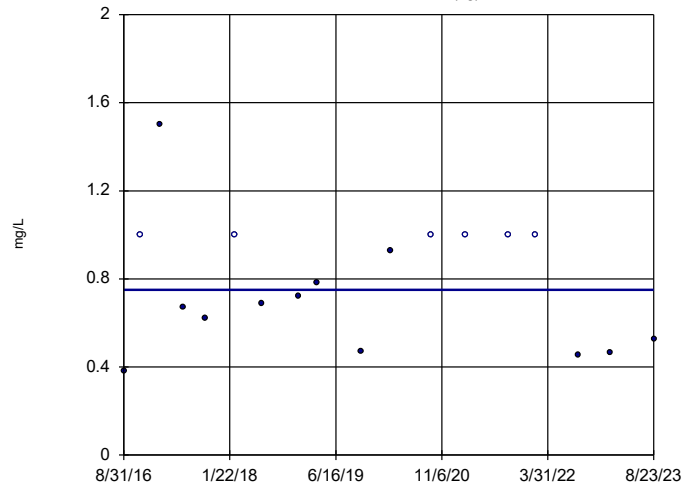
BRGWA-2I (bg)



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

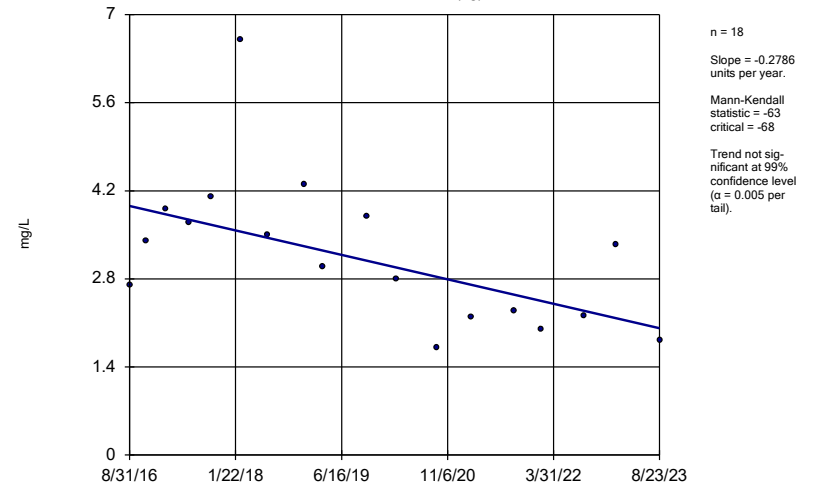
BRGWA-2S (bg)



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

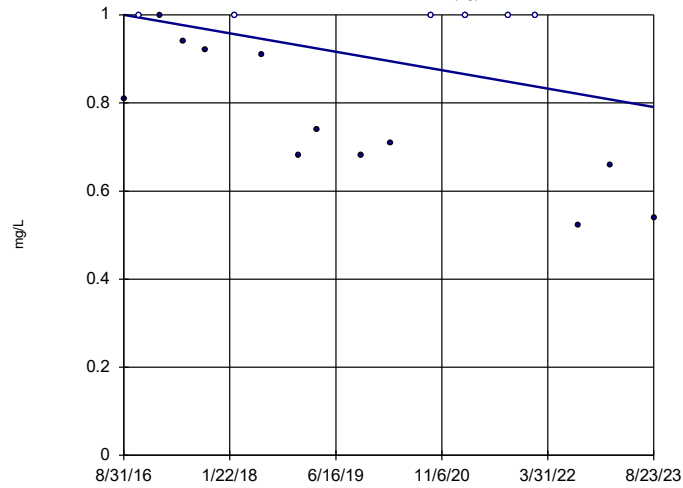
BRGWA-5I (bg)



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

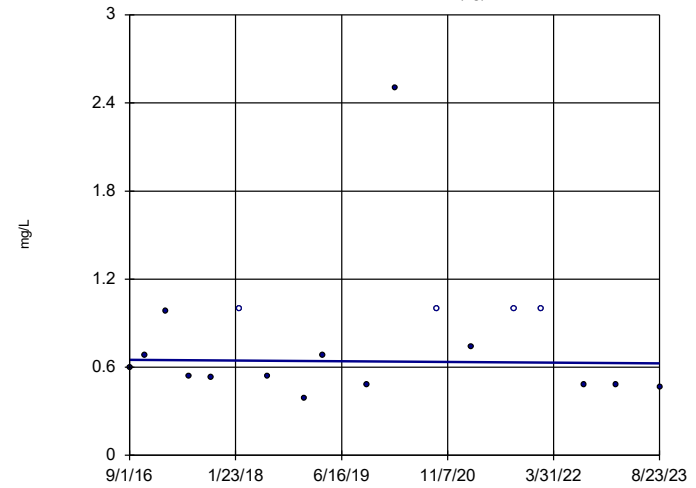
BRGWA-5S (bg)



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

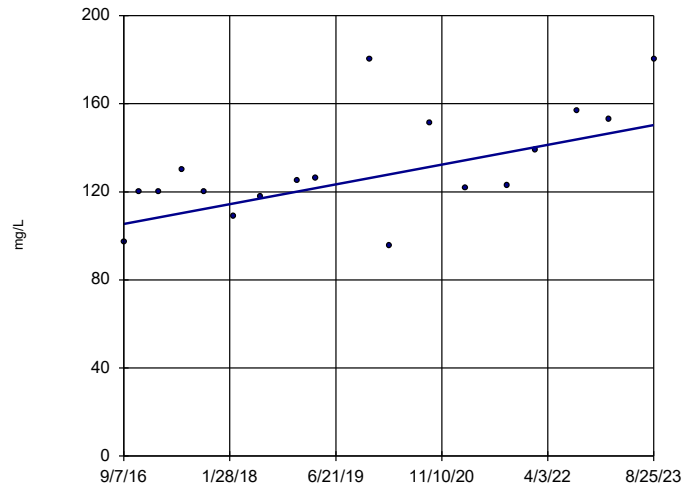
BRGWA-6S (bg)



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

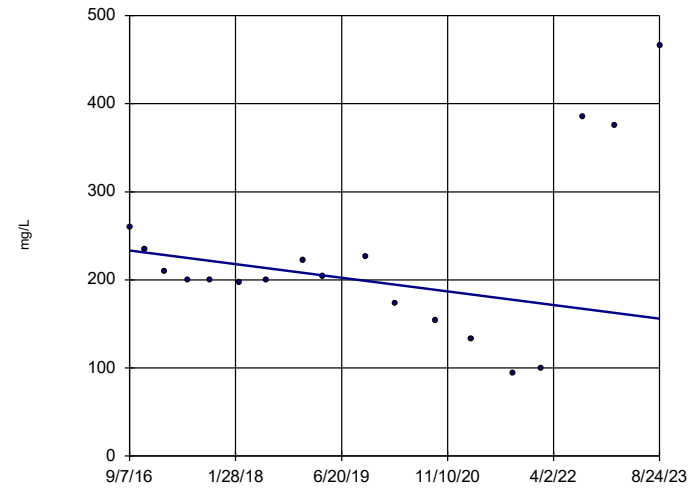
BRGWC-17S



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

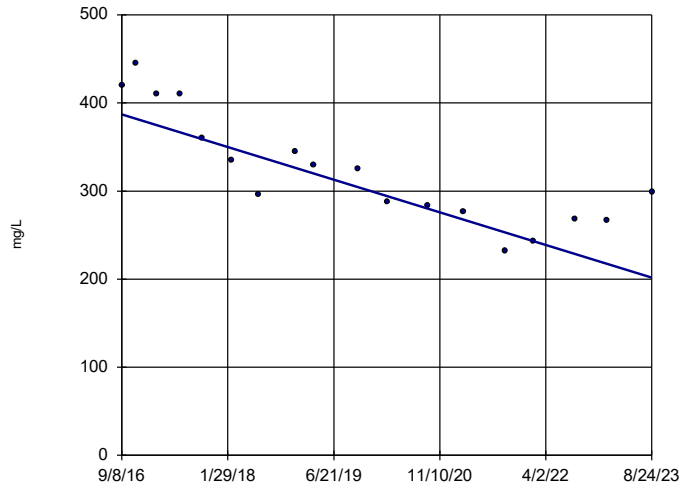
BRGWC-33S



Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

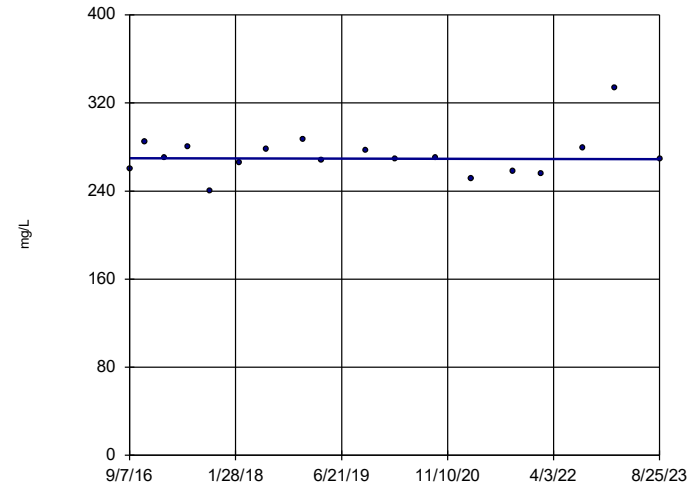


n = 18
 Slope = -26.58
 units per year.
 Mann-Kendall
 statistic = -116
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-35S

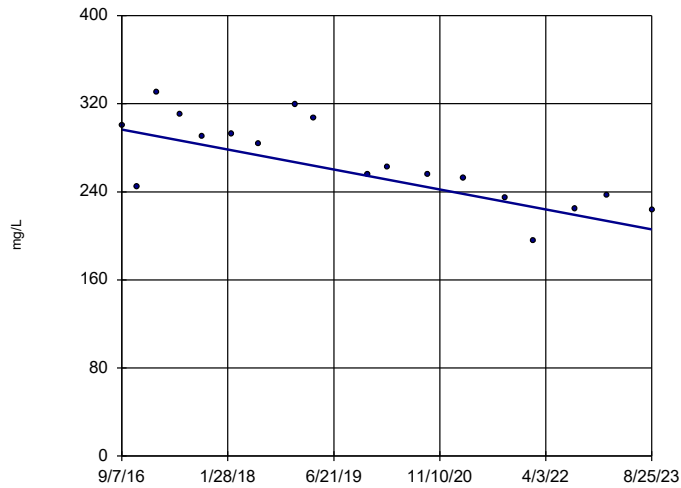


n = 18
 Slope = -0.1537
 units per year.
 Mann-Kendall
 statistic = -3
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

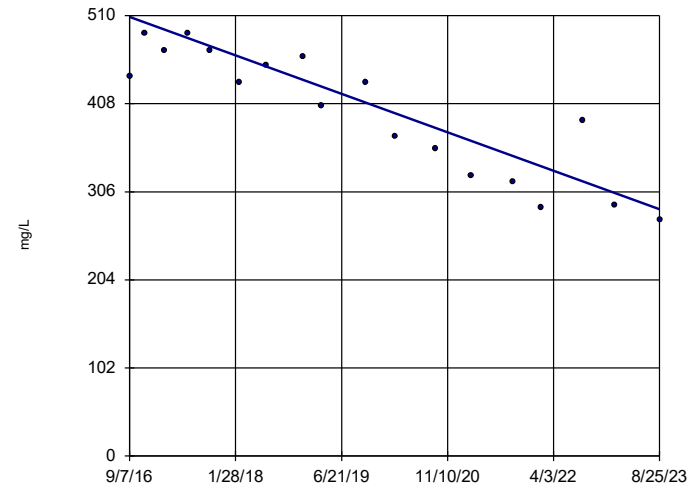


n = 18
 Slope = -13
 units per year.
 Mann-Kendall
 statistic = -94
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

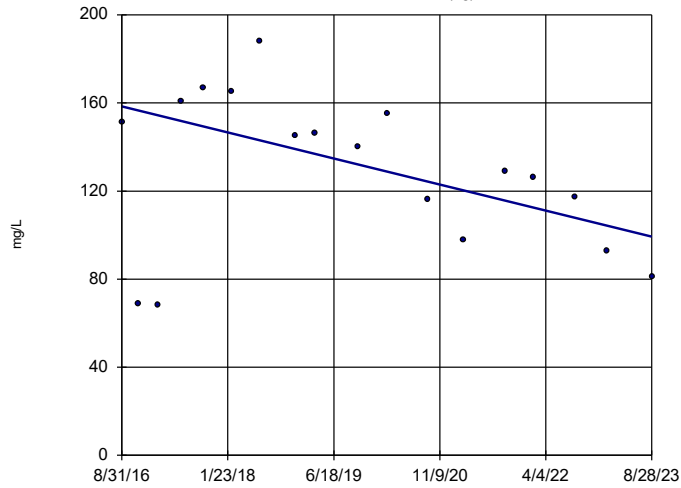


n = 18
 Slope = -31.94
 units per year.
 Mann-Kendall
 statistic = -116
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

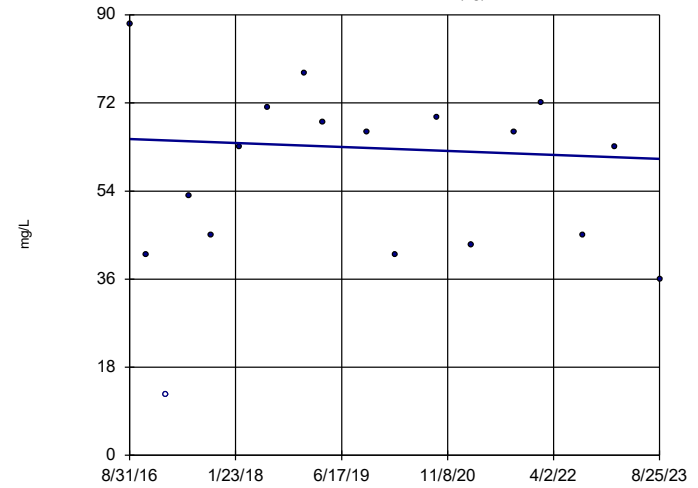


n = 18
 Slope = -8.462
 units per year.
 Mann-Kendall
 statistic = -53
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

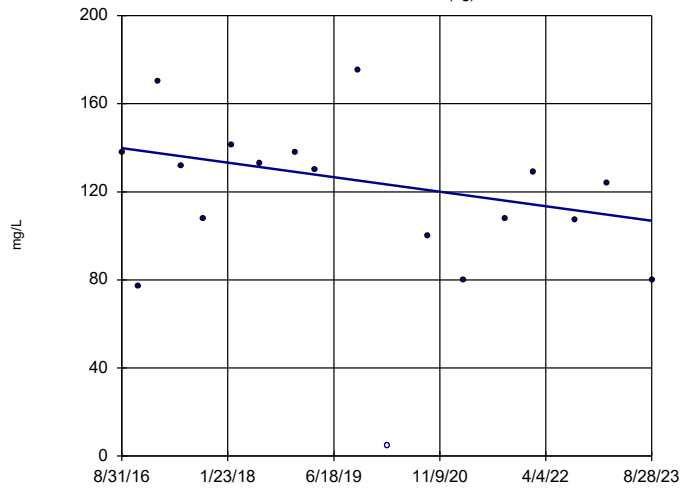


n = 18
 Slope = -0.5826
 units per year.
 Mann-Kendall
 statistic = -5
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

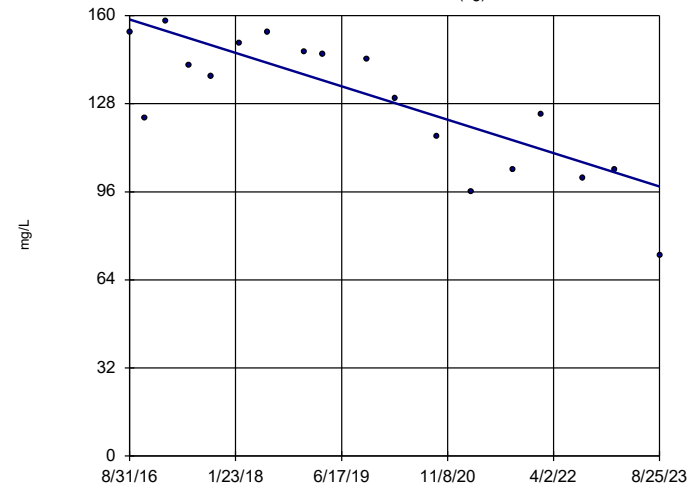


n = 18
 Slope = -4.727
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

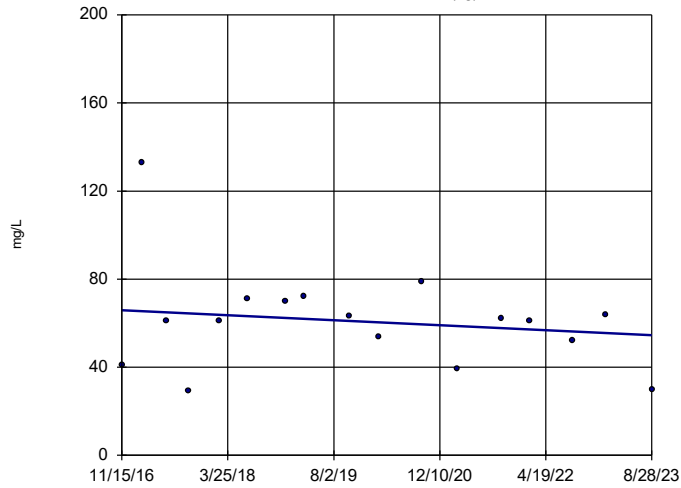


n = 18
 Slope = -8.69
 units per year.
 Mann-Kendall
 statistic = -93
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

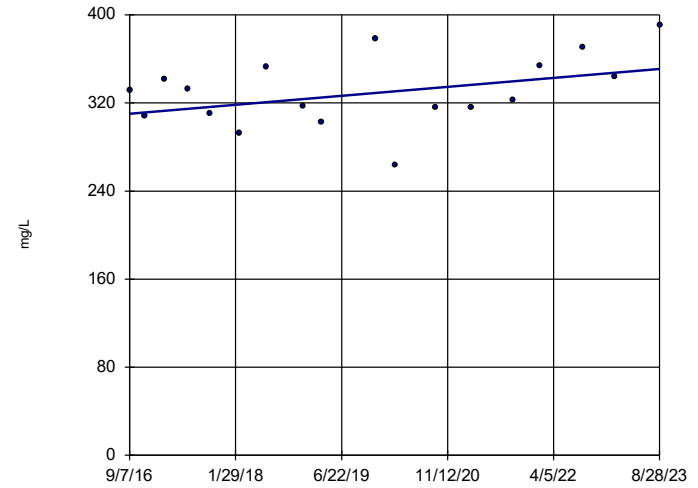


n = 17
 Slope = -1.676 units per year.
 Mann-Kendall statistic = -17
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

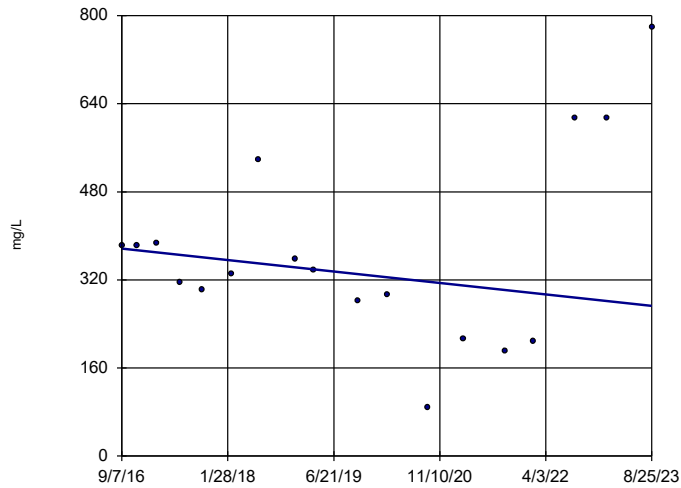


n = 18
 Slope = 5.817 units per year.
 Mann-Kendall statistic = 44
 critical = 68
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

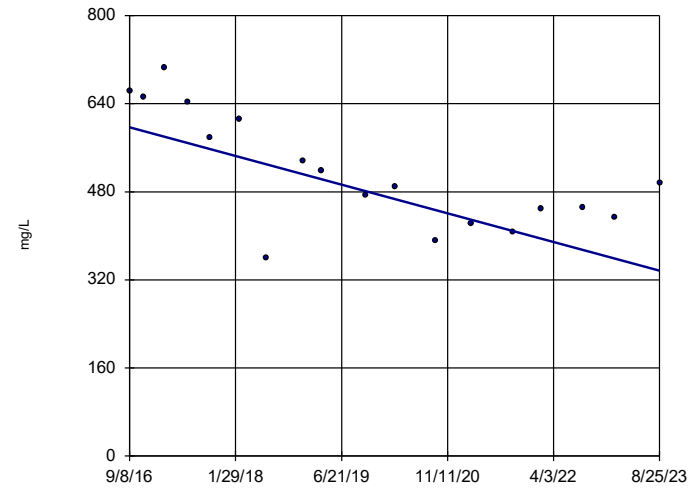


n = 18
 Slope = -14.96 units per year.
 Mann-Kendall statistic = -14
 critical = -68
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

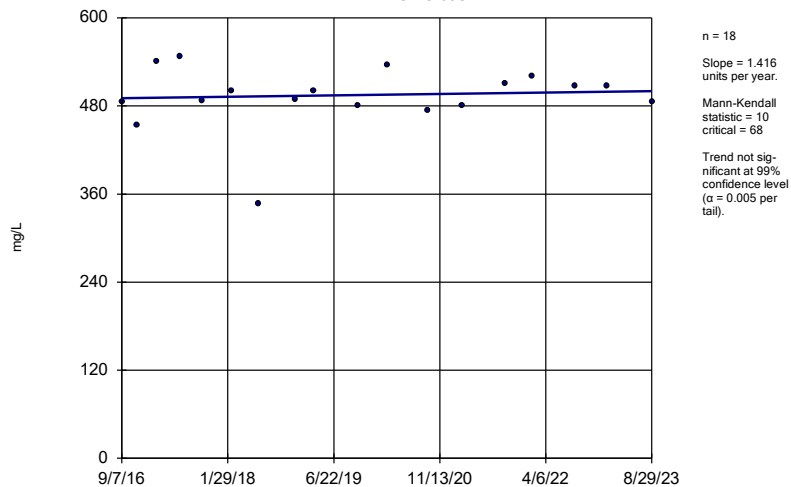


n = 18
 Slope = -37.39 units per year.
 Mann-Kendall statistic = -83
 critical = -68
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

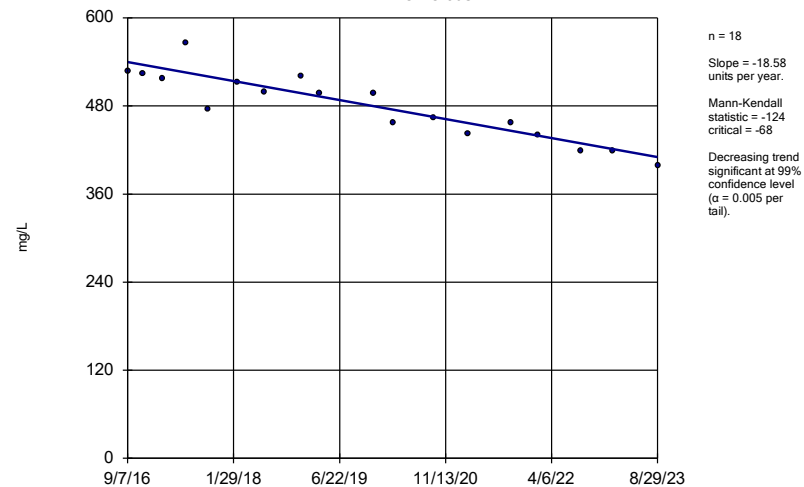
BRGWC-35S



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

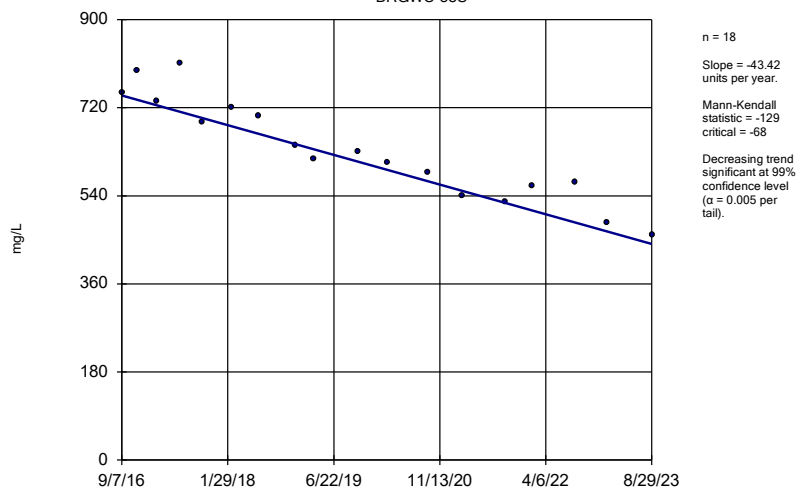
BRGWC-36S



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S



Constituent: Total Dissolved Solids Analysis Run 10/23/2023 11:15 AM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE F.

Upper Tolerance Limits Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/16/2023, 6:01 PM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	95	92.63	n/a	0.007651	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	n/a	n/a	95	77.89	n/a	0.007651	NP Inter(NDs)
Barium (mg/L)	0.063	n/a	n/a	n/a	n/a	95	0	n/a	0.007651	NP Inter(normality)
Beryllium (mg/L)	0.0005	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)
Chromium (mg/L)	0.016	n/a	n/a	n/a	n/a	95	15.79	n/a	0.007651	NP Inter(normality)
Cobalt (mg/L)	0.0034	n/a	n/a	n/a	n/a	93	44.09	n/a	0.008478	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	1.792	n/a	n/a	n/a	n/a	95	0	sqrt(x)	0.05	Inter
Fluoride (mg/L)	0.289	n/a	n/a	n/a	n/a	100	53	n/a	0.005921	NP Inter(NDs)
Lead (mg/L)	0.002	n/a	n/a	n/a	n/a	95	82.11	n/a	0.007651	NP Inter(NDs)
Lithium (mg/L)	0.089	n/a	n/a	n/a	n/a	95	46.32	n/a	0.007651	NP Inter(normality)
Mercury (mg/L)	0.00021	n/a	n/a	n/a	n/a	85	88.24	n/a	0.01278	NP Inter(NDs)
Molybdenum (mg/L)	0.008	n/a	n/a	n/a	n/a	95	67.37	n/a	0.007651	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)
Thallium (mg/L)	0.002	n/a	n/a	n/a	n/a	95	100	n/a	0.007651	NP Inter(NDs)

FIGURE G.

PLANT BRANCH POND E 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		0.005	0.01
Barium, Total (mg/L)	2		0.063	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.016	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0034	0.006
Combined Radium, Total (pCi/L)	5		1.79	5
Fluoride, Total (mg/L)	4		0.29	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.089	0.089
Mercury, Total (mg/L)	0.002		0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.008	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

**Highlighted cells indicate Background is higher than MCLs*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Intervals Summary Table - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.00921	0.007874	0.004	Yes	20	0.001177	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05417	0.03986	0.006	Yes	20	0.01261	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2471	0.194	0.006	Yes	19	0.04535	0	None	No	0.01	Param.

Confidence Intervals Summary Table - All Results

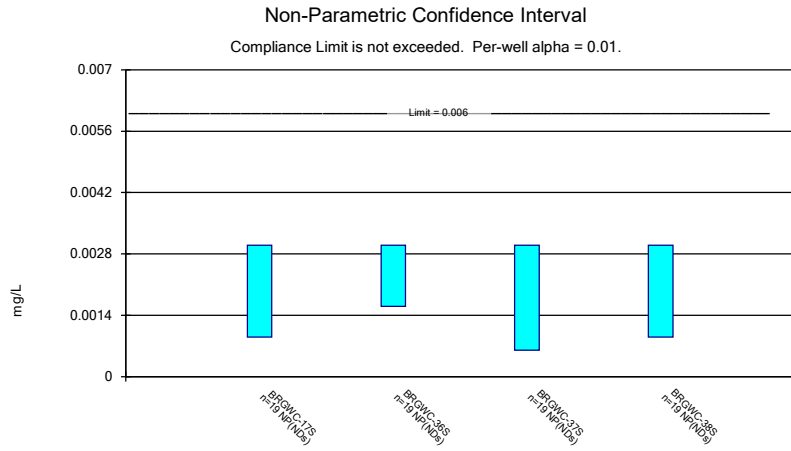
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	19	0.0004818	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	19	0.0009666	78.95	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	19	0.000789	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	19	0.0006945	89.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	19	0.001642	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	20	0.001515	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	19	0.001694	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	19	0.001607	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.003	0.01	No	19	0.001691	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003082	0.001775	0.01	No	19	0.00148	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	PZ-13S	0.005	0.00388	0.01	No	5	0.0005009	80	Kaplan-Meier	No	0.031	NP (NDs)
Barium (mg/L)	BRGWC-17S	0.04392	0.03945	2	No	19	0.003817	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.0243	0.02	2	No	20	0.006312	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.0347	0.0232	2	No	19	0.006782	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-35S	0.0518	0.0339	2	No	19	0.01889	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.04103	0.03052	2	No	19	0.01054	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-37S	0.0253	0.02342	2	No	19	0.001607	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.0141	2	No	19	0.009453	0	None	No	0.01	NP (normality)
Barium (mg/L)	PZ-13S	0.1394	0.03177	2	No	5	0.03557	0	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	BRGWC-33S	0.001999	0.001607	0.004	No	20	0.0003452	5	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0005	0.00012	0.004	No	19	0.0001657	26.32	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.00021	0.0001	0.004	No	19	0.000139	15.79	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.0005	0.000087	0.004	No	20	0.0001993	35	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.00921	0.007874	0.004	Yes	20	0.001177	0	None	No	0.01	Param.
Beryllium (mg/L)	PZ-13S	0.0005359	0.0002289	0.004	No	5	0.00009162	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.000461	0.0003314	0.005	No	20	0.0001141	5	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0009	0.00017	0.005	No	19	0.0003391	21.05	None	No	0.01	NP (normality)
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	20	0.0002801	90	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0005911	0.0004804	0.005	No	19	0.00009452	5.263	None	No	0.01	Param.
Cadmium (mg/L)	PZ-13S	0.001	0.00011	0.005	No	5	0.000398	80	None	No	0.031	NP (NDs)
Chromium (mg/L)	BRGWC-17S	0.01253	0.01002	0.1	No	19	0.002256	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	20	0.002127	95	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006534	0.004579	0.1	No	19	0.001669	5.263	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008156	0.00709	0.1	No	19	0.0009102	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	19	0.00406	31.58	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.00408	0.003489	0.1	No	19	0.0007046	0	None	x^3	0.01	Param.
Chromium (mg/L)	PZ-13S	0.02633	0.007353	0.1	No	5	0.005662	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05417	0.03986	0.006	Yes	20	0.01261	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.00447	0.003398	0.006	No	19	0.001057	5.263	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	19	0.0003815	73.68	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2471	0.194	0.006	Yes	19	0.04535	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-13S	0.001	0.00037	0.006	No	5	0.0002817	80	None	No	0.031	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.8945	0.3662	5	No	19	0.4511	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.379	0.6385	5	No	19	0.7172	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.232	0.7771	5	No	19	0.4221	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.448	0.5121	5	No	19	1.018	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.572	0.7046	5	No	19	1.154	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9584	0.4076	5	No	19	0.5369	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.781	2.111	5	No	19	1.568	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-13S	4.383	0.1171	5	No	5	1.718	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.177	0.09001	4	No	20	0.0998	5	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2171	0.1117	4	No	21	0.1065	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1485	0.08037	4	No	20	0.07849	5	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1511	0.07005	4	No	20	0.09165	15	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.1575	0.0486	4	No	20	0.1104	45	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	20	0.0283	40	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9199	0.7223	4	No	20	0.1939	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	PZ-13S	0.128	0.06	4	No	5	0.02427	60	None	No	0.031	NP (NDs)
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	19	0.0006064	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.000087	0.015	No	20	0.0009526	40	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	19	0.0006892	84.21	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	19	0.0007835	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	19	0.000448	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	19	0.0005991	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.002	0.00035	0.015	No	19	0.000729	26.32	None	No	0.01	NP (normality)
Lead (mg/L)	PZ-13S	0.002	0.00035	0.015	No	5	0.0007379	80	None	No	0.031	NP (NDs)
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	19	0.004471	63.16	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.01036	0.00927	0.089	No	20	0.0009573	0	None	No	0.01	Param.

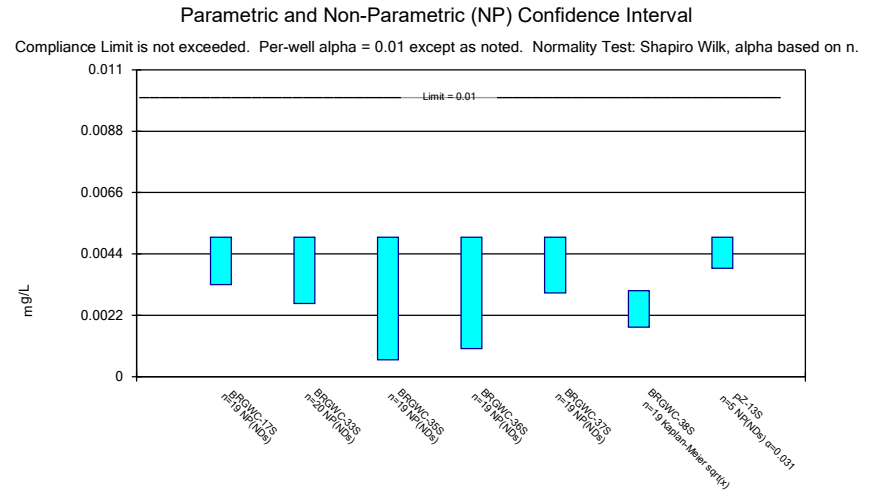
Confidence Intervals Summary Table - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:31 PM

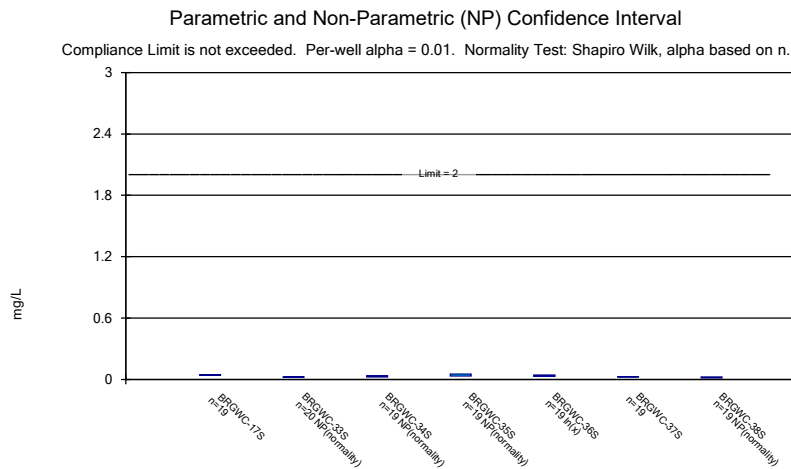
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	19	0.004362	68.42	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.0021	0.089	No	19	0.002946	15.79	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.01	0.0024	0.089	No	19	0.003163	21.05	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02256	0.0204	0.089	No	19	0.001851	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-13S	0.01	0.001	0.089	No	5	0.004744	60	None	No	0.031	NP (NDs)
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	17	0.00004717	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	18	0.00004929	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00015	0.002	No	17	0.00005064	76.47	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	17	0.00003949	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	17	0.0000407	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	17	0.00004058	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.0001524	0.00009621	0.002	No	17	0.00004963	23.53	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002466	0.001797	0.05	No	19	0.00129	21.05	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.004385	0.002576	0.05	No	20	0.001287	45	Kaplan-Meier	x^2	0.01	Param.
Selenium (mg/L)	BRGWC-36S	0.00474	0.002801	0.05	No	19	0.001814	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.0398	0.03077	0.05	No	19	0.007711	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-13S	0.003346	0.001094	0.05	No	5	0.001316	20	Kaplan-Meier	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	19	0.0004437	94.74	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	20	0.000802	25	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.0002	0.002	No	19	0.0008718	36.84	None	No	0.01	NP (normality)



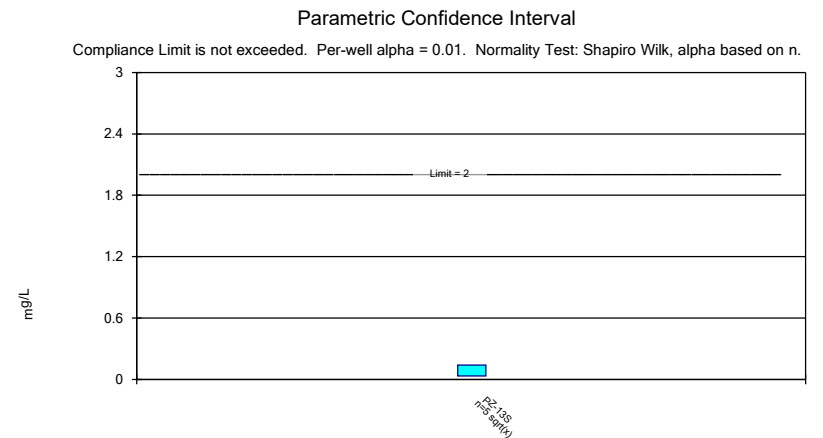
Constituent: Antimony Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Arsenic Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP



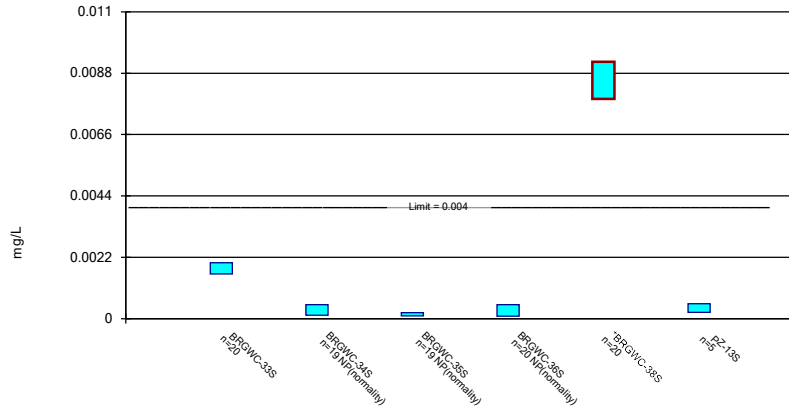
Constituent: Barium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Barium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

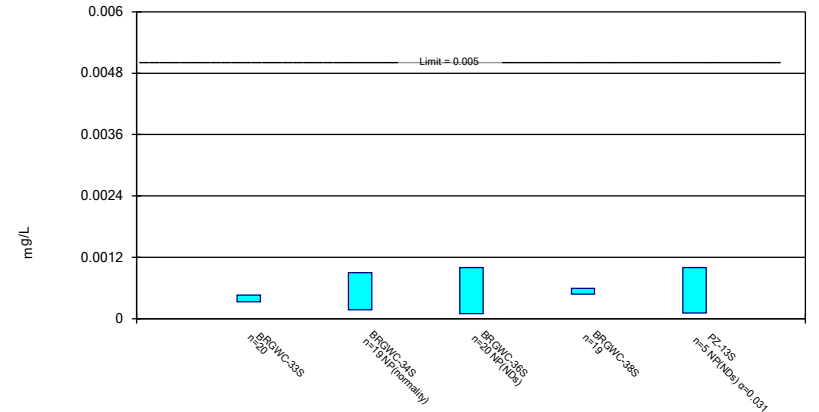
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

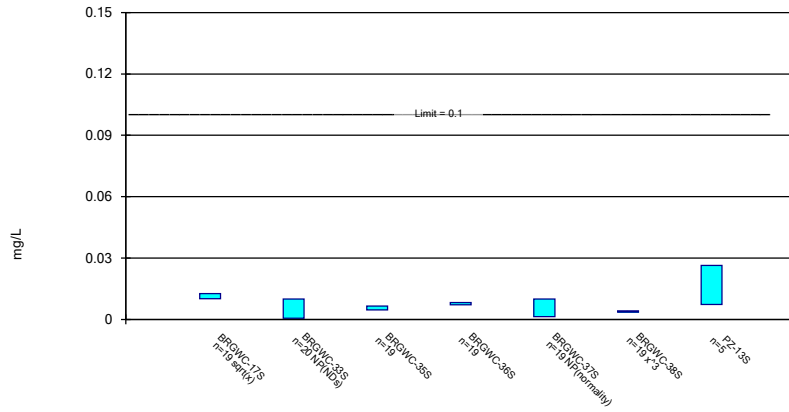
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Constituent: Cadmium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

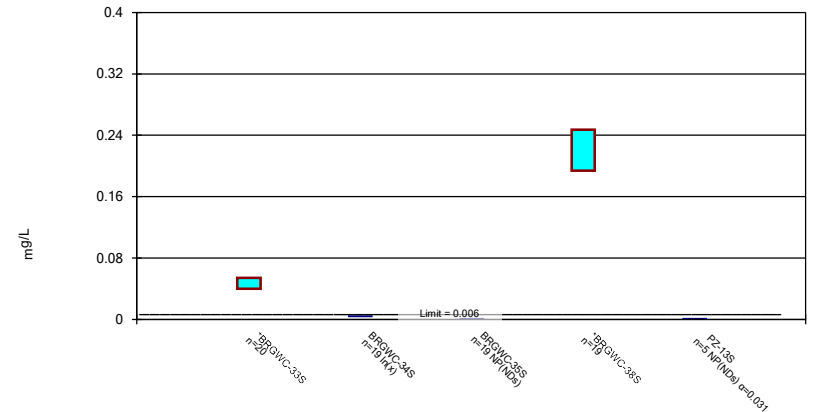
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

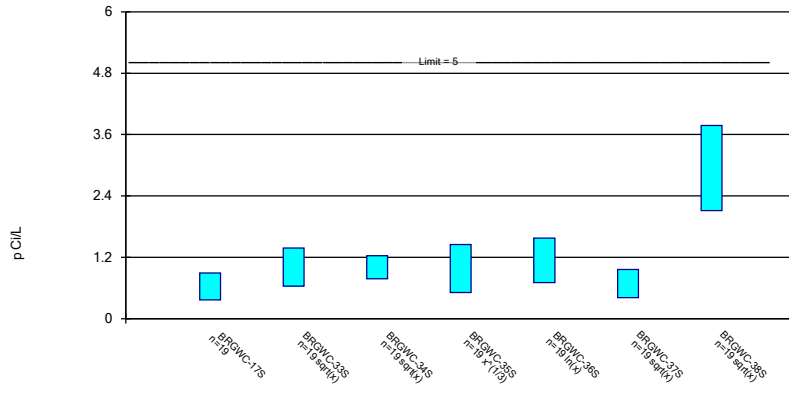
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

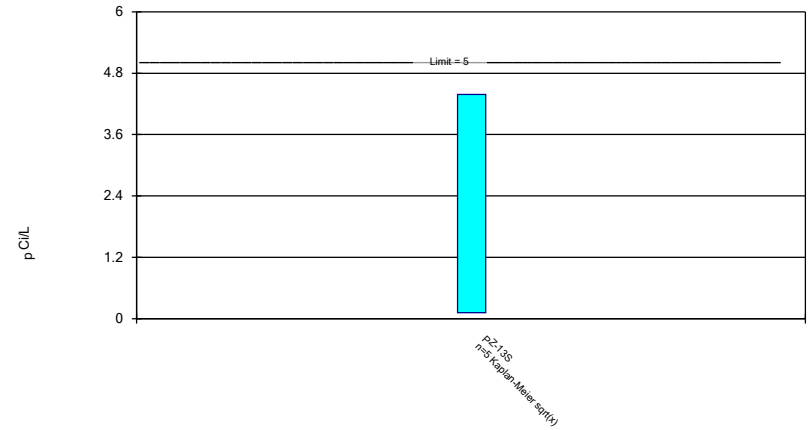
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confide
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

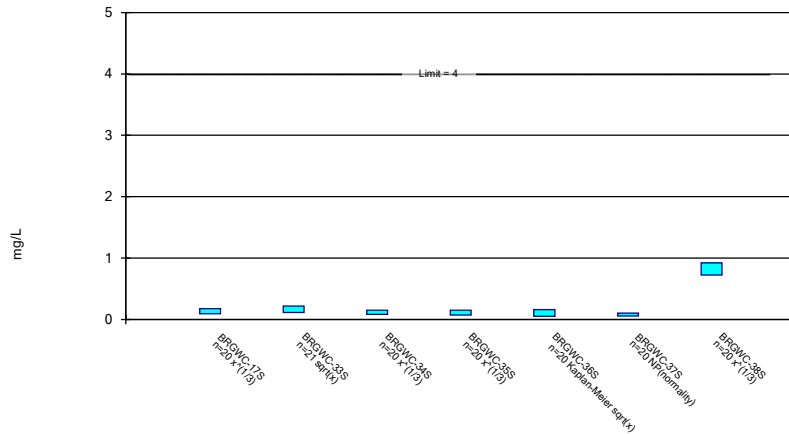
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Constituent: Combined Radium 226 + 228 Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confide
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

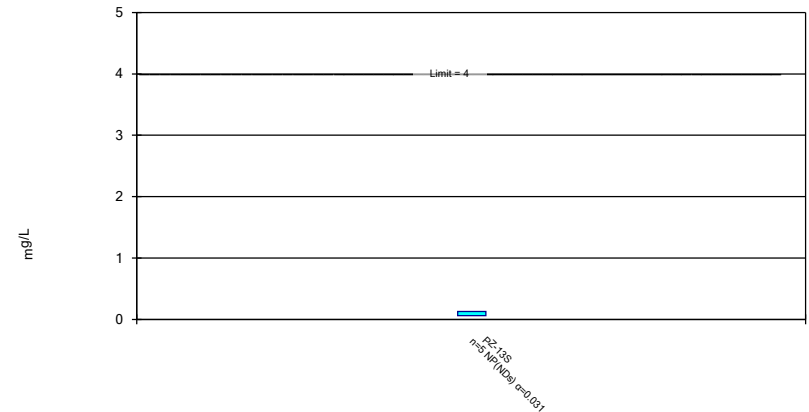
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Constituent: Fluoride Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

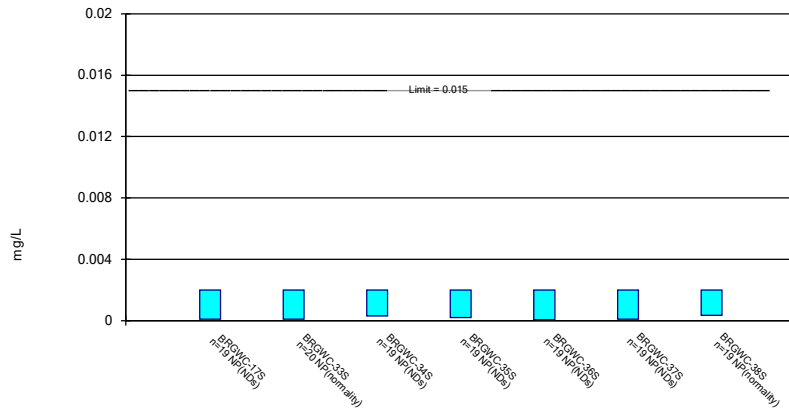
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Constituent: Fluoride Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

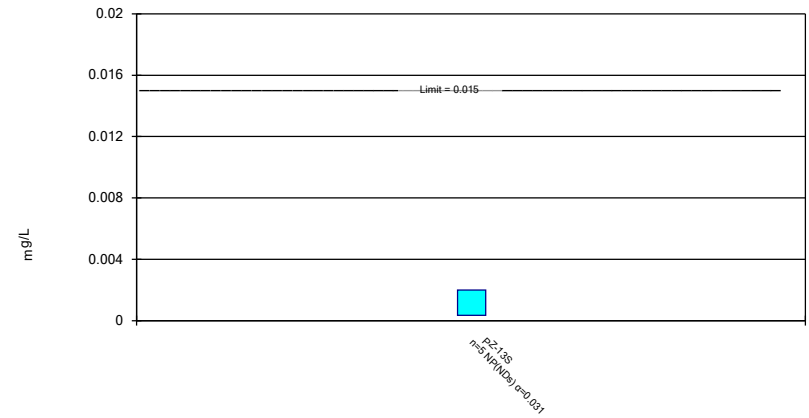
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

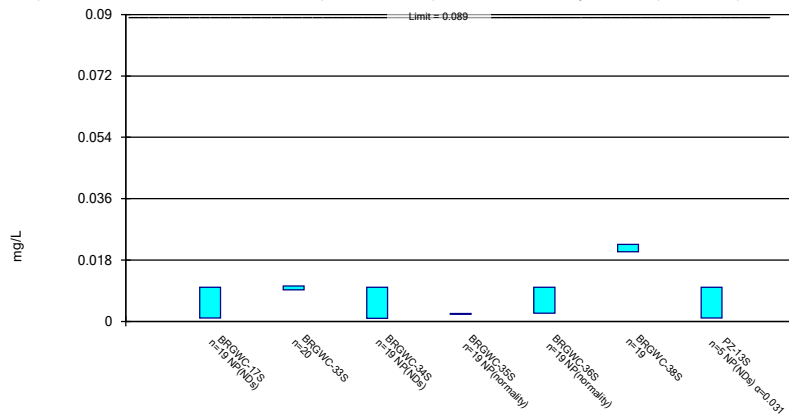
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

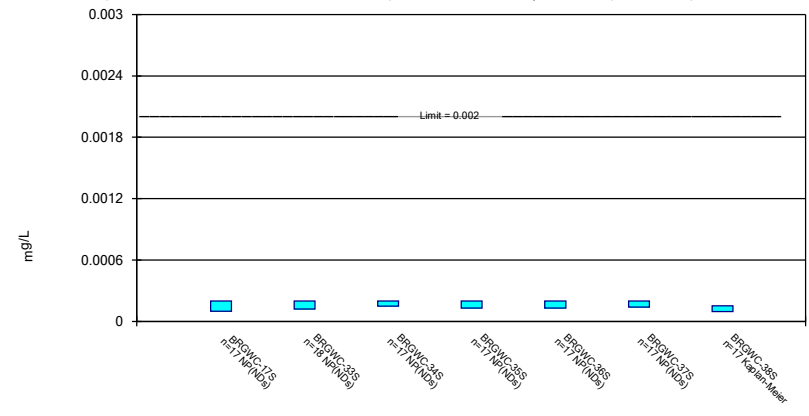
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

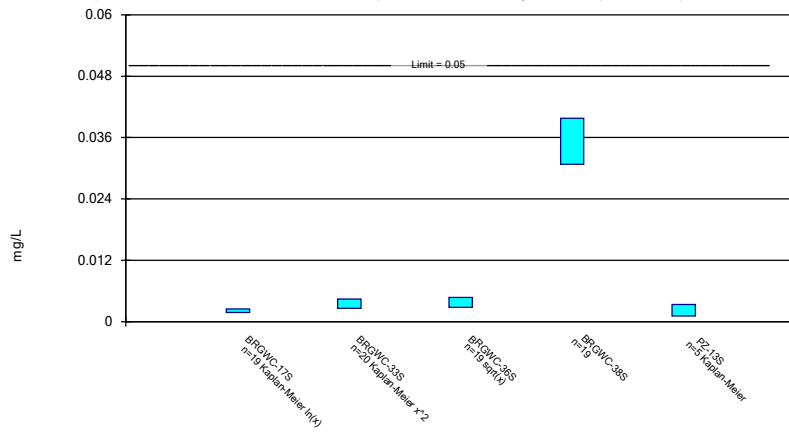
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

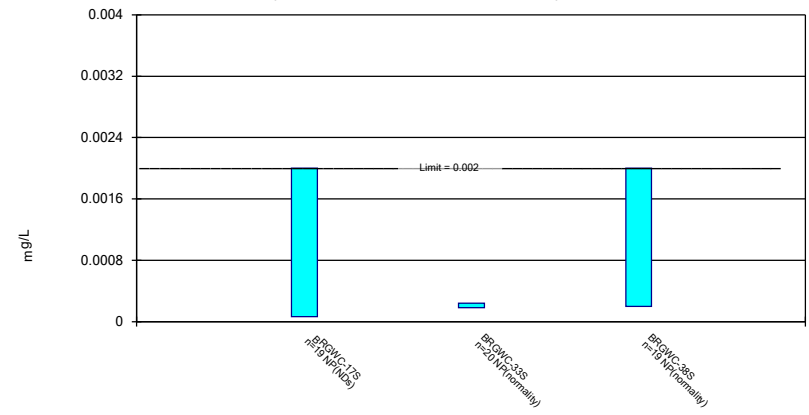
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 10/16/2023 6:08 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.003	<0.003		<0.003
11/17/2016	<0.003			
11/18/2016		0.0016 (J)		
11/21/2016				0.0009 (J)
2/22/2017	<0.003			
2/23/2017		<0.003	<0.003	<0.003
4/17/2017			0.0004 (J)	
5/15/2017			<0.003	
6/15/2017	0.0009 (J)	0.0006 (J)	0.0006 (J)	0.0007 (J)
9/28/2017	<0.003	<0.003	<0.003	<0.003
2/15/2018	<0.003	<0.003	<0.003	<0.003
6/27/2018	<0.003			
6/28/2018		<0.003	<0.003	<0.003
12/19/2018	<0.003	<0.003	<0.003	
12/20/2018				<0.003
8/28/2019	<0.003	0.00035 (J)	<0.003	
8/29/2019				<0.003
10/16/2019			<0.003	<0.003
12/3/2019	<0.003	0.00049 (J)		
3/3/2020	<0.003			
3/5/2020		<0.003	<0.003	<0.003
8/19/2020	<0.003	<0.003	<0.003	<0.003
9/16/2020	<0.003	<0.003	<0.003	
9/17/2020				<0.003
3/3/2021		<0.003	<0.003	
3/4/2021	<0.003			<0.003
9/22/2021	<0.003	<0.003		
9/23/2021			<0.003	<0.003
2/1/2022	<0.003	<0.003		<0.003
2/2/2022			<0.003	
8/23/2022			<0.003	<0.003
8/24/2022	<0.003	<0.003		
1/24/2023	<0.003			
1/25/2023		<0.003	<0.003	<0.003
8/31/2023			<0.003	
9/6/2023	<0.003	<0.003		<0.003
Mean	0.002889	0.002528	0.002737	0.002768
Std. Dev.	0.0004818	0.0009666	0.000789	0.0006945
Upper Lim.	0.003	0.003	0.003	0.003
Lower Lim.	0.0009	0.0016	0.0006	0.0009

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S
9/7/2016	<0.005	<0.005	<0.005	<0.005		0.0026 (J)	
11/17/2016	<0.005	<0.005	<0.005				
11/18/2016				<0.005			
11/21/2016						0.0034 (J)	
2/22/2017	<0.005	<0.005	<0.005				
2/23/2017				<0.005	<0.005	0.003 (J)	
4/17/2017					<0.005		
5/15/2017					<0.005		
6/14/2017		0.0006 (J)					
6/15/2017	0.0006 (J)		0.0006 (J)	0.0007 (J)	<0.005	0.005 (J)	
9/27/2017		<0.005					
9/28/2017	<0.005		<0.005	<0.005	<0.005	0.0046 (J)	
2/15/2018	<0.005	<0.005	<0.005	<0.005	<0.005	0.0016 (J)	
6/27/2018	<0.005	<0.005	<0.005				
6/28/2018				<0.005 (X)	<0.005 (X)	<0.005 (X)	
12/18/2018		<0.005 (X)					
12/19/2018	<0.005		<0.005	<0.005	<0.005		
12/20/2018						0.00098 (J)	
1/15/2019							<0.005
8/27/2019		<0.005					
8/28/2019	0.00073 (J)	<0.005	0.00044 (J)	0.00045 (J)	0.00038 (J)		
8/29/2019						0.0013 (J)	
10/16/2019		0.00056 (J)	0.0004 (J)		0.00078 (J)	0.0024 (J)	
10/22/2019							<0.005
12/3/2019	0.00058 (J)			0.001 (J)			
3/3/2020	0.0033 (J)						
3/5/2020		<0.005	<0.005	<0.005	0.00044 (J)	0.0011 (J)	
8/19/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0021 (J)	
9/16/2020	<0.005	<0.005	<0.005	<0.005	<0.005		
9/17/2020						0.0015 (J)	
3/3/2021		<0.005		<0.005	<0.005		
3/4/2021	<0.005		<0.005			0.0029 (J)	
9/22/2021	<0.005	<0.005		<0.005			
9/23/2021			<0.005		<0.005	0.002 (J)	
2/1/2022	<0.005	<0.005	<0.005	<0.005		<0.005	
2/2/2022					<0.005		
8/23/2022		0.00262 (J)			<0.005	0.00337 (J)	<0.005
8/24/2022	<0.005		<0.005	<0.005			
1/24/2023	<0.005	0.00201 (J)	<0.005				
1/25/2023				<0.005	0.003 (J)	0.00486 (J)	
1/26/2023							0.00388 (J)
8/31/2023		<0.005			<0.005		<0.005
9/6/2023	<0.005		<0.005	<0.005		<0.005	
Mean	0.004222	0.004289	0.004286	0.004324	0.004189	0.003037	0.004776
Std. Dev.	0.001642	0.001515	0.001694	0.001607	0.001691	0.00148	0.0005009
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.003082	0.005
Lower Lim.	0.0033	0.00262	0.0006	0.001	0.003	0.001775	0.00388

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.0377	0.0214		0.101	0.0674		0.044
9/8/2016			0.0415				
11/17/2016	0.0405	0.0211	0.04	0.0808			
11/18/2016					0.0546		
11/21/2016							0.0428 (J)
2/22/2017	0.0392	0.0243	0.0415	0.0701			
2/23/2017					0.0489	0.0229	0.0338
4/17/2017						0.0227	
5/15/2017						0.0227	
6/14/2017		0.0218	0.0341				
6/15/2017	0.0364			0.0518	0.0415	0.0218	0.0239
9/27/2017		0.0219	0.0347				
9/28/2017	0.0408			0.047	0.0397	0.0222	0.0247
2/15/2018	0.0396	0.0248	0.0346	0.0485	0.038	0.0243	0.0215
6/27/2018	0.041	0.023	0.028	0.046			
6/28/2018					0.035	0.023	0.018
12/18/2018		0.023	0.029				
12/19/2018	0.038			0.04	0.035	0.024	
12/20/2018							0.017
8/27/2019		0.02					
8/28/2019	0.044	0.02	0.026	0.039	0.034	0.027	
8/29/2019							0.016
10/16/2019		0.019	0.022	0.037		0.024	0.015
12/3/2019	0.043				0.031		
3/3/2020	0.036						
3/5/2020		0.022	0.025	0.039	0.033	0.025	0.016
8/19/2020	0.047	0.02	0.024	0.04	0.037	0.026	0.016
9/16/2020	0.044	0.019	0.023	0.033	0.03	0.024	
9/17/2020							0.014
3/3/2021		0.02	0.024		0.031	0.024	
3/4/2021	0.039			0.034			0.015
9/22/2021	0.043	0.019	0.021		0.028		
9/23/2021				0.036		0.027	0.014
2/1/2022	0.045	0.023	0.024	0.033	0.029		0.015
2/2/2022						0.025	
8/23/2022		0.0409				0.026	0.0141
8/24/2022	0.0512		0.0249	0.0339	0.0296		
1/24/2023	0.0422	0.0368	0.0232	0.0291			
1/25/2023					0.0278	0.0247	0.018
8/31/2023		0.0357	0.0268			0.0266	
9/6/2023	0.0445			0.0286	0.0243		0.0134
Mean	0.04169	0.02384	0.02881	0.04567	0.03657	0.02436	0.02064
Std. Dev.	0.003817	0.006312	0.006782	0.01889	0.01054	0.001607	0.009453
Upper Lim.	0.04392	0.0243	0.0347	0.0518	0.04103	0.0253	0.0247
Lower Lim.	0.03945	0.02	0.0232	0.0339	0.03052	0.02342	0.0141

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-13S
1/15/2019	0.14
10/22/2019	0.077
8/23/2022	0.0562
1/26/2023	0.0525
8/31/2023	0.0683
Mean	0.0788
Std. Dev.	0.03557
Upper Lim.	0.1394
Lower Lim.	0.03177

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-38S	PZ-13S
9/7/2016	0.0019 (J)		9E-05 (J)	<0.0005	0.0079	
9/8/2016		0.0001 (J)				
9/23/2016					0.0096 (R)	
11/17/2016	0.002 (J)	0.0001 (J)	0.0001 (J)			
11/18/2016				0.0001 (J)		
11/21/2016					0.0092	
2/22/2017	0.0022 (J)	0.0002 (J)	0.0001 (J)			
2/23/2017				0.0001 (J)	0.01	
6/14/2017	0.0019 (J)	<0.0005				
6/15/2017			0.0001 (J)	9E-05 (J)	0.0104	
9/27/2017	0.0017 (J)	0.0001 (J)				
9/28/2017			0.0001 (J)	0.0001 (J)	0.0098	
2/15/2018	<0.003	<0.0005	<0.0005	<0.0005	0.011 (J)	
6/27/2018	0.002 (J)	0.00013 (J)	0.00015 (J)			
6/28/2018				8.1E-05 (J)	0.0085	
12/18/2018	0.0021 (J)	0.00012 (J)				
12/19/2018			<0.0005 (X)	<0.0005 (X)		
12/20/2018					0.0092	
1/15/2019						0.0005 (J)
8/27/2019	0.0019 (J)					
8/28/2019	0.0019 (J)	0.00014 (J)	0.00016 (J)	0.00011 (J)		
8/29/2019					0.0088	
10/16/2019	0.0018 (J)	0.00014 (J)	0.00015 (J)		0.0079	
10/17/2019				<0.0005		
10/22/2019						0.0004 (J)
12/3/2019				9.7E-05 (J)		
3/5/2020	0.0018 (J)	0.00015 (J)	0.00015 (J)	9.2E-05 (J)	0.0082	
8/19/2020	0.0014 (J)	0.00015 (J)	0.00015 (J)	0.00011 (J)	0.0079	
9/16/2020	0.0015 (J)	0.00014 (J)	0.00014 (J)	8E-05 (J)		
9/17/2020					0.0073	
3/3/2021	0.0013	0.00015 (J)		7.9E-05 (J)		
3/4/2021			0.00012 (J)		0.0077	
9/22/2021	0.0012	0.00015 (J)		8.4E-05 (J)		
9/23/2021			0.00016 (J)		0.0071	
2/1/2022	0.0013	0.00015 (J)	0.00015 (J)	8.7E-05 (J)	0.0072	
8/23/2022	0.00241				0.00854	0.000331 (J)
8/24/2022		<0.0005	0.00021 (J)	<0.0005		
1/24/2023	0.00235	<0.0005	<0.0005			
1/25/2023				<0.0005	0.0078	
1/26/2023						0.000422 (J)
8/31/2023	0.0019	<0.0005				0.000259 (J)
9/6/2023			0.0002 (J)	<0.0005		
9/7/2023					0.0068	
Mean	0.001803	0.0002326	0.0001963	0.0002355	0.008542	0.0003824
Std. Dev.	0.0003452	0.0001657	0.000139	0.0001993	0.001177	9.162E-05
Upper Lim.	0.001999	0.0005	0.00021	0.0005	0.00921	0.0005359
Lower Lim.	0.001607	0.00012	0.0001	8.7E-05	0.007874	0.0002289

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-36S	BRGWC-38S	PZ-13S
9/7/2016	0.0005 (J)		8E-05 (J)	0.0004 (J)	
9/8/2016		<0.001			
11/17/2016	0.0005 (J)	0.0009 (J)			
11/18/2016			<0.001		
11/21/2016				0.0005 (J)	
2/22/2017	0.0006 (J)	0.0005 (J)			
2/23/2017			0.0001 (J)	0.0007 (J)	
6/14/2017	0.0004 (J)	0.0004 (J)			
6/15/2017			<0.001	0.0006 (J)	
9/27/2017	0.0004 (J)	0.0007 (J)			
9/28/2017			<0.001	0.0007 (J)	
2/15/2018	<0.001	<0.001	<0.001	0.00069 (J)	
6/27/2018	0.00038 (J)	0.00017 (J)			
6/28/2018			<0.001	0.00056 (J)	
12/18/2018	0.00046 (J)	0.00023 (J)			
12/19/2018			<0.001 (X)		
12/20/2018				<0.001 (X)	
1/15/2019					0.00011 (J)
8/27/2019	0.00032 (J)				
8/28/2019	0.00032 (J)	0.00025 (J)	<0.001		
8/29/2019				0.00053 (J)	
10/16/2019	0.00039 (J)	0.0004 (J)		0.00057 (J)	
10/17/2019			<0.001		
10/22/2019					<0.001
12/3/2019			<0.001		
3/5/2020	0.00038 (J)	0.00018 (J)	<0.001	0.00059 (J)	
8/19/2020	0.00029 (J)	0.00018 (J)	<0.001	0.00056 (J)	
9/16/2020	0.00032 (J)	0.00017 (J)	<0.001		
9/17/2020				0.0005 (J)	
3/3/2021	0.00022 (J)	0.00015 (J)	<0.001		
3/4/2021				0.00042 (J)	
9/22/2021	0.00019 (J)	0.00033 (J)	<0.001		
9/23/2021				0.00048 (J)	
2/1/2022	0.00023 (J)	0.00012 (J)	<0.001	0.00058	
8/23/2022	0.000509 (J)			0.000459 (J)	<0.001
8/24/2022		0.000517 (J)	<0.001		
1/24/2023	0.000482 (J)	<0.001			
1/25/2023			<0.001	0.00043 (J)	
1/26/2023					<0.001
8/31/2023	0.000533 (J)	<0.001			<0.001
9/6/2023			<0.001	0.00041 (J)	
Mean	0.0003962	0.0004841	0.000909	0.0005357	0.000822
Std. Dev.	0.0001141	0.0003391	0.0002801	9.452E-05	0.000398
Upper Lim.	0.000461	0.0009	0.001	0.0005911	0.001
Lower Lim.	0.0003314	0.00017	0.0001	0.0004804	0.00011

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S
9/7/2016	0.01 (J)	<0.01	0.0019 (J)	0.0073 (J)		0.0014 (J)	
11/17/2016	0.0185	<0.01	0.0024 (J)				
11/18/2016				0.008 (J)			
11/21/2016						0.003 (J)	
2/22/2017	0.0122	<0.01	0.004 (J)				
2/23/2017				0.0086 (J)	0.001 (J)	0.0028 (J)	
4/17/2017					0.0018 (J)		
5/15/2017					0.0014 (J)		
6/14/2017		<0.01					
6/15/2017	0.0117		0.0033 (J)	0.0082 (J)	0.0013 (J)	0.0038 (J)	
9/27/2017		<0.01					
9/28/2017	0.0114		0.0052 (J)	0.0083 (J)	0.0014 (J)	0.0037 (J)	
2/15/2018	0.011	<0.01	<0.01	0.0086 (J)	<0.01	0.0044 (J)	
6/27/2018	0.0098 (J)	<0.01	0.0062 (J)				
6/28/2018				0.0076 (J)	<0.01	0.0041 (J)	
12/18/2018		<0.01					
12/19/2018	0.0095 (J)		0.0073 (J)	0.0085 (J)	<0.01		
12/20/2018						0.0041 (J)	
1/15/2019							0.025
8/27/2019		<0.01					
8/28/2019	0.013	<0.01	0.0071 (J)	0.0078 (J)	0.0017 (J)		
8/29/2019						0.0044 (J)	
10/16/2019		0.00049 (J)	0.0064 (J)		0.0014 (J)	0.0038 (J)	
10/22/2019							0.02
12/3/2019	0.011			0.007 (J)			
3/3/2020	0.0081 (J)						
3/5/2020		<0.01	0.0076 (J)	0.0087 (J)	0.0016 (J)	0.0038 (J)	
8/19/2020	0.012	<0.01	0.0073 (J)	0.0094 (J)	0.0017 (J)	0.0043 (J)	
9/16/2020	0.012	<0.01	0.0058 (J)	0.0064 (J)	0.0018 (J)		
9/17/2020						0.0042 (J)	
3/3/2021		<0.01		0.0067	0.0014 (J)		
3/4/2021	0.01		0.0053			0.004 (J)	
9/22/2021	0.0091	<0.01		0.0065			
9/23/2021			0.0065		0.0016 (J)	0.004 (J)	
2/1/2022	0.013	<0.01	0.0056	0.0068		0.0035 (J)	
2/2/2022					0.0015 (J)		
8/23/2022		<0.01			<0.01	0.00398 (J)	0.0128
8/24/2022	0.0127		0.00752 (J)	0.00713 (J)			
1/24/2023	0.00886 (J)	<0.01	0.00524 (J)				
1/25/2023				0.00682 (J)	<0.01	0.00362 (J)	
1/26/2023							0.0153
8/31/2023		<0.01			<0.01		0.0111
9/6/2023	0.0115		0.00592 (J)	0.00649 (J)		0.00338 (J)	
Mean	0.01133	0.009524	0.005557	0.007623	0.004189	0.003699	0.01684
Std. Dev.	0.002256	0.002127	0.001669	0.0009102	0.00406	0.0007046	0.005662
Upper Lim.	0.01253	0.01	0.006534	0.008156	0.01	0.00408	0.02633
Lower Lim.	0.01002	0.00049	0.004579	0.00709	0.0014	0.003489	0.007353

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-38S	PZ-13S
9/7/2016	0.0612		0.0023 (J)	0.236	
9/8/2016		0.0029 (J)			
11/17/2016	0.0551	0.0028 (J)	0.0012 (J)		
11/21/2016				0.298	
2/22/2017	0.0567	0.0041 (J)	0.0008 (J)		
2/23/2017				0.277	
6/14/2017	0.0557	0.0036 (J)			
6/15/2017			0.0004 (J)	0.262	
9/27/2017	0.049	0.0028 (J)			
9/28/2017			0.0003 (J)	0.279	
2/15/2018	0.0536	<0.01	<0.001	0.279	
6/27/2018	0.054	0.0041 (J)	<0.001		
6/28/2018				0.23	
12/18/2018	0.049	0.0032 (J)			
12/19/2018			<0.001		
12/20/2018				0.25	
1/15/2019					<0.001
8/27/2019	0.045				
8/28/2019	0.045	0.0037 (J)	<0.001		
8/29/2019				0.21	
10/16/2019	0.042	0.0043 (J)	<0.001	0.21	
10/22/2019					0.00037 (J)
3/5/2020	0.037	0.0031 (J)	<0.001	0.22	
8/19/2020	0.036	0.0041 (J)	<0.001	0.22	
9/16/2020	0.034	0.0042 (J)	<0.001		
9/17/2020				0.2	
3/3/2021	0.028	0.0046 (J)			
3/4/2021			<0.001	0.2	
9/22/2021	0.024	0.0075			
9/23/2021			<0.001	0.17	
2/1/2022	0.027	0.0044 (J)	<0.001	0.18	
8/23/2022	0.0639			0.173	<0.001
8/24/2022		0.00438	<0.001		
1/24/2023	0.0582	0.00351	<0.001		
1/25/2023				0.158	
1/26/2023					<0.001
8/31/2023	0.0659	0.00384			<0.001
9/6/2023			<0.001	0.139	
Mean	0.04702	0.004007	0.001	0.2206	0.000874
Std. Dev.	0.01261	0.001057	0.0003815	0.04535	0.0002817
Upper Lim.	0.05417	0.00447	0.0012	0.2471	0.001
Lower Lim.	0.03986	0.003398	0.0008	0.194	0.00037

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	1.18	0.541 (U)		0.189 (U)	0.638 (U)		0.816 (U)
9/8/2016			0.998 (U)				
11/17/2016	0.145 (U)	1.02 (U)	0.613	0.729 (U)			
11/18/2016					1.22 (U)		
11/21/2016							2.94
2/22/2017	0.0213 (U)	0.482 (U)	1.01 (U)	0.293 (U)			
2/23/2017					0.554 (U)	0.567 (U)	1.92
4/17/2017						0.335 (U)	
5/15/2017						0.261 (U)	
6/14/2017		0.723 (U)	0.801 (U)				
6/15/2017	0.41 (U)			1.09	0.77 (U)	0.188 (U)	3.6
9/27/2017		1.5	1.44				
9/28/2017	0.496 (U)			1.02 (U)	1.07 (U)	0.627 (U)	3.3
2/15/2018	0.672 (U)	1.14 (U)	0.668 (U)	0.742 (U)	0.751 (U)	0.869 (U)	2.31 (J+X)
6/27/2018	0.692 (U)	1.3 (U)	1.06 (U)	0.739 (U)			
6/28/2018					0.392 (U)	0.336 (U)	1.75 (UX)
12/18/2018		1.64 (UX)	1.22				
12/19/2018	0.325 (U)			0.465 (U)	0.693 (U)	0.454 (U)	
12/20/2018							2.8 (J+X)
8/27/2019		1.38					
8/28/2019	0.24 (U)		0.811 (U)	0.995 (U)	0.866 (U)	0.809 (U)	
8/29/2019							3.68
10/16/2019		1.16 (U)	0.561 (U)	1.69		0.815 (U)	2.66
12/18/2019	1.16 (U)				1.91		
3/3/2020	0.756 (U)						
3/5/2020		0.683 (U)	0.792 (U)	0.858 (U)	1.3	0.791 (U)	2.21
8/19/2020	0.985 (U)	1.14 (U)	1.21 (U)	0.162 (U)	1.4	0.582 (U)	3.17
9/16/2020	0.478 (U)	0.195 (U)	0.72 (U)	1.25 (U)	1.17 (U)	0.844 (U)	
9/17/2020							2.92
3/3/2021		0.708 (U)	1.12		0.307 (U)	1.12	
3/4/2021	0.38 (U)			0.461 (U)			1.99
9/22/2021	0.734 (U)	0.382 (U)	0.91 (U)		0.808 (U)		
9/23/2021				0.394 (U)		0.078 (U)	1.4
2/1/2022	0.503 (U)	0.583 (U)	0.535 (U)	0.672 (U)	1.61 (U)		7.64
2/2/2022						0.654 (U)	
8/23/2022		1.94				2.37	3.12
8/24/2022	0.152		1.86	3.1	1.38		
1/24/2023	0.728 (U)	3.31 (U)	2.14 (U)	3.34			
1/25/2023					4.86	1.67 (U)	3.79
9/20/2023	1.92 (U)			3.33	3.87		5.98
9/22/2023		0.521 (U)	1.06 (U)			0.578 (U)	
Mean	0.6304	1.071	1.028	1.133	1.346	0.7341	3.052
Std. Dev.	0.4511	0.7172	0.4221	1.018	1.154	0.5369	1.568
Upper Lim.	0.8945	1.379	1.232	1.448	1.572	0.9584	3.781
Lower Lim.	0.3662	0.6385	0.7771	0.5121	0.7046	0.4076	2.111

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-13S
1/15/2019	<0.983
10/22/2019	0.631 (U)
8/23/2022	1.83
1/26/2023	4.77
9/22/2023	0.823 (U)
Mean	1.807
Std. Dev.	1.718
Upper Lim.	4.383
Lower Lim.	0.1171

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.22 (J)	0.19 (J)		0.34	0.18 (J)		0.66
9/8/2016			0.17 (J)				
11/17/2016	0.12 (J)	0.12 (J)	0.06 (J)	0.14 (J)			
11/18/2016					0.03 (J)		
11/21/2016							0.9 (D)
2/22/2017	0.11 (J)	0.21 (J)	0.17 (J)	0.09 (J)			
2/23/2017					0.07 (J)	0.1 (J)	0.75
4/17/2017						0.08 (J)	
5/15/2017						0.02 (J)	
6/14/2017		0.18 (J)	0.1 (J)				
6/15/2017	0.05 (J)			0.03 (J)	0.01 (J)	0.03 (J)	0.77
9/27/2017		0.42	0.4				
9/28/2017	0.05 (J)			<0.1	<0.1	<0.1	0.8
2/15/2018	<0.3	0.42	<0.3	<0.1	<0.1	<0.1	0.82
6/27/2018	0.093 (J)	0.32	0.21 (J)	0.22 (J)			
6/28/2018					0.51 (J+X)	<0.1	1.5 (J+X)
12/18/2018		0.28 (J)	0.12 (J)				
12/19/2018	0.16 (J)			0.11 (J)	<0.1	0.094 (J)	
12/20/2018							0.68
3/19/2019	0.1 (J)				<0.1		
3/20/2019		0.14 (J)	0.074 (J)	0.088 (J)		0.062 (J)	0.95
8/27/2019		0.11 (J)					
8/28/2019	0.085 (J)	0.11 (J)	0.057 (J)	0.056 (J)	<0.1	<0.1	
8/29/2019							0.9
10/16/2019		0.17 (J)	0.13 (J)	0.08 (J)		0.059 (J)	0.61
12/3/2019	0.2 (J)				0.15 (J)		
3/3/2020	0.093 (J)						
3/5/2020		0.088 (J)	0.072 (J)	0.067 (J)	<0.1	0.05 (J)	0.92
8/19/2020	0.1	0.11	0.074 (J)	0.06 (J)	0.051 (J)	0.055 (J)	0.95
9/16/2020	0.1	0.085 (J)	0.077 (J)	0.062 (J)	<0.1	<0.1	
9/17/2020							0.68
3/3/2021		0.069 (J)	0.071 (J)		<0.1	<0.1	
3/4/2021	0.096 (J)			0.076 (J)			0.83
9/22/2021	0.1	0.068 (J)	0.1		0.054 (J)		
9/23/2021				0.073 (J)		<0.1	0.85
2/1/2022	0.079 (J)	0.053 (J)	0.06 (J)	0.055 (J)	<0.1		0.95
2/2/2022						<0.1	
8/23/2022		0.187				0.105	0.609
8/24/2022	0.274		0.14	<0.1	0.194		
1/24/2023	0.216	0.193	0.122	0.239			
1/25/2023					0.183	0.114	0.708
8/23/2023		0.123				0.0445 (J)	
8/24/2023	0.484		0.0816 (J)	0.347			0.748
8/25/2023					0.301		
Mean	0.144	0.1736	0.1219	0.1217	0.1317	0.08068	0.8293
Std. Dev.	0.0998	0.1065	0.07849	0.09165	0.1104	0.0283	0.1939
Upper Lim.	0.177	0.2171	0.1485	0.1511	0.1575	0.1	0.9199
Lower Lim.	0.09001	0.1117	0.08037	0.07005	0.0486	0.055	0.7223

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-13S
1/15/2019	0.06 (J)
10/22/2019	<0.1
8/23/2022	0.128
1/26/2023	<0.1
8/23/2023	<0.1
Mean	0.0976
Std. Dev.	0.02427
Upper Lim.	0.128
Lower Lim.	0.06

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.002	0.0002 (J)		0.0001 (J)	<0.002		0.0004 (J)
9/8/2016			<0.002				
11/17/2016	0.0001 (J)	0.0002 (J)	0.0001 (J)	0.0002 (J)			
11/18/2016					<0.002		
11/21/2016							0.0005 (J)
2/22/2017	<0.002	0.0001 (J)	0.0003 (J)	0.0001 (J)			
2/23/2017					<0.002	<0.002	0.0005 (J)
4/17/2017						0.0001 (J)	
5/15/2017						<0.002	
6/14/2017		9E-05 (J)	<0.002				
6/15/2017	<0.002			<0.002	<0.002	<0.002	0.0004 (J)
9/27/2017		7E-05 (J)	9E-05 (J)				
9/28/2017	<0.002			<0.002	<0.002	0.0001 (J)	0.0004 (J)
2/15/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00047 (J)
6/27/2018	<0.002	<0.002	<0.002	<0.002			
6/28/2018					<0.002	<0.002	0.00036 (J)
12/18/2018		<0.002	<0.002				
12/19/2018	<0.002			<0.002	<0.002	<0.002	
12/20/2018							0.00039 (J)
8/27/2019		0.00013 (J)					
8/28/2019	<0.002	0.00013 (J)	<0.002	<0.002	<0.002	<0.002	
8/29/2019							0.00035 (J)
10/16/2019		8.8E-05 (J)	<0.002	<0.002		<0.002	0.00035 (J)
12/3/2019	<0.002				<0.002		
3/3/2020	<0.002						
3/5/2020		8.7E-05 (J)	<0.002	<0.002	<0.002	<0.002	0.00041 (J)
8/19/2020	<0.002	6E-05 (J)	<0.002	<0.002	4.7E-05 (J)	<0.002	0.00031 (J)
9/16/2020	5.4E-05 (J)	6.3E-05 (J)	<0.002	0.00012 (J)	<0.002	<0.002	
9/17/2020							0.00032 (J)
3/3/2021		5.8E-05 (J)	<0.002		<0.002	<0.002	
3/4/2021	<0.002			<0.002			0.00034 (J)
9/22/2021	<0.002	<0.002	<0.002		<0.002		
9/23/2021				<0.002		<0.002	<0.002
2/1/2022	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002
2/2/2022						<0.002	
8/23/2022		<0.002				<0.002	<0.002
8/24/2022	<0.002		<0.002	<0.002	<0.002		
1/24/2023	<0.002	<0.002	<0.002	<0.002			
1/25/2023					<0.002	<0.002	<0.002
8/31/2023		<0.002	<0.002			<0.002	
9/6/2023	<0.002			<0.002	<0.002		<0.002
Mean	0.001798	0.0008638	0.00171	0.001606	0.001897	0.0018	0.0008158
Std. Dev.	0.0006064	0.0009526	0.0006892	0.0007835	0.000448	0.0005991	0.000729
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Lower Lim.	0.0001	8.7E-05	0.0003	0.0002	4.7E-05	0.0001	0.00035

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-13S
1/15/2019	<0.002
10/22/2019	0.00035 (J)
8/23/2022	<0.002
1/26/2023	<0.002
8/31/2023	<0.002
Mean	0.00167
Std. Dev.	0.0007379
Upper Lim.	0.002
Lower Lim.	0.00035

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-38S	PZ-13S
9/7/2016	<0.01	0.0092 (J)		0.0021 (J)	0.0024 (J)	0.0193 (J)	
9/8/2016			<0.01				
11/17/2016	<0.01	0.0097 (J)	<0.01	0.0022 (J)			
11/18/2016					0.0026 (J)		
11/21/2016						0.0223 (J)	
2/22/2017	<0.01	0.0106 (J)	<0.01	0.0023 (J)			
2/23/2017					0.0026 (J)	0.0229 (J)	
6/14/2017		0.0097 (J)	<0.01				
6/15/2017	<0.01			0.0023 (J)	0.0026 (J)	0.0227 (J)	
9/27/2017		0.0099 (J)	<0.01				
9/28/2017	<0.01			0.0021 (J)	0.0025 (J)	0.023 (J)	
2/15/2018	<0.01	0.0106 (J)	<0.01	0.0021 (J)	<0.01	0.0254 (J)	
6/27/2018	<0.01	0.01 (J)	<0.01	0.0021 (J)			
6/28/2018					0.0022 (J)	0.021 (J)	
12/18/2018		0.011 (J)	<0.01				
12/19/2018	<0.01			0.0021 (J)	0.0026 (J)		
12/20/2018						0.022 (J)	
1/15/2019							0.0017 (J)
8/27/2019		0.01 (J)					
8/28/2019	0.00097 (J)	0.01 (J)	0.0009 (J)	0.0021 (J)	0.0025 (J)		
8/29/2019						0.021 (J)	
10/16/2019		0.0098 (J)	0.00078 (J)	0.0022 (J)		0.02 (J)	
10/22/2019							0.001 (J)
12/3/2019	0.001 (J)				0.0024 (J)		
3/3/2020	<0.01						
3/5/2020		0.011 (J)	0.00089 (J)	0.0021 (J)	0.0025 (J)	0.021 (J)	
8/19/2020	0.001 (J)	0.009 (J)	0.00082 (J)	0.0021 (J)	0.0024 (J)	0.021 (J)	
9/16/2020	0.00096 (J)	0.0089 (J)	<0.01	0.002 (J)	0.0022 (J)		
9/17/2020						0.02 (J)	
3/3/2021		0.0085 (J)	0.00096 (J)		0.0024 (J)		
3/4/2021	0.00086 (J)			0.0021 (J)		0.021 (J)	
9/22/2021	0.0011 (J)	0.008 (J)	<0.01		0.0026 (J)		
9/23/2021				0.0022 (J)		0.019 (J)	
2/1/2022	0.00096 (J)	0.0083 (J)	0.00085 (J)	0.0021 (J)	0.0023 (J)	0.02 (J)	
8/23/2022		0.0109				0.0214	<0.01
8/24/2022	<0.01		<0.01	<0.01	<0.01		
1/24/2023	<0.01	0.0115	<0.01	<0.01			
1/25/2023					<0.01	0.0256	
1/26/2023							<0.01
8/31/2023		0.00967 (J)	<0.01				<0.01
9/6/2023	<0.01			<0.01	<0.01		
9/7/2023						0.0195	
Mean	0.006676	0.009814	0.007116	0.003379	0.004042	0.02148	0.00654
Std. Dev.	0.004471	0.0009573	0.004362	0.002946	0.003163	0.001851	0.004744
Upper Lim.	0.01	0.01036	0.01	0.0023	0.01	0.02256	0.01
Lower Lim.	0.00097	0.00927	0.00089	0.0021	0.0024	0.0204	0.001

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.0002	<0.0002		<0.0002	<0.0002		7E-05 (J)
9/8/2016			<0.0002				
11/17/2016	<0.0002	<0.0002	<0.0002	<0.0002			
11/18/2016					<0.0002		
11/21/2016							0.00012 (J)
2/22/2017	<0.0002	<0.0002	<0.0002	<0.0002			
2/23/2017					<0.0002	<0.0002	7E-05 (J)
4/17/2017						<0.0002	
5/15/2017						<0.0002	
6/14/2017		7E-05 (J)	7E-05 (J)				
6/15/2017	6E-05 (J)			7E-05 (J)	7E-05 (J)	6E-05 (J)	0.00016 (J)
9/27/2017		4E-05 (J)	4E-05 (J)				
9/28/2017	<0.0002			<0.0002	<0.0002	<0.0002	0.00011 (J)
2/15/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00015 (J)
6/27/2018	<0.0002	<0.0002	<0.0002	<0.0002			
6/28/2018					<0.0002	<0.0002	<0.0002 (X)
12/18/2018		<0.0002	<0.0002				
12/19/2018	<0.0002			<0.0002	<0.0002	<0.0002	
12/20/2018							0.00017 (J)
8/27/2019		<0.0002					
8/28/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/29/2019							0.00018 (J)
8/19/2020	8.4E-05 (J)	<0.0002	0.00012 (J)	0.00013 (J)	0.00013 (J)	0.00014 (J)	0.00018 (J)
9/16/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
9/17/2020							0.00011 (J)
3/3/2021		<0.0002	<0.0002		<0.0002	<0.0002	
3/4/2021	<0.0002			<0.0002			8.5E-05 (J)
9/22/2021	0.0001 (J)	0.00012 (J)	0.00015 (J)		0.0001 (J)		
9/23/2021				0.00011 (J)		0.00011 (J)	0.00022
2/1/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
2/2/2022						<0.0002	
8/23/2022		<0.0002				<0.0002	0.000117 (J)
8/24/2022	<0.0002		<0.0002	<0.0002	<0.0002		
1/24/2023	<0.0002	<0.0002	<0.0002	<0.0002			
1/25/2023					<0.0002	<0.0002	<0.0002
8/25/2023		<0.0002	<0.0002			<0.0002	
8/28/2023	<0.0002			<0.0002	<0.0002		<0.0002
Mean	0.0001791	0.0001794	0.0001753	0.0001829	0.0001824	0.0001829	0.0001495
Std. Dev.	4.717E-05	4.929E-05	5.064E-05	3.949E-05	4.07E-05	4.058E-05	4.963E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001524
Lower Lim.	0.0001	0.00012	0.00015	0.00013	0.00013	0.00014	9.621E-05

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-36S	BRGWC-38S	PZ-13S
9/7/2016	0.0024 (J)	0.0032 (J)	0.0079 (J)	0.0311	
11/17/2016	0.0028 (J)	0.0028 (J)			
11/18/2016			0.0082 (J)		
11/21/2016				0.0409	
2/22/2017	0.0018 (J)	0.0018 (J)			
2/23/2017			0.0061 (J)	0.0354	
6/14/2017		0.004 (J)			
6/15/2017	0.0024 (J)		0.0046 (J)	0.0511	
9/27/2017		0.0036 (J)			
9/28/2017	<0.005		0.0042 (J)	0.0484	
2/15/2018	<0.005	<0.005	0.0045 (J)	0.0435	
6/27/2018	0.002 (J)	0.0017 (J)			
6/28/2018			0.0033 (J)	0.037	
12/18/2018		<0.005			
12/19/2018	0.0014 (J)		0.0042 (J)		
12/20/2018				0.037	
1/15/2019					0.0033 (J)
8/27/2019		<0.005			
8/28/2019	0.003 (J)	<0.005	0.0041 (J)		
8/29/2019				0.036	
10/16/2019		0.0028 (J)		0.033	
10/22/2019					0.0033 (J)
12/3/2019	0.0041 (J)		0.0035 (J)		
3/3/2020	0.0019 (J)				
3/5/2020		<0.005	0.0034 (J)	0.032	
8/19/2020	0.003 (J)	<0.005	0.002 (J)	0.041	
9/16/2020	<0.005	0.0028 (J)	0.0031 (J)		
9/17/2020				0.029	
3/3/2021		<0.005	0.0024 (J)		
3/4/2021	<0.005			0.039	
9/22/2021	0.0015 (J)	<0.005	0.0032 (J)		
9/23/2021				0.031	
2/1/2022	0.0021 (J)	<0.005	0.0025 (J)	0.029	
8/23/2022		0.0061		0.0296	0.00157 (J)
8/24/2022	0.00208 (J)		0.00246 (J)		
1/24/2023	0.00178 (J)	0.0049 (J)			
1/25/2023			0.00237 (J)	0.0279	
1/26/2023					0.00215 (J)
8/31/2023		0.00572			<0.005
9/6/2023	0.00214 (J)		0.00173 (J)	0.0186	
Mean	0.002863	0.004221	0.003882	0.03529	0.003064
Std. Dev.	0.00129	0.001287	0.001814	0.007711	0.001316
Upper Lim.	0.002466	0.004385	0.00474	0.0398	0.003346
Lower Lim.	0.001797	0.002576	0.002801	0.03077	0.001094

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 10/16/2023 6:10 PM View: Appendix IV - Confidence Intervals - E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-38S
9/7/2016	<0.002	0.0002 (J)	<0.002
11/17/2016	<0.002	0.0002 (J)	
11/21/2016			0.0004 (J)
2/22/2017	<0.002	0.0002 (J)	
2/23/2017			0.0003 (J)
6/14/2017		0.0002 (J)	
6/15/2017	<0.002		0.0003 (J)
9/27/2017		0.0002 (J)	
9/28/2017	<0.002		0.0003 (J)
2/15/2018	<0.002	0.00024 (J)	0.00026 (J)
6/27/2018	<0.002	0.00022 (J)	
6/28/2018			0.00018 (J)
12/18/2018		0.00022 (J)	
12/19/2018	<0.002		
12/20/2018			<0.002 (X)
8/27/2019		0.00016 (J)	
8/28/2019	<0.002	0.00016 (J)	
8/29/2019			0.00021 (J)
10/16/2019		0.00019 (J)	0.0002 (J)
12/3/2019	6.6E-05 (J)		
3/3/2020	<0.002		
3/5/2020		0.0002 (J)	0.0002 (J)
8/19/2020	<0.002	0.00018 (J)	0.00019 (J)
9/16/2020	<0.002	0.00018 (J)	
9/17/2020			0.00017 (J)
3/3/2021		0.00018 (J)	
3/4/2021	<0.002		<0.002
9/22/2021	<0.002	<0.002	
9/23/2021			0.00022 (J)
2/1/2022	<0.002	<0.002	<0.002
8/23/2022		<0.002	<0.002
8/24/2022	<0.002		
1/24/2023	<0.002	<0.002	
1/25/2023			<0.002
8/31/2023		<0.002	
9/6/2023	<0.002		<0.002
Mean	0.001898	0.0006465	0.0008911
Std. Dev.	0.0004437	0.000802	0.0008718
Upper Lim.	0.002	0.00024	0.002
Lower Lim.	6.6E-05	0.00018	0.0002

FIGURE I.

Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:38 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>
Beryllium (mg/L)	BRGWC-38S	-0.0004092	-106	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003364	-119	-58	Yes	19	10.53	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001008	-66	-49	Yes	17	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-33S	-0.005452	-72	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-38S	-0.02054	-133	-58	Yes	19	0	n/a	n/a	0.05	NP

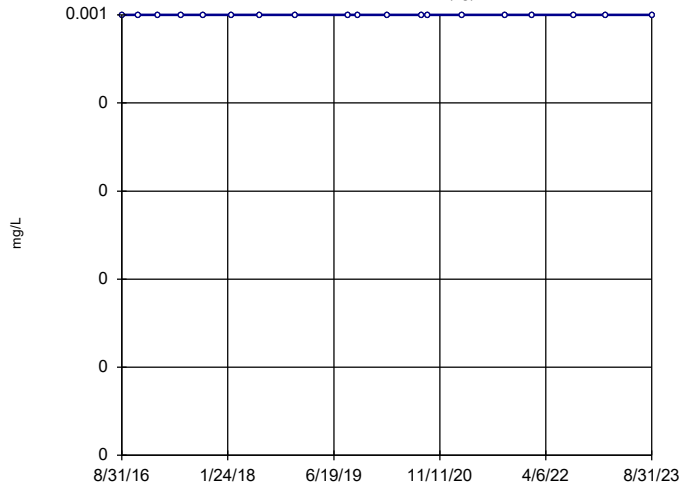
Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 10/17/2023, 3:38 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>
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Beryllium (mg/L)	BRGWC-38S	-0.0004092	-106	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-41	-58	No	19	63.16	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003364	-119	-58	Yes	19	10.53	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001008	-66	-49	Yes	17	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	13	58	No	19	68.42	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	15	58	No	19	73.68	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-33S	-0.005452	-72	-62	Yes	20	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BRGWC-38S	-0.02054	-133	-58	Yes	19	0	n/a	n/a	0.05	NP

Sen's Slope Estimator

BRGWA-2I (bg)

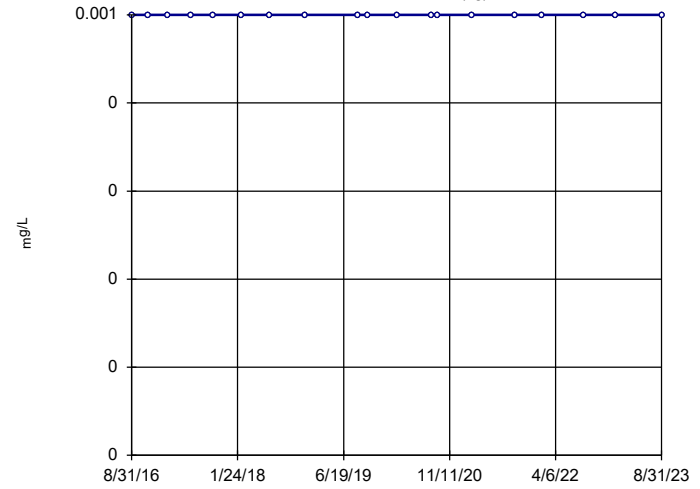


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 58
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

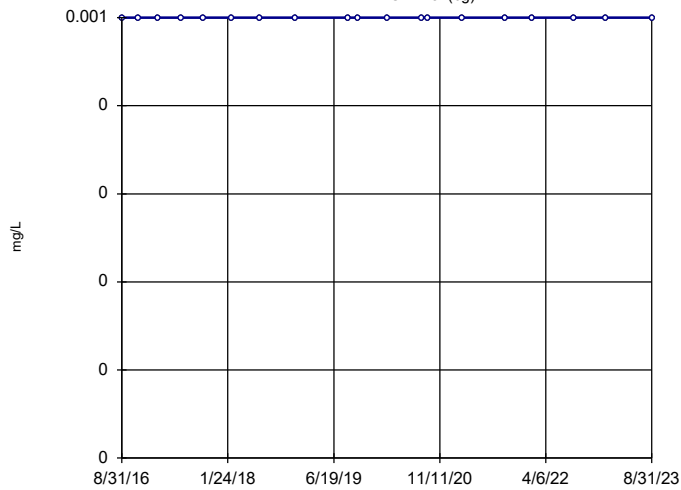


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 58
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

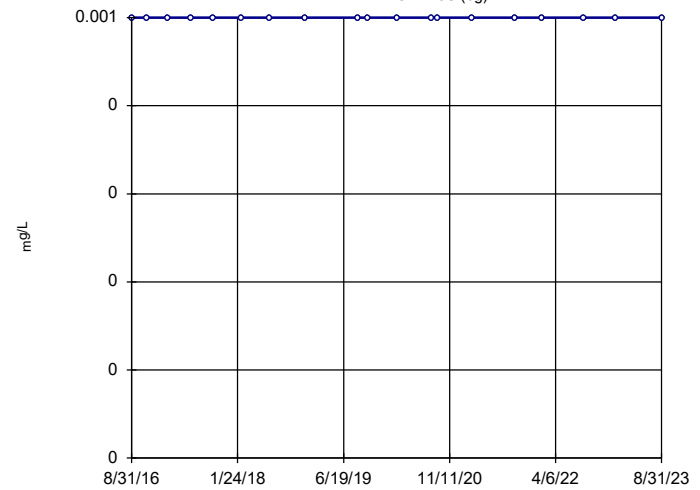


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 58
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP

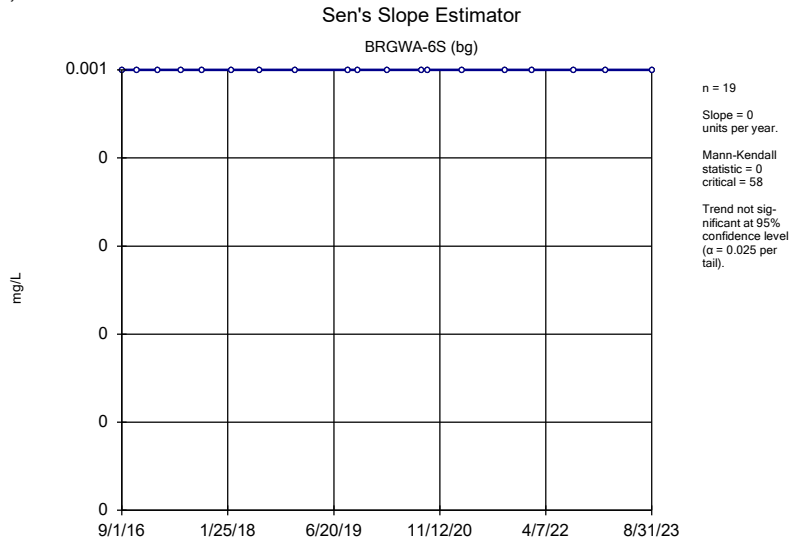
Sen's Slope Estimator

BRGWA-5S (bg)

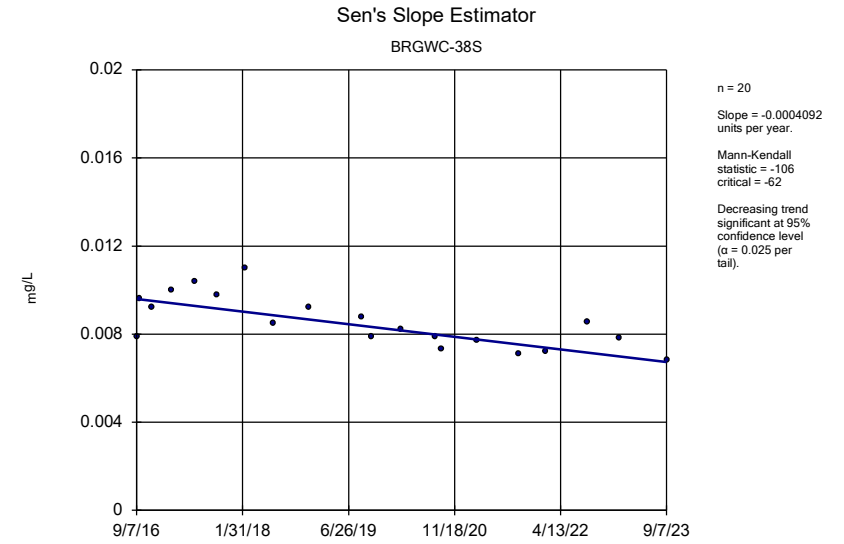


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 58
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

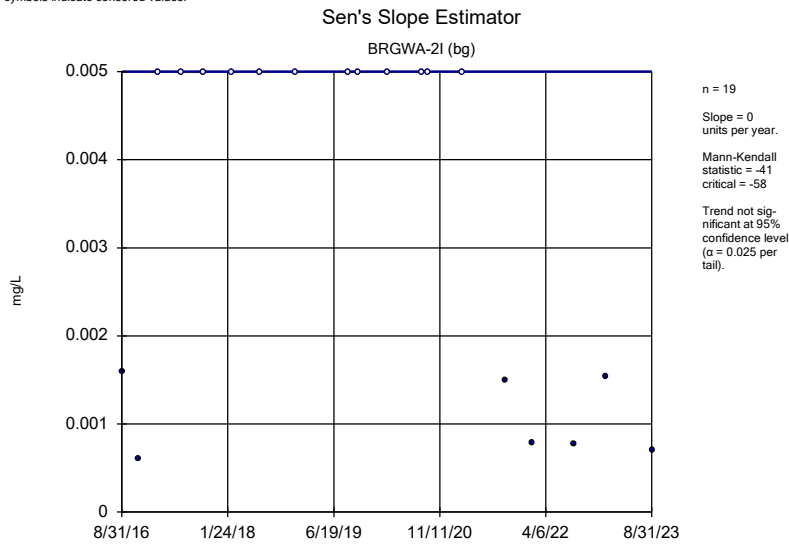
Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP



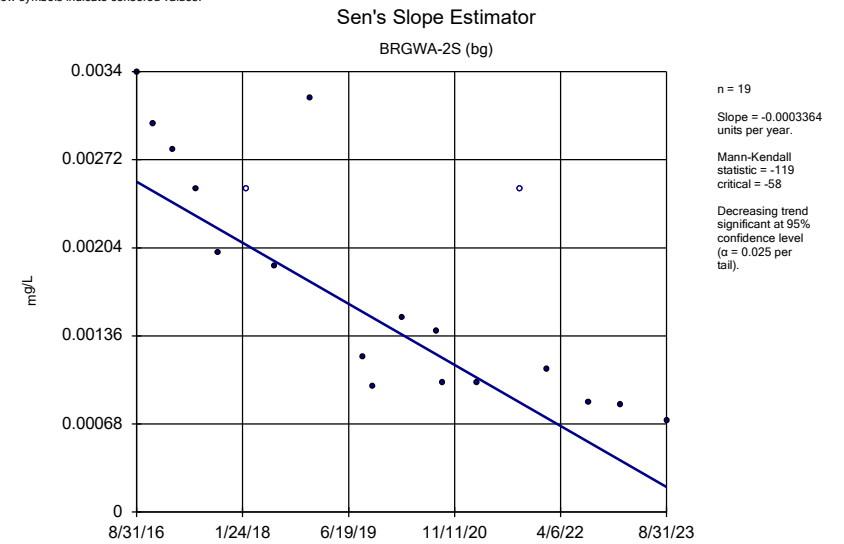
Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Beryllium Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP



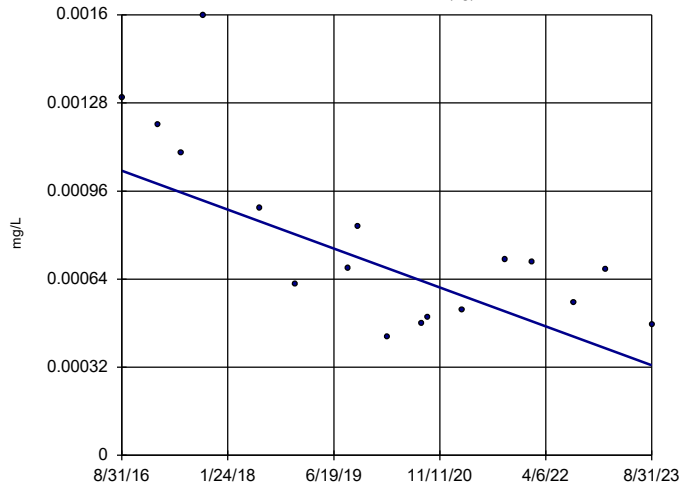
Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)



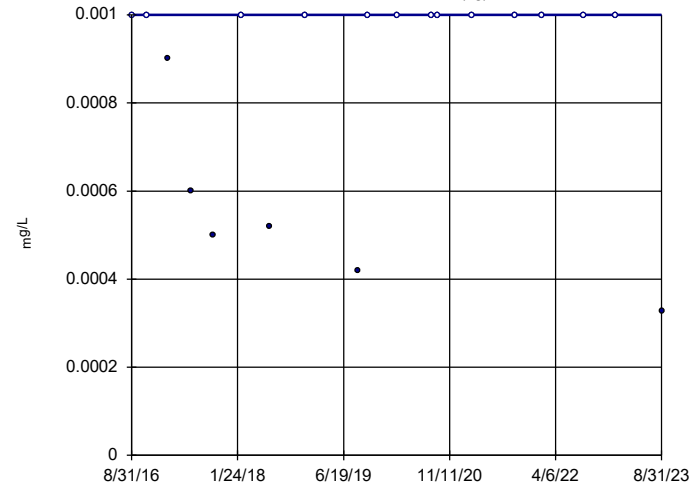
n = 17
 Slope = -0.0001008
 units per year.
 Mann-Kendall
 statistic = -66
 critical = -49
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-5S (bg)



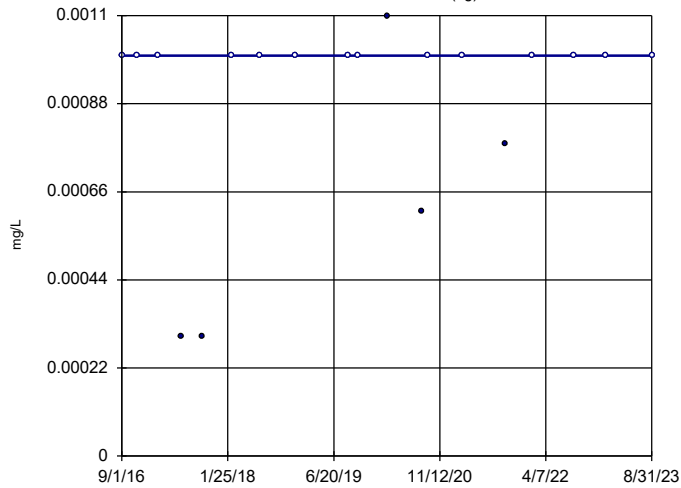
n = 19
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 13
 critical = 58
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-6S (bg)

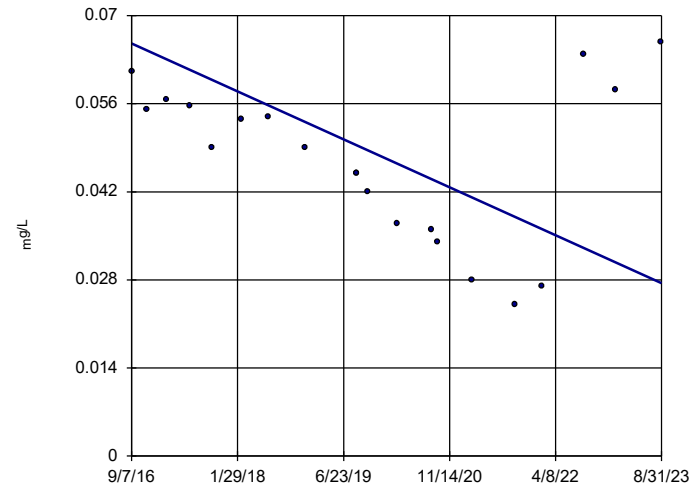


n = 19
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 15
 critical = 58
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

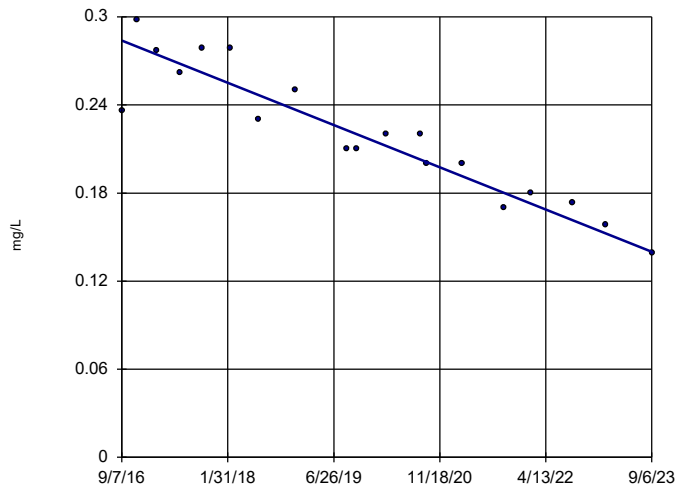


n = 20
 Slope = -0.005452
 units per year.
 Mann-Kendall
 statistic = -72
 critical = -62
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S



n = 19
Slope = -0.02054
units per year.
Mann-Kendall
statistic = -133
critical = -58
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Cobalt Analysis Run 10/17/2023 3:36 PM View: Appendix IV - CI Trend Test - E
Plant Branch Client: Southern Company Data: Plant Branch AP