



Prepared for

Georgia Power Company
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**2023 ANNUAL GROUNDWATER
MONITORING & CORRECTIVE ACTION
REPORT
PLANT BRANCH ASH POND E**

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CERTIFICATION STATEMENT

This 2023 Annual 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.



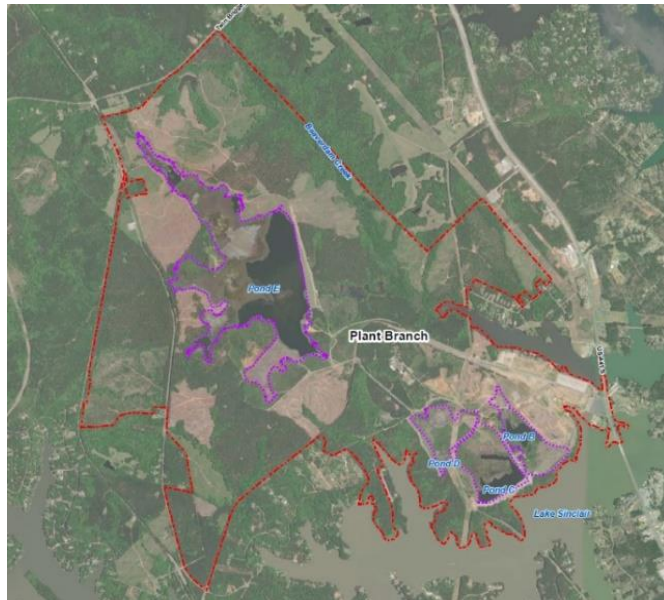
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July 31, 2023
Date

SUMMARY

This summary of the *2023 Annual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective action program for the reporting period of July 2022 through June 2023 (referred herein as the “annual 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 Annual 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 are 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, following GA EPD’s nonconurrence letter dated April 22, 2022 with an alternate source demonstration (ASD) submitted in July 2020. During the 2023 annual 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 each 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 annual reporting period, the semiannual assessment monitoring events for AP-E were conducted by Atlantic Coast Consulting (ACC) in August 2022 and January 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), these semiannual events included sampling and analysis of all Appendix III and Appendix IV constituents. Samples were collected and submitted to GEL Laboratories, LLC, 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 2022
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-36S, BRGWC-38S
pH (lower limit)	BRGWC-33S, BRGWC-34S, BRGWC-36S, BRGWC-37S, 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

Sulfate	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
TDS	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Appendix IV Parameter	August 2022
Beryllium	BRGWC-38S
Cobalt	BRGWC-33S, BRGWC-38S

Appendix III Parameter	January 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-33S, BRGWC-35S, BRGWC-38S
pH (lower limit)	BRGWC-33S, BRGWC-38S
Sulfate	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
TDS	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Appendix IV Parameter	January 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 2022 through June 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.

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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 Annual 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 2022 through June 2023 (referred to herein as the “annual 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.

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 (formerly known as “compliance monitoring wells”) and assessment monitoring wells (formerly known as “delineation 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 maps generated for this annual reporting period (**Figures 3 and 4**, 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

One assessment monitoring well (PZ-70I) was installed in August 2022 to provide additional data to characterize groundwater quality and flow conditions downgradient of AP-E. The well installation report that includes detailed boring and well construction logs for the installation of PZ-70I is provided in **Appendix A** and was submitted to GA EPD under separate cover.

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 2022 and January 2023, the networks were inspected, necessary corrective actions were identified and subsequently completed, as documented in **Appendix B**. 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, the semiannual assessment monitoring events were conducted in August 2022 and January 2023. The wells sampled during these two events and the dates associated with the events 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 C**. Details of these events and analytical results are discussed in Section 3.

2.3 Additional Sampling

Supplemental sampling was conducted during the reporting period in support of the assessment of corrective measures 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 2022 and January 2023 assessment monitoring events and were analyzed for major cations (calcium [Ca], magnesium [Mg], potassium [K], and sodium [Na]) and major anions (chloride [Cl], sulfate [SO₄], and alkalinity [i.e., bicarbonate, carbonate, total] [HCO₃]) as well as iron and manganese. The data were collected in support of evaluating the geochemical composition of the groundwater and will be discussed as part of the ACM program. The laboratory reports associated with the data are 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 annual reporting period.

3.1 Groundwater Level Measurement

Prior to each 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 2022 and January 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 potentiometric surface map for the August 2022 and January 2023 events, which are presented on **Figures 3** and **4**, respectively. 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 2022 and January 2023 events. 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-4I and BRGWC-38S along the southern extent of AP-E. The supporting calculations are presented in **Table 4**. The calculated average hydraulic gradients associated with these well pairs for the annual reporting period are 0.005 feet per foot (ft/ft) and 0.010 ft/ft, respectively (**Table 4**). The general trajectory of the flow paths used in the calculations and associated potentiometric contour lines are shown on **Figures 3** and **4**.

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.

Horizontal hydraulic conductivity (K_h) values used in flow calculations range from 0.43 to 18.84 feet per day (ft/day) and were based on slug test data presented in the 2020 *Hydrogeologic Assessment Report Revision 01* (Geosyntec, 2020) and collected subsequently. The highest observed K_h estimate from each well pair was used, resulting in a conservatively high 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, and accounting for the averaged hydraulic gradient calculated between well pairs for the August 2022 and January 2023 events, 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.

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

where:

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

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

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

h_1 and h_2 = Groundwater elevation at location 1 and 2

L = Distance between location 1 and 2

n_e = Effective porosity

The supporting calculations for the August 2022 and January 2023 semiannual events are presented in **Table 4**. The average groundwater flow velocity at the Site for this annual reporting period is approximately 0.25 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 2022 and January 2023 assessment monitoring event are provided in **Appendix C**.

During the January 2023 event, one low yielding well was encountered. PZ-52D purged dry and required sample collection over multiple days due to low recharge rates. Field data were not collected on 25 January 2023 and 2 February 2023 due to insufficient

groundwater volume. Field data that was collected on 3 February 2023 is provided on field sampling forms in **Appendix C**.

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 sample analysis are listed in the analytical laboratory reports included in **Appendix C**.

The analytical results from the August 2022 and January 2023 monitoring events are summarized in **Table 5**.

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 C** 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 Groundwater Protection Standards (GWPS) for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the August 2022 and January 2023 assessment monitoring events. The data were analyzed by Groundwater Stats Consulting (GSC); the reports 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 state and federal GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in the statistical analysis reports provided in **Appendix D** and summarized in Sections 4.1.1 and 4.1.2. The GWPS were finalized pursuant to § 257.95(d)(2) and presented in **Table 6**. On February 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4.10(6) to incorporate updated federal GWPS where a maximum contaminant level (MCL) has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L) and molybdenum (0.100 mg/L), except when site specific background concentrations of these constituents are higher. Therefore, the statistical reports and **Table 6** do not differentiate between two sets of GWPS as previously required.

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 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 0.10 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 2022 and January 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 events:

4.2.1 August 2022 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**). A statistically significant decreasing trend of beryllium and cobalt was identified during this reporting period in BRGWC-38S. A statistically significant decreasing trend of cobalt was identified during this reporting period in BRGWC-33S.

4.2.2 January 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**). A statistically significant decreasing trend of beryllium and cobalt was identified during this reporting period in BRGWC-38S. A statistically significant decreasing trend of cobalt was identified during this reporting period in BRGWC-33S.

4.2.3 Summary of Statistical Analyses

The SSLs identified for the annual 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 E**).

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 monitoring well BRGWC-38S and cobalt in monitoring well 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 second half of this annual reporting period are presented in the *Semiannual Remedy Selection and Design Progress Report* provided in **Appendix E**. 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 Annual 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 rates interpreted during the August 2022 and January 2023 monitoring events 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 well BRGWC-38S and cobalt in well BRGWC-33S above corresponding GWPS. Based on the most current 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. 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 August 2023.

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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- Golder Associates, 2019. *2019 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant Branch, Milledgeville, Georgia*, August 2019.
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- USEPA, 2017. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January 2017.

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-12S*	Upgradient BCD	3/4/2014	2557142.89	1164286.80	431.6	434.64	383.7	373.7	58.3	10
BRGWA-12I*	Upgradient BCD	2/20/2014	2557138.79	1164301.32	431.5	434.39	364.3	354.3	77.6	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	10/8/2020	2562380.34	1161589.51	378.3	380.86	282.3	272.3	106.0	10
PZ-51S	Downgradient B	8/1/2018	2562433.07	1161613.24	377.9	380.27	337.9	332.9	45.4	5
PZ-51I	Downgradient	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-57I	Downgradient B	3/24/2021	2562170.21	1161582.31	379.4	382.50	313.8	303.8	75.9	10
PZ-58I	Downgradient B	3/27/2021	2562297.82	1161579.00	379.3	382.27	325.7	315.7	63.9	10
PZ-59I	Downgradient B	3/31/2021	2562329.80	1161654.90	379.9	383.49	323.5	313.5	66.0	10
PZ-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-62I	Downgradient B	1/6/2022	2562336.00	1161478.90	378.1	380.95	318.1	308.1	70.0	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-65I	Downgradient B	9/09/2022	2562240.57	1161692.72	379.6	382.06	320.9	310.9	69.3	10

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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-66I	Downgradient B	9/08/2022	2562134.65	1161747.91	380.9	383.52	323.1	313.1	68.3	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	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	4/4/2014	2551598.09	1171999.19	462.9	463.41	397.4	302.9	160.0	94.5
PZ-1I	Upgradient	3/10/2014	2551577.63	1171995.75	461.9	464.71	392.8	382.8	79.5	10
PZ-1S	Upgradient	3/20/2014	2551588.02	1171996.20	462.4	465.07	407.8	397.8	65.0	10
PZ-3D	Upgradient	3/27/2014	2550275.05	1165474.25	486.7	487.50	438.7	358.6	130.0	82
PZ-3I	Upgradient	3/11/2014	2550273.05	1165494.61	486.5	489.49	442.3	432.3	54.6	10
PZ-3S	Upgradient	3/11/2014	2550274.66	1165484.43	487.0	490.53	457.5	447.5	39.9	10
PZ-4I	Upgradient	3/11/2014	2551282.08	1163246.61	479.9	482.98	443.5	433.5	46.8	10
PZ-4S	Upgradient	3/10/2014	2551270.14	1163247.97	479.9	482.87	460.3	450.3	30.0	10
PZ-7S	Downgradient	4/1/2014	2553055.64	1169419.33	449.0	451.57	414.9	404.9	44.5	10
PZ-8S	Upgradient	4/1/2014	2551188.94	1167801.20	450.5	453.08	411.4	401.4	49.5	10
PZ-9S	Upgradient	3/5/2014	2553089.53	1162633.36	466.1	469.28	428.5	418.5	48.0	10
PZ-10S	Downgradient	3/5/2014	2554990.43	1164021.55	431.0	433.85	402.4	392.4	39.0	10
PZ-11S*	Downgradient	2/20/2014	2557002.59	1162467.37	390.9	393.99	376.8	366.8	24.5	10
PZ-12D*	Downgradient	4/14/2014	2557136.26	1164311.85	431.4	434.09	350.1	290.1	141.7	60
PZ-14I	Downgradient	3/20/2014	2554365.65	1168398.28	419.9	422.71	376.5	366.5	53.8	10
PZ-14S	Downgradient	3/20/2014	2554359.23	1168398.59	420.2	423.31	393.0	383.0	37.6	10
PZ-15I	Downgradient	3/25/2014	2554399.25	1167721.02	400.2	403.06	321.9	311.9	88.7	10
PZ-15S	Downgradient	3/27/2014	2554394.06	1167720.25	400.1	402.90	370.2	360.2	39.9	10
PZ-16I	Downgradient	3/14/2014	2554587.53	1166980.59	379.5	382.45	351.3	341.3	38.6	10
PZ-16S	Downgradient	3/18/2014	2554581.44	1166977.63	379.3	382.52	370.6	360.6	19.1	10
PZ-17I	Downgradient	3/17/2014	2554702.42	1166313.81	362.3	365.33	329.2	319.2	43.5	10
PZ-18I	Downgradient	2/26/2014	2557745.51	1160766.13	359.6	362.55	331.3	321.3	38.4	10
PZ-18S	Downgradient	3/26/2014	2557747.42	1160757.41	359.7	362.82	345.0	335.0	24.2	10
PZ-19I	Downgradient	3/4/2014	2558899.87	1159797.10	368.9	371.74	335.6	325.6	43.7	10
PZ-19S	Downgradient	3/4/2014	2558894.60	1159805.43	368.4	371.42	350.8	340.8	28.0	10
PZ-20I	Downgradient	3/5/2014	2560160.17	1159495.25	362.2	365.34	343.1	333.1	29.5	10
PZ-20S	Downgradient	3/5/2014	2560157.16	1159490.13	362.2	365.41	357.3	347.3	15.3	10
PZ-21I	Downgradient	3/10/2014	2561328.17	1160591.42	355.8	358.92	341.8	331.8	24.4	10
PZ-21S	Downgradient	3/11/2014	2561321.43	1160592.45	355.5	358.52	351.1	346.1	9.8	5
PZ-23I	Downgradient	7/29/2016	2557877.71	1162975.56	425.1	427.74	368.6	358.6	66.5	10
BRGWC-24S	Downgradient A	7/27/2016	2562862.19	1162400.95	351.4	354.10	319.9	309.9	42.0	10
PZ-26I	Downgradient	7/26/2016	2561626.45	1160669.20	368.0	370.63	347.5	337.5	30.5	10
PZ-28I	Downgradient	7/24/2016	2560151.53	1159505.00	362.5	364.81	348.5	338.5	24.0	10
PZ-31S	Downgradient	7/26/2016	2557971.75	1160936.81	374.3	376.77	344.8	334.8	39.5	10
PZ-39*	Downgradient	7/30/2016	2557460.52	1163675.53	432.0	434.78	397.3	387.3	44.7	10
PZ-40S	Downgradient A	2/14/2017	2562807.61	1162415.06	353.2	355.96	324.4	314.4	40.2	10

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PZ-41S	Downgradient A	2/14/2017	2562759.44	1162431.76	354.3	357.17	320.5	310.5	44.2	10
PZ-42S	Downgradient A	2/9/2017	2562734.89	1162845.64	359.0	361.66	337.2	327.2	32.2	10
PZ-43	Downgradient A	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-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 B	5/20/2020	2554086.36	1162965.21	416.2	418.84	396.9	386.9	29.3	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
PB-1S*	Downgradient	1/22/2019	2556355.89	1164910.63	400.4	403.16	372.4	362.4	38.0	10
PB-2D*	Downgradient	12/4/2018	2556914.34	1164853.67	414.9	416.71	367.9	357.9	57.0	10
PB-4S*	Downgradient	1/16/2019	2556069.32	1164335.20	409.3	411.15	371.3	361.3	48.0	10
PB-4D*	Downgradient	1/16/2019	2556060.72	1164339.50	409.0	412.12	304.5	294.5	114.5	10
PB-7S*	Downgradient	1/14/2019	2556186.30	1163831.09	399.7	402.88	376.7	366.7	33.0	10
PB-8S*	Downgradient	1/8/2018	2556792.21	1163018.39	398.6	401.82	373.6	363.6	35.0	10
PB-8D*	Downgradient	1/8/2018	2556786.65	1163024.53	398.2	401.74	304.2	294.2	106.0	10
PB-10S*	Downgradient	1/16/2019	2558551.25	1163589.10	397.6	400.91	374.6	364.6	33.0	10
PB-10D*	Downgradient	1/16/2019	2558546.62	1163593.43	397.5	400.31	322.5	312.5	85.0	10
PB-13S*	Downgradient	12/10/2018	2556626.03	1162084.43	370.8	373.31	330.8	320.8	50.0	10
PB-13D	Downgradient	12/10/2018	2556638.88	1162084.53	371.1	373.77	284.1	274.1	97.0	10

Notes:

ft = feet

ft BGS = feet below ground surface

* = piezometers that were abandoned between May and June 2023

(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. 23, - Sept. 1, 2022	Jan. 24, - Feb. 2, 2023	Status of Monitoring Well
Purpose of Sampling Event:		Assessment	Assessment	
<i>Detection Monitoring Well Network</i>				
BRGWA-2S	Upgradient	X	X	Assessment
BRGWA-2I	Upgradient	X	X	Assessment
BRGWA-5S	Upgradient	X	X	Assessment
BRGWA-5I	Upgradient	X	X	Assessment
BRGWA-6S	Upgradient	X	X	Assessment
BRGWC-17S	Downgradient	X	X	Assessment
BRGWC-33S	Downgradient	X	X	Assessment
BRGWC-34S	Downgradient	X	X	Assessment
BRGWC-35S	Downgradient	X	X	Assessment
BRGWC-36S	Downgradient	X	X	Assessment
BRGWC-37S	Downgradient	X	X	Assessment
BRGWC-38S	Downgradient	X	X	Assessment
<i>Assessment Monitoring Well</i>				
PZ-13S	Downgradient	X	X	Assessment
PZ-52D	Downgradient	X	X	Assessment
PZ-53D	Downgradient	X	X	Assessment
PZ-70I	Downgradient	X	X	Assessment

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

Well ID	Top of Casing Elevation ⁽¹⁾ (ft)	August 22, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)	Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)
<i>AP-BCD Detection Monitoring Well Network</i>					
BRGWA-2S	443.20	12.71	430.49	10.42	432.78
BRGWA-2I	443.14	12.56	430.58	10.45	432.69
BRGWA-5S	443.86	12.17	431.69	12.53	431.33
BRGWA-5I	443.79	12.08	431.71	12.38	431.41
BRGWA-6S	458.96	26.92	432.04	25.73	433.23
BRGWA-12S*	434.64	49.04	385.60	49.96	384.68
BRGWA-12I*	434.39	48.72	385.67	49.65	384.74
BRGWA-23S	428.24	39.10	389.14	40.78	387.46
BRGWC-25I	357.37	11.12	346.25	10.18	347.19
BRGWC-27I	366.86	10.52	356.34	10.49	356.37
BRGWC-29I	353.23	10.65	342.58	9.91	343.32
BRGWC-30I	352.61	4.78	347.83	4.87	347.74
BRGWC-32S	406.39	40.76	365.63	42.28	364.11
BRGWC-45	384.58	15.13	369.45	10.93	373.65
BRGWC-47	411.20	27.78	383.42	28.83	382.37
BRGWC-50	381.35	38.22	343.13	38.21	343.14
BRGWC-52I	383.87	39.00	344.87	39.67	344.20
<i>AP-E Detection Monitoring Well Network</i>					
BRGWA-2S	443.20	12.71	430.49	10.42	432.78
BRGWA-2I	443.14	12.56	430.58	10.45	432.69
BRGWA-5S	443.86	12.17	431.69	12.53	431.33
BRGWA-5I	443.79	12.08	431.71	12.38	431.41
BRGWA-6S	458.96	26.92	432.04	25.73	433.23
BRGWC-17S	365.32	5.92	359.40	5.55	359.77
BRGWC-33S	416.68	8.96	407.72	10.27	406.41
BRGWC-34S	391.96	2.68	389.28	2.68	389.28
BRGWC-35S	366.31	2.03	364.28	1.75	364.56
BRGWC-36S	389.84	3.95	385.89	4.16	385.68
BRGWC-37S	447.05	52.64	394.41	54.02	393.03
BRGWC-38S	432.24	22.95	409.29	22.56	409.68
<i>AP-BCD Assessment Monitoring Well Network</i>					
PZ-44	383.04	28.06	354.98	27.78	355.26
PZ-50D	380.86	38.46	342.40	38.67	342.19
PZ-51S	380.27	38.35	341.92	38.77	341.50
PZ-51I	380.52	38.40	342.12	38.15	342.37
PZ-51D	380.75	38.08	342.67	38.19	342.56
PZ-57I	382.50	36.38	346.12	36.68	345.82
PZ-58I	382.27	38.41	343.86	38.66	343.61
PZ-59I	383.49	39.78	343.71	40.08	343.41
PZ-60I	382.61	38.41	344.20	38.40	344.21
PZ-61I	380.64	47.91	332.73	47.27	333.37

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

Well ID	Top of Casing Elevation ⁽¹⁾ (ft)	August 22, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)	Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)
PZ-62I	380.95	39.18	341.77	38.82	342.13
PZ-63I	381.31	39.48	341.83	39.01	342.30
PZ-64I	381.94	N/A	N/A	38.64	343.30
PZ-65I	382.06	N/A	N/A	36.51	345.55
PZ-66I	383.52	N/A	N/A	36.33	347.19
PZ-68D	405.25	N/A	N/A	42.61	362.64
PZ-74I	371.13	N/A	N/A	N/A	N/A
PZ-75I	357.86	N/A	N/A	N/A	N/A
AP-E Assessment Monitoring Well Network					
PZ-13S	409.97	28.20	381.77	28.41	381.56
PZ-52D	417.03	10.28	406.75	35.43	381.60
PZ-53D	434.68	23.39	411.29	22.90	411.78
PZ-70I	425.70	28.55	397.15	28.61	397.09
Piezometers					
PZ-1D	463.41	38.82	424.59	40.02	423.39
PZ-1I	464.71	39.70	425.01	41.38	423.33
PZ-1S	465.07	38.65	426.42	40.09	424.98
PZ-3D	487.50	49.37	438.13	49.60	437.90
PZ-3I	489.49	51.09	438.40	51.83	437.66
PZ-3S	490.53	Dry	--	Dry	--
PZ-4I	482.98	31.03	451.95	35.43	447.55
PZ-4S	482.87	Dry	--	Dry	--
PZ-7S	451.57	27.75	423.82	29.37	422.20
PZ-8S	453.08	25.26	427.82	25.52	427.56
PZ-9S	469.28	38.08	431.20	38.71	430.57
PZ-10S	433.85	27.52	406.33	27.56	406.29
PZ-11S*	393.99	19.92	374.07	20.28	373.71
PZ-12D*	434.09	78.19	355.90	66.68	367.41
PZ-14I	422.71	19.55	403.16	19.90	402.81
PZ-14S	423.31	21.58	401.73	21.90	401.41
PZ-15I	403.06	9.91	393.15	9.70	393.36
PZ-15S	402.90	10.22	392.68	9.96	392.94
PZ-16I	382.45	12.15	370.30	10.95	371.50
PZ-16S	382.52	12.30	370.22	11.13	371.39
PZ-17I	365.33	3.07	362.26	2.62	362.71
PZ-18I	362.55	21.70	340.85	21.08	341.47
PZ-18S	362.82	21.88	340.94	21.30	341.52
PZ-19I	371.74	19.25	352.49	18.79	352.95
PZ-19S	371.42	18.71	352.71	18.25	353.17
PZ-20I	365.34	17.04	348.30	15.98	349.36
PZ-20S	365.41	17.17	348.24	16.16	349.25
PZ-21I	358.92	12.65	346.27	11.63	347.29
PZ-21S	358.52	12.14	346.38	11.22	347.30
PZ-23I	427.74	38.54	389.20	39.81	387.93

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

Well ID	Top of Casing Elevation ⁽¹⁾ (ft)	August 22, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)	Depth to Water (ft BTOC)	Groundwater Elevation ⁽¹⁾ (ft)
BRGWC-24S	354.10	14.37	339.73	13.24	340.86
PZ-26I	370.63	23.45	347.18	24.40	346.23
PZ-28I	364.81	16.52	348.29	15.50	349.31
PZ-31S	376.77	28.96	347.81	29.44	347.33
PZ-39*	434.78	48.95	385.83	49.00	385.78
PZ-40S	355.96	16.00	339.96	14.73	341.23
PZ-41S	357.17	17.19	339.98	16.09	341.08
PZ-42S	361.66	20.72	340.94	20.74	340.92
PZ-43	383.71	29.62	354.09	31.00	352.71
PZ-46	384.64	10.73	373.91	8.91	375.73
PZ-48	420.90	32.87	388.03	33.72	387.18
PZ-49	384.99	11.84	373.15	8.90	376.09
PZ-54	443.86	49.14	394.72	49.90	393.96
PZ-55	453.07	45.37	407.70	47.59	405.48
PZ-56	418.84	7.45	411.39	4.57	414.27
PZ-67	381.48	N/A	N/A	N/A	N/A
PZ-69I	379.36	N/A	N/A	N/A	N/A
PZ-71I	385.34	N/A	N/A	23.18	356.18
PZ-72I	368.57	N/A	N/A	N/A	N/A
PZ-73I	352.63	N/A	N/A	N/A	N/A
PB-1S*	403.16	N/A	N/A	16.85	386.31
PB-2D*	416.71	37.56	379.15	38.31	378.40
PB-4S*	411.15	24.43	386.72	26.01	385.14
PB-4D*	412.12	25.74	386.38	26.24	385.88
PB-7S*	402.88	27.43	375.45	22.29	380.59
PB-8S*	401.82	19.62	382.20	20.41	381.41
PB-8D*	401.74	20.45	381.29	21.04	380.70
PB-10S*	400.91	15.60	385.31	15.40	385.51
PB-10D*	400.31	15.08	385.23	14.93	385.38
PB-13S*	373.31	9.15	364.16	8.53	364.78
PB-13D	373.77	9.88	363.89	9.46	364.31

Notes:

-- = Ground water depth was not measured due to low groundwater levels

N/A = Not applicable

ft = feet

ft BTOC = feet below top of casing

* = piezometers that were abandoned between May and June 2023

(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

Flow Path Direction ⁽¹⁾	August 22, 2022				January 23, 2023			
	h ₁ (ft)	h ₂ (ft)	L (ft)	i (ft/ft)	h ₁ (ft)	h ₂ (ft)	L (ft)	i (ft/ft)
BRGWA-5S/BRGWC-33S	431.69	407.72	5108	0.005	431.33	406.41	5108	0.005
PZ-4I/BRGWC-38S	451.95	409.29	3904	0.011	447.55	409.68	3904	0.010

Flow Path Direction ⁽¹⁾	K _h (ft/day)	n _e	Average		
			i (ft/ft)	V (ft/day) ⁽²⁾	V (ft/day) ⁽³⁾
BRGWA-5S/BRGWC-33S	18.84	0.20	0.005	0.45	0.25
PZ-4I/BRGWC-38S	0.85	0.20	0.010	0.04	

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 Figures 3 and 4 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-2S	BRGWA-2I	BRGWA-2I	BRGWA-5S	BRGWA-5S	BRGWA-5I	BRGWA-5I	BRGWA-6S	BRGWA-6S	BRGWC-17S	BRGWC-17S	BRGWC-33S	BRGWC-33S	BRGWC-34S	BRGWC-34S	BRGWC-35S	BRGWC-35S	BRGWC-36S	
Sample Date:	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/24/2022	1/24/2023	8/23/2022	1/24/2023	8/24/2022	1/24/2023	8/24/2022	1/24/2023	8/24/2022	
Parameter ^(1,2,3)																				
APPENDIX III	Boron	0.00532 J	< 0.0052	0.00592 J	< 0.0052	0.00538 J	< 0.0052	< 0.0052	< 0.0052	< 0.0052	0.0273	0.0326	0.975	1.19	2.45	2.21	2.23	2.23	1.10	
	Calcium	4.65	4.86	13.9	14.2	18.2	19.4	14.3	15.8	3.97	3.9	43.6	41.3	119	116	75.0	80.0	68.5	67.5	48.1
	Chloride	2.18	2.16	2.02	2.09	3.59	3.56	3.64	3.93	2.39	2.3	5.0	6.31	30.3	29.0	6.17	7.50	6.53	6.46	7.96
	Fluoride	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.158	< 0.033	0.149	< 0.033	0.12	0.274	0.216	0.187	0.193	0.140	0.122	< 0.033	0.239	0.194
	pH	5.95	5.26	6.67	6.70	6.36	6.47	6.24	6.42	6.51	6.54	6.62	6.37	4.67	4.79	5.75	5.93	6.05	6.08	5.59
	Sulfate	0.452	0.465	5.66	3.58	0.521	0.66	2.21	3.34	0.479	0.484	157	153	385	375	268	267	279	334	224
TDS	45.0	63.0	117	93.0	101	104	107	124	52.0	64.0	370	344	614	615	452	433	507	507	418	
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	< 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	0.0021 J	< 0.002	< 0.002	0.00262 J	0.00201 J	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	Barium	0.0120	0.0118	0.00954	0.00453	0.0379	0.0394	0.0241	0.0303	0.0140	0.0132	0.0512	0.0422	0.0409	0.0368	0.0249	0.0232	0.0339	0.0291	0.0296
	Beryllium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00241	0.00235	< 0.0002	< 0.0002	0.000210 J	< 0.0002	< 0.0002
	Cadmium	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.000509 J	0.000482 J	0.000517 J	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	Chromium	0.00908 J	0.0095 J	< 0.003	< 0.003	0.00435 J	0.00572 J	0.00647 J	0.00513 J	0.0143	0.0139	0.0127	0.00886 J	< 0.003	< 0.003	< 0.003	< 0.003	0.00752 J	0.00524 J	0.00713 J
	Cobalt	0.000844 J	0.000829 J	0.000767 J	0.00154	< 0.0003	< 0.0003	0.000553 J	0.000677 J	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.0639	0.0582	0.00438	0.00351	< 0.0003	< 0.0003	< 0.0003
	Fluoride	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.158	< 0.033	0.149	< 0.033	0.12	0.274	0.216	0.187	0.193	0.140	0.122	< 0.033	0.239	0.194
	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	< 0.0005	< 0.0005	< 0.0005
	Lithium	< 0.003	< 0.003	0.0262	0.00919 J	< 0.003	< 0.003	< 0.003	< 0.003	0.00314 J	0.00341 J	< 0.003	< 0.003	0.0109	0.0115	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	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	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	< 0.0002	< 0.0002	0.00240	0.000601 J	< 0.0002	< 0.0002	0.00151	0.00192	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	Comb. Radium 226/228	0.531 U	1.35 U	1.70 U	2.05 U	0.735 U	0.402 U	2.30	0.811 U	0.203 U	1.55 U	0.152 U	0.728 U	1.94	3.31 U	1.86	2.14 U	3.10	3.34	1.38 U
	Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00208 J	0.00178 J	0.00610	0.0049 J	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00246 J
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	< 0.0006	< 0.0006	< 0.0006	
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	32.6	35.0	62.4	65.2	73.8	78.4	72.8	79.4	58.2	25.6	74.0	81.4	3.40	3.80 J	28.6	30.0	50.6	51.6	20.6
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	32.6	35.0	62.4	65.2	73.8	78.4	72.8	79.4	58.2	25.6	74.0	81.4	3.4	3.8 J	28.6	30.0	50.6	51.6	20.6
	Iron	0.0763 J	0.0824 J	0.183	0.134	0.151	0.071 J	< 0.033	< 0.033	0.0701 J	0.0593 J	< 0.033	< 0.033	0.0381 J	< 0.033	< 0.033	< 0.033	0.162	< 0.033	< 0.033
	Magnesium	4.86	5.34	8.82	8.28	8.51	9.02	10.4	10.9	4.06	4.14	25.7	26.1	14.7	15.0	18.6	18.6	36.9	36.5	20.5
	Manganese	0.0391	0.0348	0.0134	0.028	0.014	0.00658	< 0.001	0.00165 J	0.00329 J	0.00159 J	< 0.001	< 0.001	2.75	2.68	2.97	3.29	0.017	0.0113	0.00295 J
	Nitrate	--	0.327	--	1.41	--	0.173	--	0.371	--	0.638	--	0.119 J	--	0.0607 J	--	< 0.033	--	0.149	--
	Potassium	0.439	0.432	5.88	2.85	0.635	0.522	0.909	1.35	0.685	0.706	1.29	1.08	13.0	14.5	3.79	3.54	4.24	4.05	3.78
	Sodium	3.36	3.63	5.73	5.29	4.03	4.78	4.93	5.22	2.44	2.54	24.6	25.5	24.0	37.2	22.8	21.7	19.8	20.1	40.6
Sulfide	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	0.0354 J	--	

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

Well ID:	BRGWC-36S	BRGWC-37S	BRGWC-37S	BRGWC-38S	BRGWC-38S	PZ-13S	PZ-13S	PZ-52D	PZ-52D	PZ-52D	PZ-52D	PZ-53D	PZ-53D	PZ-701	PZ-701	
Sample Date:	1/25/2023	8/23/2022	1/25/2023	8/23/2022	1/25/2023	8/23/2022	1/26/2023	9/1/2022	1/25/2023	1/26/2023	2/2/2023	8/23/2022	1/25/2023	9/1/2022	1/26/2023	
Parameter ^(1,2,3)																
APPENDIX III	Boron	1.18	< 0.0052	< 0.0052	1.67	1.63	< 0.0052	0.0104 J	0.0403	0.0362	--	--	1.04	1.11	1.20	1.04
	Calcium	48.2	3.70	3.65	37.1	32.8	9.69	16.8	69.0	46.3	--	--	76.4	78.5	42.6	33.4
	Chloride	7.93	1.97	1.92	6.42	6.53	4.20	3.36	6.24	--	12.3	--	4.94	4.66	10.8	5.37
	Fluoride	0.183	0.105	0.114	0.609	0.708	0.128	< 0.033	0.140	--	1.93	--	0.164	0.282	1.43	< 0.066
	pH	5.64	5.82	5.84	3.97	4.75	5.46	5.56	7.70	7.14	7.14	--	7.18	7.1	6.13	5.60
	Sulfate	237	0.307 J	0.325 J	389	291	51.0	75.3	340	--	142	--	348	285	172	147
TDS	418	40.0	28.0	568	484	130	148	754	443	--	--	543	517	321	272	
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
	Arsenic	< 0.002	< 0.002	0.003 J	0.00337 J	0.00486 J	< 0.002	0.00388 J	--	0.00368 J	--	--	< 0.002	< 0.002	< 0.002	0.00366 J
	Barium	0.0278	0.0260	0.0247	0.0141	0.018	0.0562	0.0525	--	0.0171	--	--	0.0547	0.0536	0.0444	0.025
	Beryllium	< 0.0002	< 0.0002	< 0.0002	0.00854	0.0078	0.000331 J	0.000422 J	--	< 0.0002	--	--	< 0.0002	< 0.0002	< 0.0002	0.000217 J
	Cadmium	< 0.0003	< 0.0003	< 0.0003	0.000459 J	0.00043 J	< 0.0003	< 0.0003	--	< 0.0003	--	--	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	Chromium	0.00682 J	< 0.003	< 0.003	0.00398 J	0.00362 J	0.0128	0.0153	--	< 0.003	--	--	< 0.003	< 0.003	< 0.003	< 0.003
	Cobalt	< 0.0003	< 0.0003	< 0.0003	0.173	0.158	< 0.0003	< 0.0003	0.00150	0.00249	--	--	< 0.0003	< 0.0003	0.00560	0.000682 J
	Fluoride	0.183	0.105	0.114	0.609	0.708	0.128	< 0.033	0.140	--	1.93	--	0.164	0.282	1.43	< 0.066
	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
	Lithium	< 0.003	< 0.003	< 0.003	0.0214	0.0256	< 0.003	< 0.003	--	0.0165	--	--	0.0171	0.0207	0.00615 J	0.00381 J
	Mercury	< 0.000067	< 0.000067	< 0.000067	0.000117 J	< 0.000067	< 0.000067	< 0.000067	--	< 0.000067	--	--	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	--	0.0222	--	--	0.00265	0.00234	0.00142	< 0.0002
	Comb. Radium 226/228	4.86	2.37 U	1.67 U	3.12	3.79	1.83 U	4.77	--	--	--	5.39	3.04	2.10 U	1.57 U	1.81 U
	Selenium	0.00237 J	< 0.0015	< 0.0015	0.0296	0.0279	0.00157 J	0.00215 J	--	< 0.0015	--	--	< 0.0015	< 0.0015	0.00625	0.00921
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	
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	22.0	21.2	21.2	< 1.45	3.0 J	21.4	20.6	--	--	179	--	82.8	49	37.8	14.4
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	--	--	< 1.45	--	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	22.0	21.2	21.2	< 1.45	3.0 J	21.4	20.6	--	--	179	--	82.8	49	37.8	14.4
	Iron	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	--	0.22	--	--	0.294	0.204	1.48	0.0364 J
	Magnesium	20.1	1.29	1.35	41.3	36.9	5.94	9.68	--	9.93	--	--	19.3	19.4	15.5	11.9
	Manganese	0.00205 J	< 0.001	< 0.001	1.80	1.65	0.00137 J	0.00207 J	--	0.0315	--	--	0.641	0.628	1.06	0.271
	Nitrate	0.131	--	0.318	--	0.145 J	--	0.0655 J	--	--	< 0.033	--	--	< 0.066	--	0.275
	Potassium	3.84	1.84	1.94	5.75	6.12	3.59	4.41	--	8.93	--	--	6.44	6.66	5.62	4.27
	Sodium	40.4	4.51	4.85	44.1	42.3	12.5	11.7	--	94.4	--	--	52.0	48.6	25.8	23.0
Sulfide	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	--	< 0.033	--	--	< 0.033	--	< 0.033	

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 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 2022	January 2023	
Antimony	mg/L	0.006		0.003	0.003	0.006
Arsenic	mg/L	0.01		0.005	0.005	0.01
Barium	mg/L	2		0.063	0.063	2
Beryllium	mg/L	0.004		0.0005	0.0005	0.004
Cadmium	mg/L	0.005		0.001	0.001	0.005
Chromium	mg/L	0.1		0.016	0.016	0.1
Cobalt	mg/L	n/a	0.006	0.0034	0.0034	0.006
Fluoride	mg/L	4		0.19	0.19	4
Lead	mg/L	n/a	0.015	0.002	0.002	0.015
Lithium	mg/L	n/a	0.040	0.089	0.089	0.089
Mercury	mg/L	0.002		0.00021	0.00021	0.002
Molybdenum	mg/L	n/a	0.10	0.008	0.008	0.1
Selenium	mg/L	0.05		0.005	0.005	0.05
Thallium	mg/L	0.002		0.002	0.002	0.002
Combined Radium-226/228	pCi/L	5		1.65	1.74	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.

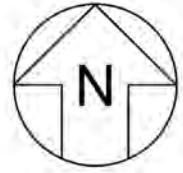
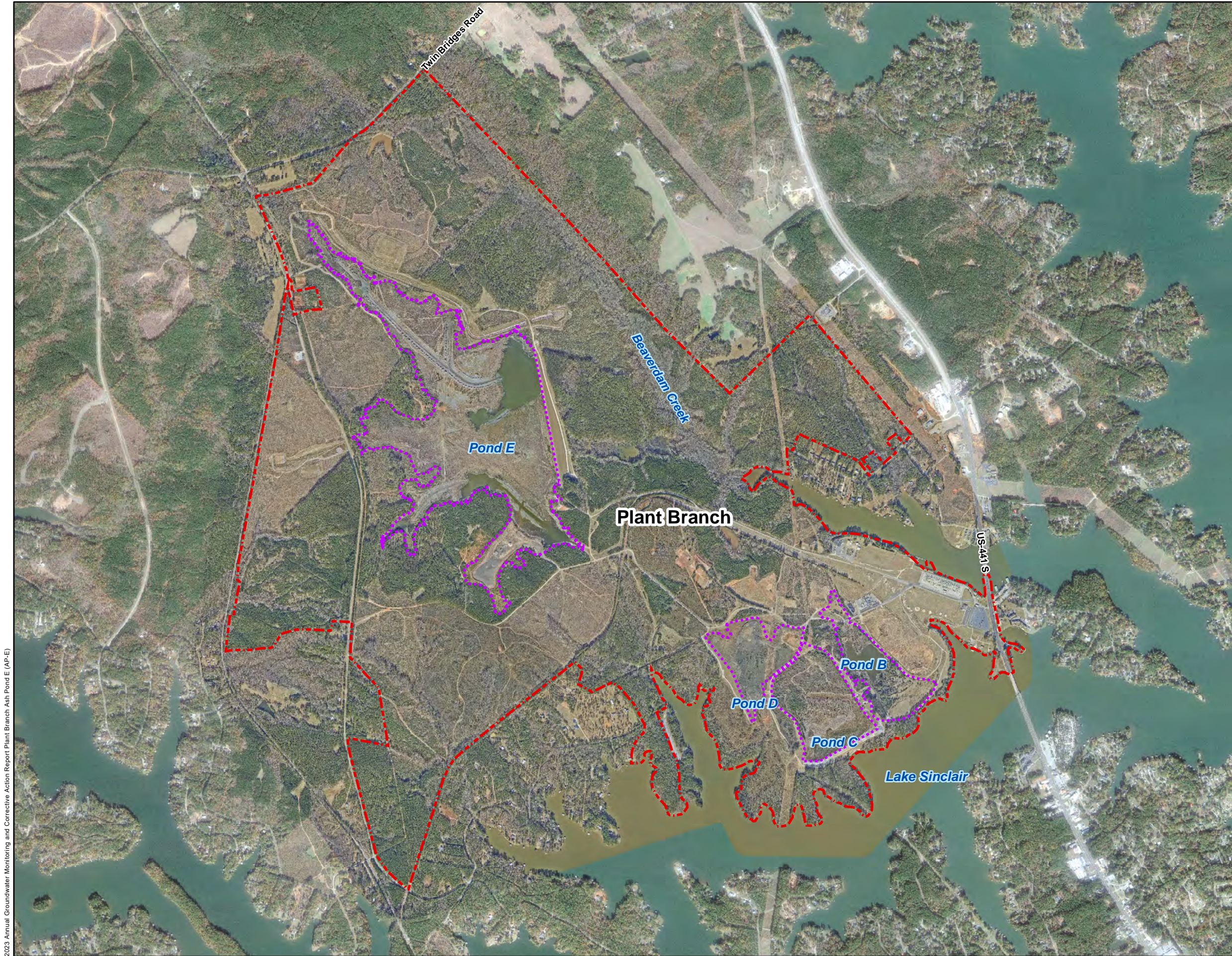
Background limits and groundwater protection standards (GWPS) are applicable to the Fall 2022 and January 2023 events.

(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.

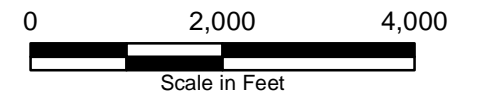
FIGURES



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, January 2023.



SITE LOCATION MAP

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

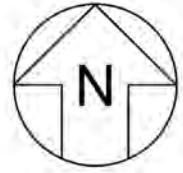
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA

JULY 2023

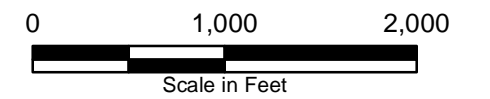
FIGURE 1



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, January 2023.



MONITORING WELL NETWORK MAP

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

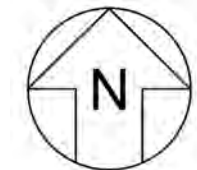
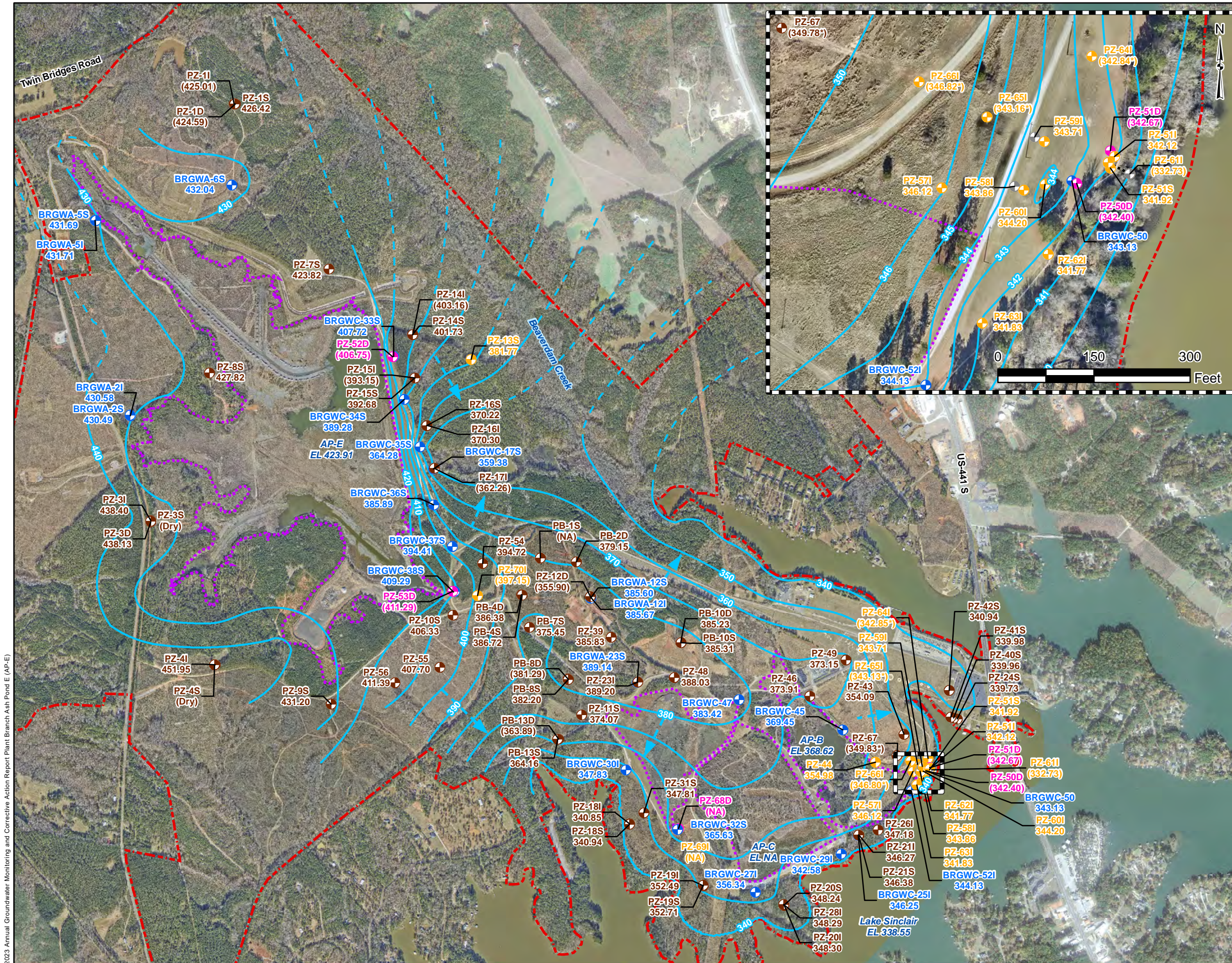
Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

KENNESAW, GA

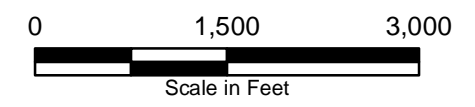
JULY 2023

**FIGURE
2**



- LEGEND**
- Detection Monitoring Well
 - Horizontal Assessment Monitoring Well
 - Vertical Assessment Monitoring Well
 - Piezometer
 - Angled Well Screen
 - 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 22, 2022 for semi-annual groundwater event.
 2. Wells PZ-64I, PZ-65I, PZ-66I, PZ-67, PZ-68D, and PZ-69I were installed in September 2022 and were not part of the semi-annual groundwater event. * - indicates wells PZ-64I, PZ-65I, PZ-66I, and PZ-67 water level elevation was recorded on December 14, 2022.
 3. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
 4. Groundwater iso-contours based on linear interpolation and extrapolation from known groundwater elevation data, and topographic elevations.
 5. 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.
 6. NA - not available
 7. Coordinate System: NAD 1983 State Plane Georgia West_FIPS (U.S. Feet).
 8. Property Boundary Provided by Southern Company Services.
 9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**POTENTIOMETRIC SURFACE CONTOUR
MAP - AUGUST 2022**

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

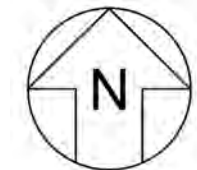
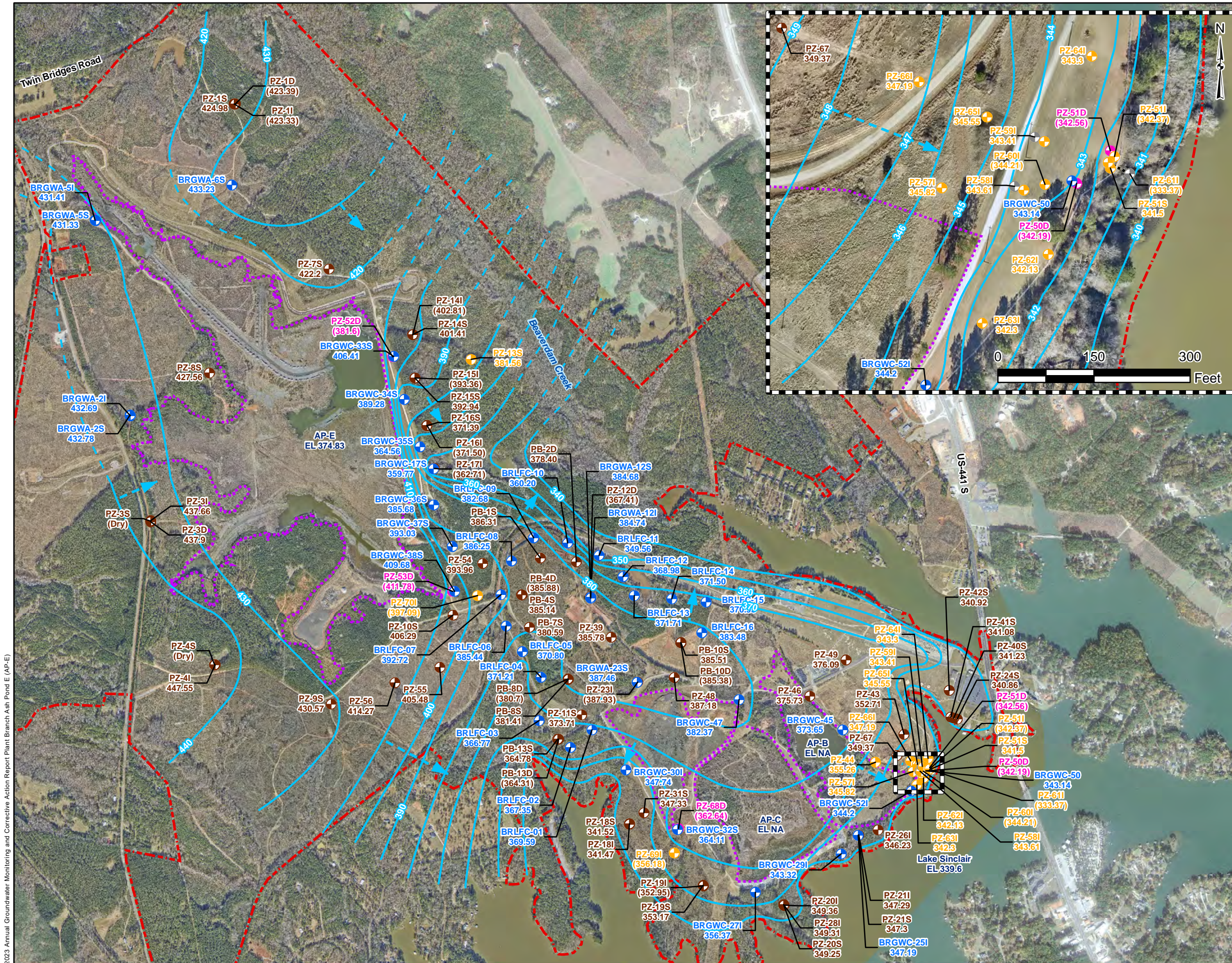
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA JULY 2023

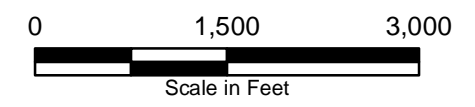
**FIGURE
3**

2023 Annual Groundwater Monitoring and Corrective Action Report Plant Branch Ash Pond E (AP-E)



- LEGEND**
- Detection Monitoring Well
 - Horizontal Assessment Monitoring Well
 - Vertical Assessment Monitoring Well
 - Piezometer
 - Angled Well Screen
 - 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 January 23, 2023 for semi-annual 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. 3. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**POTENTIOMETRIC SURFACE CONTOUR
MAP - JANUARY 2023**

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

Prepared For:	Georgia Power	FIGURE 4
Prepared By:	Geosyntec consultants	
KENNESAW, GA	JULY 2023	

2023 Annual Groundwater Monitoring and Corrective Action Report Plant Branch Ash Pond E (AP-E)

APPENDIX A

Well Design, Installation, and Development Report, Plant Branch Ash Pond E (AP-E)



Prepared for

Southern Company Services

3535 Colonnade Parkway

Birmingham, Alabama 35243

**WELL DESIGN, INSTALLATION, AND
DEVELOPMENT REPORT
PLANT BRANCH ASH POND E (AP-E)**

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200

Kennesaw, Georgia 30144

Project Number GW8862

November 2022



CERTIFICATION PAGE

I hereby certify that this *Well Design, Installation, and Development Report – Plant Branch AP-E* has been prepared by, or under the direct supervision of, a Qualified Groundwater Scientist with Geosyntec Consultants and is in compliance with the United States Environmental Protection Agency Coal Combustion Residual Rule [40 Code of Federal Regulations 257 Subpart D], specifically §257.91(e)(1), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10.

According to 391-3-4-.01(57), a Qualified Groundwater Scientist is “a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable individuals to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.”



Date: November 18, 2022
Joseph Ivanowski, P.G.
Georgia Professional Geologist No. 2140
Project Manager
Geosyntec Consultants

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Appendix C	Well Development Form
Appendix D	Certified Well Survey Data

LIST OF ACRONYMS

AP	Ash Pond
ACC	Atlantic Coast Consulting
ASTM	American Society for Testing and Materials
CCR	coal combustion residuals
CFR	Code of Federal Regulations
CFS	Civil Field Services
DO	dissolved oxygen
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
NAD	North America Datum
NAVD	North American Vertical Datum
NSF	National Sanitation Foundation
ORP	oxygen reduction potential
PVC	polyvinyl chloride
SCS	Southern Company Services
TOC	top of casing
US EPA	United States Environmental Protection Agency

1. INTRODUCTION

Georgia Power Company's (Georgia Power) Plant Branch (Plant) is located near Milledgeville and Eatonton, in Putnam County, Georgia. Over the course of power generation at the Plant, five Coal Combustion Residuals (CCR) ponds, identified as Ash Ponds A, B, C, D, and E, were utilized. Ash Ponds B, C, D, and E are currently inactive and will be closed by removal, specifically, by relocation of the CCR stored in those ponds to a proposed fully lined CCR Landfill located on the Plant property. This report provides details regarding the design, installation, and development of one (1) assessment monitoring well (PZ-70I) to supplement the current groundwater monitoring well network at Ash Pond E (AP-E). The location of the new well, as well as existing monitoring wells and piezometers, are shown on **Figure 1**.

The well installation was completed to meet the requirements promulgated in the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) rule [40 Code of Federal Regulations (CFR) Part 257, Subpart D], specifically 40 CFR §257.91(e)(1) and Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10.

2. DRILLING AND WELL INSTALLATION

Well installation activities were performed in accordance with accepted industry standards and following guidelines provided in the *Manual for Groundwater Monitoring* (GA EPD, 1991). Well drilling, installation, and surface completion activities were performed by Cascade Drilling, Inc. of Aiken, South Carolina and Ocala, Florida under contract with, and the supervision of, Southern Company Services (SCS) Civil Field Services (CFS) personnel. In accordance with the Georgia Water Well Standards Act, the driller was required to have an insurance bond on file with the State of Georgia at the time of drilling. A copy of this insurance bond is provided in **Appendix A**. CFS personnel provided oversight of the drilling and installation efforts. A professional geologist employed with Geosyntec Consultants (Geosyntec) and registered to practice in the State of Georgia documented the drilling and installation efforts to record observations, soil and rock descriptions, subsurface stratigraphy, groundwater elevations, and other field activities.

PZ-70I was completed in August 2022. The location of this well is shown on **Figure 1**. The well construction details are provided in **Table 1**. The boring and well construction log is provided in **Appendix B**.

2.1 Drilling Method

The borehole was advanced using rotasonic drilling techniques with continuous core collection. A track mounted Terra Sonic T-150 drill rig was used to install the well, using a nominal 6-inch diameter outer drill casing and a 4-inch diameter core barrel. Care was taken so that the drilling methods did not introduce contamination of the groundwater from surface activities.

2.2 Screened Interval

Details regarding well screened intervals are provided in **Table 1**. The well is screened in the uppermost water bearing unit of the Site. PZ-70I is screened from approximately 373 to 363 feet [referenced to the North American Vertical Datum of 1988 (NAVD 88)]. The well was constructed with a 10-foot well screen segment.

2.3 Well Casings and Screens

The well was constructed of 2-inch inner diameter Schedule 40 polyvinyl chloride (PVC) casing with flush-threaded fittings. The well was installed with a 10-foot nominal length

U-Pack[®] dual-wall well screen with 0.010-inch slots. The casing and screen arrived pre-cleaned and packaged by the manufacturer. The U-Pack[®] well screen was constructed onsite by packing sand between slotted PVC and the well screen. Well construction materials are sufficiently durable to resist chemical and physical degradation and do not interfere with the quality of groundwater samples. Casing and screen are flush-threaded. Solvent or glue was not used to construct the well. A threaded bottom cap was attached to the bottom of the screen. The PVC products used were American Society for Testing and Materials (ASTM) and National Sanitation Foundation (NSF) rated.

2.4 Well Intake Design

The well was designed and constructed to: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the well; and (3) ensure sufficient structural integrity to prevent collapse of the well. The annular space between the face of the formation and the screen was filled to minimize passage of formation materials into the well. A filter pack of clean, well-rounded, quartz sand was installed in the well. The 0.01-inch slot size was selected to minimize the inflow of formation material without impairing influent groundwater flow.

2.5 Filter Pack

Highly Pure Quartzite manufactured by Southern Products and Silica Co. was used as the filter pack material for the well. The filter pack material meets the ASTM D5092 uniformity coefficient specification of 2.5 or less, with a uniformity coefficient of 1.6.

Filter pack material was placed within the U-Pack[®] screen and in the annular space between the outside of the U-Pack[®] screen and borehole wall to ensure an adequate thickness of filter pack material between the well and the formation. Placement of the filter pack between the borehole wall and PVC was placed via gravity-pouring. Filter pack material placed in the annular space outside of the well screen extended a minimum of two (2) feet above the top of screen. No bridging occurred during filter pack placement.

Upon placement of the filter pack, the well was pumped with a submersible pump to ensure settlement of the filter pack. The top of filter pack depth was measured following pumping to confirm appropriate extension of filter sand above the screen. The depth of top of filter pack was measured and recorded on the well construction log provided in **Appendix B**.

2.6 Annular Seal

A minimum of two feet of bentonite chips (PelPlug time-release-coated 3/8-inch bentonite pellets) were placed immediately above the filter pack by gravity-pouring into the annular space and hydrated per manufacture's specifications. A tremie pipe was used to probe the annular space to ensure that no bridging occurred. In cases where the bentonite seal extended above the estimated water table surface, the bentonite was hydrated with potable water for a duration meeting the manufacture's specifications prior to grouting the remaining annulus.

The annulus above the bentonite seal was grouted with AQUAGUARD[®] bentonite grout containing 20-percent solids, placed via tremie pipe (initial grouting) and direct pour methods (for topping off) from the top of the bentonite seal. During grouting, care was taken to assure that the bentonite seal was not disturbed by locating the base of the tremie pipe approximately 2 feet above the bentonite seal and injecting grout at low pressure/velocity. A concrete apron 4-feet by 4-feet by 4-inches was poured around the well. The pad was mounded slightly outward to direct surface drainage away from the well.

2.7 Cap and Protective Casing

The well riser was fitted with a locking cap and a lockable cover. A 1/4-inch vent hole was drilled into the PVC riser pipe to provide an avenue for the escape of gas. The protective cap guards the casing from damage and the locking cap serves as a security device to prevent well tampering. Bollards were installed around the four corners of the concrete pad to protect the well.

A weep hole was drilled in the outer protective casing near the bottom above the concrete pad. Pea gravel was placed inside the protective casing between the riser pipe and the outer casing. The well was clearly marked with the proper well identification number on the stand-up casing.

3. WELL DEVELOPMENT

The well was developed by Atlantic Coast Consulting (ACC) using a combination of surging and pumping to (1) restore the natural hydraulic conductivity of the formation, and (2) to remove fine-grained sediment to ensure low-turbidity groundwater samples. The well was alternately surged and purged until visually clear of particulates. Turbidity, pH, temperature, specific conductivity measurements were recorded to ensure that the well was fully developed, and field parameters were stabilized. The well development field form completed by ACC is included in **Appendix C**.

4. SURVEY

Upon completion of the well installation, select horizontal locations and vertical elevations were surveyed by GEL Solutions, a Georgia-licensed surveyor, and certified on October 03, 2022. The top of the PVC well casing [top of casing (TOC) elevation] and the survey pin installed at the well pad were surveyed to within 0.5-foot horizontal accuracy and to 0.01-foot vertical accuracy. The horizontal location (i.e., northing and easting) was recorded in feet relative to the North America Datum of 1983 (NAD 83) with the vertical elevation recorded in feet relative to the NAVD 88. Certified survey data are provided in the well construction table (**Table 1**). A copy of the certified well survey data for the well is provided in **Appendix D**.

5. REFERENCES

Georgia Environmental Protection Division (GA EPD), Georgia Department of Natural Resources, 1991. *Manual for Groundwater Monitoring*. September 1991.

Golder, November 2018. Groundwater Monitoring Plan – Plant Branch Ash Pond E.

United States Environmental Protection Agency. 2015a. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81, April 2015

TABLE

Table 1
Summary of Well Construction Details
Plant Branch AP-E
Putnam County, Georgia

Well ID	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Ground Surface Elevation ⁽²⁾ (ft NAVD88)	Top of Casing Elevation (ft NAVD88)	Top of Screen Elevation (ft NAVD88)	Bottom of Screen Elevation (ft NAVD88)	Well Depth (ft bgs) ⁽³⁾
PZ-70I	8/16/2022	1164326.66	2555374.08	422.88	425.70	363.38	373.38	50.0

Notes:

ID = identification

ft = feet

bgs = below ground surface

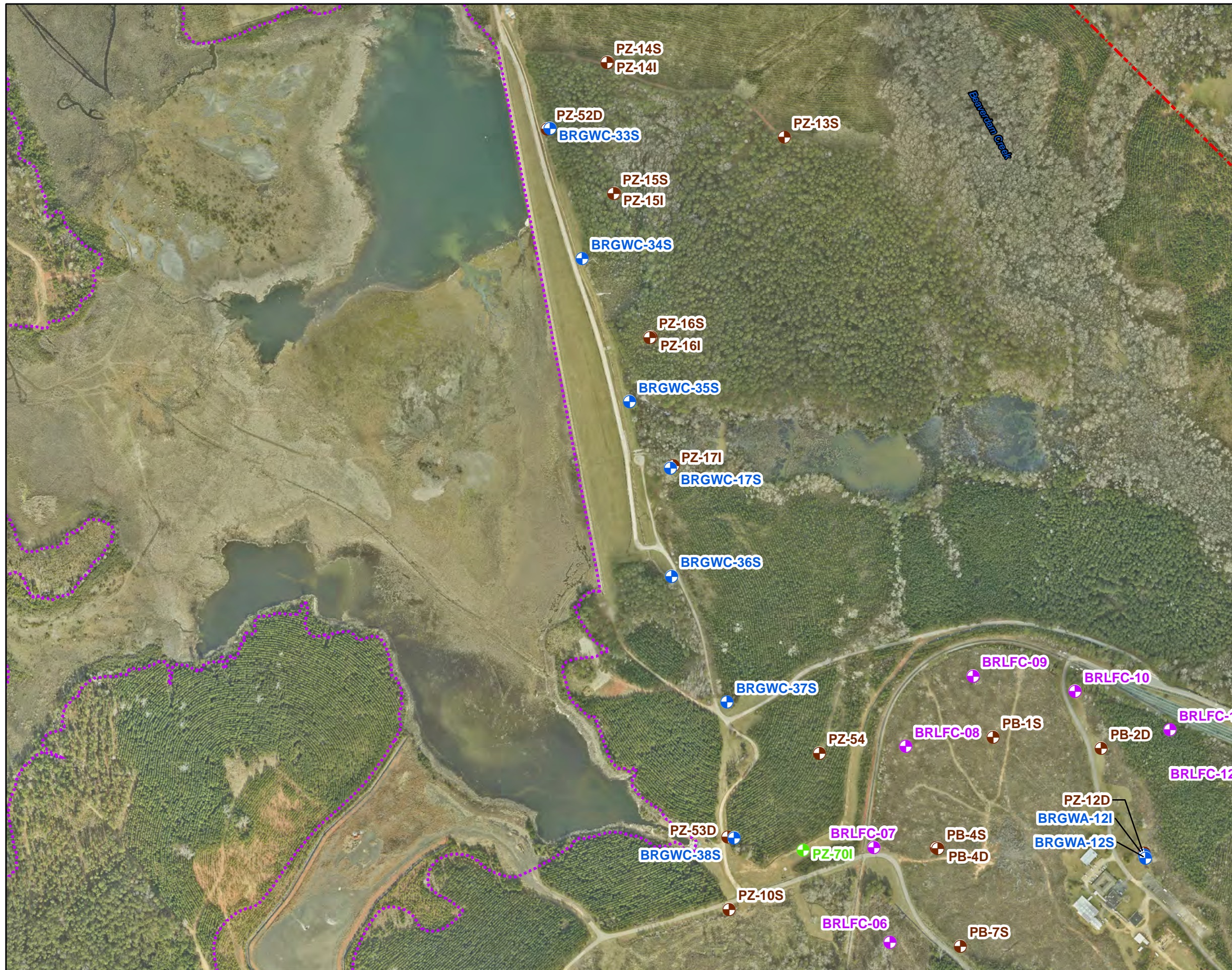
(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Survey was completed by GEL Solutions and certified October 03, 2022.

(2) Vertical elevations are referenced to the North American Vertical Datum (NAVD) of 1988. Ground surface elevation defined at the survey nail installed within the well pad.

Survey was completed by GEL Solutions and certified October 03, 2022.

(3) Total well depth accounts for 6-inch sump.

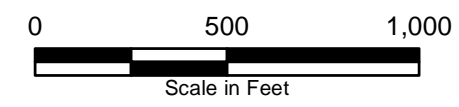
FIGURE



- LEGEND**
- Assessment Monitoring Well (Installed 2022)
 - Compliance Monitoring Well
 - LF Compliance Monitoring Well
 - Piezometer (Installed 2022)
 - Piezometer
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

Notes:

1. LF represents the landfill (LF) compliance wells.
2. Coordinate System: NAD 1983 State Plane Georgia West_FIPS (U.S. Feet).
3. Property Boundary Provided by Southern Company Services.
4. Aerial Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community 2019 and Georgia Power Company, February 2022.



AP-E Well Location Map

GEORGIA POWER COMPANY
PLANT BRANCH
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power	FIGURE 1
Prepared By: Geosyntec consultants	
KENNESAW, GA	NOVEMBER 2022

APPENDIX A

Well Driller Performance Bonds



Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson, William M. Smith, Derek Sabo, Charla M. Boadle**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

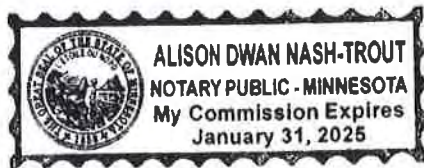
IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.



By *Paul J. Brehm*
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA
HENNEPIN COUNTY

On this twenty-seventh day of April, 2020, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.



Alison Nash-Trout
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 12 day of April, 2021.

This Power of Attorney expires
January 31, 2025



Kara Barrow
Kara Barrow, Secretary

CONTINUATION
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. 800033976

dated effective 09/27/2017
(MONTH-DAY-YEAR)

on behalf of Ricky Davis / Cascade Drilling, L.P.
(PRINCIPAL)

and in favor of Department of Natural Resources, State of Georgia
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on 06/30/2021
(MONTH-DAY-YEAR)

and ending on 06/30/2023
(MONTH-DAY-YEAR)

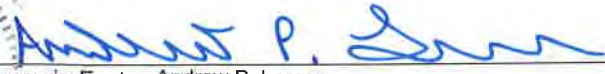
Amount of bond Thirty Thousand and 00/100 Dollars (\$30,000.00)

Description of bond Performance Bond for Water Well Contractors

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on April 12th, 2021
(MONTH-DAY-YEAR)

Atlantic Specialty Insurance Company

By 
Attorney-in-Fact Andrew P. Larsen

Parker, Smith & Feek, Inc.

Agent
2233 112th Ave NE Bellevue, WA 98004

Address of Agent

425-709-3600

Telephone Number of Agent

APPENDIX B

Boring and Well Construction Logs

BORING AND WELL LOG LEGEND

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE	
			Sample Type	Date & Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample



- GR
- EN
- SS
- ST
- CO
- DP

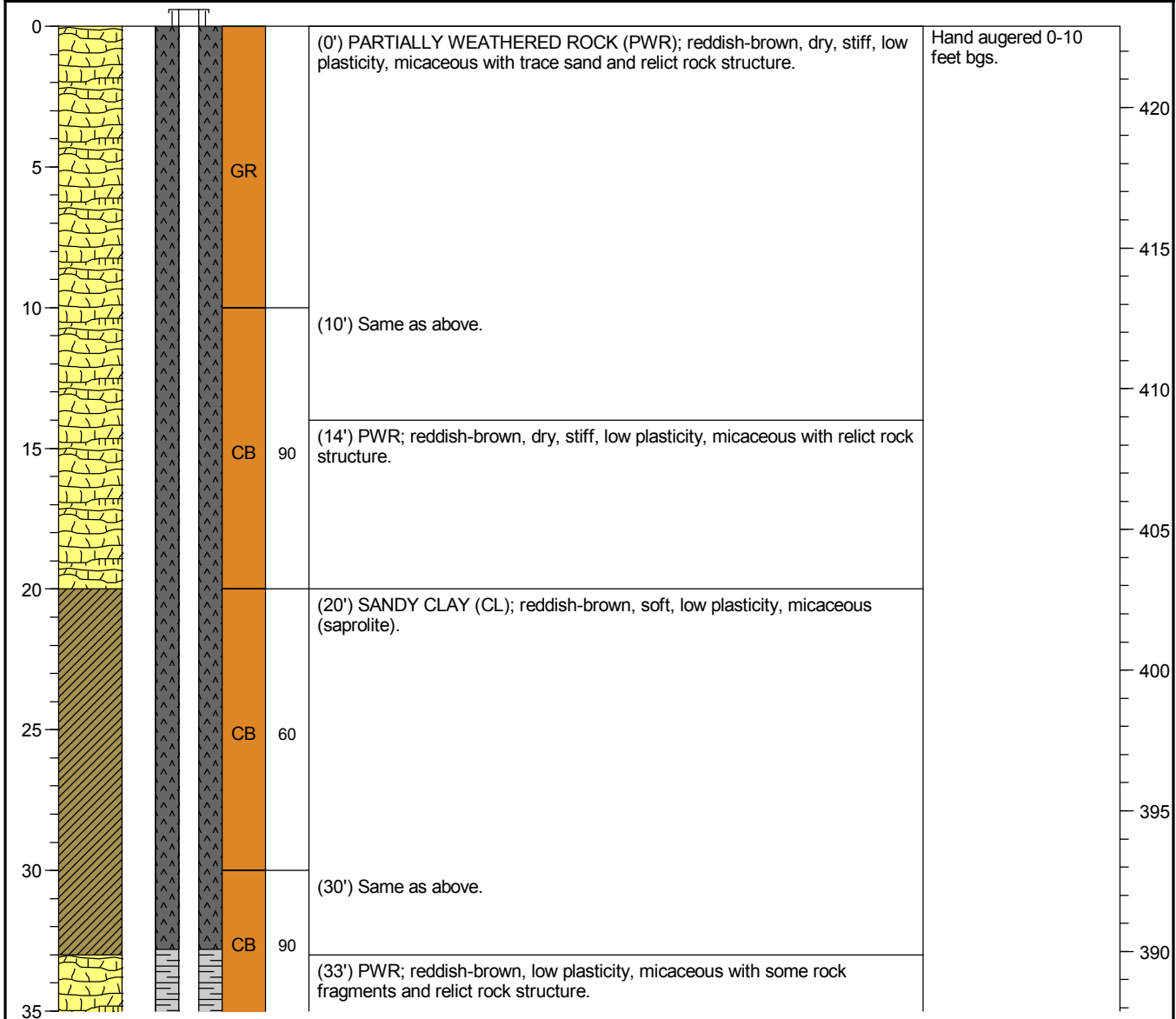
- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- COBBLES
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with 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
- Lab Sample and ID

0.0	ID

NOTES:

Drilling Start Date: 08/16/2022	Boring Depth (ft): 55	Well Depth (ft TOC): 52.98
Drilling End Date: 08/16/2022	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): --	Riser Material: Sch 40 PVC
Drilling Equipment: TSI-150	Ground Surface Elevation: 422.88 NAV88	Screen Material: Sch 40 PVC Slotted
Driller: C. Franklin	Top of Casing Elevation: 425.70 NAV88	Seal Material(s): Grout, Bentonite
Logged By: D. Kegley	North, East (Y,X): 1164326.66, 2555374.08	Filter Pack: 20/40 Sand

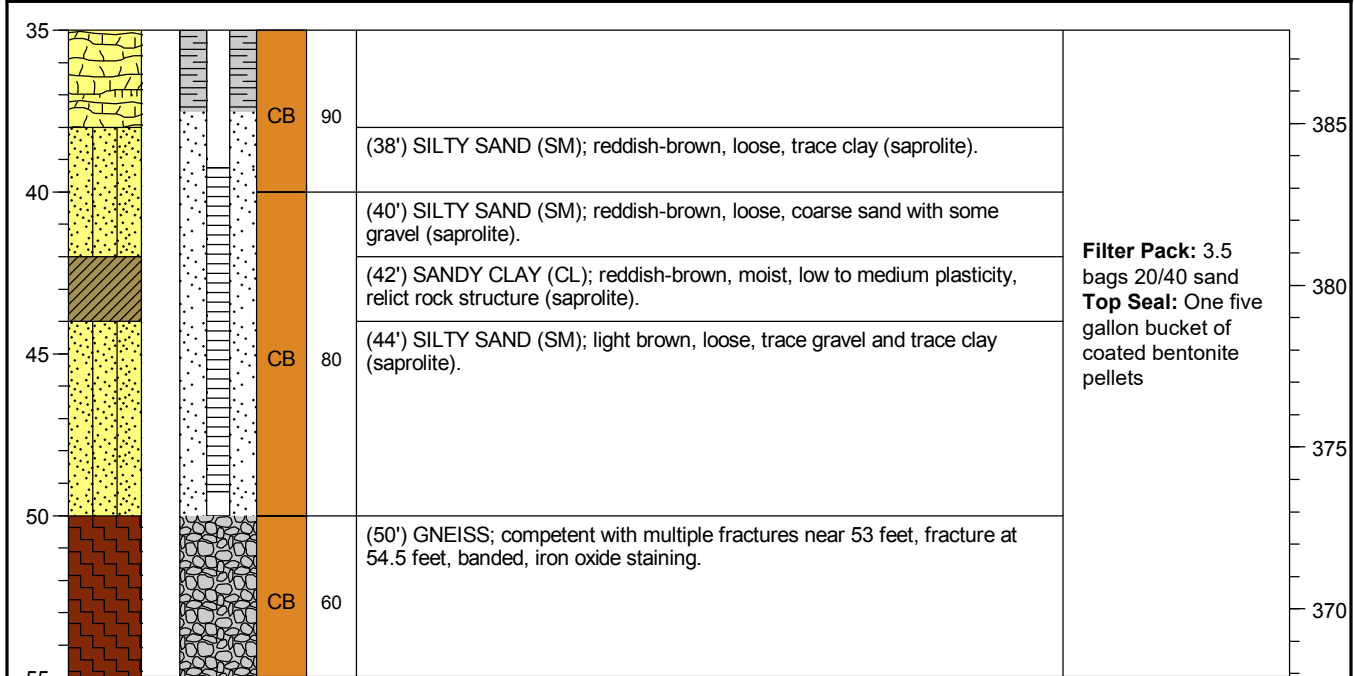
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.82 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from the top of casing (TOC).

Drilling Start Date: 08/16/2022	Boring Depth (ft): 55	Well Depth (ft TOC): 52.98
Drilling End Date: 08/16/2022	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): --	Riser Material: Sch 40 PVC
Drilling Equipment: TSI-150	Ground Surface Elevation: 422.88 NAV88	Screen Material: Sch 40 PVC Slotted
Driller: C. Franklin	Top of Casing Elevation: 425.70 NAV88	Seal Material(s): Grout, Bentonite
Logged By: D. Kegley	North, East (Y,X): 1164326.66, 2555374.08	Filter Pack: 20/40 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.82 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from the top of casing (TOC).

APPENDIX C

Well Development Form

Atlantic Coast Consulting, Inc. Well Development Field Record

Job Name: _____
 Developed By: Anna-Schnittker H. Auel
 Started Dev.: 8-29-22 / 1225
 Date / Time
 W.L. Before Dev.: 28.63 / 8-29-22 / 1220
 Date / Time
 Well Depth Before Dev.: 52.98 BGS
 Water Column (H): 24.35 Ft. Well Dia.: 2 In.
 Screen Length: 10 Ft.

Job No. _____ Well No. PZ-70
 Date of Installation: _____ Sheet 1 of 1
 Completed Dev.: 8-29-22 / 1510
 Date / Time
 W.L. After Dev.: 34.30 / 8-29-22 / 1510
 Date / Time
 Well Depth After Dev.: 52.98 BGS
 Well Volume: 3.90 Gal.

Total purged:

Date / Time	Volume Removed (Gal.)	Field Parameters				Remarks
		Specific Cond. (umhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (NTU)	
8-29-22/1315	20	469	24.2	6.36	389	Well pre-developed with a bailer
1332	24	387	24.8	6.23	946	
1340	28	371	24.9	6.18	75	
1349	32	358	26.3	6.17	477	Surged well w/ pump
1355	36	363	24.7	6.14	42	
1400	40	363	24.5	6.20	18.7	
1411	48	367	24.7	6.23	18.6	
1420	56	365	23.5	6.12	8.3	
1439	64 64	379	23.2	6.08	397	Surged well w/ pump
1450	72	373	21.9	6.02	11.6	
1600 1500	80	368	21.4	6.00	3.6	
1506	84	368	21.3	6.01	3.2	
Total Volume Removed (gal):						

Development Method: 1) bailed - purged 5 well volumes (first reading)
2) Whale pump - purged until under 5 NTUs

Notes: H = well depth (BTOC) - W.L. (BTOC)
 Well volume in pipe:
 2" diameter well: 0.16 X H = volume in gallons
 4" diameter well: 0.66 X H = volume in gallons

1 well volume = 3.90 gallons

APPENDIX D

Certified Well Survey Data

GEL ENGINEERING OF NC INC

Plant Branch Monitoring Wells

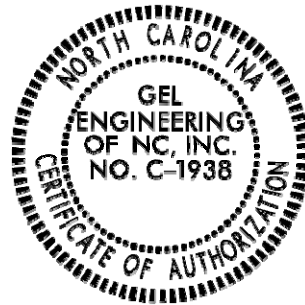
Field Surveys: 9/26/2022-9/26/2022

Well ID	Casing Northing	Casing Easting	Top of Casing Elevation	Nail or Pad Northing	Nail or Pad Easting	Nail or Pad Elevation	Description
BRLFC-01	1162232.420	2557158.878	381.35	1162234.588	2557160.953	378.49	NAIL
BRLFC-02	1161957.831	2556825.523	384.13	1161957.141	2556824.248	381.63	NAIL
BRLFC-03	1162377.227	2556336.547	369.42	1162377.112	2556337.910	366.38	NAIL
BRLFC-04	1163049.095	2556365.006	388.42	1163047.818	2556364.818	385.43	NAIL
BRLFC-05	1163451.177	2556075.022	383.62	1163450.615	2556074.153	380.81	NAIL
BRLFC-06	1163851.241	2555822.506	397.85	1163852.017	2555823.832	391.96	NAIL
BRLFC-07	1164341.769	2555739.634	409.69	1164340.724	2555739.503	407.00	NAIL
BRLFC-08	1164864.460	2555903.702	400.44	1164863.290	2555903.253	397.72	NAIL
BRLFC-09	1165226.617	2556252.713	394.45	1165227.164	2556251.549	391.52	NAIL
BRLFC-10	1165147.934	2556780.479	415.79	1165146.733	2556780.432	412.83	NAIL
BRLFC-11	1164949.835	2557269.423	386.84	1164951.153	2557269.792	383.90	NAIL
BRLFC-12	1164623.001	2557646.354	379.92	1164622.609	2557645.281	376.87	NAIL
BRLFC-13	1164323.879	2557823.208	389.26	1164324.574	2557822.015	386.55	NAIL
BRLFC-14	1164274.064	2558403.895	384.99	1164274.959	2558404.532	382.29	NAIL
BRLFC-15	1164224.277	2558938.713	398.64	1164225.422	2558939.234	395.98	NAIL
BRLFC-16	1163744.066	2558875.358	418.68	1163743.046	2558876.074	416.10	NAIL
PZ-64I	1161787.721	2562404.290	381.94	1161790.008	2562403.066	379.37	NAIL
PZ-65I	1161692.719	2562240.567	382.06	1161693.105	2562242.972	379.61	NAIL
PZ-66I	1161747.912	2562134.650	383.52	1161747.859	2562137.193	380.86	NAIL
PZ-67	1161831.975	2561919.762	381.48	1161832.305	2561922.342	378.78	NAIL
PZ-68D	1160690.480	2558512.904	405.25	1160689.686	2558515.174	402.50	NAIL
PZ-69I	1160311.386	2558447.455	379.36	1160312.091	2558444.956	376.97	NAIL
PZ-70I	1164326.658	2555374.075	425.70	1164327.641	2555373.457	422.88	NAIL
PB-D01	1162230.144	2557916.814	400.83	N/A	N/A	N/A	BORING
PB-D02	1162246.300	2558208.403	402.96	N/A	N/A	N/A	BORING
PB-D03	1162358.679	2559046.329	408.09	N/A	N/A	N/A	BORING
PB-D04	1161913.252	2558507.940	403.12	N/A	N/A	N/A	BORING
PB-D05	1161840.817	2558094.790	399.40	N/A	N/A	N/A	BORING
PB-D06	1161478.306	2558295.128	399.53	N/A	N/A	N/A	BORING
SB-33S	1168079.825	2554050.908	414.87	N/A	N/A	N/A	BORING
SB-38S	1164375.049	2554988.232	430.68	N/A	N/A	N/A	BORING
Benchmark	Northing	Easting	Elevation				
GEL1	1162581.977	2556743.623	391.46				
GEL2	1161860.379	2562295.003	380.25				

SURVEY DATA CERTIFICATION FOR SOUTHERN COMPANY TO DETERMINE NORTHING, EASTING, AND VERTICAL ELEVATION OF THE NAIL IN THE CONCRETE PAD & THE PVC WELL CASING. DATE OF FIELD SURVEY & INSPECTION: 09/26/2022-09/28/2022. FIELD SURVEY POSITIONAL TOLERANCE=0.5 FEET HORIZONTAL-NAD'83, 0.01 VERTICAL-NAVD '88. EQUIPMENT USED FOR HORIZONTAL LOCATION: TRIMBLE R10 & R12 RTK GPS & TRIMBLE S5 ROBOTIC TOTAL STATION. THE VERTICAL LOCATION OF EACH SURVEYED POINT WAS ESTABLISHED BASED UPON LEVEL RUNS WITH A DIGITAL LEVEL LOOP FROM VERTICAL CONTROL ESTABLISHED BY ON-SITE BENCHMARKS GEL1 & GEL2 SET BY GEL SOLUTIONS USING A TRIMBLE DINI LEVEL

Derek Bradner

10/3/2022



COA - LS003119
Exp. 12/31/2022

APPENDIX B

Well Maintenance and Repair Documentation Memoranda

Memo r a n d u m

Date: 22 December 2022

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

From: Joe Ivanowski and Lauren Fitzgerald,
Geosyntec Consultants

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

Geosyntec Consultants, Inc. (Geosyntec) has prepared this memorandum to provide documentation of groundwater monitoring well and piezometer inspections and repair/maintenance, if needed, performed at Plant Branch during the second semiannual reporting period of 2022. Inspections were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells.

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 8/22/2022. The groundwater monitoring well network was observed to be well maintained and in good condition; no deficiencies requiring maintenance or repair were identified.

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	No	No	No

6 - Based on your professional judgment, is the well construction / location appropriate to:		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".
PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. Auld
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	Yes	No	No	No	No	No	No	No	No

6 - Based on your professional judgment, is the w		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Does the well recharge adequately when purged?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A

6 - Based on your professional judgment, is the well		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Does the well recharge adequately when purged?	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	No	No	No	No	No	No	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	N/A	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

2 - Protective Outer Casing		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

3 - Surface Pad		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

4 - Internal Well Casing		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	N/A	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from
PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Plant Branch
August 2022 Well Inspection Form



1 - Location/Identification		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the w		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from
PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

1 - Location/Identification		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes

3 - Surface Pad		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes

4 - Internal Well Casing		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		IW-C-2	IW-D-1	IW-D-2	IW-E-1
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well
Staff: J. Berisford/T. Goble/A. Schnittker/H. At
Date: 8/22/2022

Memo r a n d u m

Date: 23 January 2023

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

From: Joe Ivanowski and Lauren Fitzgerald,
Geosyntec Consultants

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

Geosyntec Consultants, Inc. (Geosyntec) has prepared this memorandum to provide documentation of groundwater monitoring well and piezometer inspections and repair/maintenance, if needed, performed at Plant Branch during the first semiannual reporting period of 2023. Inspections were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells.

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 1/23/2023. The groundwater monitoring well network was observed to be well maintained and in good condition; no deficiencies requiring maintenance or repair were identified.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-2S	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-2I	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-5S	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-5I	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-6S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWA-12S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWA-12I	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-17S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWA-23S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-25I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-27I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-29I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-30I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-32S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-33S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-34S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-35S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-36S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-37S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-38S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-45	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-47	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-50	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-52I	
Plant Branch	1/23/2023	PZ-1S	
Plant Branch	1/23/2023	PZ-1I	
Plant Branch	1/23/2023	PZ-1D	
Plant Branch	1/23/2023	PZ-3S	
Plant Branch	1/23/2023	PZ-3I	
Plant Branch	1/23/2023	PZ-3D	
Plant Branch	1/23/2023	PZ-4S	
Plant Branch	1/23/2023	PZ-4I	
Plant Branch	1/23/2023	PZ-7S	
Plant Branch	1/23/2023	PZ-8S	
Plant Branch	1/23/2023	PZ-9S	
Plant Branch	1/23/2023	PZ-10S	
Plant Branch	1/23/2023	PZ-11S	
Plant Branch	1/23/2023	PZ-12D	
Plant Branch	1/23/2023	PZ-13S	
Plant Branch	1/23/2023	PZ-14S	
Plant Branch	1/23/2023	PZ-14I	
Plant Branch	1/23/2023	PZ-15S	
Plant Branch	1/23/2023	PZ-15I	
Plant Branch	1/23/2023	PZ-16S	
Plant Branch	1/23/2023	PZ-16I	
Plant Branch	1/23/2023	PZ-17I	
Plant Branch	1/23/2023	PZ-18S	
Plant Branch	1/23/2023	PZ-18I	
Plant Branch	1/23/2023	PZ-19S	
Plant Branch	1/23/2023	PZ-19I	
Plant Branch	1/23/2023	PZ-20S	
Plant Branch	1/23/2023	PZ-20I	
Plant Branch	1/23/2023	PZ-21S	
Plant Branch	1/23/2023	PZ-21I	
Plant Branch	1/23/2023	PZ-23I	
Plant Branch	1/23/2023	BRGWC-24S	
Plant Branch	1/23/2023	PZ-26I	
Plant Branch	1/23/2023	PZ-28I	
Plant Branch	1/23/2023	PZ-31S	
Plant Branch	1/23/2023	PZ-39	

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant Branch	1/23/2023	PZ-40S	
Plant Branch	1/23/2023	PZ-41S	
Plant Branch	1/23/2023	PZ-42S	
Plant Branch	1/23/2023	PZ-43	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-44	
Plant Branch	1/23/2023	PZ-46	
Plant Branch	1/23/2023	PZ-48	
Plant Branch	1/23/2023	PZ-49	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-50D	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-51S	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-51I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-51D	
Plant Branch	1/23/2023	PZ-52D	
Plant Branch	1/23/2023	PZ-53D	
Plant Branch	1/23/2023	PZ-54	
Plant Branch	1/23/2023	PZ-55	
Plant Branch	1/23/2023	PZ-56	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-57I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-58I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-59I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-60I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-61I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-62I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-63I	
Plant Branch	1/23/2023	PZ-64I	
Plant Branch	1/23/2023	PZ-65I	
Plant Branch	1/23/2023	PZ-66I	
Plant Branch	1/23/2023	PZ-67	
Plant Branch	1/23/2023	PZ-68D	
Plant Branch	1/23/2023	PZ-69I	
Plant Branch	1/23/2023	PZ-70	
Plant Branch	1/23/2023	C2-02	
Plant Branch	1/23/2023	PB-1S	
Plant Branch	1/23/2023	PB-2D	
Plant Branch	1/23/2023	PB-4S	
Plant Branch	1/23/2023	PB-4D	
Plant Branch	1/23/2023	PB-7S	
Plant Branch	1/23/2023	PB-8S	
Plant Branch	1/23/2023	PB-8D	
Plant Branch	1/23/2023	PB-10S	
Plant Branch	1/23/2023	PB-10D	
Plant Branch	1/23/2023	PB-13S	
Plant Branch	1/23/2023	PB-13D	
Plant Branch	1/23/2023	IW-B-1	
Plant Branch	1/23/2023	IW-B-2	
Plant Branch	1/23/2023	IW-C-1	
Plant Branch	1/23/2023	IW-C-2	
Plant Branch	1/23/2023	IW-D-1	
Plant Branch	1/23/2023	IW-D-2	
Plant Branch	1/23/2023	IW-E-1	

APPENDIX C

Analytical Laboratory Results and Field Sampling Forms

LABORATORY ANALYTICAL REPORTS

Fall 2022



September 19, 2022

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

Re: Branch CCR Groundwater Compliance PZ-52D
Work Order: 591887

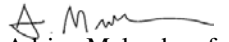
Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 02, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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.

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,


Adrian Melendrez for
Erin Trent
Project Manager

Purchase Order: GPC82177-0003
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: 591887 GEL Work Order: 591887

The Qualifiers in this report are defined as follows:

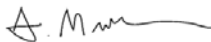
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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 19, 2022

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-52D

Client Sample ID: PZ-52D	Project: GPCC00101
Sample ID: 591887001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 12:32	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.70			SU			EOS1	09/01/22	1232	2312053	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.24	0.0670	0.200	mg/L		1	JLD1	09/03/22	2240	2312366	2
Fluoride		0.140	0.0330	0.100	mg/L		1					
Sulfate		340	6.65	20.0	mg/L		50	JLD1	09/06/22	1407	2312366	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B - PZ-52D "As Received"												
Cobalt		0.00150	0.000300	0.00100	mg/L	1.00	1	PRB	09/14/22	0042	2312380	4
Boron		0.0403	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1740	2312380	5
Calcium		69.0	0.800	2.00	mg/L	1.00	10	PRB	09/14/22	1742	2312380	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		754	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	

Notes:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 19, 2022

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-52D

Client Sample ID:	PZ-52D	Project:	GPCC00101
Sample ID:	591887001	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

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

QC Summary

Report Date: September 19, 2022

Page 1 of 4

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

Contact: Joju Abraham

Workorder: 591887

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2312366										
QC1205182663	591867001	DUP									
Chloride		19.9		19.9	mg/L	0.191		(0%-20%)	JLD1	09/06/22	12:07
Fluoride		0.367		0.242	mg/L	41.2*^		(+/-0.100)		09/03/22	19:41
Sulfate	U	ND	U	ND	mg/L	N/A					
QC1205182662	LCS										
Chloride	5.00			4.95	mg/L		99	(90%-110%)		09/03/22	16:42
Fluoride	2.50			2.40	mg/L		95.9	(90%-110%)			
Sulfate	10.0			10.2	mg/L		102	(90%-110%)			
QC1205182661	MB										
Chloride			U	ND	mg/L					09/03/22	16:12
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205182664	591867001	PS									
Chloride	5.00	3.99		10.4	mg/L		129*	(90%-110%)		09/06/22	12:37
Fluoride	2.50	0.367		3.83	mg/L		139*	(90%-110%)		09/03/22	20:11
Sulfate	10.0	U	ND	15.5	mg/L		155*	(90%-110%)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 591887

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
QC1205182699	LCS										
Boron	0.100			0.112	mg/L		112	(80%-120%)	PRB	09/14/22	17:27
Calcium	2.00			1.95	mg/L		97.7	(80%-120%)		09/14/22	00:14
Cobalt	0.0500			0.0480	mg/L		96	(80%-120%)			
QC1205182698	MB										
Boron			U	ND	mg/L					09/14/22	17:25
Calcium			U	ND	mg/L					09/14/22	00:10
Cobalt			U	ND	mg/L						
QC1205182700	591881001 MS										
Boron	0.100	1.20		1.24	mg/L		N/A	(75%-125%)		09/14/22	17:31
Calcium	2.00	42.6		43.0	mg/L		N/A	(75%-125%)		09/14/22	00:21
Cobalt	0.0500	0.00560		0.0534	mg/L		95.6	(75%-125%)			
QC1205182701	591881001 MSD										
Boron	0.100	1.20		1.27	mg/L	2.04	N/A	(0%-20%)		09/14/22	17:33
Calcium	2.00	42.6		42.9	mg/L	0.254	N/A	(0%-20%)		09/14/22	00:24
Cobalt	0.0500	0.00560		0.0545	mg/L	2.08	97.8	(0%-20%)			
QC1205182702	591881001 SDILT										
Boron		120		26.6	ug/L	11.2		(0%-20%)		09/14/22	17:37
Calcium		42600		8140	ug/L	4.58		(0%-20%)		09/14/22	00:32

GEL LABORATORIES LLC

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

QC Summary

Workorder: 591887

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Cobalt		5.60		1.10	ug/L	1.7		(0%-20%)	PRB	09/14/22	00:32
Solids Analysis											
Batch	2313724										
QC1205185482	592010003 DUP										
Total Dissolved Solids		158		155	mg/L	1.92		(0%-5%)	CH6	09/08/22	14:57
QC1205185480	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		09/08/22	14:57
QC1205185479	MB										
Total Dissolved Solids			U	ND	mg/L					09/08/22	14:57

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- 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
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- 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.
- R Sample results are rejected

GEL LABORATORIES LLC

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

QC Summary

Workorder: 591887

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
U											
X											
Y											
Z											
^											
d											
e											
h											

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

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

h Preparation or preservation holding time was exceeded

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 the 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 #: 591887**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2312380

Preparation Method: SW846 3005A

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

Preparation Batch: 2312379

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591887001	PZ-52D
1205182698	Method Blank (MB)ICP-MS
1205182699	Laboratory Control Sample (LCS)
1205182702	591881001(PZ-70L) Serial Dilution (SD)
1205182700	591881001(PZ-70S) Matrix Spike (MS)
1205182701	591881001(PZ-70SD) Matrix Spike Duplicate (MSD)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 591887001 (PZ-52D) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	591887
	001
Calcium	10X

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2312366

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591887001	PZ-52D
1205182661	Method Blank (MB)
1205182662	Laboratory Control Sample (LCS)
1205182663	591867001(NonSDG) Sample Duplicate (DUP)
1205182664	591867001(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
Chloride	1205182664 (Non SDG 591867001PS)	129* (90%-110%)
Fluoride	1205182664 (Non SDG 591867001PS)	139* (90%-110%)
Sulfate	1205182664 (Non SDG 591867001PS)	155* (90%-110%)

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
Fluoride	1205182663 (Non SDG 591867001DUP)	abs(.242 - .367)* (+/- .1 mg/L)

Technical Information

Sample Dilutions

The following samples 1205182663 (Non SDG 591867001DUP), 1205182664 (Non SDG 591867001PS) and 591887001 (PZ-52D) 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	591887
	001
Sulfate	50X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2313724

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591887001	PZ-52D
1205185479	Method Blank (MB)
1205185480	Laboratory Control Sample (LCS)
1205185482	592010003(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.

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.

List of current GEL Certifications as of 19 September 2022

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	SC000122023-3
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	2022-137
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	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



October 03, 2022

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

Re: Branch CCR Groundwater Compliance AP - E and APE
Work Orders: 591881,590857 and 591351

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, 2022, August 29, 2022 and September 02, 2022. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package is being revised to include 6 missing metals.

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.

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: GPC82177-0003
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: 591881 GEL Work Order: 591881

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
- J See case narrative for an explanation
- J Value is estimated
- 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: 591351 GEL Work Order: 591351

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
- J See case narrative for an explanation
- J Value is estimated
- 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

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**Certificate of Analysis Report
for**

GPCC001 Georgia Power Company

Client SDG: 590857 GEL Work Order: 590857

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

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: PZ-70	Project: GPCC00101
Sample ID: 591881001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 10:55	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.13			SU			EMK	09/01/22	1055	2313386	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		1.43	0.0330	0.100	mg/L		1	JLD1	09/03/22	2210	2312366	2
Chloride		10.8	3.35	10.0	mg/L		50	JLD1	09/07/22	0709	2312366	3
Sulfate		172	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	09/07/22	1121	2312733	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0017	2312380	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0444	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		42.6	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00560	0.000300	0.00100	mg/L	1.00	1					
Iron		1.48	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00615	0.00300	0.0100	mg/L	1.00	1					
Magnesium		15.5	0.0100	0.0300	mg/L	1.00	1					
Potassium		5.62	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00625	0.00150	0.00500	mg/L	1.00	1					
Sodium		25.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.20	0.0520	0.150	mg/L	1.00	10	PRB	09/14/22	1729	2312380	6
Manganese		1.06	0.0100	0.0500	mg/L	1.00	10					
Molybdenum		0.00142	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2211	2312380	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		321	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	8
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: PZ-70 Project: GPCC00101
Sample ID: 591881001 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		37.8	1.45	4.00	mg/L			HH2	09/08/22	1127	2312490	9
Bicarbonate alkalinity (CaCO ₃)		37.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1255	2312730

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-17S	Project: GPCC00101
Sample ID: 591351001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 11:37	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.62			SU			EOS1	08/24/22	1137	2310138	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.00	0.0670	0.200	mg/L		1	HXC1	08/30/22	1317	2310523	2
Fluoride		0.274	0.0330	0.100	mg/L		1					
Sulfate		157	2.66	8.00	mg/L		20	HXC1	08/30/22	2115	2310523	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1118	2310248	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1820	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0512	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0273	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		43.6	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0127	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		25.7	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		1.29	0.0800	0.300	mg/L	1.00	1					
Sodium		24.6	0.0800	0.250	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	BAJ	09/07/22	0157	2310153	6
Selenium	J	0.00208	0.00150	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		370	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	7
Titration and Ion Analysis												

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-17S Project: GPCC00101
Sample ID: 591351001 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		74.0	1.45	4.00	mg/L			HH2	09/07/22	1323	2310459	8
Bicarbonate alkalinity (CaCO ₃)		74.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-35S	Project: GPCC00101
Sample ID: 591351002	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 13:58	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.05			SU			EOS1	08/24/22	1358	2310138	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.53	0.0670	0.200	mg/L		1	HXC1	08/30/22	1347	2310523	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		279	2.66	8.00	mg/L		20	HXC1	08/30/22	2244	2310523	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1120	2310248	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1934	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0339	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00752	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.162	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		36.9	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0170	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.24	0.0800	0.300	mg/L	1.00	1					
Sodium		19.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000210	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0215	2310153	6
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		2.23	0.104	0.300	mg/L	1.00	20	BAJ	09/07/22	1841	2310153	7
Calcium		68.5	1.60	4.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		507	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	8
Titration and Ion Analysis												

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-35S Project: GPCC00101
Sample ID: 591351002 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		50.6	1.45	4.00	mg/L			HH2	09/07/22	1332	2310459	9
Bicarbonate alkalinity (CaCO ₃)		50.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-36S	Project: GPCC00101
Sample ID: 591351003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 09:52	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.59			SU			EOS1	08/24/22	0952	2310138	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.96	0.0670	0.200	mg/L	1		HXC1	08/30/22	1416	2310523	2
Fluoride		0.194	0.0330	0.100	mg/L	1						
Sulfate		224	2.66	8.00	mg/L	20		HXC1	08/30/22	2314	2310523	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1121	2310248	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1937	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0296	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		48.1	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00713	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		20.5	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00295	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.78	0.0800	0.300	mg/L	1.00	1					
Sodium		40.6	0.0800	0.250	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	BAJ	09/07/22	0219	2310153	6
Selenium	J	0.00246	0.00150	0.00500	mg/L	1.00	1					
Boron		1.10	0.104	0.300	mg/L	1.00	20	BAJ	09/07/22	1844	2310153	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		418	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	8
Titration and Ion Analysis												

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-36S Project: GPCC00101
Sample ID: 591351003 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	1.45	4.00	mg/L			HH2	09/07/22	1334	2310459	9
Bicarbonate alkalinity (CaCO ₃)		20.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: FD-04	Project: GPCC00101
Sample ID: 591351004	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 12:00	
Receive Date: 29-AUG-22	
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		7.95	0.0670	0.200	mg/L		1	HXC1	08/30/22	1446	2310523	1
Fluoride		0.209	0.0330	0.100	mg/L		1					
Sulfate		222	2.66	8.00	mg/L		20	HXC1	08/30/22	2344	2310523	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1123	2310248	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1940	2310153	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0282	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		44.3	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00668	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		18.8	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00286	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.51	0.0800	0.300	mg/L	1.00	1					
Sodium		37.2	0.0800	0.250	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	BAJ	09/07/22	0229	2310153	5
Selenium	J	0.00227	0.00150	0.00500	mg/L	1.00	1					
Boron		1.07	0.104	0.300	mg/L	1.00	20	BAJ	09/07/22	1847	2310153	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		419	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		20.4	1.45	4.00	mg/L			HH2	09/07/22	1336	2310459	8
Bicarbonate alkalinity (CaCO3)		20.4	1.45	4.00	mg/L							

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: FD-04 Project: GPCC00101
Sample ID: 591351004 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"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-34S	Project: GPCC00101
Sample ID: 591351005	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 14:40	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.75			SU			EOS1	08/24/22	1440	2310138	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.17	0.0670	0.200	mg/L		1	HXC1	08/30/22	1516	2310523	2
Fluoride		0.140	0.0330	0.100	mg/L		1					
Sulfate		268	2.66	8.00	mg/L		20	HXC1	08/31/22	0114	2310523	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1125	2310248	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1943	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0249	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000517	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00438	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		18.6	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.79	0.0800	0.300	mg/L	1.00	1					
Sodium		22.8	0.0800	0.250	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	BAJ	09/07/22	0233	2310153	6
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		2.45	0.104	0.300	mg/L	1.00	20	BAJ	09/07/22	1850	2310153	7
Calcium		75.0	1.60	4.00	mg/L	1.00	20					
Manganese		2.97	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		452	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	8
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-34S	Project: GPCC00101
Sample ID: 591351005	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		28.6	1.45	4.00	mg/L			HH2	09/07/22	1339	2310459	9
Bicarbonate alkalinity (CaCO3)		28.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: EB-08	Project: GPCC00101
Sample ID: 591351006	Client ID: GPCC001
Matrix: WQ	
Collect Date: 24-AUG-22 13:25	
Receive Date: 29-AUG-22	
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	08/30/22	1546	2310523	1
Fluoride	J	0.0366	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	08/31/22	1126	2310248	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1946	2310153	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					
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	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					
Sodium	U	ND	0.0800	0.250	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	BAJ	09/07/22	0237	2310153	4
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/08/22	0646	2310153	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	2.40	1.45	4.00	mg/L			HH2	09/07/22	1342	2310459	7
Bicarbonate alkalinity (CaCO3)	J	2.40	1.45	4.00	mg/L							

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Report Date: October 3, 2022

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: EB-08 Project: GPCC00101
Sample ID: 591351006 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"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-33S	Project: GPCC00101
Sample ID: 590857001	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 14:45	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.67			SU			EOS1	08/23/22	1445	2308303	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.187	0.0330	0.100	mg/L	1		JLD1	08/25/22	2056	2308691	2
Chloride		30.3	2.68	8.00	mg/L	40		JLD1	08/26/22	0325	2308691	3
Sulfate		385	5.32	16.0	mg/L	40						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1154	2308555	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00262	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0046	2308385	5
Barium		0.0409	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0639	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0381	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0109	0.00300	0.0100	mg/L	1.00	1					
Potassium		13.0	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00610	0.00150	0.00500	mg/L	1.00	1					
Sodium		24.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1506	2308385	6
Beryllium		0.00241	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1236	2308385	7
Cadmium	J	0.000509	0.000300	0.00100	mg/L	1.00	1					
Magnesium		14.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Boron		0.975	0.104	0.300	mg/L	1.00	20	BAJ	09/03/22	1210	2308385	8
Calcium		119	1.60	4.00	mg/L	1.00	20					
Manganese		2.75	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		614	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	9
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-33S
Sample ID: 590857001

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	J	3.40	1.45	4.00	mg/L			HH2	09/04/22	1352	2309339	10
Bicarbonate alkalinity (CaCO ₃)	J	3.40	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-37S	Project: GPCC00101
Sample ID: 590857002	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 11:36	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.82			SU			EOS1	08/23/22	1136	2308303	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1.97	0.0670	0.200	mg/L		1	JLD1	08/25/22	2226	2308691	2
Fluoride		0.105	0.0330	0.100	mg/L		1					
Sulfate	J	0.307	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	08/26/22	1155	2308555	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0050	2308385	4
Barium		0.0260	0.000670	0.00400	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					
Potassium		1.84	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.51	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1508	2308385	5
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1140	2308385	6
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		3.70	0.0800	0.200	mg/L	1.00	1					
Magnesium		1.29	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		40.0	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	7
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-37S	Project: GPCC00101
Sample ID: 590857002	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		21.2	1.45	4.00	mg/L			HH2	09/04/22	1355	2309339	8
Bicarbonate alkalinity (CaCO3)		21.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-38S	Project: GPCC00101
Sample ID: 590857003	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 16:00	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		3.97			SU			EOS1	08/23/22	1600	2308303	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.42	0.0670	0.200	mg/L		1	JLD1	08/25/22	2355	2308691	2
Fluoride		0.609	0.0330	0.100	mg/L		1					
Sulfate		389	5.32	16.0	mg/L		40	JLD1	08/26/22	1120	2308691	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	J	0.000117	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1157	2308555	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00337	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0053	2308385	5
Barium		0.0141	0.000670	0.00400	mg/L	1.00	1					
Chromium	J	0.00398	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.173	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		0.0214	0.00300	0.0100	mg/L	1.00	1					
Potassium		5.75	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0296	0.00150	0.00500	mg/L	1.00	1					
Sodium		44.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1510	2308385	6
Beryllium		0.00854	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1239	2308385	7
Cadmium	J	0.000459	0.000300	0.00100	mg/L	1.00	1					
Calcium		37.1	0.0800	0.200	mg/L	1.00	1					
Magnesium		41.3	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Boron		1.67	0.104	0.300	mg/L	1.00	20	BAJ	09/03/22	1213	2308385	8
Manganese		1.80	0.0200	0.100	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		568	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	9
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: BRGWC-38S Project: GPCC00101
Sample ID: 590857003 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	1.45	4.00	mg/L		HH2	09/04/22	1356	2309339		10
Bicarbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: PZ-53D	Project: GPCC00101
Sample ID: 590857004	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 13:55	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.18			SU			EOS1	08/23/22	1355	2308303	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.94	0.0670	0.200	mg/L		1	JLD1	08/26/22	0025	2308691	2
Fluoride		0.164	0.0330	0.100	mg/L		1					
Sulfate		348	5.32	16.0	mg/L		40	JLD1	08/26/22	1150	2308691	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1159	2308555	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0057	2308385	5
Barium		0.0547	0.000670	0.00400	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		0.294	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0171	0.00300	0.0100	mg/L	1.00	1					
Potassium		6.44	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					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1511	2308385	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1242	2308385	7
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Magnesium		19.3	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.641	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.00265	0.000200	0.00100	mg/L	1.00	1					
Boron		1.04	0.104	0.300	mg/L	1.00	20	BAJ	09/03/22	1216	2308385	8
Calcium		76.4	1.60	4.00	mg/L	1.00	20					
Sodium		52.0	1.60	5.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		543	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	9
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: PZ-53D Project: GPCC00101
Sample ID: 590857004 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		82.8	1.45	4.00	mg/L			HH2	09/04/22	1358	2309339	10
Bicarbonate alkalinity (CaCO ₃)		82.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: PZ-13S	Project: GPCC00101
Sample ID: 590857005	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 13:15	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.46			SU			EOS1	08/23/22	1315	2308303	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.20	0.0670	0.200	mg/L		1	JLD1	08/26/22	0055	2308691	2
Fluoride		0.128	0.0330	0.100	mg/L		1					
Sulfate		51.0	1.33	4.00	mg/L		10	JLD1	08/26/22	1220	2308691	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1201	2308555	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0100	2308385	5
Barium		0.0562	0.000670	0.00400	mg/L	1.00	1					
Chromium		0.0128	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					
Potassium		3.59	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00157	0.00150	0.00500	mg/L	1.00	1					
Sodium		12.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1513	2308385	6
Beryllium	J	0.000331	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1144	2308385	7
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		9.69	0.0800	0.200	mg/L	1.00	1					
Magnesium		5.94	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00137	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		130	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	8
Titration and Ion Analysis												

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: PZ-13S Project: GPCC00101
Sample ID: 590857005 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		21.4	1.45	4.00	mg/L			HH2	09/04/22	1359	2309339	9
Bicarbonate alkalinity (CaCO ₃)		21.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
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 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: October 3, 2022

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

Atlanta, Georgia 30308

Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: FB-04	Project: GPCC00101
Sample ID: 590857006	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-22 12:45	
Receive Date: 24-AUG-22	
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		0.329	0.0670	0.200	mg/L		1	JLD1	08/26/22	0125	2308691	1
Fluoride	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	08/26/22	1206	2308555	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0104	2308385	3
Barium	U	ND	0.000670	0.00400	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	0.0334	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					
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					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1515	2308385	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1220	2308385	5
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					
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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/26/22	1619	2309058	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		33.2	1.45	4.00	mg/L			HH2	09/04/22	1400	2309339	7
Bicarbonate alkalinity (CaCO3)		33.2	1.45	4.00	mg/L							

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Certificate of Analysis

Report Date: October 3, 2022

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

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Branch CCR Groundwater ComplianceAP - E and APE

Client Sample ID: FB-04 Project: GPCC00101
Sample ID: 590857006 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"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	SW846 7470A		
3	SW846 3005A/6020B		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SM 2540C		
7	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: October 3, 2022

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

Contact: Joju Abraham

Workorder: 591881

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2312366										
QC1205182663	591867001	DUP									
Chloride		19.9		19.9	mg/L	0.191		(0%-20%)	JLD1	09/06/22	12:07
Fluoride		0.367		0.242	mg/L	41.2*^		(+/-0.100)		09/03/22	19:41
Sulfate	U	ND	U	ND	mg/L	N/A					
QC1205182662	LCS										
Chloride	5.00			4.95	mg/L		99	(90%-110%)		09/03/22	16:42
Fluoride	2.50			2.40	mg/L		95.9	(90%-110%)			
Sulfate	10.0			10.2	mg/L		102	(90%-110%)			
QC1205182661	MB										
Chloride			U	ND	mg/L					09/03/22	16:12
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205182664	591867001	PS									
Chloride	5.00	3.99		10.4	mg/L		129*	(90%-110%)		09/06/22	12:37
Fluoride	2.50	0.367		3.83	mg/L		139*	(90%-110%)		09/03/22	20:11
Sulfate	10.0	U	ND	15.5	mg/L		155*	(90%-110%)			

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
QC1205182699	LCS										
Antimony	0.0500			0.0483	mg/L		96.6	(80%-120%)	PRB	09/14/22	00:14
Arsenic	0.0500			0.0477	mg/L		95.3	(80%-120%)			
Barium	0.0500			0.0501	mg/L		100	(80%-120%)			
Beryllium	0.0500			0.0506	mg/L		101	(80%-120%)			
Boron	0.100			0.112	mg/L		112	(80%-120%)		09/14/22	17:27
Cadmium	0.0500			0.0490	mg/L		98	(80%-120%)		09/14/22	00:14
Calcium	2.00			1.95	mg/L		97.7	(80%-120%)			
Chromium	0.0500			0.0489	mg/L		97.8	(80%-120%)			
Cobalt	0.0500			0.0480	mg/L		96	(80%-120%)			
Iron	2.00			1.99	mg/L		99.4	(80%-120%)			
Lead	0.0500			0.0494	mg/L		98.7	(80%-120%)			
Lithium	0.0500			0.0471	mg/L		94.1	(80%-120%)			
Magnesium	2.00			2.13	mg/L		106	(80%-120%)			
Manganese	0.0500			0.0496	mg/L		99.2	(80%-120%)		09/14/22	17:27
Molybdenum	0.0500			0.0489	mg/L		97.7	(80%-120%)		09/13/22	22:07

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Potassium	2.00			1.97	mg/L		98.6	(80%-120%)	PRB	09/14/22	00:14
Selenium	0.0500			0.0487	mg/L		97.3	(80%-120%)			
Sodium	2.00			2.04	mg/L		102	(80%-120%)			
Thallium	0.0500			0.0467	mg/L		93.5	(80%-120%)			
QC1205182698	MB										
Antimony			U	ND	mg/L					09/14/22	00:10
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					09/14/22	17:25
Cadmium			U	ND	mg/L					09/14/22	00:10
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						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Lithium			U	ND	mg/L				PRB	09/14/22	00:10
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/14/22	17:25
Molybdenum			J	0.000271	mg/L					09/13/22	22:04
Potassium			U	ND	mg/L					09/14/22	00:10
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205182700 591881001 MS											
Antimony	0.0500	U	ND	0.0509	mg/L		101	(75%-125%)		09/14/22	00:21
Arsenic	0.0500	U	ND	0.0496	mg/L		96.2	(75%-125%)			
Barium	0.0500		0.0444	0.0934	mg/L		97.9	(75%-125%)			
Beryllium	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)			
Boron	0.100		1.20	1.24	mg/L		N/A	(75%-125%)		09/14/22	17:31
Cadmium	0.0500	U	ND	0.0496	mg/L		99.2	(75%-125%)		09/14/22	00:21
Calcium	2.00		42.6	43.0	mg/L		N/A	(75%-125%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Chromium	0.0500	U	ND	0.0498	mg/L		97.6	(75%-125%)	PRB	09/14/22	00:21
Cobalt	0.0500		0.00560	0.0534	mg/L		95.6	(75%-125%)			
Iron	2.00		1.48	3.34	mg/L		93.1	(75%-125%)			
Lead	0.0500	U	ND	0.0492	mg/L		98	(75%-125%)			
Lithium	0.0500	J	0.00615	0.0535	mg/L		94.6	(75%-125%)			
Magnesium	2.00		15.5	16.8	mg/L		N/A	(75%-125%)			
Manganese	0.0500		1.06	1.10	mg/L		N/A	(75%-125%)		09/14/22	17:31
Molybdenum	0.0500		0.00142	0.0528	mg/L		103	(75%-125%)		09/13/22	22:14
Potassium	2.00		5.62	7.34	mg/L		86.3	(75%-125%)		09/14/22	00:21
Selenium	0.0500		0.00625	0.0546	mg/L		96.8	(75%-125%)			
Sodium	2.00		25.8	26.6	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0475	mg/L		94.8	(75%-125%)			
QC1205182701 591881001 MSD											
Antimony	0.0500	U	ND	0.0507	mg/L	0.395	101	(0%-20%)		09/14/22	00:24
Arsenic	0.0500	U	ND	0.0499	mg/L	0.49	96.7	(0%-20%)			
Barium	0.0500		0.0444	0.0937	mg/L	0.405	98.6	(0%-20%)			

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Beryllium	0.0500	U	ND	0.0501	mg/L	3.13	99.9	(0%-20%)	PRB	09/14/22	00:24
Boron	0.100		1.20	1.27	mg/L	2.04	N/A	(0%-20%)		09/14/22	17:33
Cadmium	0.0500	U	ND	0.0490	mg/L	1.29	97.9	(0%-20%)		09/14/22	00:24
Calcium	2.00		42.6	42.9	mg/L	0.254	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0494	mg/L	0.805	96.8	(0%-20%)			
Cobalt	0.0500		0.00560	0.0545	mg/L	2.08	97.8	(0%-20%)			
Iron	2.00		1.48	3.45	mg/L	3.27	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0495	mg/L	0.699	98.7	(0%-20%)			
Lithium	0.0500	J	0.00615	0.0534	mg/L	0.187	94.4	(0%-20%)			
Magnesium	2.00		15.5	16.6	mg/L	1.27	N/A	(0%-20%)			
Manganese	0.0500		1.06	1.08	mg/L	1.28	N/A	(0%-20%)		09/14/22	17:33
Molybdenum	0.0500		0.00142	0.0541	mg/L	2.51	105	(0%-20%)		09/13/22	22:18
Potassium	2.00		5.62	7.39	mg/L	0.567	88.4	(0%-20%)		09/14/22	00:24
Selenium	0.0500		0.00625	0.0553	mg/L	1.29	98.2	(0%-20%)			
Sodium	2.00		25.8	26.7	mg/L	0.195	N/A	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Thallium	0.0500	U	ND	0.0475	mg/L	0.137	94.7	(0%-20%)	PRB	09/14/22	00:24
QC1205182702 591881001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/14/22	00:32
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			44.4		8.34	ug/L	6.1	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			120		26.6	ug/L	11.2	(0%-20%)		09/14/22	17:37
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/14/22	00:32
Calcium			42600		8140	ug/L	4.58	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			5.60		1.10	ug/L	1.7	(0%-20%)			
Iron			1480		290	ug/L	1.92	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lithium		J	6.15	U	ND	ug/L	N/A	(0%-20%)			
Magnesium			15500		2970	ug/L	4.32	(0%-20%)			
Manganese			106		20.6	ug/L	3.13	(0%-20%)		09/14/22	17:37

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Molybdenum		1.42	J	0.372	ug/L	31.3		(0%-20%)	PRB	09/13/22	22:25
Potassium		5620		1060	ug/L	5.59		(0%-20%)		09/14/22	00:32
Selenium		6.25	U	ND	ug/L	N/A		(0%-20%)			
Sodium		25800		4990	ug/L	3.42		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2312733										
QC1205183555	591729001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	09/07/22	10:51
QC1205183554	LCS										
Mercury	0.00200			0.00203	mg/L		102	(80%-120%)		09/07/22	10:42
QC1205183553	MB										
Mercury			U	ND	mg/L					09/07/22	10:40
QC1205183556	591729001	MS									
Mercury	0.00200	U	ND	0.00203	mg/L		102	(75%-125%)		09/07/22	10:52
QC1205183557	591729001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		09/07/22	10:54
Solids Analysis											
Batch	2313724										
QC1205185482	592010003	DUP									
Total Dissolved Solids		158		155	mg/L	1.92		(0%-5%)	CH6	09/08/22	14:57

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2313724										
QC1205185480	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)	CH6	09/08/22	14:57
QC1205185479	MB										
Total Dissolved Solids			U	ND	mg/L					09/08/22	14:57
Titration and Ion Analysis											
Batch	2312490										
QC1205182984	591877005 DUP										
Alkalinity, Total as CaCO3		282		284	mg/L	0.707		(0%-20%)	HH2	09/08/22	11:20
Bicarbonate alkalinity (CaCO3)		282		284	mg/L	0.707		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205182983	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		09/08/22	11:15
QC1205182985	591877005 MS										
Alkalinity, Total as CaCO3	100	282		383	mg/L		101	(80%-120%)		09/08/22	11:25

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- 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
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N1	See case narrative										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
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.										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
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										
h	Preparation or preservation holding time was exceeded										

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 the 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: October 3, 2022

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

Contact: Joju Abraham

Workorder: 591351

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2310523										
QC1205179260	591351001	DUP									
Chloride		5.00		4.97	mg/L	0.702		(0%-20%)	HXC1	08/30/22	20:15
Fluoride		0.274		0.272	mg/L	0.88 ^		(+/-0.100)			
Sulfate		157		158	mg/L	0.766		(0%-20%)		08/30/22	21:44
QC1205179259	LCS										
Chloride	5.00			4.72	mg/L		94.4	(90%-110%)		08/30/22	19:45
Fluoride	2.50			2.51	mg/L		100	(90%-110%)			
Sulfate	10.0			9.64	mg/L		96.4	(90%-110%)			
QC1205179258	MB										
Chloride			U	ND	mg/L					08/30/22	19:15
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205179261	591351001	PS									
Chloride	5.00	5.00		10.4	mg/L		107	(90%-110%)		08/30/22	20:45
Fluoride	2.50	0.274		2.66	mg/L		95.4	(90%-110%)			
Sulfate	10.0	7.86		18.2	mg/L		103	(90%-110%)		08/30/22	22:14

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
QC1205178580	LCS										
Antimony	0.0500			0.0540	mg/L		108	(80%-120%)	BAJ	09/07/22	18:17
Arsenic	0.0500			0.0568	mg/L		114	(80%-120%)			
Barium	0.0500			0.0523	mg/L		105	(80%-120%)			
Beryllium	0.0500			0.0563	mg/L		113	(80%-120%)		09/07/22	01:53
Boron	0.100			0.108	mg/L		108	(80%-120%)		09/07/22	18:17
Cadmium	0.0500			0.0568	mg/L		114	(80%-120%)			
Calcium	2.00			2.13	mg/L		106	(80%-120%)			
Chromium	0.0500			0.0512	mg/L		102	(80%-120%)			
Cobalt	0.0500			0.0513	mg/L		103	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0528	mg/L		106	(80%-120%)			
Lithium	0.0500			0.0505	mg/L		101	(80%-120%)			
Magnesium	2.00			2.14	mg/L		107	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)			
Molybdenum	0.0500			0.0534	mg/L		107	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
Potassium	2.00			2.10	mg/L		105	(80%-120%)	BAJ	09/07/22	18:17
Selenium	0.0500			0.0499	mg/L		99.8	(80%-120%)		09/07/22	01:53
Sodium	2.00			2.08	mg/L		104	(80%-120%)		09/07/22	18:17
Thallium	0.0500			0.0505	mg/L		101	(80%-120%)			
QC1205178579	MB										
Antimony			U	ND	mg/L					09/07/22	18:14
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/07/22	01:50
Boron			U	ND	mg/L					09/07/22	18:14
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						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
Lithium			U	ND	mg/L				BAJ	09/07/22	18:14
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					09/07/22	01:50
Sodium			U	ND	mg/L					09/07/22	18:14
Thallium			U	ND	mg/L						
QC1205178581 591351001 MS											
Antimony	0.0500	U	ND	0.0519	mg/L		103	(75%-125%)		09/07/22	18:23
Arsenic	0.0500	U	ND	0.0532	mg/L		104	(75%-125%)			
Barium	0.0500		0.0512	0.104	mg/L		106	(75%-125%)			
Beryllium	0.0500	U	ND	0.0560	mg/L		112	(75%-125%)		09/07/22	02:00
Boron	0.100		0.0273	0.134	mg/L		107	(75%-125%)		09/07/22	18:23
Cadmium	0.0500	U	ND	0.0522	mg/L		104	(75%-125%)			
Calcium	2.00		43.6	47.5	mg/L		N/A	(75%-125%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
Chromium	0.0500	0.0127		0.0655	mg/L		106	(75%-125%)	BAJ	09/07/22	18:23
Cobalt	0.0500	U	ND	0.0502	mg/L		100	(75%-125%)			
Iron	2.00	U	ND	2.08	mg/L		103	(75%-125%)			
Lead	0.0500	U	ND	0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND	0.0528	mg/L		103	(75%-125%)			
Magnesium	2.00		25.7	28.9	mg/L		N/A	(75%-125%)			
Manganese	0.0500	U	ND	0.0507	mg/L		100	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0559	mg/L		112	(75%-125%)			
Potassium	2.00		1.29	3.38	mg/L		105	(75%-125%)			
Selenium	0.0500	J	0.00208	0.0515	mg/L		98.9	(75%-125%)		09/07/22	02:00
Sodium	2.00		24.6	27.8	mg/L		N/A	(75%-125%)		09/07/22	18:23
Thallium	0.0500	U	ND	0.0502	mg/L		100	(75%-125%)			
QC1205178582 591351001 MSD											
Antimony	0.0500	U	ND	0.0533	mg/L	2.66	106	(0%-20%)		09/07/22	18:26
Arsenic	0.0500	U	ND	0.0555	mg/L	4.3	109	(0%-20%)			
Barium	0.0500		0.0512	0.105	mg/L	0.178	107	(0%-20%)			

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QC Summary

Workorder: 591351

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
Beryllium	0.0500	U	ND	0.0546	mg/L	2.52	109	(0%-20%)	BAJ	09/07/22	02:04
Boron	0.100		0.0273	0.134	mg/L	0.174	107	(0%-20%)		09/07/22	18:26
Cadmium	0.0500	U	ND	0.0544	mg/L	4.28	109	(0%-20%)			
Calcium	2.00		43.6	45.7	mg/L	3.85	N/A	(0%-20%)			
Chromium	0.0500		0.0127	0.0636	mg/L	2.93	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0494	mg/L	1.65	98.7	(0%-20%)			
Iron	2.00	U	ND	2.06	mg/L	1.04	102	(0%-20%)			
Lead	0.0500	U	ND	0.0512	mg/L	0.258	102	(0%-20%)			
Lithium	0.0500	U	ND	0.0515	mg/L	2.49	101	(0%-20%)			
Magnesium	2.00		25.7	27.9	mg/L	3.37	N/A	(0%-20%)			
Manganese	0.0500	U	ND	0.0506	mg/L	0.0711	100	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0558	mg/L	0.308	111	(0%-20%)			
Potassium	2.00		1.29	3.38	mg/L	0.0861	105	(0%-20%)			
Selenium	0.0500	J	0.00208	0.0521	mg/L	1.07	100	(0%-20%)		09/07/22	02:04
Sodium	2.00		24.6	27.1	mg/L	2.51	N/A	(0%-20%)		09/07/22	18:26

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QC Summary

Workorder: 591351

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
Thallium	0.0500	U	ND	0.0503	mg/L	0.279	100	(0%-20%)	BAJ	09/07/22	18:26
QC1205178583 591351001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/07/22	18:54
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			51.2		9.71	ug/L	5.13	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/07/22	02:11
Boron			27.3	J	5.37	ug/L	1.81	(0%-20%)		09/07/22	18:54
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			43600		8480	ug/L	2.85	(0%-20%)			
Chromium			12.7	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(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			25700		4930	ug/L	4.31	(0%-20%)			
Manganese		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2310153										
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/07/22	18:54
Potassium		1290	J	250	ug/L	2.87		(0%-20%)			
Selenium	J	2.08	U	ND	ug/L	N/A		(0%-20%)		09/07/22	02:11
Sodium		24600		4790	ug/L	2.6		(0%-20%)		09/07/22	18:54
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2310248										
QC1205178784	590142001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/31/22	10:55
QC1205178783	LCS										
Mercury	0.00200			0.00200	mg/L		99.9	(80%-120%)		08/31/22	10:52
QC1205178782	MB										
Mercury			U	ND	mg/L					08/31/22	10:47
QC1205178785	590142001	MS									
Mercury	0.00200	U	ND	0.00195	mg/L		96.6	(75%-125%)		08/31/22	10:57
QC1205178786	590142001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		08/31/22	10:59
Solids Analysis											
Batch	2310249										
QC1205178791	591355007	DUP									
Total Dissolved Solids		1990		2040	mg/L	2.54		(0%-5%)	CH6	08/30/22	14:49

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QC Summary

Workorder: **591351**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2310249										
QC1205178789	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)	CH6	08/30/22	14:49
QC1205178788	MB										
Total Dissolved Solids			U	ND	mg/L					08/30/22	14:49
Titration and Ion Analysis											
Batch	2310459										
QC1205179132	591351001 DUP										
Alkalinity, Total as CaCO3		74.0		74.8	mg/L	1.08		(0%-20%)	HH2	09/07/22	13:27
Bicarbonate alkalinity (CaCO3)		74.0		74.8	mg/L	1.08		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205179131	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		09/07/22	13:17
QC1205179133	591351001 MS										
Alkalinity, Total as CaCO3	100	74.0		175	mg/L		101	(80%-120%)		09/07/22	13:29

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- 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
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N1											
ND											
NJ											
Q											
R											
R											
U											
X											
Y											
Z											
^											
d											
e											
h											

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 the 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: October 3, 2022

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

Contact: Joju Abraham

Workorder: 590857

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2308691										
QC1205175345	590838001	DUP									
Chloride		2.18		2.13	mg/L	2.51		(0%-20%)	JLD1	08/25/22	13:28
Fluoride	U	ND	U	ND	mg/L	N/A					
Sulfate		0.452		0.418	mg/L	7.86 ^		(+/-0.400)			
QC1205175347	590857001	DUP									
Chloride		30.3		30.4	mg/L	0.158 ^		(+/-8.00)		08/26/22	03:54
Fluoride		0.187		0.160	mg/L	15.7 ^		(+/-0.100)		08/25/22	21:26
Sulfate		385		387	mg/L	0.559		(0%-20%)		08/26/22	03:54
QC1205175344	LCS										
Chloride	5.00			4.72	mg/L		94.3	(90%-110%)		08/25/22	12:28
Fluoride	2.50			2.30	mg/L		91.9	(90%-110%)			
Sulfate	10.0			9.76	mg/L		97.6	(90%-110%)			
QC1205175343	MB										
Chloride			U	ND	mg/L					08/25/22	11:59
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205175346	590838001	PS									
Chloride	5.00	2.18		7.68	mg/L		110	(90%-110%)		08/25/22	13:58

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QC Summary

Workorder: 590857

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2308691										
Fluoride	2.50	U	ND	2.65	mg/L		106	(90%-110%)	JLD1	08/25/22	13:58
Sulfate	10.0		0.452	11.6	mg/L		111 *	(90%-110%)			
QC1205175348 590857001 PS											
Chloride	5.00		0.759	5.74	mg/L		99.7	(90%-110%)		08/26/22	04:24
Fluoride	2.50		0.187	2.68	mg/L		99.9	(90%-110%)		08/25/22	21:56
Sulfate	10.0		9.63	20.5	mg/L		109	(90%-110%)		08/26/22	04:24
Metals Analysis - ICPMS											
Batch	2308385										
QC1205174766 LCS											
Antimony	0.0500			0.0497	mg/L		99.4	(80%-120%)	BAJ	09/03/22	14:29
Arsenic	0.0500			0.0512	mg/L		102	(80%-120%)		09/02/22	23:30
Barium	0.0500			0.0504	mg/L		101	(80%-120%)			
Beryllium	0.0500			0.0588	mg/L		118	(80%-120%)		09/03/22	10:40
Boron	0.100			0.114	mg/L		114	(80%-120%)			
Cadmium	0.0500			0.0519	mg/L		104	(80%-120%)			
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0510	mg/L		102	(80%-120%)		09/02/22	23:30
Cobalt	0.0500			0.0497	mg/L		99.4	(80%-120%)			

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QC Summary

Workorder: **590857**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2308385										
Iron	2.00			2.10	mg/L		105	(80%-120%)	BAJ	09/02/22	23:30
Lead	0.0500			0.0527	mg/L		105	(80%-120%)			
Lithium	0.0500			0.0518	mg/L		104	(80%-120%)			
Magnesium	2.00			2.17	mg/L		109	(80%-120%)		09/03/22	10:40
Manganese	0.0500			0.0512	mg/L		102	(80%-120%)			
Molybdenum	0.0500			0.0521	mg/L		104	(80%-120%)			
Potassium	2.00			1.99	mg/L		99.7	(80%-120%)		09/02/22	23:30
Selenium	0.0500			0.0494	mg/L		98.9	(80%-120%)			
Sodium	2.00			2.22	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0460	mg/L		92.1	(80%-120%)			
QC1205174765	MB										
Antimony			U	ND	mg/L					09/03/22	14:27
Arsenic			U	ND	mg/L					09/02/22	23:27
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/03/22	10:37
Boron			U	ND	mg/L						

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QC Summary

Workorder: 590857

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2308385										
Cadmium			U	ND	mg/L				BAJ	09/03/22	10:37
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L					09/02/22	23:27
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					09/03/22	10:37
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					09/02/22	23:27
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205174767	590838001	MS									
Antimony	0.0500	U	ND	0.0501	mg/L		99.4	(75%-125%)		09/03/22	14:32

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2308385										
Arsenic	0.0500	U	ND	0.0500	mg/L		98	(75%-125%)	BAJ	09/02/22	23:37
Barium	0.0500		0.0120	0.0615	mg/L		99.1	(75%-125%)			
Beryllium	0.0500	U	ND	0.0613	mg/L		123	(75%-125%)		09/03/22	10:46
Boron	0.100	J	0.00532	0.120	mg/L		115	(75%-125%)			
Cadmium	0.0500	U	ND	0.0529	mg/L		106	(75%-125%)			
Calcium	2.00		4.65	7.04	mg/L		120	(75%-125%)			
Chromium	0.0500	J	0.00908	0.0603	mg/L		102	(75%-125%)		09/02/22	23:37
Cobalt	0.0500	J	0.000844	0.0514	mg/L		101	(75%-125%)			
Iron	2.00	J	0.0763	2.13	mg/L		103	(75%-125%)			
Lead	0.0500	U	ND	0.0508	mg/L		101	(75%-125%)			
Lithium	0.0500	U	ND	0.0545	mg/L		108	(75%-125%)			
Magnesium	2.00		4.86	7.40	mg/L		127*	(75%-125%)		09/03/22	10:46
Manganese	0.0500		0.0391	0.0930	mg/L		108	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0538	mg/L		108	(75%-125%)			
Potassium	2.00		0.439	2.44	mg/L		100	(75%-125%)		09/02/22	23:37

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2308385										
Selenium	0.0500	U	ND	0.0496	mg/L		99.2	(75%-125%)	BAJ	09/02/22	23:37
Sodium	2.00		3.36	5.52	mg/L		108	(75%-125%)			
Thallium	0.0500	U	ND	0.0463	mg/L		92.5	(75%-125%)			
QC1205174768	590838001 MSD										
Antimony	0.0500	U	ND	0.0492	mg/L	1.91	97.5	(0%-20%)		09/03/22	14:34
Arsenic	0.0500	U	ND	0.0495	mg/L	1.13	96.9	(0%-20%)		09/02/22	23:41
Barium	0.0500		0.0120	0.0611	mg/L	0.618	98.3	(0%-20%)			
Beryllium	0.0500	U	ND	0.0604	mg/L	1.57	121	(0%-20%)		09/03/22	10:49
Boron	0.100	J	0.00532	0.119	mg/L	1.12	114	(0%-20%)			
Cadmium	0.0500	U	ND	0.0516	mg/L	2.52	103	(0%-20%)			
Calcium	2.00		4.65	6.88	mg/L	2.39	111	(0%-20%)			
Chromium	0.0500	J	0.00908	0.0589	mg/L	2.28	99.7	(0%-20%)		09/02/22	23:41
Cobalt	0.0500	J	0.000844	0.0503	mg/L	2.26	98.9	(0%-20%)			
Iron	2.00	J	0.0763	2.09	mg/L	1.79	101	(0%-20%)			
Lead	0.0500	U	ND	0.0506	mg/L	0.396	101	(0%-20%)			
Lithium	0.0500	U	ND	0.0534	mg/L	2.01	105	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2308385										
Magnesium	2.00	4.86		7.28	mg/L	1.68	121	(0%-20%)	BAJ	09/03/22	10:49
Manganese	0.0500	0.0391		0.0926	mg/L	0.447	107	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0536	mg/L	0.447	107	(0%-20%)			
Potassium	2.00	0.439		2.38	mg/L	2.49	97.1	(0%-20%)		09/02/22	23:41
Selenium	0.0500	U	ND	0.0478	mg/L	3.8	95.5	(0%-20%)			
Sodium	2.00	3.36		5.45	mg/L	1.34	105	(0%-20%)			
Thallium	0.0500	U	ND	0.0449	mg/L	2.98	89.8	(0%-20%)			
QC1205182314 590838001 PS											
Magnesium	2000	4860		7000	ug/L		107	(75%-125%)		09/03/22	10:52
QC1205174769 590838001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/03/22	14:37
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/02/22	23:48
Barium			12.0	J	2.29	ug/L	4.59	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/03/22	11:04
Boron		J	5.32	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			4650		892	ug/L	4.21	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2308385										
Chromium	J	9.08	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/02/22	23:48
Cobalt	J	0.844	U	ND	ug/L	N/A		(0%-20%)			
Iron	J	76.3	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		4860		866	ug/L	11		(0%-20%)		09/03/22	11:04
Manganese		39.1		7.50	ug/L	3.96		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		439	J	85.4	ug/L	2.83		(0%-20%)		09/02/22	23:48
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3360		579	ug/L	13.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2308555										
QC1205175118	589727024 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/26/22	11:15
QC1205175117	LCS										
Mercury	0.00200			0.00220	mg/L		110	(80%-120%)		08/26/22	11:07

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QC Summary

Workorder: **590857**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2308555										
QC1205175116		MB									
Mercury			U	ND	mg/L				JP2	08/26/22	11:05
QC1205175119	589727024	MS									
Mercury	0.00200	U	ND	0.00222	mg/L		110	(75%-125%)		08/26/22	11:17
QC1205175120	589727024	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/26/22	11:19
Solids Analysis											
Batch	2309029										
QC1205176100	590857001	DUP									
Total Dissolved Solids			614	616	mg/L	0.325		(0%-5%)	CH6	08/26/22	15:30
QC1205176099	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/26/22	15:30
QC1205176098	MB										
Total Dissolved Solids			U	ND	mg/L					08/26/22	15:30
Batch	2309058										
QC1205176171	590900002	DUP									
Total Dissolved Solids			501	500	mg/L	0.2		(0%-5%)	CH6	08/26/22	16:19
QC1205176170	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		08/26/22	16:19
QC1205176169	MB										
Total Dissolved Solids			U	ND	mg/L					08/26/22	16:19
Titration and Ion Analysis											
Batch	2309339										
QC1205176799	590838001	DUP									
Alkalinity, Total as CaCO3			32.6	32.2	mg/L	1.23		(0%-20%)	HH2	09/04/22	13:40

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QC Summary

Workorder: **590857**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2309339										
Bicarbonate alkalinity (CaCO3)		32.6		32.2	mg/L	1.23		(0%-20%)	HH2	09/04/22	13:40
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205176801 590857001 DUP											
Alkalinity, Total as CaCO3	J	3.40	J	3.60	mg/L	5.71 ^		(+/-4.00)		09/04/22	13:53
Bicarbonate alkalinity (CaCO3)	J	3.40	J	3.60	mg/L	5.71 ^		(+/-4.00)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205176798 LCS											
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		09/04/22	13:37
QC1205176800 590838001 MS											
Alkalinity, Total as CaCO3	100	32.6		136	mg/L		104	(80%-120%)		09/04/22	13:42
QC1205176802 590857001 MS											
Alkalinity, Total as CaCO3	100	J	3.40	107	mg/L		104	(80%-120%)		09/04/22	13:54

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- 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
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.

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QC Summary

Workorder: 590857

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time	
N1												See case narrative
ND												Analyte concentration is not detected above the detection limit
NJ												Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q												One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
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.
R												Sample results are rejected
U												Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
X												Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y												Other specific qualifiers were required to properly define the results. Consult case narrative.
Z												Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^												RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d												5-day BOD--The 2:1 depletion requirement was not met for this sample
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
h												Preparation or preservation holding time was exceeded

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 the 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 #: 591881**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2312380

Preparation Method: SW846 3005A

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

Preparation Batch: 2312379

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591881001	PZ-70
1205182698	Method Blank (MB)ICP-MS
1205182699	Laboratory Control Sample (LCS)
1205182702	591881001(PZ-70L) Serial Dilution (SD)
1205182700	591881001(PZ-70S) Matrix Spike (MS)
1205182701	591881001(PZ-70SD) Matrix Spike Duplicate (MSD)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 591881001 (PZ-70) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	591881
	001
Boron	10X
Manganese	10X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2312733

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2312730

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591881001	PZ-70
1205183553	Method Blank (MB)CVAA
1205183554	Laboratory Control Sample (LCS)
1205183557	591729001(NonSDGL) Serial Dilution (SD)
1205183555	591729001(NonSDGD) Sample Duplicate (DUP)
1205183556	591729001(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# 30

Analytical Batch: 2312366

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591881001	PZ-70
1205182661	Method Blank (MB)
1205182662	Laboratory Control Sample (LCS)
1205182663	591867001(NonSDG) Sample Duplicate (DUP)
1205182664	591867001(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
Chloride	1205182664 (Non SDG 591867001PS)	129* (90%-110%)
Fluoride	1205182664 (Non SDG 591867001PS)	139* (90%-110%)
Sulfate	1205182664 (Non SDG 591867001PS)	155* (90%-110%)

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
Fluoride	1205182663 (Non SDG 591867001DUP)	abs(.242 - .367)* (+/- .1 mg/L)

Technical Information

Sample Dilutions

The following samples 1205182663 (Non SDG 591867001DUP), 1205182664 (Non SDG 591867001PS) and 591881001 (PZ-70) 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	591881
	001
Chloride	50X
Sulfate	50X

Sample Re-analysis

Sample 591881001 (PZ-70) was re-analyzed to verify the result.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2313724

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

GEL Sample ID#

591881001

1205185479

1205185480

Client Sample Identification

PZ-70

Method Blank (MB)

Laboratory Control Sample (LCS)

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

Data Summary:

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

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 14

Analytical Batch: 2312490

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591881001	PZ-70
1205182983	Laboratory Control Sample (LCS)
1205182984	591877005(NonSDG) Sample Duplicate (DUP)
1205182985	591877005(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 591351**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2310153

Preparation Method: SW846 3005A

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

Preparation Batch: 2310152

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591351001	BRGWC-17S
591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
1205178579	Method Blank (MB)ICP-MS
1205178580	Laboratory Control Sample (LCS)
1205178583	591351001(BRGWC-17SL) Serial Dilution (SD)
1205178581	591351001(BRGWC-17SS) Matrix Spike (MS)
1205178582	591351001(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 were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	591351			
	002	003	004	005
Boron	20X	20X	20X	20X
Calcium	20X	1X	1X	20X
Manganese	1X	1X	1X	20X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2310248

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2310247

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591351001	BRGWC-17S
591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
1205178782	Method Blank (MB)CVAA
1205178783	Laboratory Control Sample (LCS)
1205178786	590142001(NonSDGL) Serial Dilution (SD)
1205178784	590142001(NonSDGD) Sample Duplicate (DUP)
1205178785	590142001(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# 30

Analytical Batch: 2310523

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591351001	BRGWC-17S

591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
1205179258	Method Blank (MB)
1205179259	Laboratory Control Sample (LCS)
1205179260	591351001(BRGWC-17S) Sample Duplicate (DUP)
1205179261	591351001(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.

Technical Information

Sample Dilutions

The following samples 1205179260 (BRGWC-17SDUP), 1205179261 (BRGWC-17SPS), 591351001 (BRGWC-17S), 591351002 (BRGWC-35S), 591351003 (BRGWC-36S), 591351004 (FD-04) and 591351005 (BRGWC-34S) 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	591351				
	001	002	003	004	005
Sulfate	20X	20X	20X	20X	20X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2310249

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591351001	BRGWC-17S
591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
1205178788	Method Blank (MB)
1205178789	Laboratory Control Sample (LCS)
1205178791	591355007(BRGWC-50) 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: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 14

Analytical Batch: 2310459

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591351001	BRGWC-17S
591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
1205179131	Laboratory Control Sample (LCS)
1205179132	591351001(BRGWC-17S) Sample Duplicate (DUP)
1205179133	591351001(BRGWC-17S) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 590857**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2308385

Preparation Method: SW846 3005A

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

Preparation Batch: 2308382

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
590857006	FB-04
1205174765	Method Blank (MB)ICP-MS
1205174766	Laboratory Control Sample (LCS)
1205174769	590838001(BRGWA-2SL) Serial Dilution (SD)
1205174767	590838001(BRGWA-2SS) Matrix Spike (MS)
1205174768	590838001(BRGWA-2SSD) Matrix Spike Duplicate (MSD)
1205182314	590838001(BRGWA-2SPS) Post Spike (PS)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The

post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1205174767 (BRGWA-2SMS)	Magnesium	127* (75%-125%)

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 590857001 (BRGWC-33S), 590857003 (BRGWC-38S) and 590857004 (PZ-53D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	590857		
	001	003	004
Boron	20X	20X	20X
Calcium	20X	1X	20X
Manganese	20X	20X	1X
Sodium	1X	1X	20X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2308555

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2308553

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
590857006	FB-04
1205175116	Method Blank (MB)CVAA
1205175117	Laboratory Control Sample (LCS)
1205175120	589727024(NonSDGL) Serial Dilution (SD)
1205175118	589727024(NonSDGD) Sample Duplicate (DUP)
1205175119	589727024(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# 30

Analytical Batch: 2308691

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
590857006	FB-04
1205175343	Method Blank (MB)
1205175344	Laboratory Control Sample (LCS)
1205175345	590838001(BRGWA-2S) Sample Duplicate (DUP)
1205175346	590838001(BRGWA-2S) Post Spike (PS)
1205175347	590857001(BRGWC-33S) Sample Duplicate (DUP)
1205175348	590857001(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
Sulfate	1205175346 (BRGWA-2SPS)	111* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205175347 (BRGWC-33SDUP), 1205175348 (BRGWC-33SPS), 590857001 (BRGWC-33S), 590857003 (BRGWC-38S), 590857004 (PZ-53D) and 590857005 (PZ-13S) 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	590857			
	001	003	004	005
Chloride	40X	1X	1X	1X
Sulfate	40X	40X	40X	10X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2309029

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
1205176098	Method Blank (MB)
1205176099	Laboratory Control Sample (LCS)
1205176100	590857001(BRGWC-33S) 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# 19

Analytical Batch: 2309058

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590857006	FB-04
1205176169	Method Blank (MB)
1205176170	Laboratory Control Sample (LCS)
1205176171	590900002(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: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 14

Analytical Batch: 2309339

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
590857006	FB-04
1205176798	Laboratory Control Sample (LCS)
1205176799	590838001(BRGWA-2S) Sample Duplicate (DUP)
1205176800	590838001(BRGWA-2S) Matrix Spike (MS)
1205176801	590857001(BRGWC-33S) Sample Duplicate (DUP)
1205176802	590857001(BRGWC-33S) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

Page: _____ of _____
 Project # 591881
 GEL Quote #: _____
 COC Number (1): 591883
 PO Number: _____

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Work Order Number: 591883
 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 # _____

Sample ID: 72-70
 Collected By: Hunter Auld
 Send Results To: SCS & Geosyntec Contacts
 *For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioactive (If yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C	Total & Bi Carb Alk	EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	IN	IN	Preservative Type (6)	Comments
72-70	09/01/22	1055	G	N	WG			7	✓	✓	✓					Note: extra sample is required for sample specific QC
																field pH = <u>6.13</u>
																field pH =
																field pH =
																field pH =
																field pH =
																field pH =
																field pH =
																field pH =
																field pH =

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	<u>9/2/22</u>	<u>0910</u>	<u>[Signature]</u>	<u>9/2/22</u>	<u>910</u>
			<u>[Signature]</u>	<u>9/2/22</u>	

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,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: 5 °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

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

1.) Chain of Custody Number = Client Determined

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

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

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SF=Sediment, 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, 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

SAMPLE RECEIPT & REVIEW FORM

Client: GPRC		SDG/AR/COC/Work Order: 591881/591883/591887	
Received By: MVH		Date Received: 09-07-2022	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other	
Suspected Hazard Information		Yes	No
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria	Yes	NA	No
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7 Do any samples require Volatile Analysis?	Sample ID's and Containers Affected: _____		
	If Preservation added, Lot#: _____		
	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)		
8 Samples received within holding time?	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: _____		
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<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 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"/>
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials EMV Date 09/06/22 Page 1 of 1

SAMPLE RECEIPT & REVIEW FORM

Client: <u>CPCC</u>	SDG/AR/COC/Work Order: <u>591351 / 591333</u>	<u>ET</u>
Received By: <u>Thyasia Tatum</u>	Date Received: <u>8/29/20</u>	
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</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?	<input checked="" type="checkbox"/>	<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"/>	<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"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	<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"/>	<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 checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>1C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<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"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 8/31/20 Page 1 of 7

590857, 590859

Project # _____ of _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____



Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | 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

GEL Work Order Number: _____ Phone # 404-506-7116
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Fax # _____

Collected By: Taylor Goble/Anna Jackson-Hawkins Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (3)	Field Filtered (4)	Sample Matrix (6)	Radioreactive (if yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C	Total & Bicarb Alk SM 2320B	Metals * EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	Preservative Type (6)	Comments
BRGWC-335	08/23/22	1445	G	N	WG			7	✓	✓	✓	✓	field pH = 4.67	
BRGWC-375	08/23/22	1136	G	N	WG			7	✓	✓	✓	✓	field pH = 5.82	
BRGWC-385	08/23/22	1600	G	N	WG			7	✓	✓	✓	✓	field pH = 3.97	
PZ-53D	08/23/22	1355	G	N	WG			7	✓	✓	✓	✓	field pH = 7.18	
PZ-13S	08/23/22	1315	G	N	WG			7	✓	✓	✓	✓	field pH = 5.46	
FB-04	08/23/22	1245	G	N	WG			7	✓	✓	✓	✓	field pH = NA	
													field pH =	
													field pH =	
													field pH =	
													field pH =	
													field pH =	

Chain of Custody Signatures				TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: _____ (Subject to Surcharge)
Relinquished By (Signed)	Date	Received by (signed)	Date	Time
Taylor Goble	8-24-22	[Signature]	8/24/22	1030
[Signature]	8/24/22	[Signature]	8/24/22	127

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

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=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, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS**

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

SAMPLE RECEIPT & REVIEW FORM

590851, 590855, 590856, 590857, 590858, 590859

Client: <u>GPOC</u>		SDG/AR/COC/Work Order: <u>590838, 590840, 590845</u>			
Received By: <u>Thyasia Tatum</u>		Date Received: <u>5/24/22</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 Services <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Other			
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 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>Φ</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?		<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: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry ice <input type="checkbox"/> None <input type="checkbox"/> Other: *all temperatures are recorded in Celsius TEMP: 2C
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>IR2-20</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: If Preservation added, Lot#: _____
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 ___
7	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):					

PM (or PMA) review: Initials EMM Date 09/07/22 Page 1 of 1

Erin Trent

From: Erin Trent
Sent: Tuesday, September 6, 2022 11:20 AM
To: Betsy McDaniel; Abraham, Joju; Team Trent
Cc: Chris Parker; Monte Jones; Charles Adams; Matt Malone; Ryan Walker; Lauren Coker (laucoker@southernco.com); Hodges, John Benjamin; Smilley, Michael Jay; lbmidkif@southernco.com; Hunter Auld
Subject: RE: Branch Samples Received at 10 Degrees C

Betsy,

I apologize for the confusion. I just spoke with the group leader and the samples were at 5 degrees when received. The tech who called me about them being at 10 degrees was confused about which samples we were discussing. These samples were in temperature spec, so I will remove the qualifiers from the data. Again, I apologize for the confusion.

Thanks,

Erin Trent
Project Manager



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417

Office Direct: 843.769.7374 | Office Main: 843.556.8171 | Fax: 843.766.1178

E-Mail: erin.trent@gel.com | Website: www.gel.com

Analytical Testing



From: Betsy McDaniel <betsy.mcdaniel@atlcc.net>

Sent: Tuesday, September 6, 2022 9:36 AM

To: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Erin Trent <Erin.Trent@gel.com>; Team Trent <Team.Trent@gel.com>

Cc: Chris Parker <chris.parker@atlcc.net>; Monte Jones <monte.jones@atlcc.net>; Charles Adams <charles.adams@atlcc.net>; Matt Malone <matt.malone@atlcc.net>; Ryan Walker <ryan.walker@atlcc.net>; Lauren Coker (laucoker@southernco.com) <laucoker@southernco.com>; Hodges, John Benjamin <JOHHODGE@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; lbmidkif@southernco.com; Hunter Auld <hunter.auld@atlcc.net>

Subject: RE: Branch Samples Received at 10 Degrees C

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

Erin:

Please find attached the COCs our field technician (Hunter Auld) received upon delivering the Plant Branch samples last Friday. I can't read the signature of your lab representative, but the cooler temp is noted as 5 degrees C for both samples. Our technician delivered the samples on ice in his own cooler and mentioned at GEL Sample Receiving that he

wanted the cooler back, so the samples were removed from the ACC technician's cooler at the lab. Our technician concurred that the ice had partially melted, but the samples were maintained on ice while they were in ACC custody.

Betsy McDaniel

Atlantic Coast Consulting, Inc.

1150 Northmeadow Pkwy, Suite 100, Roswell, Georgia 30076

Office: 770-594-5998 | Cell: 678-448-8459 | www.atlcc.net

“Our work helps produce a cleaner environment for all”

From: Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>

Sent: Friday, September 2, 2022 6:19 PM

To: Erin Trent <Erin.Trent@gel.com>; Betsy McDaniel <betsy.mcdaniel@atlcc.net>; Chris Parker <chris.parker@atlcc.net>; Monte Jones <monte.jones@atlcc.net>; Charles Adams <charles.adams@atlcc.net>; Matt Malone <matt.malone@atlcc.net>; Ryan Walker <ryan.walker@atlcc.net>; Hartley, Lauren <LAUCOKER@SOUTHERNCO.COM>; Hodges, Ben <JOHHODGE@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>

Cc: Team Trent <Team.Trent@gel.com>

Subject: RE: Branch Samples Received at 10 Degrees C

Erin,

Please qualify the samples with the noted temp and proceed with the requested analyses. We will follow up on this issue.

Joju

From: Erin Trent <Erin.Trent@gel.com>

Sent: Friday, September 02, 2022 5:18 PM

To: Betsy McDaniel <betsy.mcdaniel@atlcc.net>; Chris Parker <chris.parker@atlcc.net>; Monte Jones <monte.jones@atlcc.net>; Charles Adams <charles.adams@atlcc.net>; Matt Malone <matt.malone@atlcc.net>; Ryan Walker <ryan.walker@atlcc.net>; Adria Reimer <areimer@geosyntec.com>; Anthony Szwast <anthony.szwast@geosyntec.com>; cnelson@geosyntec.com; Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Hartley, Lauren <LAUCOKER@SOUTHERNCO.COM>; Singleton, Robert <ROSINGLE@SOUTHERNCO.COM>; Hodges, Ben <JOHHODGE@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; Muskus Ruiz, Noelia S. <NSMUSKUS@SOUTHERNCO.COM>; Midkiff, Laura B. <lbmidkif@southernco.com>

Cc: Team Trent <Team.Trent@gel.com>

Subject: Branch Samples Received at 10 Degrees C

EXTERNAL MAIL: Caution Opening Links or Files

Good Afternoon,

The following samples were received at 10 degrees C. Please advise on how to proceed.

PZ-70

PZ-52D

These were in the same cooler together. The ice was partially melted.

Erin Trent
Project Manager



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417

Office Direct: 843.769.7374 | Office Main: 843.556.8171 | Fax: 843.766.1178

E-Mail: erin.trent@gel.com | Website: www.gel.com [gel.com]

Analytical Testing



[\[gellaboratories.com\]](http://gellaboratories.com)



[\[linkedin.com\]](http://linkedin.com)

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List of current GEL Certifications as of 03 October 2022

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	SC000122023-3
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	2022-137
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	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



December 08, 2022

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: 590859,591353 and 591883

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, 2022, August 29, 2022 and September 02, 2022. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package has been revised to report new MDC values for the Ra-226+228 Sum results.

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.

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,

Edith Kent for
Erin Trent
Project Manager

Purchase Order: GPC82177-0003
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: 590859 GEL Work Order: 590859

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 Report
for**

GPCC001 Georgia Power Company

Client SDG: 591353 GEL Work Order: 591353

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 Report for

GPCC001 Georgia Power Company

Client SDG: 591883 GEL Work Order: 591883

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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-33S
 Sample ID: 590859001
 Matrix: WG
 Collect Date: 23-AUG-22
 Receive Date: 24-AUG-22
 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	0.835	+/-1.09	1.85	+/-1.11	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.94	+/-1.16	1.85	+/-1.19		pCi/L		1	NXL1	09/20/22	0955	2309181	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.10	+/-0.413	0.341	+/-0.446	1.00	pCi/L			LXP1	09/16/22	1006	2309179	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"	2309177	85.7	(15%-125%)

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

Column headers are defined as follows:

- DF: Dilution Factor
- 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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-37S

Project: GPCC00101

Sample ID: 590859002

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

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	+/-1.44	2.45	+/-1.47	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.37	+/-1.49	2.45	+/-1.53		pCi/L		1	NXL1	09/20/22	0955	2309181	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.29	+/-0.385	0.219	+/-0.442	1.00	pCi/L			LXP1	09/16/22	1006	2309179	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"	2309177	80.1	(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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-38S

Project: GPCC00101

Sample ID: 590859003

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

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		2.71	+/-1.32	1.92	+/-1.48	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.12	+/-1.34	1.92	+/-1.50		pCi/L		1	NXL1	09/20/22	0955	2309181	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.407	+/-0.232	0.260	+/-0.247	1.00	pCi/L			LXP1	09/16/22	1006	2309179	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"	2309177	82.2	(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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: PZ-53D

Project: GPCC00101

Sample ID: 590859004

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

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		2.35	+/-1.43	2.23	+/-1.55	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.04	+/-1.47	2.23	+/-1.59		pCi/L		1	NXL1	09/20/22	0955	2309181	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.695	+/-0.330	0.372	+/-0.354	1.00	pCi/L			LXP1	09/16/22	1007	2309179	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"	2309177	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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: PZ-13S

Project: GPCC00101

Sample ID: 590859005

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

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	0.879	+/-1.16	1.97	+/-1.18	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.83	+/-1.20	1.97	+/-1.23		pCi/L		1	NXL1	09/20/22	0955	2309181	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.956	+/-0.316	0.198	+/-0.371	1.00	pCi/L			LXP1	09/16/22	1007	2309179	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"	2309177	79.9	(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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: FB-04
 Sample ID: 590859006
 Matrix: WQ
 Collect Date: 23-AUG-22
 Receive Date: 24-AUG-22
 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	1.64	+/-1.23	1.95	+/-1.30	3.00	pCi/L			JXC9	09/16/22	1056	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.10	+/-1.26	1.95	+/-1.33		pCi/L		1	NXL1	09/20/22	0955	2309181	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.458	+/-0.287	0.362	+/-0.294	1.00	pCi/L			LXP1	09/16/22	1041	2309179	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"	2309177	77	(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: December 7, 2022

Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-17S
 Sample ID: 591353001
 Matrix: WG
 Collect Date: 24-AUG-22
 Receive Date: 29-AUG-22
 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	-2.32	+/-1.31	2.83	+/-1.31	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.152	+/-1.33	2.83	+/-1.33		pCi/L		1	NXL1	09/23/22	0955	2310789	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.152	+/-0.211	0.365	+/-0.213	1.00	pCi/L			LXP1	09/15/22	0920	2310752	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"	2310792	67.5	(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
- 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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-35S

Project: GPCC00101

Sample ID: 591353002

Client ID: GPCC001

Matrix: WG

Collect Date: 24-AUG-22

Receive Date: 29-AUG-22

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		2.43	+/-1.23	1.78	+/-1.37	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.10	+/-1.27	1.78	+/-1.41		pCi/L		1	NXL1	09/23/22	0955	2310789	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.669	+/-0.328	0.390	+/-0.342	1.00	pCi/L			LXP1	09/15/22	0920	2310752	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"	2310792	79.5	(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

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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: December 7, 2022

Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-36S
 Sample ID: 591353003
 Matrix: WG
 Collect Date: 24-AUG-22
 Receive Date: 29-AUG-22
 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	0.704	+/-1.05	1.81	+/-1.06	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.38	+/-1.08	1.81	+/-1.10		pCi/L		1	NXL1	09/23/22	0955	2310789	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.673	+/-0.263	0.191	+/-0.294	1.00	pCi/L			LXP1	09/15/22	0920	2310752	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"	2310792	82	(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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: FD-04
 Sample ID: 591353004
 Matrix: WG
 Collect Date: 24-AUG-22
 Receive Date: 29-AUG-22
 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	0.727	+/-0.977	1.67	+/-0.995	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.24	+/-1.11	1.67	+/-1.23		pCi/L		1	NXL1	09/23/22	0955	2310789	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.52	+/-0.523	0.212	+/-0.717	1.00	pCi/L			LXP1	09/15/22	0920	2310752	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"	2310792	82.6	(15%-125%)

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

Column headers are defined as follows:

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

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRGWC-34S

Project: GPCC00101

Sample ID: 591353005

Client ID: GPCC001

Matrix: WG

Collect Date: 24-AUG-22

Receive Date: 29-AUG-22

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		1.62	+/-0.934	1.34	+/-1.02	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.86	+/-0.971	1.34	+/-1.05		pCi/L		1	NXL1	09/23/22	0955	2310789	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.232	+/-0.267	0.444	+/-0.269	1.00	pCi/L			LXP1	09/15/22	0920	2310752	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"	2310792	79.8	(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: December 7, 2022

Contact: Joju Abraham
 Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: EB-08
 Sample ID: 591353006
 Matrix: WQ
 Collect Date: 24-AUG-22
 Receive Date: 29-AUG-22
 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	0.416	+/-0.862	1.54	+/-0.868	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.972	+/-0.900	1.54	+/-0.913		pCi/L		1	NXL1	09/23/22	0955	2310789	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.556	+/-0.258	0.298	+/-0.284	1.00	pCi/L			LXP1	09/15/22	0920	2310752	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"	2310792	78.5	(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: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: PZ-70
 Sample ID: 591883001
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 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	0.802	+/-1.15	1.96	+/-1.16	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.57	+/-1.19	1.96	+/-1.22		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.771	+/-0.340	0.383	+/-0.361	1.00	pCi/L			LXP1	09/28/22	0911	2312595	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"	2312614	88	(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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QC Summary

Report Date: December 7, 2022
Page 1 of 2

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

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 590859

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2309177										
QC1205176411	590840001 DUP										
Radium-228	U	0.281	U	0.509	pCi/L	0		N/A	JXC9	09/16/22	10:54
	Uncert:	+/-1.08		+/-0.796							
	TPU:	+/-1.08		+/-0.806							
QC1205176412	LCS										
Radium-228	44.1			39.6	pCi/L		89.9	(75%-125%)	JXC9	09/16/22	10:54
	Uncert:			+/-3.28							
	TPU:			+/-10.4							
QC1205176410	MB										
Radium-228			U	-0.160	pCi/L				JXC9	09/16/22	10:54
	Uncert:			+/-1.37							
	TPU:			+/-1.37							
Rad Ra-226											
Batch	2309179										
QC1205176418	590840001 DUP										
Radium-226	U	0.250	U	0.114	pCi/L	0		N/A	LXP1	09/16/22	10:41
	Uncert:	+/-0.237		+/-0.177							
	TPU:	+/-0.242		+/-0.178							
QC1205176420	LCS										
Radium-226	26.6			20.1	pCi/L		75.8	(75%-125%)	LXP1	09/16/22	10:41
	Uncert:			+/-1.38							
	TPU:			+/-4.51							
QC1205176417	MB										
Radium-226				0.319	pCi/L				LXP1	09/16/22	10:41
	Uncert:			+/-0.220							
	TPU:			+/-0.227							
QC1205176419	590840001 MS										
Radium-226	132 U	0.250		103	pCi/L		78	(75%-125%)	LXP1	09/16/22	10:41
	Uncert:	+/-0.237		+/-7.73							
	TPU:	+/-0.242		+/-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:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded

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QC Summary

Workorder: 590859

Page 2 of 2

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

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: December 7, 2022
Page 1 of 2

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

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 591353

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2310792										
QC1205179815	591353001 DUP										
Radium-228	U	-2.32	U	0.746	pCi/L	0		N/A	JXC9	09/20/22	10:02
	Uncert:	+/-1.31		+/-1.05							
	TPU:	+/-1.31		+/-1.07							
QC1205179816	LCS										
Radium-228	44.1			40.7	pCi/L		92.4	(75%-125%)	JXC9	09/20/22	10:02
	Uncert:			+/-3.20							
	TPU:			+/-10.7							
QC1205179814	MB										
Radium-228			U	0.428	pCi/L				JXC9	09/20/22	10:02
	Uncert:			+/-0.992							
	TPU:			+/-0.998							
Rad Ra-226											
Batch	2310752										
QC1205179719	591353001 DUP										
Radium-226	U	0.152		0.436	pCi/L	96.4		(0% - 100%)	LXP1	09/15/22	10:25
	Uncert:	+/-0.211		+/-0.289							
	TPU:	+/-0.213		+/-0.297							
QC1205179721	LCS										
Radium-226	26.5			20.8	pCi/L		78.2	(75%-125%)	LXP1	09/15/22	10:25
	Uncert:			+/-1.40							
	TPU:			+/-4.47							
QC1205179718	MB										
Radium-226			U	0.312	pCi/L				LXP1	09/15/22	10:25
	Uncert:			+/-0.270							
	TPU:			+/-0.276							
QC1205179720	591353001 MS										
Radium-226	132 U	0.152		103	pCi/L		77.8	(75%-125%)	LXP1	09/15/22	10:25
	Uncert:	+/-0.211		+/-7.31							
	TPU:	+/-0.213		+/-17.6							

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded

GEL LABORATORIES LLC

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

QC Summary

Workorder: 591353

Page 2 of 2

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

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: December 7, 2022
Page 1 of 2

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

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 591883

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2312614										
QC1205183302	591883001 DUP										
Radium-228	U	0.802	U	0.487	pCi/L	0		N/A	JE1	09/27/22	09:23
	Uncert:	+/-1.15		+/-1.24							
	TPU:	+/-1.16		+/-1.25							
QC1205183303	LCS										
Radium-228	43.9			41.8	pCi/L		95.3	(75%-125%)	JE1	09/27/22	09:23
	Uncert:			+/-3.24							
	TPU:			+/-10.9							
QC1205183301	MB										
Radium-228			U	0.716	pCi/L				JE1	09/27/22	09:23
	Uncert:			+/-1.07							
	TPU:			+/-1.09							
Rad Ra-226											
Batch	2312595										
QC1205183271	591613003 DUP										
Radium-226		1.03		1.10	pCi/L	6.62		(0% - 100%)	LXP1	09/28/22	10:14
	Uncert:	+/-0.384		+/-0.385							
	TPU:	+/-0.425		+/-0.450							
QC1205183273	LCS										
Radium-226	26.6			21.3	pCi/L		80	(75%-125%)	LXP1	09/28/22	10:14
	Uncert:			+/-1.47							
	TPU:			+/-3.62							
QC1205183270	MB										
Radium-226			U	0.258	pCi/L				LXP1	09/28/22	10:14
	Uncert:			+/-0.245							
	TPU:			+/-0.248							
QC1205183272	591613003 MS										
Radium-226	135	1.03		106	pCi/L		77.4	(75%-125%)	LXP1	09/28/22	10:14
	Uncert:	+/-0.384		+/-7.23							
	TPU:	+/-0.425		+/-18.3							

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded

GEL LABORATORIES LLC

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QC Summary

Workorder: 591883

Page 2 of 2

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

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 #: 590859**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2309181

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590859001	BRGWC-33S
590859002	BRGWC-37S
590859003	BRGWC-38S
590859004	PZ-53D
590859005	PZ-13S
590859006	FB-04

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: 2309177

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590859001	BRGWC-33S
590859002	BRGWC-37S
590859003	BRGWC-38S
590859004	PZ-53D
590859005	PZ-13S
590859006	FB-04
1205176410	Method Blank (MB)
1205176411	590840001(BRGWA-2S) Sample Duplicate (DUP)
1205176412	Laboratory Control Sample (LCS)

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

Data Summary:

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

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2309179

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590859001	BRGWC-33S
590859002	BRGWC-37S
590859003	BRGWC-38S
590859004	PZ-53D
590859005	PZ-13S
590859006	FB-04
1205176417	Method Blank (MB)
1205176418	590840001(BRGWA-2S) Sample Duplicate (DUP)
1205176419	590840001(BRGWA-2S) Matrix Spike (MS)
1205176420	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
1205176417 (MB)	Radium-226	Result: 0.319 pCi/L > MDA: 0.278 pCi/L <= RDL: 1.00 pCi/L

Miscellaneous Information

Additional Comments

The matrix spike, 1205176419 (BRGWA-2SMS), 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 #: 591353**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2310789

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591353001	BRGWC-17S
591353002	BRGWC-35S
591353003	BRGWC-36S
591353004	FD-04
591353005	BRGWC-34S
591353006	EB-08

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: 2310792

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591353001	BRGWC-17S
591353002	BRGWC-35S
591353003	BRGWC-36S
591353004	FD-04
591353005	BRGWC-34S
591353006	EB-08
1205179814	Method Blank (MB)
1205179815	591353001(BRGWC-17S) Sample Duplicate (DUP)
1205179816	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

Negative > 3 sigma TPU

Sample result was more negative than the three sigma TPU. The background control chart was examined and the detector was determined to be fully functional.

Sample	Analyte	Value
591353001 (BRGWC-17S)	Radium-228	Negative Result > 3 sigma value

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2310752

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591353001	BRGWC-17S
591353002	BRGWC-35S
591353003	BRGWC-36S
591353004	FD-04
591353005	BRGWC-34S
591353006	EB-08
1205179718	Method Blank (MB)
1205179719	591353001(BRGWC-17S) Sample Duplicate (DUP)
1205179720	591353001(BRGWC-17S) Matrix Spike (MS)
1205179721	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

Samples were degassed and recounted to verify sample results. The second counts are reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1205179720 (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.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 591883**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2312610

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591883001	PZ-70

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: 2312614

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591883001	PZ-70
1205183301	Method Blank (MB)
1205183302	591883001(PZ-70) Sample Duplicate (DUP)
1205183303	Laboratory Control Sample (LCS)

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

Data Summary:

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

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2312595

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591883001	PZ-70
1205183270	Method Blank (MB)
1205183271	591613003(NonSDG) Sample Duplicate (DUP)
1205183272	591613003(NonSDG) Matrix Spike (MS)
1205183273	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

CSU

The blank (See Below) result is greater than 1.65 times the CSU but less than the MDC.

Sample	Analyte	Value
1205183270 (MB)	Radium-226	Blank result > 1.65 CSU

Miscellaneous Information

Additional Comments

The matrix spike, 1205183272 (Non SDG 591613003MS), 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.

590857, 590859

Project # _____ of _____
 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

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
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: Taylor Goble/Anna Jackson
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (3)	Field Filtered (4)	Sample Matrix (6)	Radionuclide (if yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C Cl, F, SO4, TDS	Total & Barab Alk SM 2320B	EPA 6020B, 6010D Metals *	Radium 226 & 228 SW-846 9315, 9320	Preservative Type (6)	Comments
BRGWC-335	08/23/22	1445	G	N	WG			7	✓	✓	✓	✓	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC
BRGWC-375	08/23/22	1336	G	N	WG			7	✓	✓	✓	✓	field pH = 4.67	
BRGWC-385	08/23/22	1600	G	N	WG			7	✓	✓	✓	✓	field pH = 5.82	
P2-53D	08/23/22	1355	G	N	WG			7	✓	✓	✓	✓	field pH = 3.97	
PZ-13S	08/23/22	1315	G	N	WG			7	✓	✓	✓	✓	field pH = 7.18	
FB-04	08/23/22	1245	G	N	WG			7	✓	✓	✓	✓	field pH = 5.46	
													field pH = NA	
													field pH =	
													field pH =	
													field pH =	
													field pH =	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
Taylor Goble	8-24-22	0845	[Signature]	8/24/22	1034
[Signature]	8/24/22	1049	[Signature]	8/24/22	127

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, 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=Lachate, 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

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

590851, 590855, 590856, 590857, 590858, 590859

Client: <u>GPOC</u>		SDG/AR/COC/Work Order: <u>590838, 590840, 590845,</u>			
Received By: <u>Thyasia Tatum</u>		Date Received: <u>5/24/22</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other			
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>Φ</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		IF D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input 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: <u>2°C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> 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: 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):					

PM (or PMA) review: Initials EMM Date 09/07/22 Page 1 of 1

Page: _____ of _____ Project # _____ GEL Quote # _____ COC Number (1): _____ PO Number: _____	 Laboratories LLC Chemistry Radiochemistry Radiobiology Specialty 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 591351 591353	GEL Work Order Number: _____ Phone # 404-506-7116 Fax # _____ Client Name: GA Power Project/Site Name: Plant Branch Ash Ponds E Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308 Collected By: <i>Anna Schmittler</i> Send Results To: SCS & Geosyntec Contacts
Sample Analysis Requested (6) (Fill in the number of containers for each test)			
Should this sample be considered:	Total number of containers	Z	Z
(7) Known or possible Hazards	(8) Radioactive (If yes, please supply isotopic info.)	EPA 300, SM 254C Cl, F, SO4, TDS	EPA 6020B, 6010D Metals * Total & Bicarb Alk SM 220B Radium 226 & 228 SW-846 9315, 9320
(9) Field Filtered	(10) QC Code	(11) Sample Matrix	(12) Comments
*Time Collected (hh:mm)	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	*For composites - indicate start and stop date/time
BRGWC-175	08/24/22	1137	08/24/22
BRGWC-355	08/24/22	1358	08/24/22
BRGWC-365	08/24/22	0952	08/24/22
FD-04	08/24/22	---	08/24/22
BRGWC-345	08/24/22	1440	08/24/22
EB-08	08/24/22	1325	08/24/22
TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: _____ (Subject to Surcharge)			
Chain of Custody Signatures			
Relinquished By (Signed)	Date	Received by (signed)	Date
<i>[Signature]</i>	8/29/22 1515	<i>[Signature]</i>	8/29/22 1515
Fax Results: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 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 Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,La,Mo,Se,Tl,Fc,Mg,Mn,K,Na,Hg For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: _____ °C Sample Collection Time Zone: <input checked="" type="checkbox"/> Eastern <input type="checkbox"/> Pacific <input type="checkbox"/> Central <input type="checkbox"/> Mountain <input type="checkbox"/> Other: _____			
For sample shipping and delivery details, see Sample Receipt & Review form (SRR)			
1.) Chain of Custody Number = Client Determined 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered. 4.) Matrix Codes: WD=Drinking Water, WC=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 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.)			

SAMPLE RECEIPT & REVIEW FORM

Client: CPCC SDG/AR/COC/Work Order: 5913551 / 591333 ET

Received By: Thyasia Tatum Date Received: 8/29/20

Carrier and Tracking Number

Circle Applicable:
 FedEx Express FedEx Ground UPS Field Services Courier Other

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"/>	<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"/>	<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"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	<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"/>	<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 checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>10</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 8/31/20 Page 1 of 7

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

Sample Analysis Requested (6) (Fill in the number of containers for each test)		Should this sample be considered:		Total number of containers		Sample Analysis Requested (6)		Comments	
Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (6)	Field Filtered (6)	Sample Matrix (6)	Radioactive (if yes, please supply isotopic info.)	possible Hazards (7) Known or	NI	Preservative Type (6)
<u>72-70</u>	<u>09/01/22</u>	<u>1055</u>	<u>G</u>	<u>N</u>	<u>WG</u>			NI	<-- Preservative Type (6)
								Metals *	Note: extra sample is required for sample specific QC
								EPA 6020B, 6010D	
								Total & Bi Carb Alk	
								SM 2320B	
								Cl, F, SO4, TDS	
								EPA 300, SM 2540C	
								Radium 226 & 228	
								SW-846 9315, 9320	
									field pH = <u>6.13</u>
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =
									field pH =

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>Adal</u>	<u>9/2/22</u>	<u>Adal</u>	<u>9/2/22</u>	<u>910</u>
				<u>912/22</u>

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: 5 °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

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

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, PD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, C = 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: _____
Hg = Mercury Se = Selenium Ag = Silver	TSCA Regulated PCB = Polychlorinated biphenyls		

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

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPRC</u>		SDG/AR/COC/Work Order: <u>591881/591883/591887</u>	
Received By: <u>MVH</u>		Date Received: <u>09-07-2022</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other	
Suspected Hazard Information		Yes	No
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes	NA
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 ≤ 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>10</u>	
4	Daily check performed and passed on IR temperature gun?	<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 type="checkbox"/>
Circle Applicable: Seals broken Damaged container Leaking container Other (describe)			
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____			
7	Do any samples require Volatile Analysis?	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)	
		Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)	
		Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___	
Sample ID's and containers affected: _____			
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ID's and tests affected: _____			
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ID's and containers affected: _____			
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)			
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: No container count on COC Other (describe)			
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: Not relinquished Other (describe)			
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials EM Date 09/06/22 Page 1 of 1

List of current GEL Certifications as of 07 December 2022

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	SC000122023-3
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

January/February 2023



March 08, 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: 609400,608420,608819,608622 and 608423

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 25, 2023, January 26, 2023, January 27, 2023 and February 03, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was 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.

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.

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,

Anna Johnson 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: 608423 GEL Work Order: 608423

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 Report for

GPCC001 Georgia Power Company

Client SDG: 608622 GEL Work Order: 608622

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

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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 609400 GEL Work Order: 609400

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 Report for

GPCC001 Georgia Power Company

Client SDG: 608819 GEL Work Order: 608819

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 Report for

GPCC001 Georgia Power Company

Client SDG: 608420 GEL Work Order: 608420

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: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-17S
 Sample ID: 608420001
 Matrix: WG
 Collect Date: 24-JAN-23
 Receive Date: 25-JAN-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	0.273	+/-0.819	1.50	+/-0.822	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.728	+/-0.909	1.50	+/-0.914		pCi/L		1	NXL1	02/22/23	0904	2374673	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.456	+/-0.394	0.614	+/-0.400	1.00	pCi/L			LXP1	02/19/23	0729	2374665	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"	2374674	78.6	(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

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: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-33S

Project: GPCC00101

Sample ID: 608420002

Client ID: GPCC001

Matrix: WG

Collect Date: 24-JAN-23

Receive Date: 25-JAN-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	2.01	+/-2.07	3.44	+/-2.13	3.00	pCi/L			JE1	02/20/23	1450	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	3.31	+/-2.11	3.44	+/-2.19		pCi/L		1	NXL1	02/22/23	0904	2374673	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.29	+/-0.433	0.389	+/-0.508	1.00	pCi/L			LXP1	02/19/23	0729	2374665	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"	2374674	68.7	(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: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-34S

Project: GPCC00101

Sample ID: 608420003

Client ID: GPCC001

Matrix: WG

Collect Date: 24-JAN-23

Receive Date: 25-JAN-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	0.828	+/-1.39	2.42	+/-1.41	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.14	+/-1.46	2.42	+/-1.49		pCi/L		1	NXL1	02/22/23	0904	2374673	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.31	+/-0.434	0.272	+/-0.484	1.00	pCi/L			LXP1	02/19/23	0800	2374665	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"	2374674	69.9	(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: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-35S

Project: GPCC00101

Sample ID: 608420004

Client ID: GPCC001

Matrix: WG

Collect Date: 24-JAN-23

Receive Date: 25-JAN-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		2.49	+/-1.13	1.50	+/-1.30	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.34	+/-1.18	1.50	+/-1.35		pCi/L		1	NXL1	02/22/23	0904	2374673	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.850	+/-0.346	0.260	+/-0.379	1.00	pCi/L			LXP1	02/19/23	0800	2374665	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"	2374674	74	(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: March 8, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-52D
Sample ID: 609400001
Matrix: WG
Collect Date: 02-FEB-23
Receive Date: 03-FEB-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		4.97	+/-1.70	2.17	+/-2.12	3.00	pCi/L			JE1	03/07/23	1310	2378777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.39	+/-1.73	2.17	+/-2.15		pCi/L		1	NXL1	03/08/23	0930	2378776	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.427	+/-0.309	0.332	+/-0.316	1.00	pCi/L			LXP1	03/05/23	0908	2378762	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"	2378777	61.7	(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: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-13S
 Sample ID: 608819001
 Matrix: WG
 Collect Date: 26-JAN-23
 Receive Date: 27-JAN-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		2.88	+/-1.72	2.63	+/-1.87	3.00	pCi/L			JE1	02/22/23	1035	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.77	+/-1.79	2.63	+/-1.96		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.88	+/-0.494	0.368	+/-0.593	1.00	pCi/L			LXP1	02/21/23	0939	2377423	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"	2377470	75.4	(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: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-70I

Project: GPCC00101

Sample ID: 608819002

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-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	0.834	+/-1.36	2.39	+/-1.38	3.00	pCi/L			JE1	02/22/23	1035	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.81	+/-1.41	2.39	+/-1.43		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.978	+/-0.362	0.250	+/-0.389	1.00	pCi/L			LXP1	02/21/23	1010	2377423	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"	2377470	53.5	(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

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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: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-05

Project: GPCC00101

Sample ID: 608819003

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-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	2.12	+/-1.56	2.46	+/-1.65	3.00	pCi/L			JE1	02/22/23	1037	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.70	+/-1.58	2.46	+/-1.68		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.583	+/-0.303	0.372	+/-0.326	1.00	pCi/L			LXP1	02/21/23	1010	2377423	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"	2377470	74	(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: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-10

Project: GPCC00101

Sample ID: 608819004

Client ID: GPCC001

Matrix: WQ

Collect Date: 26-JAN-23

Receive Date: 27-JAN-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		3.13	+/-1.91	2.98	+/-2.07	3.00	pCi/L			JE1	02/22/23	1039	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.17	+/-1.92	2.98	+/-2.08		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.0313	+/-0.203	0.419	+/-0.203	1.00	pCi/L			LXP1	02/21/23	1010	2377423	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"	2377470	69.1	(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

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: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-BRGWC-36S
Sample ID: 608622001
Matrix: WG
Collect Date: 25-JAN-23
Receive Date: 26-JAN-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		3.49	+/-1.63	2.27	+/-1.86	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.86	+/-1.68	2.27	+/-1.91		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.37	+/-0.395	0.263	+/-0.448	1.00	pCi/L			LXP1	02/21/23	0938	2377423	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"	2377470	71.4	(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
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Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-37S

Project: GPCC00101

Sample ID: 608622002

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-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	0.935	+/-1.21	2.06	+/-1.23	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.67	+/-1.24	2.06	+/-1.28		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.737	+/-0.288	0.209	+/-0.333	1.00	pCi/L			LXP1	02/21/23	0938	2377423	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"	2377470	67.9	(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
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Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-BRGWC-38S

Project: GPCC00101

Sample ID: 608622003

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-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		3.29	+/-1.56	2.16	+/-1.77	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.79	+/-1.59	2.16	+/-1.80		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.499	+/-0.328	0.439	+/-0.340	1.00	pCi/L			LXP1	02/21/23	0939	2377423	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"	2377470	69.7	(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
 Address : Company
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Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPE

Client Sample ID: BRA-PZ-53D

Project: GPCC00101

Sample ID: 608622004

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-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	1.45	+/-1.50	2.49	+/-1.54	3.00	pCi/L			JE1	02/22/23	1037	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.10	+/-1.54	2.49	+/-1.59		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.651	+/-0.346	0.457	+/-0.373	1.00	pCi/L			LXP1	02/21/23	0939	2377423	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"	2377470	73	(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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Company : Georgia Power Company, Southern
 Address : Company
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Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-EB-09

Project: GPCC00101

Sample ID: 608622005

Client ID: GPCC001

Matrix: WQ

Collect Date: 25-JAN-23

Receive Date: 26-JAN-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	1.16	+/-1.25	2.07	+/-1.28	3.00	pCi/L			JE1	02/22/23	1037	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.22	+/-1.26	2.07	+/-1.29		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.0571	+/-0.177	0.351	+/-0.177	1.00	pCi/L			LXP1	02/21/23	0939	2377423	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"	2377470	66.7	(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
 Address : Company
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-08

Project: GPCC00101

Sample ID: 608622006

Client ID: GPCC001

Matrix: WQ

Collect Date: 25-JAN-23

Receive Date: 26-JAN-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	1.99	+/-1.37	2.08	+/-1.47	3.00	pCi/L			JE1	02/22/23	1037	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.11	+/-1.38	2.08	+/-1.47		pCi/L			NXL1	02/23/23	1039	2377469	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.119	+/-0.165	0.286	+/-0.166	1.00	pCi/L			LXP1	02/21/23	0939	2377423	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"	2377470	63.7	(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
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FD-04
Sample ID: 608423001
Matrix: WG
Collect Date: 24-JAN-23
Receive Date: 25-JAN-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	0.124	+/-1.54	2.84	+/-1.54	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.600	+/-1.57	2.84	+/-1.58		pCi/L		1	NXL1	02/22/23	0904	2374673	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.476	+/-0.347	0.513	+/-0.363	1.00	pCi/L			LXP1	02/19/23	0800	2374665	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"	2374674	54.3	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APE

Client Sample ID: BRA-APE-FB-07

Project: GPCC00101

Sample ID: 608423002

Client ID: GPCC001

Matrix: WQ

Collect Date: 24-JAN-23

Receive Date: 25-JAN-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	0.329	+/-1.07	1.93	+/-1.07	3.00	pCi/L			JE1	02/20/23	1211	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.570	+/-1.11	1.93	+/-1.11		pCi/L		1	NXL1	02/22/23	0904	2374673	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.241	+/-0.294	0.494	+/-0.298	1.00	pCi/L			LXP1	02/19/23	0800	2374665	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"	2374674	74.9	(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 | |

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 608420**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2374673

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608420001	BRA-BRGWC-17S
608420002	BRA-BRGWC-33S
608420003	BRA-BRGWC-34S
608420004	BRA-BRGWC-35S

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: 2374674

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608420001	BRA-BRGWC-17S
608420002	BRA-BRGWC-33S
608420003	BRA-BRGWC-34S
608420004	BRA-BRGWC-35S
1205305251	Method Blank (MB)
1205305252	608353001(NonSDG) Sample Duplicate (DUP)
1205305253	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

RDL Met

The following RDL was met with rounding.

Sample	Analyte	Value
608420002 (BRA-BRGWC-33S)	Radium-228	Result 2.01 < MDA 3.44 > RDL 3 pCi/L

Technical Information

Recounts

Sample 608420002 (BRA-BRGWC-33S) was recounted to verify sample results. Recount is reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2374665

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608420001	BRA-BRGWC-17S
608420002	BRA-BRGWC-33S
608420003	BRA-BRGWC-34S
608420004	BRA-BRGWC-35S
1205305234	Method Blank (MB)
1205305235	608353001(NonSDG) Sample Duplicate (DUP)
1205305236	608353001(NonSDG) Matrix Spike (MS)
1205305237	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, 1205305236 (Non SDG 608353001MS), 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 #: 608819**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2377469

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608819001	BRA-PZ-13S
608819002	BRA-PZ-70I
608819003	BRA-APE-FD-05
608819004	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: 2377470

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608819001	BRA-PZ-13S
608819002	BRA-PZ-70I
608819003	BRA-APE-FD-05
608819004	BRA-APE-EB-10
1205310026	Method Blank (MB)
1205310027	608549001(NonSDG) Sample Duplicate (DUP)
1205310028	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205310027 (Non SDG 608549001DUP)	Radium-228	RPD 205* (0.0%-100.0%) RER 1.98 (0-3)

Technical Information

Recounts

Sample 1205310026 (MB) was recounted due to a suspected blank false positive. The recount is reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2377423

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608819001	BRA-PZ-13S
608819002	BRA-PZ-70I
608819003	BRA-APE-FD-05
608819004	BRA-APE-EB-10
1205309901	Method Blank (MB)
1205309902	608549001(NonSDG) Sample Duplicate (DUP)
1205309903	608549001(NonSDG) Matrix Spike (MS)
1205309904	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, 1205309903 (Non SDG 608549001MS), 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 #: 609400**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2378776

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609400001	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: 2378777

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609400001	BRA-PZ-52D
1205311817	Method Blank (MB)
1205311818	609368001(NonSDG) Sample Duplicate (DUP)
1205311819	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

Samples 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: 2378762

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609400001	BRA-PZ-52D
1205311793	Method Blank (MB)
1205311794	609368001(NonSDG) Sample Duplicate (DUP)
1205311795	609368001(NonSDG) Matrix Spike (MS)
1205311796	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.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 608622**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2377469

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608622001	BRA-BRGWC-36S
608622002	BRA-BRGWC-37S
608622003	BRA-BRGWC-38S
608622004	BRA-PZ-53D
608622005	BRA-APE-EB-09
608622006	BRA-APE-FB-08

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: 2377470

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608622001	BRA-BRGWC-36S
608622002	BRA-BRGWC-37S
608622003	BRA-BRGWC-38S
608622004	BRA-PZ-53D
608622005	BRA-APE-EB-09
608622006	BRA-APE-FB-08
1205310026	Method Blank (MB)
1205310027	608549001(NonSDG) Sample Duplicate (DUP)
1205310028	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205310027 (Non SDG 608549001DUP)	Radium-228	RPD 205* (0.0%-100.0%) RER 1.98 (0-3)

Technical Information

Recounts

Sample 1205310026 (MB) was recounted due to a suspected blank false positive. The recount is reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2377423

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608622001	BRA-BRGWC-36S
608622002	BRA-BRGWC-37S
608622003	BRA-BRGWC-38S
608622004	BRA-PZ-53D
608622005	BRA-APE-EB-09
608622006	BRA-APE-FB-08
1205309901	Method Blank (MB)
1205309902	608549001(NonSDG) Sample Duplicate (DUP)
1205309903	608549001(NonSDG) Matrix Spike (MS)
1205309904	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, 1205309903 (Non SDG 608549001MS), 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 #: 608423**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2374673

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608423001	BRA-APE-FD-04
608423002	BRA-APE-FB-07

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: 2374674

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608423001	BRA-APE-FD-04
608423002	BRA-APE-FB-07
1205305251	Method Blank (MB)
1205305252	608353001(NonSDG) Sample Duplicate (DUP)
1205305253	Laboratory Control Sample (LCS)

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

Data Summary:

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

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2374665

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608423001	BRA-APE-FD-04
608423002	BRA-APE-FB-07
1205305234	Method Blank (MB)
1205305235	608353001(NonSDG) Sample Duplicate (DUP)
1205305236	608353001(NonSDG) Matrix Spike (MS)
1205305237	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, 1205305236 (Non SDG 608353001MS), 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

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

QC Summary

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

Report Date: February 22, 2023
Page 1 of 2

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608420

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow									
Batch	2374674								
QC1205305252	608353001 DUP								
Radium-228	U	0.970	U	2.08	pCi/L	0		N/A JE1	02/20/23 12:09
	Uncert:	+/-0.825		+/-1.56					
	TPU:	+/-0.861		+/-1.65					
QC1205305253	LCS								
Radium-228	63.2			59.4	pCi/L		94.1 (75%-125%)	JE1	02/20/23 12:09
	Uncert:			+/-4.09					
	TPU:			+/-15.6					
QC1205305251	MB								
Radium-228			U	0.943	pCi/L			JE1	02/20/23 12:08
	Uncert:			+/-1.15					
	TPU:			+/-1.17					
Rad Ra-226									
Batch	2374665								
QC1205305235	608353001 DUP								
Radium-226	U	0.421		0.410	pCi/L	2.66	(0% - 100%)	LXP1	02/19/23 08:00
	Uncert:	+/-0.327		+/-0.284					
	TPU:	+/-0.333		+/-0.300					
QC1205305237	LCS								
Radium-226	26.5			25.7	pCi/L		97 (75%-125%)	LXP1	02/19/23 08:00
	Uncert:			+/-1.78					
	TPU:			+/-6.47					
QC1205305234	MB								
Radium-226			U	0.365	pCi/L			LXP1	02/19/23 08:00
	Uncert:			+/-0.325					
	TPU:			+/-0.331					
QC1205305236	608353001 MS								
Radium-226	130	U	0.421	110	pCi/L		84.4 (75%-125%)	LXP1	02/19/23 08:00
	Uncert:		+/-0.327	+/-8.72					
	TPU:		+/-0.333	+/-26.5					

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

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

QC Summary

Workorder: 608420

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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.

GEL LABORATORIES LLC

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

QC Summary

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

Report Date: March 8, 2023
Page 1 of 2

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 609400

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow									
Batch	2378777								
QC1205311818	609368001 DUP								
Radium-228		2.89	U	1.27	pCi/L	78.2	(0% - 100%)	JE1	03/07/23 13:09
	Uncert:	+/-1.80		+/-0.956					
	TPU:	+/-1.94		+/-1.01					
QC1205311819	LCS								
Radium-228	63.1			67.0	pCi/L	106	(75%-125%)	JE1	03/07/23 13:09
	Uncert:			+/-4.20					
	TPU:			+/-17.5					
QC1205311817	MB								
Radium-228			U	1.00	pCi/L			JE1	03/07/23 13:09
	Uncert:			+/-1.08					
	TPU:			+/-1.11					
Rad Ra-226									
Batch	2378762								
QC1205311794	609368001 DUP								
Radium-226		0.689		0.778	pCi/L	12.1	(0% - 100%)	LXP1	03/05/23 09:29
	Uncert:	+/-0.427		+/-0.461					
	TPU:	+/-0.446		+/-0.479					
QC1205311796	LCS								
Radium-226	25.0			23.0	pCi/L	92.2	(75%-125%)	LXP1	03/05/23 09:29
	Uncert:			+/-1.99					
	TPU:			+/-5.09					
QC1205311793	MB								
Radium-226			U	0.443	pCi/L			LXP1	03/05/23 09:29
	Uncert:			+/-0.416					
	TPU:			+/-0.421					
QC1205311795	609368001 MS								
Radium-226	25.0	0.689		21.9	pCi/L	85.1	(75%-125%)	LXP1	03/05/23 09:29
	Uncert:	+/-0.427		+/-2.19					
	TPU:	+/-0.446		+/-4.25					

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

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

QC Summary

Workorder: 609400

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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.

GEL LABORATORIES LLC

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

QC Summary

Report Date: February 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: 608423

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2374674										
QC1205305252	608353001 DUP										
Radium-228	U	0.970	U	2.08	pCi/L	0		N/A	JE1	02/20/23	12:09
	Uncert:	+/-0.825		+/-1.56							
	TPU:	+/-0.861		+/-1.65							
QC1205305253	LCS										
Radium-228	63.2			59.4	pCi/L		94.1	(75%-125%)	JE1	02/20/23	12:09
	Uncert:			+/-4.09							
	TPU:			+/-15.6							
QC1205305251	MB										
Radium-228			U	0.943	pCi/L				JE1	02/20/23	12:08
	Uncert:			+/-1.15							
	TPU:			+/-1.17							
Rad Ra-226											
Batch	2374665										
QC1205305235	608353001 DUP										
Radium-226	U	0.421		0.410	pCi/L	2.66		(0% - 100%)	LXP1	02/19/23	08:00
	Uncert:	+/-0.327		+/-0.284							
	TPU:	+/-0.333		+/-0.300							
QC1205305237	LCS										
Radium-226	26.5			25.7	pCi/L		97	(75%-125%)	LXP1	02/19/23	08:00
	Uncert:			+/-1.78							
	TPU:			+/-6.47							
QC1205305234	MB										
Radium-226			U	0.365	pCi/L				LXP1	02/19/23	08:00
	Uncert:			+/-0.325							
	TPU:			+/-0.331							
QC1205305236	608353001 MS										
Radium-226	130	U	0.421	110	pCi/L		84.4	(75%-125%)	LXP1	02/19/23	08:00
	Uncert:		+/-0.327	+/-8.72							
	TPU:		+/-0.333	+/-26.5							

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

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

QC Summary

Workorder: 608423

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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.

GEL LABORATORIES LLC

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

QC Summary

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

Report Date: February 23, 2023
Page 1 of 2

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608622

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2377470										
QC1205310027	608549001 DUP										
Radium-228		2.25	U	-0.0281	pCi/L	205*		(0% - 100%)	JE1	02/22/23	10:41
	Uncert:	+/-1.46		+/-1.61							
	TPU:	+/-1.57		+/-1.61							
QC1205310028	LCS										
Radium-228	63.8			76.5	pCi/L		120	(75%-125%)	JE1	02/22/23	10:41
	Uncert:			+/-5.01							
	TPU:			+/-20.0							
QC1205310026	MB										
Radium-228			U	2.27	pCi/L				JE1	02/22/23	13:25
	Uncert:			+/-1.59							
	TPU:			+/-1.69							
Rad Ra-226											
Batch	2377423										
QC1205309902	608549001 DUP										
Radium-226		0.455		0.794	pCi/L	54.3		(0% - 100%)	LXP1	02/21/23	10:10
	Uncert:	+/-0.309		+/-0.287							
	TPU:	+/-0.325		+/-0.319							
QC1205309904	LCS										
Radium-226	26.6			26.4	pCi/L		99.2	(75%-125%)	LXP1	02/21/23	10:10
	Uncert:			+/-1.82							
	TPU:			+/-4.75							
QC1205309901	MB										
Radium-226			U	0.272	pCi/L				LXP1	02/21/23	10:10
	Uncert:			+/-0.283							
	TPU:			+/-0.287							
QC1205309903	608549001 MS										
Radium-226	133	0.455		103	pCi/L		77.4	(75%-125%)	LXP1	02/21/23	10:10
	Uncert:	+/-0.309		+/-7.53							
	TPU:	+/-0.325		+/-21.0							

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

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

QC Summary

Workorder: 608622

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

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

QC Summary

Report Date: February 23, 2023
Page 1 of 2

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

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608819

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow									
Batch	2377470								
QC1205310027	608549001 DUP								
Radium-228		2.25	U	-0.0281	pCi/L	205*	(0% - 100%)	JE1	02/22/23 10:41
		Uncert: +/-1.46		+/-1.61					
		TPU: +/-1.57		+/-1.61					
QC1205310028	LCS								
Radium-228	63.8			76.5	pCi/L	120	(75%-125%)	JE1	02/22/23 10:41
		Uncert:		+/-5.01					
		TPU:		+/-20.0					
QC1205310026	MB								
Radium-228			U	2.27	pCi/L			JE1	02/22/23 13:25
		Uncert:		+/-1.59					
		TPU:		+/-1.69					
Rad Ra-226									
Batch	2377423								
QC1205309902	608549001 DUP								
Radium-226		0.455		0.794	pCi/L	54.3	(0% - 100%)	LXP1	02/21/23 10:10
		Uncert: +/-0.309		+/-0.287					
		TPU: +/-0.325		+/-0.319					
QC1205309904	LCS								
Radium-226	26.6			26.4	pCi/L	99.2	(75%-125%)	LXP1	02/21/23 10:10
		Uncert:		+/-1.82					
		TPU:		+/-4.75					
QC1205309901	MB								
Radium-226			U	0.272	pCi/L			LXP1	02/21/23 10:10
		Uncert:		+/-0.283					
		TPU:		+/-0.287					
QC1205309903	608549001 MS								
Radium-226	133	0.455		103	pCi/L	77.4	(75%-125%)	LXP1	02/21/23 10:10
		Uncert: +/-0.309		+/-7.53					
		TPU: +/-0.325		+/-21.0					

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

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

QC Summary

Workorder: 608819

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
 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

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-2023S1
						Yes, please supply isotopic info) (7) Known or possible Hazards	Total number of containers	C1, F, S04, TDS, NO3	Total & Bicarb Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	<-- Preservative Type (6)	
BRA- BRGWC-17S	01/24/23	1618	G	N	WG	N	8	✓	✓	✓	✓	✓	field pH = 6.37 field ferrous iron = 0.0	
BRA- BRGWC-33S	01/24/23	1340	G	N	WG	N	8	✓	✓	✓	✓	✓	field pH = 4.79 field ferrous iron = 0.0	
BRA- BRGWC-34S	01/24/23	1253	G	N	WG	N	8	✓	✓	✓	✓	✓	field pH = 5.93 field ferrous iron = 0.0	
BRA- BRGWC-35S	01/24/23	1444	G	N	WG	N	8	✓	✓	✓	✓	✓	field pH = 6.08 field ferrous iron = 0.0	
BRA-													field pH = field ferrous iron =	

Chain of Custody Signatures			TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: (Subject to Surcharge)		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1-25-23	6:30	<i>[Signature]</i>	1-25-23	1:25
<i>[Signature]</i>	1-25-23	1:25	<i>[Signature]</i>	1-25-23	1:33

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,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, 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 = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste, CO = Corrosive, RE = Reactive, TSCA Regulated, PCB = Polychlorinated biphenyls
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals, Pb = Lead
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description:
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Page: 2 of 2
 Project # 608422
 GEL Quote #: 608423
 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. Coyle ACC
 Sample ID
 *For composites - indicate start and stop date/time

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number: 608422
 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 (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (If yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA- APE - FD - 04	01/24/23	1400	G	N	FD WG W/G	N	8	Metals * EPA 6020, 6010, 7470 Total & Bicarb Alk SM 220B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	NI	NI	Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1
BRA- APE - FB - 07	01/24/23	1400	G	N	WG FB	N	8	Metals * EPA 6020, 6010, 7470 Total & Bicarb Alk SM 220B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3	NI	NI	field pH = -- field ferrous iron = -- field pH = -- field ferrous iron = -- field pH = -- field ferrous iron = -- field pH = -- field ferrous iron = -- field pH = -- field ferrous iron = -- field pH = -- field ferrous iron = --
BRA-											
BRA-											
BRA-											

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1. Tanya Helle 1-25-23 0829
 2. M. A. 1-25-23 1338
 3. _____
 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,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.)
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 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 = 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), Waste code(s):
 RCRA Metals: As = Arsenic, Hg = Mercury, Se = Selenium, Ag = Silver, Cd = Cadmium, MIR = Misc. RCRA metals, biphenyls
 Ba = Barium, Pb = Lead
 CO = Corrosive, RE = Reactive
 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, acid matrices, etc.)

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 #
 Collect By: T. Gode ACC
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (3)	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)	Preservative Type (6)	Comments
						(7) Known or possible Hazards	Radioactive (if yes, please supply isotopic info)				
BRA-BRGWC-365	01/25/23	1553	G	N	WG	N	N	8	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> Total & Branch Aik <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 Sulfide	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1
BRA-BRGWC-375	01/25/23	1320	G	N	WG	N	N	8	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> Total & Branch Aik <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 Sulfide	<-- Preservative Type (6)	field pH = 5.64 field ferrous iron = 0.0
BRA-BRGWC-345	01/25/23	1353	G	N	WG	N	N	8	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> Total & Branch Aik <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 Sulfide	<-- Preservative Type (6)	field pH = 5.84 field ferrous iron = 0.0
BRA-P2-53D	01/25/23	1615	G	N	WG	N	N	8	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> Total & Branch Aik <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 Sulfide	<-- Preservative Type (6)	field pH = 4.75 field ferrous iron = 0.0
BRA-APE-EB-09	01/25/23	1245	G	N	WQ	N	N	8	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> Total & Branch Aik <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 Sulfide	<-- Preservative Type (6)	field pH = 7.10 field ferrous iron = 0.0 field pH = field ferrous iron =

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1. T. Gode 1-26-23 0827
 2. [Signature] 1/26/23 115
 3. [Signature] 1/26/23 115
 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,Pb,Li,Mo,Se,Ti,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:

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.), CO = Corrosive, RE = Reactive
 TSCA Regulated: _____
 PCB = Polychlorinated biphenyls
 RCRA Metals: _____
 As = Arsenic, Hg = Mercury
 Ba = Barium, Se = Selenium
 Cd = Cadmium, Ag = Silver
 Cr = Chromium, MR = Misc. RCRA metals
 Pb = Lead
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

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 - TK E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 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) (hh:mm)	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 Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1
						Radioactive (If yes, please supply isotope info)	(7) Known or possible Hazards		IN	IN	IN	
BRA- APE - FB - 08	01/25/23	1645	G	N	WG	N		8	1	1	1	field pH = <u>—</u> field ferrous iron = <u>—</u>
BRA-												field pH = <u>—</u> field ferrous iron = <u>—</u>
BRA-												field pH = <u>—</u> field ferrous iron = <u>—</u>
BRA-												field pH = <u>—</u> field ferrous iron = <u>—</u>
BRA-												field pH = <u>—</u> field ferrous iron = <u>—</u>

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	1-26-23	<i>[Signature]</i>	1-26-23	8:24
<i>[Signature]</i>	1-26-23	<i>[Signature]</i>	1-26-23	11:15

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,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:

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



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: **GPCC** SDG/AR/COC/Work Order: **608622, 608614**

Received By: **Stacy Boone** Date Received: **JAN 26, 2023** Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Carrier and Tracking Number

Suspected Hazard Information Yes No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous? Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___

B) Did the client designate the samples are to be received as radioactive? COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts): CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous? COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards? If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria Yes NA No Comments/Qualifiers (Required for Non-Conforming Items) Circle Applicable: Seals broken Damaged container Leaking container Other (describe)

1 Shipping containers received intact and sealed? [X] [NA] [] Circle Applicable: Client contacted and provided COC COC created upon receipt

2 Chain of custody documents included with shipment? [X] [NA] [] Preservation Method: Wet Ice Ice Packs Dry ice None Other: TEMP: **16 x 5**

3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?* [X] [NA] [] *all temperatures are recorded in Celsius Temperature Device Serial #: **IR3-22**

4 Daily check performed and passed on IR temperature gun? [X] [NA] [] Secondary Temperature Device Serial # (If Applicable):

5 Sample containers intact and sealed? [X] [NA] [] Circle Applicable: Seals broken Damaged container Leaking container Other (describe)

6 Samples requiring chemical preservation at proper pH? [X] [NA] [] Sample ID's and Containers Affected: If Preservation added, Lot#:

7 Do any samples require Volatile Analysis? [X] [NA] [] 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? [X] [NA] [] ID's and tests affected:

9 Sample ID's on COC match ID's on bottles? [X] [NA] [] ID's and containers affected:

10 Date & time on COC match date & time on bottles? [X] [NA] [] 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? [X] [NA] [] Circle Applicable: No container count on COC Other (describe)

12 Are sample containers identifiable as GEL provided by use of GEL labels? [X] [NA] [] Circle Applicable: Not relinquished Other (describe)

13 COC form is properly signed in relinquished/received sections? [X] [NA] []

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials [Signature] Date 1/27/23 Page 1 of 1

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

Phone # 404-506-7116
 Fax # _____

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

Collected By: ACC
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radiactive (If Yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA- PZ-525	02/02/23	1030	G	N	WG	N	Metals * EPA 6020, 6010, 7470 Total & Heavy Alk SM 2320B EPA 300, SM 2540C C1, F, SO4, TDS, NO3 Sulfide SM 4500	NI NI NI	NI	NI	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI
BRA-											field pH = _____ field ferrous iron = _____
BRA-											field pH = _____ field ferrous iron = _____
BRA-											field pH = _____ field ferrous iron = _____
BRA-											field pH = _____ field ferrous iron = _____
BRA-											field pH = _____ field ferrous iron = _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[Signature]	2-3-23	0836	[Signature]	2/3/23	836
[Signature]	2/3/23	1203	[Signature]	2/3/23	1203

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, indicate 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, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=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, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

KNOWN OR POSSIBLE HAZARDS

Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste, CO = Corrosive, RE = Reactive
 TSCA Regulated: _____
 PCB = Polychlorinated biphenyls

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

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

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

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: 3 °C

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

Select Deliverable: Level 1 Level 2 Level 3 Level 4

QC Summary: Level 1 Level 2 Level 3 Level 4

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

Chain of Custody Number = Client Determined

1.) Chain of Custody Number = Client Determined

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

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

4.) Matrix Codes: 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, CO = Corrosive, RE = Reactive
 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.)

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178
 GEL Work Order Number: 608815
 GEL Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax #
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix	Should this sample be considered: (If Radioactive (yes, please supply isotope info))	Total number of containers	Sample Analysis Requested ⁽⁶⁾ (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-PZ-13S	01/26/23	1120	G	N	WG	N	8	<input type="checkbox"/> Metals * <input type="checkbox"/> EPA 6020, 6010, 7470 <input type="checkbox"/> Total & Bicarb Alk <input type="checkbox"/> EPA 300, SM 2540C <input type="checkbox"/> Cl, F, SO ₄ , TDS, NO ₃ <input type="checkbox"/> Sulfide SM 4500 <input type="checkbox"/> Radium 226 & 228 <input type="checkbox"/> SW-846 9315, 9320		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1 field pH = 5.56 field ferrous iron = 0.0 mg/L field pH = 5.60 field ferrous iron = 0.0 mg/L
BRA-PZ-70I	01/26/23	1022	G	N	WG	N	8			
BRA-APE-FD-05	01/26/23	/	G	N	WG	N	8			
BRA-APE-EB-10	01/26/23	1100	G	N	WQ	N	8			
BRA-										

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	01/27/23	0950	<u>[Signature]</u>	01/27/23	950
<u>[Signature]</u>	01/27/23	213	<u>[Signature]</u>	01/27/23	213

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,Te,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 = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

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

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

GEL Work Order Number: _____ Phone # 404-506-7116
 Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Fax # _____
 Collected By: A. Selmaker 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	Field Filtered	Sample Matrix	Total number of containers	Should this sample be considered:		Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)	Preservative Type (6)	Comments	
							(7) Known or possible Hazards	Radioactive (if yes, please supply isotopic info)				
BRA-PZ-52D	01/25/23	1424	G	N	WG	2	N	Yes	Metals * EPA 6020, 6010, 7470 Total & Bicarb Alk SM 2320B EPA 309, SM 2510C Cl, F, SO ₄ , TDS, NO ₃	7.14	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI	
BRA-PZ-52D	01/26/23	1240	G	N	WG	3	N	Yes	Sulfide SM 4500 Radium 226 & 228 SW-846 9315, 9320	7.14	field ferrous iron = 0.0 mg/L field pH = 7.14 field ferrous iron = 0.0 mg/L	
BRA-											field pH =	
BRA-											field ferrous iron =	
BRA-											field pH =	
BRA-											field ferrous iron =	
BRA-											field pH =	
BRA-											field ferrous iron =	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	01/27/23 0950	<u>[Signature]</u>	01/27/23	0950
<u>[Signature]</u>	01/27/23 213	<u>[Signature]</u>	01/27/23	213

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

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, 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 = 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.)

SAMPLE RECEIPT & REVIEW FORM

Client: GPOC SDG/AR/COC/Work Order: 608810, 608819 ET
 Received By: Thyasia Tatum Date Received: 1-27-23

Carrier and Tracking Number
 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

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? 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AT Date 1/31/23 Page 1 of 1

List of current GEL Certifications as of 22 February 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

List of current GEL Certifications as of 08 March 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
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New Mexico	SC00012
New York NELAP	11501
North Carolina	233
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Nevada	SC000122023-4
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New Jersey NELAP	SC002
New Mexico	SC00012
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North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
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S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
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Utah NELAP	SC000122022-37
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Virginia NELAP	460202
Washington	C780

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Idaho	SC00012
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Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
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Massachusetts PFAS Approv	Letter
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Nevada	SC000122023-4
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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
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S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
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Tennessee	TN 02934
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Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

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Arkansas	88-0651
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California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
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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)
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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
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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



February 10, 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: 608815,608614,608422 and 608418

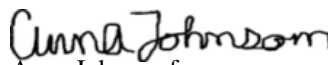
Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 25, 2023, January 26, 2023 and January 27, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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.

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,


Anna Johnson for
Erin Trent
Project Manager

Purchase Order: GPC82177-0006
Enclosures



GEL LABORATORIES LLC

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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608614 GEL Work Order: 608614

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
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- ** Analyte is a Tracer compound
- J See case narrative for an explanation

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

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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608422 GEL Work Order: 608422

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

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

** Analyte is a Tracer compound

J See case narrative for an explanation

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

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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608815 GEL Work Order: 608815

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

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

** Analyte is a Tracer compound

J See case narrative for an explanation

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: 608418 GEL Work Order: 608418

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

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

** Analyte is a Tracer compound

J See case narrative for an explanation

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: February 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-04	Project: GPCC00101
Sample ID: 608422001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 12:00	
Receive Date: 25-JAN-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		0.204	0.0330	0.100	mg/L		1	HXC1	01/25/23	1827	2374002	1
Chloride		28.7	2.68	8.00	mg/L		40	HXC1	01/26/23	0210	2374002	2
Sulfate		375	5.32	16.0	mg/L		40					
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	HXC1	01/26/23	0241	2374002	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1057	2374419	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		116	0.800	2.00	mg/L	1.00	10	SKJ	02/02/23	1226	2374301	5
Manganese		2.63	0.0100	0.0500	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1941	2374301	6
Barium		0.0375	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000505	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0577	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		14.3	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00468	0.00150	0.00500	mg/L	1.00	1					
Sodium		36.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1550	2374301	7
Beryllium		0.00236	0.000200	0.000500	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0120	0.00300	0.0100	mg/L	1.00	1					
Magnesium		15.2	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Boron		1.17	0.0520	0.150	mg/L	1.00	10	SKJ	02/03/23	1436	2374301	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		611	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	10

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Certificate of Analysis

Report Date: February 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-APE-FD-04 Project: GPCC00101
Sample ID: 608422001 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	3.40	1.45	4.00	mg/L			MS3	01/28/23	1258	2375518	11
Bicarbonate alkalinity (CaCO ₃)	J	3.40	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418

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: February 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-FB-07	Project: GPCC00101
Sample ID: 608422002	Client ID: GPCC001
Matrix: WQ	
Collect Date: 24-JAN-23 14:00	
Receive Date: 25-JAN-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	01/25/23	1858	2374002	1
Fluoride	U	ND	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	01/27/23	1059	2374419	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1944	2374301	3
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	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					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1456	2374301	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	6

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

Certificate of Analysis

Report Date: February 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-07	Project: GPCC00101
Sample ID: 608422002	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	2.20	1.45	4.00	mg/L			MS3	01/28/23	1301	2375518	7
Bicarbonate alkalinity (CaCO3)	J	2.20	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

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: February 10, 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: 608815001	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 11:20	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.56			SU			EOS1	01/26/23	1120	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1120	2375357	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.36	0.0670	0.200	mg/L		1	JLD1	01/27/23	1640	2375453	3
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0655	0.0330	0.100	mg/L		1					
Sulfate		75.3	1.33	4.00	mg/L		10	JLD1	01/27/23	2238	2375453	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1050	2375754	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	01/31/23	2345	2375511	6
Arsenic	J	0.00388	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0525	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		16.8	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0153	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					
Manganese	J	0.00207	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.41	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00215	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000422	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1324	2375511	7
Boron	J	0.0104	0.00520	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		9.68	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 10, 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: 608815001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		148	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1146	2376122	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		20.6	1.45	4.00	mg/L			EK1	02/06/23	1521	2378067	10
Bicarbonate alkalinity (CaCO3)		20.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

Notes:

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: February 10, 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
Sample ID: 608815001

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 10, 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-70I	Project: GPCC00101
Sample ID: 608815002	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 10:22	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.60			SU			EOS1	01/26/23	1022	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1022	2375357	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0660	0.200	mg/L		2	JLD1	01/28/23	0037	2375453	3
Chloride		5.37	0.0670	0.200	mg/L		1	JLD1	01/27/23	1709	2375453	4
Nitrate-N		0.275	0.0330	0.100	mg/L		1					
Sulfate		147	2.66	8.00	mg/L		20	JLD1	01/28/23	0007	2375453	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1052	2375754	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000217	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1340	2375511	7
Lithium	J	0.00381	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Magnesium		11.9	0.0500	0.150	mg/L	1.00	5	SKJ	02/01/23	1349	2375511	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0010	2375511	9
Arsenic	J	0.00366	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0250	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		33.4	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000682	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0364	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Manganese		0.271	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.27	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00921	0.00150	0.00500	mg/L	1.00	1					
Sodium		23.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.04	0.104	0.300	mg/L	1.00	20	SKJ	02/02/23	0827	2375511	10
Solids Analysis												

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Certificate of Analysis

Report Date: February 10, 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: 608815002	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		272	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1146	2376122	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		14.4	1.45	4.00	mg/L			EK1	02/06/23	1524	2378067	13
Bicarbonate alkalinity (CaCO3)		14.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

Notes:

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Certificate of Analysis

Report Date: February 10, 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
Sample ID: 608815002

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 10, 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: 608815003 Client ID: GPCC001
Matrix: WG
Collect Date: 26-JAN-23 12:00
Receive Date: 27-JAN-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		74.9	1.33	4.00	mg/L		10	JLD1	01/28/23	0107	2375453	1
Chloride		3.37	0.0670	0.200	mg/L		1	JLD1	01/27/23	1739	2375453	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0646	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	01/31/23	1057	2375754	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	J	0.00883	0.00520	0.0150	mg/L	1.00	1	SKJ	02/02/23	0829	2375511	4
Beryllium	J	0.000415	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1343	2375511	5
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		9.54	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0014	2375511	6
Arsenic	J	0.00470	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0524	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		16.7	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0152	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					
Manganese	J	0.00195	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.50	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00190	0.00150	0.00500	mg/L	1.00	1					
Sodium		12.1	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		145	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1146	2376122	8

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Certificate of Analysis

Report Date: February 10, 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: 608815003 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		20.4	1.45	4.00	mg/L			EK1	02/06/23	1525	2378067	9
Bicarbonate alkalinity (CaCO ₃)		20.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510

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: February 10, 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: 608815004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 26-JAN-23 11:00	
Receive Date: 27-JAN-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	01/27/23	1809	2375453	1
Fluoride	U	ND	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	01/31/23	1058	2375754	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0018	2375511	3
Arsenic	J	0.00409	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	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					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1345	2375511	4
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					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/02/23	0831	2375511	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1147	2376122	7

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Certificate of Analysis

Report Date: February 10, 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: 608815004 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	1.80	1.45	4.00	mg/L			EK1	02/06/23	1528	2378067	8
Bicarbonate alkalinity (CaCO ₃)	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: February 10, 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: 608815005 Client ID: GPCC001
Matrix: WG
Collect Date: 25-JAN-23 14:24
Receive Date: 27-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.14			SU			EOS1	01/25/23	1424	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1424	2375357	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1100	2375754	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		94.4	0.800	2.50	mg/L	1.00	10	SKJ	02/03/23	1014	2375511	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0021	2375511	5
Arsenic	J	0.00368	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0171	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		46.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00249	0.000300	0.00100	mg/L	1.00	1					
Iron		0.220	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Manganese		0.0315	0.00100	0.00500	mg/L	1.00	1					
Potassium		8.93	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		0.0362	0.00520	0.0150	mg/L	1.00	1	SKJ	02/02/23	0833	2375511	6
Magnesium		9.93	0.0500	0.150	mg/L	1.00	5	SKJ	02/01/23	1352	2375511	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1347	2375511	8
Lithium		0.0165	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.0222	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		443	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510

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Certificate of Analysis

Report Date: February 10, 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-52D
Sample ID: 608815005

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	01/30/23		1128		2375753		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		

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: February 10, 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: 608815006 Client ID: GPCC001
Matrix: WG
Collect Date: 26-JAN-23 12:40
Receive Date: 27-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.14			SU			EOS1	01/26/23	1240	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1240	2375357	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		12.3	0.670	2.00	mg/L		10	JLD1	01/28/23	0137	2375453	3
Sulfate		142	1.33	4.00	mg/L		10					
Fluoride		1.93	0.0330	0.100	mg/L		1	JLD1	01/27/23	1839	2375453	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1147	2376122	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		179	1.45	4.00	mg/L			EK1	02/06/23	1532	2378067	6
Bicarbonate alkalinity (CaCO3)		179	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SM 4500-S (2-) D	
6	SM 2320B	

Notes:

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Certificate of Analysis

Report Date: February 10, 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-52D
Sample ID: 608815006

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 9, 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: 608614001	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 15:53	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.64			SU			EOS1	01/25/23	1553	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1553	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		237	2.66	8.00	mg/L		20	HXC1	01/27/23	0453	2374768	3
Chloride		7.93	0.0670	0.200	mg/L		1	HXC1	01/26/23	1926	2374768	4
Fluoride		0.183	0.0330	0.100	mg/L		1					
Nitrate-N		0.131	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	01/30/23	1243	2375028	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00205	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1117	2374786	6
Boron		1.18	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1830	2374786	7
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1946	2374786	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0278	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		48.2	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00682	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		20.1	0.0100	0.0300	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	J	0.00237	0.00150	0.00500	mg/L	1.00	1					
Sodium		40.4	0.0800	0.250	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	SKJ	02/07/23	1934	2374786	9
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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-36S
Sample ID: 608614001

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		418	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1541	2375142	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		22.0	1.45	4.00	mg/L			MS3	02/07/23	1351	2379826	12
Bicarbonate alkalinity (CaCO3)		22.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 9, 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-36S
Sample ID: 608614001

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 9, 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: 608614002 Client ID: GPCC001
Matrix: WG
Collect Date: 25-JAN-23 13:20
Receive Date: 26-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.84			SU			EOS1	01/25/23	1320	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1320	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N		0.318	0.0660	0.200	mg/L		2	HXC1	01/26/23	2317	2374833	3
Chloride		1.92	0.0670	0.200	mg/L		1	HXC1	01/26/23	1535	2374833	4
Fluoride		0.114	0.0330	0.100	mg/L		1					
Sulfate	J	0.325	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	01/30/23	1245	2375028	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/09/23	1052	2374786	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1834	2374786	7
Arsenic	J	0.00300	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0247	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.65	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					
Magnesium		1.35	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		1.94	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.85	0.0800	0.250	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	SKJ	02/07/23	1937	2374786	8
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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
Sample ID: 608614002

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		28.0	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		21.2	1.45	4.00	mg/L			MS3	02/07/23	1353	2379826	11
Bicarbonate alkalinity (CaCO3)		21.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Report Date: February 9, 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
Sample ID: 608614002

Project: GPCC00101
Client ID: GPCC001

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

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

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Report Date: February 9, 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-38S	Project: GPCC00101
Sample ID: 608614003	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 13:53	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.75			SU			EOS1	01/25/23	1353	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1353	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		291	5.32	16.0	mg/L		40	HXC1	01/27/23	0018	2374833	3
Chloride		6.53	0.0670	0.200	mg/L		1	HXC1	01/26/23	1606	2374833	4
Fluoride		0.708	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.145	0.0660	0.200	mg/L		2	HXC1	01/26/23	2348	2374833	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1246	2375028	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.63	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1837	2374786	7
Manganese		1.65	0.0100	0.0500	mg/L	1.00	10					
Beryllium		0.00780	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1941	2374786	8
Lithium		0.0256	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1949	2374786	9
Arsenic	J	0.00486	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0180	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000430	0.000300	0.00100	mg/L	1.00	1					
Calcium		32.8	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00362	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.158	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		36.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.12	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0279	0.00150	0.00500	mg/L	1.00	1					
Sodium		42.3	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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-38S	Project: GPCC00101
Sample ID: 608614003	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		484	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	3.00	1.45	4.00	mg/L			MS3	02/07/23	1357	2379826	12
Bicarbonate alkalinity (CaCO3)	J	3.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 9, 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
Sample ID: 608614003

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 9, 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-53D	Project: GPCC00101
Sample ID: 608614004	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 16:15	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.10			SU			EOS1	01/25/23	1615	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1615	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		285	5.32	16.0	mg/L		40	HXC1	01/27/23	0120	2374833	3
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	HXC1	01/27/23	0049	2374833	4
Chloride		4.66	0.0670	0.200	mg/L		1	HXC1	01/26/23	1637	2374833	5
Fluoride		0.282	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	01/30/23	1251	2375028	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1953	2374786	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0536	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		0.204	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		19.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00234	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.66	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		48.6	0.0800	0.250	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	SKJ	02/07/23	1944	2374786	8
Lithium		0.0207	0.00300	0.0100	mg/L	1.00	1					
Calcium		78.5	0.400	1.00	mg/L	1.00	5	SKJ	02/08/23	1852	2374786	9
Boron		1.11	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1848	2374786	10
Manganese		0.628	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1121	2374786	11
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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-53D Project: GPCC00101
Sample ID: 608614004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		517	2.38	10.0	mg/L		CH6		02/01/23	1305	2376741	12
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 JW2		01/30/23	1542	2375142	13
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		49.0	1.45	4.00	mg/L		MS3		02/07/23	1401	2379826	14
Bicarbonate alkalinity (CaCO3)		49.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SM 2540C	
13	SM 4500-S (2-) D	
14	SM 2320B	

Notes:

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Certificate of Analysis

Report Date: February 9, 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-53D
Sample ID: 608614004

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 9, 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-EB-09	Project: GPCC00101
Sample ID: 608614005	Client ID: GPCC001
Matrix: WQ	
Collect Date: 25-JAN-23 12:45	
Receive Date: 26-JAN-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	01/26/23	1707	2374833	1
Fluoride	U	ND	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	01/30/23	1253	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1948	2374786	3
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1855	2374786	4
Arsenic	J	0.00210	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
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					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/09/23	1055	2374786	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	7

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Certificate of Analysis

Report Date: February 9, 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: 608614005 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	1.45	4.00	mg/L		MS3	02/07/23	1403	2379826		8
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: February 9, 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-FB-08 Project: GPCC00101
Sample ID: 608614006 Client ID: GPCC001
Matrix: WQ
Collect Date: 25-JAN-23 16:45
Receive Date: 26-JAN-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	01/26/23	1809	2374833	1
Fluoride	U	ND	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	01/30/23	1255	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/09/23	1057	2374786	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1952	2374786	4
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1859	2374786	5
Arsenic	J	0.00228	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
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					
Sodium	U	ND	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	02/01/23	1305	2376741	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	7

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Certificate of Analysis

Report Date: February 9, 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-APE-FB-08 Project: GPCC00101
Sample ID: 608614006 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	1.45	4.00	mg/L			MS3	02/07/23	1405	2379826	8
Bicarbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: February 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: 608418001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 16:18	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.37			SU			AJ1	01/24/23	1618	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1618	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.31	0.0670	0.200	mg/L		1	HXC1	01/25/23	1838	2373867	3
Fluoride		0.216	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.119	0.0660	0.200	mg/L		2	HXC1	01/26/23	0136	2373867	4
Sulfate		153	2.66	8.00	mg/L		20	HXC1	01/26/23	0107	2373867	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1051	2374419	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1926	2374301	7
Barium		0.0422	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		41.3	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00886	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					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Potassium		1.08	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00178	0.00150	0.00500	mg/L	1.00	1					
Sodium		25.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1453	2374301	8
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0326	0.00520	0.0150	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		26.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												

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

Certificate of Analysis

Report Date: February 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: 608418001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		344	2.38	10.0	mg/L		CH6	01/31/23	1235	2376170		9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 JW2	01/30/23	1543	2374521		10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		81.4	1.45	4.00	mg/L		EK1	01/30/23	1543	2375521		11
Bicarbonate alkalinity (CaCO3)		81.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

Notes:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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
Sample ID: 608418001

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: February 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-33S	Project: GPCC00101
Sample ID: 608418002	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 13:40	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.79			SU			AJ1	01/24/23	1340	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1340	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.193	0.0330	0.100	mg/L		1	HXC1	01/25/23	1908	2373867	3
Nitrate-N	J	0.0607	0.0330	0.100	mg/L		1					
Chloride		29.0	2.68	8.00	mg/L		40	HXC1	01/26/23	0206	2373867	4
Sulfate		375	5.32	16.0	mg/L		40					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1052	2374419	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.19	0.0520	0.150	mg/L	1.00	10	SKJ	02/03/23	1427	2374301	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1930	2374301	7
Barium		0.0368	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000482	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0582	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		14.5	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00490	0.00150	0.00500	mg/L	1.00	1					
Sodium		37.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		116	0.800	2.00	mg/L	1.00	10	SKJ	02/02/23	1217	2374301	8
Manganese		2.68	0.0100	0.0500	mg/L	1.00	10					
Arsenic	J	0.00201	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1541	2374301	9
Beryllium		0.00235	0.000200	0.000500	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0115	0.00300	0.0100	mg/L	1.00	1					
Magnesium		15.0	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 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-33S
Sample ID: 608418002

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		615	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	3.80	1.45	4.00	mg/L			EK1	01/30/23	1551	2375521	12
Bicarbonate alkalinity (CaCO3)	J	3.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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-33S
Sample ID: 608418002

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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-34S	Project: GPCC00101
Sample ID: 608418003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 12:53	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.93			SU			AJ1	01/24/23	1253	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1253	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.50	0.0670	0.200	mg/L		1	HXC1	01/25/23	1938	2373867	3
Fluoride		0.122	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		267	5.32	16.0	mg/L		40	HXC1	01/26/23	0236	2373867	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1054	2374419	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1544	2374301	6
Beryllium	U	ND	0.000200	0.000500	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		18.6	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1933	2374301	7
Barium		0.0232	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		0.00351	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		3.54	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		21.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		80.0	0.400	1.00	mg/L	1.00	5	SKJ	02/02/23	1343	2374301	8
Manganese		3.29	0.00500	0.0250	mg/L	1.00	5					
Boron		2.21	0.104	0.300	mg/L	1.00	20	SKJ	02/03/23	1430	2374301	9
Solids Analysis												

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Certificate of Analysis

Report Date: February 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-34S
Sample ID: 608418003

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		433	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		30.0	1.45	4.00	mg/L			EK1	01/30/23	1557	2375521	12
Bicarbonate alkalinity (CaCO3)		30.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 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-34S
Sample ID: 608418003

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 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: 608418004 Client ID: GPCC001
Matrix: WG
Collect Date: 24-JAN-23 14:44
Receive Date: 25-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.08			SU			AJ1	01/24/23	1444	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1444	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		334	3.33	10.0	mg/L		25	HXC1	01/26/23	0406	2373867	3
Chloride		6.46	0.0670	0.200	mg/L		1	HXC1	01/25/23	2008	2373867	4
Fluoride		0.239	0.0330	0.100	mg/L		1					
Nitrate-N		0.149	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	01/27/23	1056	2374419	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		67.5	0.400	1.00	mg/L	1.00	5	SKJ	02/02/23	1346	2374301	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1937	2374301	7
Barium		0.0291	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00524	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					
Manganese		0.0113	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.05	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		20.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1547	2374301	8
Beryllium	U	ND	0.000200	0.000500	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		36.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Boron		2.23	0.104	0.300	mg/L	1.00	20	SKJ	02/03/23	1433	2374301	9
Solids Analysis												

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Certificate of Analysis

Report Date: February 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
Sample ID: 608418004

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		507	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0354	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		51.6	1.45	4.00	mg/L			EK1	01/30/23	1559	2375521	12
Bicarbonate alkalinity (CaCO3)		51.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 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
Sample ID: 608418004

Project: GPCC00101
Client ID: GPCC001

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

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

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QC Summary

Report Date: February 7, 2023

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

Contact: Joju Abraham

Workorder: 608422

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374002										
QC1205304359	608413001	DUP									
Chloride		3.79		3.79	mg/L	0.124		(0%-20%)	HXC1	01/25/23	19:29
Fluoride	J	0.0926	J	0.0925	mg/L	0.108	^	(+/-0.100)			
Nitrate-N		0.945		0.920	mg/L	2.68	^	(+/-0.500)		01/25/23	23:05
Sulfate		0.628		0.612	mg/L	2.71	^	(+/-0.400)		01/25/23	19:29
QC1205304358	LCS										
Chloride	5.00			4.87	mg/L			97.3 (90%-110%)		01/25/23	20:31
Fluoride	2.50			2.53	mg/L			101 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.76	mg/L			97.6 (90%-110%)			
QC1205304357	MB										
Chloride			U	ND	mg/L					01/25/23	21:02
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205304360	608413001	PS									
Chloride	5.00	3.79		9.31	mg/L			110 (90%-110%)		01/25/23	20:00

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QC Summary

Workorder: 608422

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374002										
Fluoride	2.50	J	0.0926	2.68	mg/L		104	(90%-110%)	HXC1	01/25/23	20:00
Nitrate-N	2.50		0.189	2.65	mg/L		98.2	(90%-110%)		01/25/23	23:36
Sulfate	10.0		0.628	10.6	mg/L		99.5	(90%-110%)		01/25/23	20:00
Metals Analysis - ICPMS											
Batch	2374301										
QC1205304629	LCS										
Antimony	0.0500			0.0512	mg/L		102	(80%-120%)	SKJ	02/01/23	18:21
Arsenic	0.0500			0.0540	mg/L		108	(80%-120%)		02/03/23	14:21
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)		02/01/23	18:21
Beryllium	0.0500			0.0599	mg/L		120	(80%-120%)		02/03/23	14:21
Boron	0.100			0.113	mg/L		113	(80%-120%)			
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)		02/01/23	18:21
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0525	mg/L		105	(80%-120%)			
Cobalt	0.0500			0.0523	mg/L		105	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0549	mg/L		110	(80%-120%)		02/03/23	14:21

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QC Summary

Workorder: 608422

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lithium	0.0500			0.0574	mg/L		115	(80%-120%)	SKJ	02/03/23	14:21
Magnesium	2.00			2.36	mg/L		118	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		02/01/23	18:21
Molybdenum	0.0500			0.0539	mg/L		108	(80%-120%)		02/03/23	14:21
Potassium	2.00			2.08	mg/L		104	(80%-120%)		02/01/23	18:21
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.23	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0526	mg/L		105	(80%-120%)			
QC1205304628	MB										
Antimony			U	ND	mg/L					02/01/23	18:18
Arsenic			U	ND	mg/L					02/03/23	14:18
Barium			U	ND	mg/L					02/01/23	18:18
Beryllium			U	ND	mg/L					02/03/23	14:18
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/01/23	18:18
Calcium			U	ND	mg/L						

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QC Summary

Workorder: 608422

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Chromium			U	ND	mg/L				SKJ	02/01/23	18:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					02/03/23	14:18
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					02/01/23	18:18
Molybdenum			U	ND	mg/L					02/03/23	14:18
Potassium			U	ND	mg/L					02/01/23	18:18
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205304630 608410001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		02/01/23	18:29
Arsenic	0.0500	U	ND	0.0534	mg/L		105	(75%-125%)		02/03/23	15:08
Barium	0.0500		0.0118	0.0604	mg/L		97.3	(75%-125%)		02/01/23	18:29

GEL LABORATORIES LLC

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QC Summary

Workorder: 608422

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Beryllium	0.0500	U	ND	0.0578	mg/L		115	(75%-125%)	SKJ	02/06/23	16:16
Boron	0.100	U	ND	0.125	mg/L		121	(75%-125%)		02/03/23	15:08
Cadmium	0.0500	U	ND	0.0524	mg/L		105	(75%-125%)		02/01/23	18:29
Calcium	2.00		4.86	7.20	mg/L		117	(75%-125%)			
Chromium	0.0500	J	0.00950	0.0628	mg/L		107	(75%-125%)			
Cobalt	0.0500	J	0.000829	0.0532	mg/L		105	(75%-125%)			
Iron	2.00	J	0.0824	2.11	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)		02/03/23	15:08
Lithium	0.0500	U	ND	0.0625	mg/L		124	(75%-125%)			
Magnesium	2.00		5.34	7.70	mg/L		118	(75%-125%)			
Manganese	0.0500		0.0348	0.0864	mg/L		103	(75%-125%)		02/01/23	18:29
Molybdenum	0.0500	U	ND	0.0549	mg/L		110	(75%-125%)		02/03/23	15:08
Potassium	2.00		0.432	2.54	mg/L		106	(75%-125%)		02/01/23	18:29
Selenium	0.0500	U	ND	0.0465	mg/L		93.1	(75%-125%)			
Sodium	2.00		3.63	5.85	mg/L		111	(75%-125%)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 608422

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Thallium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	SKJ	02/01/23	18:29
QC1205304631 608410001 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	3.18	99.4	(0%-20%)		02/01/23	18:32
Arsenic	0.0500	U	ND	0.0541	mg/L	1.27	106	(0%-20%)		02/03/23	15:11
Barium	0.0500		0.0118	0.0587	mg/L	3	93.7	(0%-20%)		02/01/23	18:32
Beryllium	0.0500	U	ND	0.0558	mg/L	3.42	112	(0%-20%)		02/06/23	16:18
Boron	0.100	U	ND	0.124	mg/L	0.226	121	(0%-20%)		02/03/23	15:11
Cadmium	0.0500	U	ND	0.0503	mg/L	4.08	101	(0%-20%)		02/01/23	18:32
Calcium	2.00		4.86	7.13	mg/L	0.991	113	(0%-20%)			
Chromium	0.0500	J	0.00950	0.0614	mg/L	2.16	104	(0%-20%)			
Cobalt	0.0500	J	0.000829	0.0530	mg/L	0.458	104	(0%-20%)			
Iron	2.00	J	0.0824	2.06	mg/L	2.49	99	(0%-20%)			
Lead	0.0500	U	ND	0.0543	mg/L	1.38	109	(0%-20%)		02/03/23	15:11
Lithium	0.0500	U	ND	0.0623	mg/L	0.261	123	(0%-20%)			
Magnesium	2.00		5.34	7.85	mg/L	1.81	125	(0%-20%)			
Manganese	0.0500		0.0348	0.0852	mg/L	1.43	101	(0%-20%)		02/01/23	18:32

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QC Summary

Workorder: 608422

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Molybdenum	0.0500	U	ND	0.0558	mg/L	1.5	112	(0%-20%)	SKJ	02/03/23	15:11
Potassium	2.00		0.432	2.55	mg/L	0.416	106	(0%-20%)		02/01/23	18:32
Selenium	0.0500	U	ND	0.0467	mg/L	0.333	93.4	(0%-20%)			
Sodium	2.00		3.63	5.71	mg/L	2.43	104	(0%-20%)			
Thallium	0.0500	U	ND	0.0519	mg/L	2.13	104	(0%-20%)			
QC1205304632 608410001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Barium			11.8	J	2.36	ug/L	.33	(0%-20%)		02/01/23	18:39
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/06/23	16:20
Boron		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Calcium			4860		1000	ug/L	3.15	(0%-20%)			
Chromium		J	9.50	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		J	0.829	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	82.4	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/03/23	15:17
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		5340		1050	ug/L	1.84		(0%-20%)			
Manganese		34.8		6.88	ug/L	1.11		(0%-20%)		02/01/23	18:39
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/03/23	15:17
Potassium		432	J	97.3	ug/L	12.6		(0%-20%)		02/01/23	18:39
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3630		689	ug/L	4.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2374419										
QC1205304806	608391001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/27/23	10:12
QC1205304805	LCS										
Mercury	0.00200			0.00213	mg/L		106	(80%-120%)		01/27/23	10:08
QC1205304804	MB										
Mercury			U	ND	mg/L					01/27/23	10:07
QC1205304807	608391001	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		106	(75%-125%)		01/27/23	10:13

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2374419										
QC1205304808	608391001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/27/23	10:15
Solids Analysis											
Batch	2376170										
QC1205307926	608418001	DUP									
Total Dissolved Solids		344		341	mg/L	0.876		(0%-5%)	CH6	01/31/23	12:35
QC1205307924	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		01/31/23	12:35
QC1205307923	MB										
Total Dissolved Solids			U	ND	mg/L					01/31/23	12:35
Spectrometric Analysis											
Batch	2374521										
QC1205304980	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:43
QC1205304979	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:43
QC1205304981	608410001	PS									
Total Sulfide	0.400	U	ND	0.387	mg/L		96.8	(75%-125%)		01/30/23	15:43
QC1205304983	608418002	PS									
Total Sulfide	0.400	U	ND	0.352	mg/L		86.7	(75%-125%)		01/30/23	15:43
QC1205304982	608410001	PSD									
Total Sulfide	0.400	U	ND	0.392	mg/L	1.29	98.1	(0%-15%)		01/30/23	15:43
QC1205304984	608418002	PSD									
Total Sulfide	0.400	U	ND	0.362	mg/L	2.82	89.3	(0%-15%)		01/30/23	15:43

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2375518										
QC1205306806	608051001	DUP									
Alkalinity, Total as CaCO3		67.6		69.6	mg/L	2.92		(0%-20%)	MS3	01/28/23	12:24
Bicarbonate alkalinity (CaCO3)		67.6		69.6	mg/L	2.92		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205306658	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		01/28/23	12:18
QC1205306807	608051001	MS									
Alkalinity, Total as CaCO3	100	67.6		167	mg/L		99.6	(80%-120%)		01/28/23	12:30

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

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

Contact: Joju Abraham

Workorder: 608815

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2375453										
QC1205306674	608815001	DUP									
Chloride		3.36		3.36	mg/L	0.0149		(0%-20%)	JLD1	01/27/23	20:08
Fluoride	U	ND	U	ND	mg/L	N/A					
Nitrate-N	J	0.0655	J	0.0595	mg/L	9.6 ^		(+/-0.100)			
Sulfate		75.3		74.2	mg/L	1.55		(0%-20%)		01/27/23	23:08
QC1205306563	LCS										
Chloride	5.00			4.55	mg/L		91	(90%-110%)		01/27/23	19:38
Fluoride	2.50			2.56	mg/L		102	(90%-110%)			
Nitrate-N	2.50			2.33	mg/L		93.3	(90%-110%)			
Sulfate	10.0			9.47	mg/L		94.7	(90%-110%)			
QC1205306562	MB										
Chloride			U	ND	mg/L					01/27/23	19:09
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205306675	608815001	PS									
Chloride	5.00	3.36		8.31	mg/L		98.8	(90%-110%)		01/27/23	20:38

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2375453										
Fluoride	2.50	U	ND	2.67	mg/L		107	(90%-110%)	JLD1	01/27/23	20:38
Nitrate-N	2.50	J	0.0655	2.35	mg/L		91.4	(90%-110%)			
Sulfate	10.0		7.53	17.3	mg/L		98.1	(90%-110%)		01/27/23	23:37
Metals Analysis - ICPMS											
Batch	2375511										
QC1205306650	LCS										
Antimony	0.0500			0.0503	mg/L		101	(80%-120%)	SKJ	01/31/23	23:42
Arsenic	0.0500			0.0524	mg/L		105	(80%-120%)			
Barium	0.0500			0.0492	mg/L		98.4	(80%-120%)			
Beryllium	0.0500			0.0567	mg/L		113	(80%-120%)		02/01/23	13:22
Boron	0.100			0.112	mg/L		112	(80%-120%)			
Cadmium	0.0500			0.0520	mg/L		104	(80%-120%)		01/31/23	23:42
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0515	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0533	mg/L		107	(80%-120%)			

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Lithium	0.0500			0.0548	mg/L		110	(80%-120%)	SKJ	02/01/23	13:22
Magnesium	2.00			2.23	mg/L		112	(80%-120%)			
Manganese	0.0500			0.0513	mg/L		103	(80%-120%)		01/31/23	23:42
Molybdenum	0.0500			0.0530	mg/L		106	(80%-120%)		02/01/23	13:22
Potassium	2.00			2.06	mg/L		103	(80%-120%)		01/31/23	23:42
Selenium	0.0500			0.0503	mg/L		101	(80%-120%)			
Sodium	2.00			2.15	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0517	mg/L		103	(80%-120%)			
QC1205306649	MB										
Antimony			U	ND	mg/L					01/31/23	23:38
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/01/23	13:20
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					01/31/23	23:38
Calcium			U	ND	mg/L						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Chromium			U	ND	mg/L				SKJ	01/31/23	23:38
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L					02/01/23	13:20
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					01/31/23	23:38
Molybdenum			U	ND	mg/L					02/01/23	13:20
Potassium			U	ND	mg/L					01/31/23	23:38
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205306651 608815001 MS											
Antimony	0.0500	U	ND	0.0518	mg/L		103	(75%-125%)		01/31/23	23:49
Arsenic	0.0500	J	0.00388	0.0546	mg/L		101	(75%-125%)			
Barium	0.0500		0.0525	0.101	mg/L		96.6	(75%-125%)			

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2375511											
Beryllium	0.0500	J	0.000422		0.0573	mg/L		114	(75%-125%)	SKJ	02/01/23	13:27
Boron	0.100	J	0.0104		0.117	mg/L		106	(75%-125%)			
Cadmium	0.0500	U	ND		0.0519	mg/L		104	(75%-125%)		01/31/23	23:49
Calcium	2.00		16.8		19.3	mg/L		N/A	(75%-125%)			
Chromium	0.0500		0.0153		0.0671	mg/L		104	(75%-125%)			
Cobalt	0.0500	U	ND		0.0514	mg/L		103	(75%-125%)			
Iron	2.00	U	ND		1.99	mg/L		99.2	(75%-125%)			
Lead	0.0500	U	ND		0.0536	mg/L		107	(75%-125%)			
Lithium	0.0500	U	ND		0.0563	mg/L		110	(75%-125%)		02/01/23	13:27
Magnesium	2.00		9.68		11.6	mg/L		N/A	(75%-125%)			
Manganese	0.0500	J	0.00207		0.0523	mg/L		100	(75%-125%)		01/31/23	23:49
Molybdenum	0.0500	U	ND		0.0542	mg/L		108	(75%-125%)		02/01/23	13:27
Potassium	2.00		4.41		6.48	mg/L		104	(75%-125%)		01/31/23	23:49
Selenium	0.0500	J	0.00215		0.0511	mg/L		97.9	(75%-125%)			
Sodium	2.00		11.7		14.3	mg/L		N/A	(75%-125%)			

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Thallium	0.0500	U	ND	0.0522	mg/L		104	(75%-125%)	SKJ	01/31/23	23:49
QC1205306652 608815001 MSD											
Antimony	0.0500	U	ND	0.0498	mg/L	3.93	99.4	(0%-20%)		01/31/23	23:52
Arsenic	0.0500	J	0.00388	0.0549	mg/L	0.541	102	(0%-20%)			
Barium	0.0500		0.0525	0.0994	mg/L	1.41	93.8	(0%-20%)			
Beryllium	0.0500	J	0.000422	0.0577	mg/L	0.723	115	(0%-20%)		02/01/23	13:29
Boron	0.100	J	0.0104	0.124	mg/L	6.12	114	(0%-20%)			
Cadmium	0.0500	U	ND	0.0503	mg/L	3.11	101	(0%-20%)		01/31/23	23:52
Calcium	2.00		16.8	18.5	mg/L	4.38	N/A	(0%-20%)			
Chromium	0.0500		0.0153	0.0660	mg/L	1.77	101	(0%-20%)			
Cobalt	0.0500	U	ND	0.0518	mg/L	0.69	103	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	0.515	99.7	(0%-20%)			
Lead	0.0500	U	ND	0.0531	mg/L	0.849	106	(0%-20%)			
Lithium	0.0500	U	ND	0.0561	mg/L	0.276	110	(0%-20%)		02/01/23	13:29
Magnesium	2.00		9.68	11.8	mg/L	1.97	N/A	(0%-20%)			
Manganese	0.0500	J	0.00207	0.0516	mg/L	1.19	99.1	(0%-20%)		01/31/23	23:52

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Molybdenum	0.0500	U	ND	0.0546	mg/L	0.616	109	(0%-20%)	SKJ	02/01/23	13:29
Potassium	2.00		4.41	6.55	mg/L	1.08	107	(0%-20%)		01/31/23	23:52
Selenium	0.0500	J	0.00215	0.0508	mg/L	0.632	97.3	(0%-20%)			
Sodium	2.00		11.7	14.5	mg/L	0.899	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0522	mg/L	0.0364	104	(0%-20%)			
QC1205306653 608815001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		01/31/23	23:59
Arsenic		J	3.88	U	ND	ug/L	N/A	(0%-20%)			
Barium			52.5		10.3	ug/L	1.39	(0%-20%)			
Beryllium		J	0.422	U	ND	ug/L	N/A	(0%-20%)		02/01/23	13:33
Boron		J	10.4	J	5.27	ug/L	153	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		01/31/23	23:59
Calcium			16800		3280	ug/L	2.22	(0%-20%)			
Chromium			15.3	J	3.02	ug/L	1.13	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	01/31/23	23:59
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/01/23	13:33
Magnesium		9680		1880	ug/L	3.11		(0%-20%)			
Manganese	J	2.07	U	ND	ug/L	N/A		(0%-20%)		01/31/23	23:59
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/01/23	13:33
Potassium		4410		839	ug/L	4.91		(0%-20%)		01/31/23	23:59
Selenium	J	2.15	U	ND	ug/L	N/A		(0%-20%)			
Sodium		11700		2330	ug/L	.218		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2375754										
QC1205307096	608803003	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/31/23	10:21
QC1205307095	LCS										
Mercury	0.00200			0.00211	mg/L		105	(80%-120%)		01/31/23	10:11
QC1205307094	MB										
Mercury			U	ND	mg/L					01/31/23	10:09
QC1205307097	608803003	MS									
Mercury	0.00200	U	ND	0.00180	mg/L		90	(75%-125%)		01/31/23	10:22

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2375754										
QC1205307098	608803003	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/31/23	10:24
Solids Analysis											
Batch	2376741										
QC1205308819	608803009	DUP									
Total Dissolved Solids		693		693	mg/L	0		(0%-5%)	CH6	02/01/23	13:05
QC1205308817	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		02/01/23	13:05
QC1205308816	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	13:05
Batch	2377347										
QC1205309759	608803013	DUP									
Total Dissolved Solids		2280		2240	mg/L	1.68		(0%-5%)	CH6	02/02/23	14:28
QC1205309760	608969004	DUP									
Total Dissolved Solids		898		882	mg/L	1.8		(0%-5%)		02/02/23	14:28
QC1205309758	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/02/23	14:28
QC1205309757	MB										
Total Dissolved Solids			U	ND	mg/L					02/02/23	14:28
Spectrometric Analysis											
Batch	2376122										
QC1205307836	LCS										
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	HH2	02/02/23	11:42
QC1205307835	MB										
Total Sulfide			U	ND	mg/L					02/02/23	11:42

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2376122										
QC1205307839	608815006	PS									
Total Sulfide	0.400	U	ND	0.367	mg/L		86.7	(75%-125%)	HH2	02/02/23	11:47
QC1205307840	608815006	PSD									
Total Sulfide	0.400	U	ND	0.374	mg/L	1.88	88.4	(0%-15%)		02/02/23	11:48
Titration and Ion Analysis											
Batch	2378067										
QC1205313003	608803012	DUP									
Alkalinity, Total as CaCO3			6.00	6.20	mg/L	3.28	^	(+/-4.00)	EK1	02/06/23	14:58
Bicarbonate alkalinity (CaCO3)			6.00	6.20	mg/L	3.28	^	(+/-4.00)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205311158	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/06/23	14:46
QC1205313004	608803012	MS									
Alkalinity, Total as CaCO3	100		6.00	107	mg/L		101	(80%-120%)		02/06/23	15:03

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

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QC Summary

Workorder: 608815

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

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

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

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

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

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

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QC Summary

Report Date: February 7, 2023

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

Contact: Joju Abraham

Workorder: 608418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2373867										
QC1205304001	608418004	DUP									
Chloride		6.46		6.46	mg/L	0.065		(0%-20%)	HXC1	01/25/23	20:38
Fluoride		0.239		0.199	mg/L	18.2	^	(+/-0.100)			
Nitrate-N		0.149		0.151	mg/L	0.867	^	(+/-0.100)			
Sulfate		334		334	mg/L	0.0547		(0%-20%)		01/26/23	04:36
QC1205304000	LCS										
Chloride	5.00			4.85	mg/L			97.1 (90%-110%)		01/25/23	23:07
Fluoride	2.50			2.61	mg/L			105 (90%-110%)			
Nitrate-N	2.50			2.50	mg/L			99.8 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205303999	MB										
Chloride			U	ND	mg/L					01/25/23	22:37
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205304002	608418004	PS									
Chloride	5.00	6.46		12.5	mg/L			120* (90%-110%)		01/25/23	22:07

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2373867										
Fluoride	2.50	0.239		2.80	mg/L		103	(90%-110%)	HXC1	01/25/23	22:07
Nitrate-N	2.50	0.149		2.67	mg/L		101	(90%-110%)			
Sulfate	10.0	13.4		24.4	mg/L		111 *	(90%-110%)		01/26/23	05:06
Metals Analysis - ICPMS											
Batch	2374301										
QC1205304629	LCS										
Antimony	0.0500			0.0512	mg/L		102	(80%-120%)	SKJ	02/01/23	18:21
Arsenic	0.0500			0.0540	mg/L		108	(80%-120%)		02/03/23	14:21
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)		02/01/23	18:21
Beryllium	0.0500			0.0599	mg/L		120	(80%-120%)		02/03/23	14:21
Boron	0.100			0.113	mg/L		113	(80%-120%)			
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)		02/01/23	18:21
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0525	mg/L		105	(80%-120%)			
Cobalt	0.0500			0.0523	mg/L		105	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0549	mg/L		110	(80%-120%)		02/03/23	14:21

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QC Summary

Workorder: 608418

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lithium	0.0500			0.0574	mg/L		115	(80%-120%)	SKJ	02/03/23	14:21
Magnesium	2.00			2.36	mg/L		118	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		02/01/23	18:21
Molybdenum	0.0500			0.0539	mg/L		108	(80%-120%)		02/03/23	14:21
Potassium	2.00			2.08	mg/L		104	(80%-120%)		02/01/23	18:21
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.23	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0526	mg/L		105	(80%-120%)			
QC1205304628	MB										
Antimony			U	ND	mg/L					02/01/23	18:18
Arsenic			U	ND	mg/L					02/03/23	14:18
Barium			U	ND	mg/L					02/01/23	18:18
Beryllium			U	ND	mg/L					02/03/23	14:18
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/01/23	18:18
Calcium			U	ND	mg/L						

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Chromium			U	ND	mg/L				SKJ	02/01/23	18:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					02/03/23	14:18
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					02/01/23	18:18
Molybdenum			U	ND	mg/L					02/03/23	14:18
Potassium			U	ND	mg/L					02/01/23	18:18
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205304630 608410001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		02/01/23	18:29
Arsenic	0.0500	U	ND	0.0534	mg/L		105	(75%-125%)		02/03/23	15:08
Barium	0.0500		0.0118	0.0604	mg/L		97.3	(75%-125%)		02/01/23	18:29

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Beryllium	0.0500	U	ND	0.0578	mg/L		115	(75%-125%)	SKJ	02/06/23	16:16
Boron	0.100	U	ND	0.125	mg/L		121	(75%-125%)		02/03/23	15:08
Cadmium	0.0500	U	ND	0.0524	mg/L		105	(75%-125%)		02/01/23	18:29
Calcium	2.00		4.86	7.20	mg/L		117	(75%-125%)			
Chromium	0.0500	J	0.00950	0.0628	mg/L		107	(75%-125%)			
Cobalt	0.0500	J	0.000829	0.0532	mg/L		105	(75%-125%)			
Iron	2.00	J	0.0824	2.11	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)		02/03/23	15:08
Lithium	0.0500	U	ND	0.0625	mg/L		124	(75%-125%)			
Magnesium	2.00		5.34	7.70	mg/L		118	(75%-125%)			
Manganese	0.0500		0.0348	0.0864	mg/L		103	(75%-125%)		02/01/23	18:29
Molybdenum	0.0500	U	ND	0.0549	mg/L		110	(75%-125%)		02/03/23	15:08
Potassium	2.00		0.432	2.54	mg/L		106	(75%-125%)		02/01/23	18:29
Selenium	0.0500	U	ND	0.0465	mg/L		93.1	(75%-125%)			
Sodium	2.00		3.63	5.85	mg/L		111	(75%-125%)			

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QC Summary

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Thallium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	SKJ	02/01/23	18:29
QC1205304631 608410001 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	3.18	99.4	(0%-20%)		02/01/23	18:32
Arsenic	0.0500	U	ND	0.0541	mg/L	1.27	106	(0%-20%)		02/03/23	15:11
Barium	0.0500		0.0118	0.0587	mg/L	3	93.7	(0%-20%)		02/01/23	18:32
Beryllium	0.0500	U	ND	0.0558	mg/L	3.42	112	(0%-20%)		02/06/23	16:18
Boron	0.100	U	ND	0.124	mg/L	0.226	121	(0%-20%)		02/03/23	15:11
Cadmium	0.0500	U	ND	0.0503	mg/L	4.08	101	(0%-20%)		02/01/23	18:32
Calcium	2.00		4.86	7.13	mg/L	0.991	113	(0%-20%)			
Chromium	0.0500	J	0.00950	0.0614	mg/L	2.16	104	(0%-20%)			
Cobalt	0.0500	J	0.000829	0.0530	mg/L	0.458	104	(0%-20%)			
Iron	2.00	J	0.0824	2.06	mg/L	2.49	99	(0%-20%)			
Lead	0.0500	U	ND	0.0543	mg/L	1.38	109	(0%-20%)		02/03/23	15:11
Lithium	0.0500	U	ND	0.0623	mg/L	0.261	123	(0%-20%)			
Magnesium	2.00		5.34	7.85	mg/L	1.81	125	(0%-20%)			
Manganese	0.0500		0.0348	0.0852	mg/L	1.43	101	(0%-20%)		02/01/23	18:32

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Molybdenum	0.0500	U	ND	0.0558	mg/L	1.5	112	(0%-20%)	SKJ	02/03/23	15:11
Potassium	2.00		0.432	2.55	mg/L	0.416	106	(0%-20%)		02/01/23	18:32
Selenium	0.0500	U	ND	0.0467	mg/L	0.333	93.4	(0%-20%)			
Sodium	2.00		3.63	5.71	mg/L	2.43	104	(0%-20%)			
Thallium	0.0500	U	ND	0.0519	mg/L	2.13	104	(0%-20%)			
QC1205304632 608410001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Barium			11.8	J	2.36	ug/L	.33	(0%-20%)		02/01/23	18:39
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/06/23	16:20
Boron		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Calcium			4860		1000	ug/L	3.15	(0%-20%)			
Chromium		J	9.50	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		J	0.829	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	82.4	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/03/23	15:17
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		5340		1050	ug/L	1.84		(0%-20%)			
Manganese		34.8		6.88	ug/L	1.11		(0%-20%)		02/01/23	18:39
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/03/23	15:17
Potassium		432	J	97.3	ug/L	12.6		(0%-20%)		02/01/23	18:39
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3630		689	ug/L	4.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2374419										
QC1205304806	608391001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/27/23	10:12
QC1205304805	LCS										
Mercury	0.00200			0.00213	mg/L		106	(80%-120%)		01/27/23	10:08
QC1205304804	MB										
Mercury			U	ND	mg/L					01/27/23	10:07
QC1205304807	608391001	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		106	(75%-125%)		01/27/23	10:13

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2374419										
QC1205304808	608391001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/27/23	10:15
Solids Analysis											
Batch	2376170										
QC1205307926	608418001	DUP									
Total Dissolved Solids		344		341	mg/L	0.876		(0%-5%)	CH6	01/31/23	12:35
QC1205307924	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		01/31/23	12:35
QC1205307923	MB										
Total Dissolved Solids			U	ND	mg/L					01/31/23	12:35
Spectrometric Analysis											
Batch	2374521										
QC1205304980	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:43
QC1205304979	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:43
QC1205304983	608418002	PS									
Total Sulfide	0.400	U	ND	0.352	mg/L		86.7	(75%-125%)		01/30/23	15:43
QC1205304984	608418002	PSD									
Total Sulfide	0.400	U	ND	0.362	mg/L	2.82	89.3	(0%-15%)		01/30/23	15:43
Titration and Ion Analysis											
Batch	2375521										
QC1205306667	608540001	DUP									
Alkalinity, Total as CaCO3		71.6		72.0	mg/L	0.557		(0%-20%)	EK1	01/30/23	16:11
Bicarbonate alkalinity (CaCO3)		71.6		72.0	mg/L	0.557		(0%-20%)			

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2375521										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A			EK1	01/30/23	16:11
QC1205306666 LCS											
Alkalinity, Total as CaCO3	100			101	mg/L		101	(90%-110%)		01/30/23	15:14
QC1205306668 608540001 MS											
Alkalinity, Total as CaCO3	100	71.6		173	mg/L		101	(80%-120%)		01/30/23	16:15

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

QC Summary

Workorder: 608418

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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.

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QC Summary

Report Date: February 9, 2023

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

Contact: Joju Abraham

Workorder: 608614

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374768										
QC1205305382	608602001	DUP									
Chloride		5.84		5.87	mg/L	0.538		(0%-20%)	HXC1	01/26/23	21:55
Fluoride		0.130		0.180	mg/L	31.8	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				01/26/23	23:25
Sulfate		41.0		41.1	mg/L	0.217		(0%-20%)			
QC1205305381	LCS										
Chloride	5.00			4.83	mg/L			96.6 (90%-110%)		01/26/23	21:25
Fluoride	2.50			2.61	mg/L			104 (90%-110%)			
Nitrate-N	2.50			2.49	mg/L			99.4 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205305380	MB										
Chloride			U	ND	mg/L					01/26/23	19:56
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205305383	608602001	PS									
Chloride	5.00	5.84		11.6	mg/L			115* (90%-110%)		01/26/23	22:25

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374768										
Fluoride	2.50	0.130		2.78	mg/L		106	(90%-110%)	HXC1	01/26/23	22:25
Nitrate-N	2.50	U	ND	2.47	mg/L		98.7	(90%-110%)		01/26/23	23:55
Sulfate	10.0	8.20		18.7	mg/L		105	(90%-110%)			
Batch	2374833										
QC1205305506	608457001	DUP									
Chloride		10.0		10.0	mg/L	0.186		(0%-20%)	HXC1	01/27/23	04:25
Fluoride		0.585		0.734	mg/L	22.6*		(0%-20%)		01/26/23	22:15
Nitrate-N		1.18		1.17	mg/L	1.04		(0%-20%)		01/27/23	04:25
Sulfate		5.03		5.08	mg/L	1.03		(0%-20%)		01/26/23	22:15
QC1205305505	LCS										
Chloride	5.00			4.84	mg/L		96.8	(90%-110%)		01/26/23	21:44
Fluoride	2.50			2.52	mg/L		101	(90%-110%)			
Nitrate-N	2.50			2.39	mg/L		95.7	(90%-110%)			
Sulfate	10.0			9.68	mg/L		96.8	(90%-110%)			
QC1205305504	MB										
Chloride			U	ND	mg/L					01/26/23	20:12
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374833										
Sulfate			U	ND	mg/L				HXC1	01/26/23	20:12
QC1205305507 608457001 PS											
Chloride	5.00	5.01		10.5	mg/L		110	(90%-110%)		01/27/23	04:56
Fluoride	2.50	0.585		3.14	mg/L		102	(90%-110%)		01/26/23	22:46
Nitrate-N	2.50	0.590		2.87	mg/L		91.3	(90%-110%)		01/27/23	04:56
Sulfate	10.0	5.03		15.4	mg/L		104	(90%-110%)		01/26/23	22:46

Metals Analysis - ICPMS

Batch 2374786

QC1205305393 LCS											
Antimony	0.0500			0.0526	mg/L		105	(80%-120%)	SKJ	02/08/23	17:36
Arsenic	0.0500			0.0527	mg/L		105	(80%-120%)			
Barium	0.0500			0.0508	mg/L		102	(80%-120%)			
Beryllium	0.0500			0.0597	mg/L		119	(80%-120%)		02/07/23	18:32
Boron	0.100			0.119	mg/L		119	(80%-120%)		02/08/23	17:36
Cadmium	0.0500			0.0538	mg/L		108	(80%-120%)			
Calcium	2.00			2.20	mg/L		110	(80%-120%)			
Chromium	0.0500			0.0522	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Iron	2.00			2.04	mg/L		102	(80%-120%)	SKJ	02/08/23	17:36
Lead	0.0500			0.0526	mg/L		105	(80%-120%)			
Lithium	0.0500			0.0571	mg/L		114	(80%-120%)		02/07/23	18:32
Magnesium	2.00			2.24	mg/L		112	(80%-120%)		02/08/23	17:36
Manganese	0.0500			0.0518	mg/L		104	(80%-120%)			
Molybdenum	0.0500			0.0547	mg/L		109	(80%-120%)			
Potassium	2.00			2.06	mg/L		103	(80%-120%)			
Selenium	0.0500			0.0527	mg/L		105	(80%-120%)			
Sodium	2.00			2.24	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0516	mg/L		103	(80%-120%)			
QC1205305392	MB										
Antimony			U	ND	mg/L					02/08/23	17:32
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/07/23	18:29
Boron			U	ND	mg/L					02/08/23	17:32

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Cadmium			U	ND	mg/L				SKJ	02/08/23	17:32
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					02/07/23	18:29
Magnesium			U	ND	mg/L					02/08/23	17:32
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						
QC1205305394	608602001	MS									
Antimony	0.0500	U	ND	0.0535	mg/L		107	(75%-125%)		02/08/23	19:13

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QC Summary

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2374786											
Arsenic	0.0500	J	0.00221		0.0524	mg/L		100	(75%-125%)	SKJ	02/08/23	19:13
Barium	0.0500		0.0498		0.0988	mg/L		97.9	(75%-125%)			
Beryllium	0.0500	U	ND		0.0601	mg/L		120	(75%-125%)		02/07/23	18:40
Boron	0.100		1.47		1.54	mg/L		N/A	(75%-125%)		02/08/23	17:43
Cadmium	0.0500	U	ND		0.0530	mg/L		106	(75%-125%)		02/08/23	19:13
Calcium	2.00		25.1		27.8	mg/L		N/A	(75%-125%)			
Chromium	0.0500	U	ND		0.0520	mg/L		103	(75%-125%)			
Cobalt	0.0500	U	ND		0.0513	mg/L		102	(75%-125%)			
Iron	2.00	J	0.0504		2.04	mg/L		99.6	(75%-125%)			
Lead	0.0500	U	ND		0.0518	mg/L		104	(75%-125%)			
Lithium	0.0500	J	0.00728		0.0653	mg/L		116	(75%-125%)		02/07/23	18:40
Magnesium	2.00		10.8		13.1	mg/L		N/A	(75%-125%)		02/08/23	19:13
Manganese	0.0500		0.396		0.459	mg/L		N/A	(75%-125%)		02/09/23	11:05
Molybdenum	0.0500	U	ND		0.0554	mg/L		111	(75%-125%)		02/08/23	19:13
Potassium	2.00		2.95		5.22	mg/L		114	(75%-125%)			

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Selenium	0.0500	U	ND	0.0492	mg/L		98.3	(75%-125%)	SKJ	02/08/23	19:13
Sodium	2.00		12.5	14.9	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0513	mg/L		103	(75%-125%)			
QC1205305395	608602001 MSD										
Antimony	0.0500	U	ND	0.0526	mg/L	1.66	105	(0%-20%)		02/08/23	19:17
Arsenic	0.0500	J	0.00221	0.0525	mg/L	0.168	101	(0%-20%)			
Barium	0.0500		0.0498	0.0968	mg/L	2	94	(0%-20%)			
Beryllium	0.0500	U	ND	0.0617	mg/L	2.74	123	(0%-20%)		02/07/23	18:43
Boron	0.100		1.47	1.61	mg/L	4.7	N/A	(0%-20%)		02/08/23	17:47
Cadmium	0.0500	U	ND	0.0544	mg/L	2.71	109	(0%-20%)		02/08/23	19:17
Calcium	2.00		25.1	27.2	mg/L	2.09	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0516	mg/L	0.689	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0501	mg/L	2.39	99.8	(0%-20%)			
Iron	2.00	J	0.0504	2.01	mg/L	1.41	98.2	(0%-20%)			
Lead	0.0500	U	ND	0.0502	mg/L	3.16	100	(0%-20%)			
Lithium	0.0500	J	0.00728	0.0658	mg/L	0.747	117	(0%-20%)		02/07/23	18:43

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Magnesium	2.00	10.8		13.2	mg/L	0.43	N/A	(0%-20%)	SKJ	02/08/23	19:17
Manganese	0.0500	0.396		0.444	mg/L	3.41	N/A	(0%-20%)		02/09/23	11:07
Molybdenum	0.0500	U	ND	0.0559	mg/L	0.82	112	(0%-20%)		02/08/23	19:17
Potassium	2.00	2.95		5.12	mg/L	1.87	109	(0%-20%)			
Selenium	0.0500	U	ND	0.0498	mg/L	1.27	99.6	(0%-20%)			
Sodium	2.00	12.5		14.4	mg/L	3.52	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0494	mg/L	3.8	98.8	(0%-20%)			
QC1205305396	608602001	SDILT									
Antimony	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Arsenic	J	2.21	U	ND	ug/L	N/A		(0%-20%)			
Barium		49.8		9.94	ug/L	.173		(0%-20%)			
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/07/23	18:50
Boron		147		37.0	ug/L	26.2		(0%-20%)		02/08/23	17:50
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Calcium		25100		5080	ug/L	1.08		(0%-20%)			
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/08/23	19:24
Iron	J	50.4	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	J	7.28	U	ND	ug/L	N/A		(0%-20%)		02/07/23	18:50
Magnesium		10800		2170	ug/L	.232		(0%-20%)		02/08/23	19:24
Manganese		396		79.8	ug/L	.655		(0%-20%)		02/09/23	11:11
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Potassium		2950		585	ug/L	.814		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		12500		2450	ug/L	1.88		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2375028										
QC1205305820	608516009 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/30/23	12:15
QC1205305819	LCS										
Mercury		0.00200		0.00188	mg/L		93.8	(80%-120%)		01/30/23	12:07
QC1205305818	MB										
Mercury			U	ND	mg/L					01/30/23	12:05

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 2375028											
QC1205305821	608516009	MS									
Mercury	0.00200	U	ND	0.00184	mg/L		91.9	(75%-125%)	JP2	01/30/23	12:17
QC1205305822	608516009	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		01/30/23	12:19
Solids Analysis											
Batch 2376740											
QC1205308815	608602001	DUP									
Total Dissolved Solids			156	154	mg/L	1.29		(0%-5%)	CH6	02/01/23	11:35
QC1205308813	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		02/01/23	11:35
QC1205308812	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	11:35
Batch 2376741											
QC1205308819	608803009	DUP									
Total Dissolved Solids			693	693	mg/L	0		(0%-5%)	CH6	02/01/23	13:05
QC1205308817	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		02/01/23	13:05
QC1205308816	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	13:05
Spectrometric Analysis											
Batch 2375142											
QC1205306028	LCS										
Total Sulfide	0.400			0.413	mg/L		103	(85%-115%)	JW2	01/30/23	15:41
QC1205306027	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:41

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2375142										
QC1205306031	608614004	PS									
Total Sulfide	0.400	U	ND	0.392	mg/L		96.8	(75%-125%)	JW2	01/30/23	15:42
QC1205306032	608614004	PSD									
Total Sulfide	0.400	U	ND	0.382	mg/L	2.6	94.3	(0%-15%)		01/30/23	15:42
Titration and Ion Analysis											
Batch	2379826										
QC1205313789	608555001	DUP									
Alkalinity, Total as CaCO3			55.2	55.6	mg/L	0.722		(0%-20%)	MS3	02/07/23	13:24
Bicarbonate alkalinity (CaCO3)			55.2	55.6	mg/L	0.722		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205313786	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		02/07/23	12:39
QC1205313790	608555001	MS									
Alkalinity, Total as CaCO3	100		55.2	158	mg/L		102	(80%-120%)		02/07/23	13:27

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

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

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

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

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

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

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608815**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2375511

Preparation Method: SW846 3005A

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

Preparation Batch: 2375510

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815005	BRA-PZ-52D
1205306649	Method Blank (MB) ICP-MS
1205306650	Laboratory Control Sample (LCS)
1205306653	608815001(BRA-PZ-13SL) Serial Dilution (SD)
1205306651	608815001(BRA-PZ-13SS) Matrix Spike (MS)
1205306652	608815001(BRA-PZ-13SSD) 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 608815002 (BRA-PZ-70I) and 608815005 (BRA-PZ-52D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608815	
	002	005
Boron	20X	1X
Magnesium	5X	5X
Sodium	1X	10X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2375754

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2375753

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815005	BRA-PZ-52D
1205307094	Method Blank (MB)CVAA
1205307095	Laboratory Control Sample (LCS)
1205307098	608803003(BRA-BRGWC-30IL) Serial Dilution (SD)
1205307096	608803003(BRA-BRGWC-30ID) Sample Duplicate (DUP)
1205307097	608803003(BRA-BRGWC-30IS) 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# 30

Analytical Batch: 2375453

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S

608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815006	BRA-PZ-52D
1205306562	Method Blank (MB)
1205306563	Laboratory Control Sample (LCS)
1205306674	608815001(BRA-PZ-13S) Sample Duplicate (DUP)
1205306675	608815001(BRA-PZ-13S) 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 1205306674 (BRA-PZ-13SDUP), 1205306675 (BRA-PZ-13SPS), 608815001 (BRA-PZ-13S), 608815002 (BRA-PZ-70I), 608815003 (BRA-APE-FD-05) and 608815006 (BRA-PZ-52D) were diluted because target analyte concentrations exceeded the calibration range. The following sample 608815002 (BRA-PZ-70I) 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	608815			
	001	002	003	006
Chloride	1X	1X	1X	10X
Fluoride	1X	2X	1X	1X
Sulfate	10X	20X	10X	10X

Miscellaneous Information

Manual Integrations

Sample 608815006 (BRA-PZ-52D) 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# 20

Analytical Batch: 2376741

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815005	BRA-PZ-52D
1205308816	Method Blank (MB)
1205308817	Laboratory Control Sample (LCS)

1205308819

608803009(BRA-PZ-51D) 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# 20

Analytical Batch: 2377347

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
1205309757	Method Blank (MB)
1205309758	Laboratory Control Sample (LCS)
1205309759	608803013(BRA-PZ-61I) Sample Duplicate (DUP)
1205309760	608969004(BRA-PZ-57I) 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# 12

Analytical Batch: 2376122

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815006	BRA-PZ-52D
1205307835	Method Blank (MB)
1205307836	Laboratory Control Sample (LCS)
1205307839	608815006(BRA-PZ-52D) Post Spike (PS)
1205307840	608815006(BRA-PZ-52D) 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# 14

Analytical Batch: 2378067

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815006	BRA-PZ-52D
1205311158	Laboratory Control Sample (LCS)
1205313003	608803012(BRA-PZ-60I) Sample Duplicate (DUP)
1205313004	608803012(BRA-PZ-60I) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608614**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2374786

Preparation Method: SW846 3005A

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

Preparation Batch: 2374785

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205305392	Method Blank (MB)ICP-MS
1205305393	Laboratory Control Sample (LCS)
1205305396	608602001(BRA-PZ-44L) Serial Dilution (SD)
1205305394	608602001(BRA-PZ-44S) Matrix Spike (MS)
1205305395	608602001(BRA-PZ-44SD) 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 6020A/6020B met the advisory control limits with the exception of boron. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected. 608614001 (BRA-BRGWC-36S), 608614003 (BRA-BRGWC-38S) and 608614004 (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. Samples 608614001 (BRA-BRGWC-36S), 608614003 (BRA-BRGWC-38S) and 608614004 (BRA-PZ-53D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608614		
	001	003	004
Boron	10X	10X	10X
Calcium	1X	1X	5X
Manganese	1X	10X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2375028

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2375027

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205305818	Method Blank (MB)CVAA
1205305819	Laboratory Control Sample (LCS)
1205305822	608516009(NonSDGL) Serial Dilution (SD)
1205305820	608516009(NonSDGD) Sample Duplicate (DUP)
1205305821	608516009(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# 30

Analytical Batch: 2374768

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
1205305380	Method Blank (MB)
1205305381	Laboratory Control Sample (LCS)
1205305382	608602001(BRA-PZ-44) Sample Duplicate (DUP)
1205305383	608602001(BRA-PZ-44) 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	1205305383 (BRA-PZ-44PS)	115* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205305382 (BRA-PZ-44DUP), 1205305383 (BRA-PZ-44PS) and 608614001 (BRA-BRGWC-36S) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205305382 (BRA-PZ-44DUP) and 1205305383 (BRA-PZ-44PS) 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	608614
	001
Sulfate	20X

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2374833

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205305504	Method Blank (MB)
1205305505	Laboratory Control Sample (LCS)
1205305506	608457001(NonSDG) Sample Duplicate (DUP)
1205305507	608457001(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

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
Fluoride	1205305506 (Non SDG 608457001DUP)	22.6* (0%-20%)

Technical Information

Sample Dilutions

The following samples 1205305506 (Non SDG 608457001DUP), 1205305507 (Non SDG 608457001PS), 608614003 (BRA-BRGWC-38S) and 608614004 (BRA-PZ-53D) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205305506 (Non SDG 608457001DUP), 1205305507 (Non SDG 608457001PS), 608614002 (BRA-BRGWC-37S), 608614003 (BRA-BRGWC-38S) and 608614004 (BRA-PZ-53D) 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	608614		
	002	003	004
Nitrate-N	2X	2X	2X
Sulfate	1X	40X	40X

Miscellaneous Information

Manual Integrations

Samples 608614004 (BRA-PZ-53D) and 608614006 (BRA-APE-FB-08) 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# 20
Analytical Batch: 2376740

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
1205308812	Method Blank (MB)
1205308813	Laboratory Control Sample (LCS)
1205308815	608602001(BRA-PZ-44) 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# 20
Analytical Batch: 2376741

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205308816	Method Blank (MB)
1205308817	Laboratory Control Sample (LCS)
1205308819	608803009(BRA-PZ-51D) 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# 12

Analytical Batch: 2375142

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205306027	Method Blank (MB)
1205306028	Laboratory Control Sample (LCS)
1205306031	608614004(BRA-PZ-53D) Post Spike (PS)
1205306032	608614004(BRA-PZ-53D) 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# 14

Analytical Batch: 2379826

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205313786	Laboratory Control Sample (LCS)
1205313789	608555001(NonSDG) Sample Duplicate (DUP)
1205313790	608555001(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608422**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2374301

Preparation Method: SW846 3005A

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

Preparation Batch: 2374300

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304628	Method Blank (MB)ICP-MS
1205304629	Laboratory Control Sample (LCS)
1205304632	608410001(BRA-BRGWA-2SL) Serial Dilution (SD)
1205304630	608410001(BRA-BRGWA-2SS) Matrix Spike (MS)
1205304631	608410001(BRA-BRGWA-2SSD) Matrix Spike Duplicate (MSD)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 608422001 (BRA-APE-FD-04) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	608422
	001
Boron	10X
Calcium	10X

Manganese	10X
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Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2374419

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2374418

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304804	Method Blank (MB)CVAA
1205304805	Laboratory Control Sample (LCS)
1205304808	608391001(NonSDGL) Serial Dilution (SD)
1205304806	608391001(NonSDGD) Sample Duplicate (DUP)
1205304807	608391001(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# 30

Analytical Batch: 2374002

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304357	Method Blank (MB)
1205304358	Laboratory Control Sample (LCS)
1205304359	608413001(BRA-BRGWA-12S) Sample Duplicate (DUP)
1205304360	608413001(BRA-BRGWA-12S) 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 sample 608422001 (BRA-APE-FD-04) was diluted because target analyte concentrations exceeded the calibration range. The following samples 1205304359 (BRA-BRGWA-12SDUP), 1205304360 (BRA-BRGWA-12SPS) and 608422001 (BRA-APE-FD-04) 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	608422
	001
Chloride	40X
Nitrate-N	2X
Sulfate	40X

Miscellaneous Information

Manual Integrations

Sample 608422001 (BRA-APE-FD-04) 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# 20

Analytical Batch: 2376170

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205307923	Method Blank (MB)
1205307924	Laboratory Control Sample (LCS)
1205307926	608418001(BRA-BRGWC-17S) 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# 12

Analytical Batch: 2374521

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304979	Method Blank (MB)
1205304980	Laboratory Control Sample (LCS)
1205304981	608410001(BRA-BRGWA-2S) Post Spike (PS)
1205304982	608410001(BRA-BRGWA-2S) Post Spike Duplicate (PSD)
1205304983	608418002(BRA-BRGWC-33S) Post Spike (PS)
1205304984	608418002(BRA-BRGWC-33S) 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# 14

Analytical Batch: 2375518

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205306658	Laboratory Control Sample (LCS)
1205306806	608051001(NonSDG) Sample Duplicate (DUP)
1205306807	608051001(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608418**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2374301

Preparation Method: SW846 3005A

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

Preparation Batch: 2374300

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205304628	Method Blank (MB) ICP-MS
1205304629	Laboratory Control Sample (LCS)
1205304632	608410001(BRA-BRGWA-2SL) Serial Dilution (SD)
1205304630	608410001(BRA-BRGWA-2SS) Matrix Spike (MS)
1205304631	608410001(BRA-BRGWA-2SSD) 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 608418002 (BRA-BRGWC-33S), 608418003 (BRA-BRGWC-34S) and 608418004 (BRA-BRGWC-35S) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608418		
	002	003	004
Boron	10X	20X	20X
Calcium	10X	5X	5X
Manganese	10X	5X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2374419

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2374418

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205304804	Method Blank (MB)CVAA
1205304805	Laboratory Control Sample (LCS)
1205304808	608391001(NonSDGL) Serial Dilution (SD)
1205304806	608391001(NonSDGD) Sample Duplicate (DUP)
1205304807	608391001(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# 30

Analytical Batch: 2373867

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S

608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205303999	Method Blank (MB)
1205304000	Laboratory Control Sample (LCS)
1205304001	608418004(BRA-BRGWC-35S) Sample Duplicate (DUP)
1205304002	608418004(BRA-BRGWC-35S) 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	1205304002 (BRA-BRGWC-35SPS)	120* (90%-110%)
Sulfate	1205304002 (BRA-BRGWC-35SPS)	111* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205304001 (BRA-BRGWC-35SDUP), 1205304002 (BRA-BRGWC-35SPS), 608418001 (BRA-BRGWC-17S), 608418002 (BRA-BRGWC-33S), 608418003 (BRA-BRGWC-34S) and 608418004 (BRA-BRGWC-35S) were diluted because target analyte concentrations exceeded the calibration range. The following sample 608418001 (BRA-BRGWC-17S) 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	608418			
	001	002	003	004
Chloride	1X	40X	1X	1X
Nitrate-N	2X	1X	1X	1X
Sulfate	20X	40X	40X	25X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 20

Analytical Batch: 2376170

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205307923	Method Blank (MB)
1205307924	Laboratory Control Sample (LCS)
1205307926	608418001(BRA-BRGWC-17S) 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# 12

Analytical Batch: 2374521

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205304979	Method Blank (MB)
1205304980	Laboratory Control Sample (LCS)
1205304983	608418002(BRA-BRGWC-33S) Post Spike (PS)
1205304984	608418002(BRA-BRGWC-33S) 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# 14

Analytical Batch: 2375521

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
-----------------------	-------------------------------------

608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205306666	Laboratory Control Sample (LCS)
1205306667	608540001(NonSDG) Sample Duplicate (DUP)
1205306668	608540001(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

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

608622
 608614

GEL Work Order Number: _____
 Phone # 404-506-7116
 Fax # _____

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

Collected By: T. Gebel ACC
 Send Results To: SCS & Geosyntec Contacts

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 Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1	
						Radioactive (if yes, please supply isotopic info.)	(7) Known or possible hazards	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C	Total & Bicarb Alk SM 2208B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9215, 9320		Sulfide SM 4500
BRA-BAGWC-365	01/25/23	1553	G	N	WG	N	N	Y	Y	Y	Y	Y	field pH = 5.64 field ferrous iron = 0.0
BRA-BAGWC-375	01/25/23	1320	G	N	WG	N	N	Y	Y	Y	Y	Y	field pH = 5.84 field ferrous iron = 0.0
BRA-BAGWC-345	01/25/23	1353	G	N	WG	N	N	Y	Y	Y	Y	Y	field pH = 4.75 field ferrous iron = 0.0
BRA-P2-53D	01/25/23	1615	G	N	WG	N	N	Y	Y	Y	Y	Y	field pH = 7.10 field ferrous iron = 0.0
BRA-APE-EB-09	01/25/23	1245	G	N	WQ	N	N	Y	Y	Y	Y	Y	field pH = _____ field ferrous iron = _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>T. Gebel</u>	1-26-23	0827	<u>[Signature]</u>	1/26/23	5:24
<u>[Signature]</u>	1/26/23	115	<u>[Signature]</u>	1/26/23	1:15

TAT Requested: Normal: Yes No Rush: _____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

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

Additional Remarks: * 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, 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

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.)

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 # _____

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - ~~TK~~ **E**
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: **T. Goble** ACC

Send Results To: SCS & Geosyntec Contacts
 Sample ID _____
 *For composites - indicate start and stop date/time

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: (If isotopic info) Yes, please supply (7) Known or possible hazards	Total number of containers	Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)	Preservative Type ⁽⁶⁾	Comments
BRA- APE - FB-08	01/25/23	1645	G	N	WG WB	N	8	C1, F, SO4, TDS, NO3 EPA 300, SM 254OC Total & Bicarb Alk SM 2320B Cd, Co, Se+ Metals * EPA 6020, 6010 Hg, Cr+ Metals * EPA 6030, 6010 Sulfide SM 4500 Biolum 226+		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1/26/23	0827	<i>[Signature]</i>	1/26/23	8:24
<i>[Signature]</i>	1/26/23	9:15	<i>[Signature]</i>	1/26/23	11:5

TAT Requested: Normal: Yes No Rush: _____ Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * Metals: B,Ca,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:

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
 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 Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCRA metals
 Pb = Lead
 TSCA Regulated
 PCB = Polychlorinated biphenyls



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: **GPCC** SDG/AR/COC/Work Order: **608622, 608614**

Received By: **Stacy Boone** Date Received: **JAN 26, 2023** Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Carrier and Tracking Number

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? 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): 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 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: TEMP: 10 x 5 *all temperatures are recorded in Celsius
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>IR3-22</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: If Preservation added, Lot#: 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 ___
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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):

PM (or PMA) review: Initials AD Date 1/27/23 Page 1 of 1

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) Radiative (if yes, please supply isotopic info): _____
 (9) Metals: _____
 (10) Total & Biearb Alk: _____
 (11) EPA 300, SM 2540C: _____
 (12) Cl, F, SO4, TDS, NO3: _____
 (13) Radium 226 & 228: _____
 (14) SW-846 9315, 9320: _____
 (15) Sulfide SM 4500: _____
 (16) Preservative Type (6): _____

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (6)	Field Filtered (6)	Sample Matrix (6)	Should this sample be considered:	Total number of containers	Comments
BRA-PZ-13S	01/26/23	1120	G	N	WG	N	8	field pH = 5.56 field ferrous iron = 0.0 mg/L
BRA-PZ-70I	01/26/23	1022	G	N	WG	N	8	field pH = 5.60 field ferrous iron = 0.0 mg/L
BRA-APE-FD-05	01/26/23	/	G	N	WG	N	8	field pH = NA field ferrous iron = NA
BRA-APE-EB-10	01/26/23	1100	G	N	WQ	N	8	field pH = NA field ferrous iron = NA
BRA-								field pH = field ferrous iron =

Chain of Custody Signatures
 Relinquished By (Signed) Date Time Received by (signed) Date Time
 1. [Signature] 01/22/23 0950 [Signature] 01/27/23 950
 2. [Signature] 01/27/23 213 [Signature] 01/27/23 213
 3. _____
 TAT Requested: Normal: Yes No Rush: Yes No Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * 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, 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 = Sulfuric Acid, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 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:
 RCRA Metals
 As = Arsenic Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCRA metals
 Pb = Lead
 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.)

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Work Order Number: 608815
GEL Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax # _____

Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: A Selma Hiker ACC
 Send Results To: SCS & Geosyntec Contacts

Client Name: GA Power
 Sample ID: _____
 * For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code ⁽²⁾	Field Filtered ⁽³⁾	Sample Matrix ⁽⁴⁾
BRA-PZ-52D	01/25/23	1424	G	N	WG
BRA-PZ-52D	01/26/23	1240	G	N	WG
BRA-					
BRA-					
BRA-					

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____

1. [Signature] 01/27/23 0950
 2. [Signature] 1/27/23 213
 3. _____

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)
 Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: 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 = 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
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
 Pb = Lead
 TSCA Regulated: PCB = Polychlorinated biphenyls
 Listed Waste: 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 Analysis Requested ⁽⁵⁾	Should this sample be considered:	Total number of containers	Preservative Type (6)	Comments
Metals * EPA 6020, 6010, 7470 Total & Bicarb Alk SM 2320B	(?) Known or possible Hazards Yes, please supply isotopic info.	2	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI
Sulfide SW-846 9315, 9320		3	field pH = 7.14	
Radium 226 & 228 EPA 309, SM 2540C			field ferrous iron = 0.0 mg/L	
SM 4500			field pH = 7.7	
CI F, SO4, NO3			field ferrous iron = 0.0 mg/L	
FP4 300, SM 2600			field pH =	
			field ferrous iron =	
			field pH =	
			field ferrous iron =	
			field pH =	
			field ferrous iron =	
			field pH =	
			field ferrous iron =	

TAT Requested: Normal: Rush: _____ Specify: _____ (Subject to Surcharge)
 Fax Results: [] Yes [X] No
 Select Deliverable: [] C of A [] QC Summary [] Level 1 [X] Level 2 [] Level 3 [] Level 4
 Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Sn,Tl,Fe,Mg,Mn,K,Na,Hg
 For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: _____ °C



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: GPOC SDG/AR/COC/Work Order: 608810, 608819 ET

Received By: Thyasia Tatum Date Received: 1-27-23

Carrier and Tracking Number
Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information
Yes No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous? Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes No
B) Did the client designate the samples are to be received as radioactive? COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous? COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards? If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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: <u>IC</u>
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>R2-20</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: If Preservation added, Lot#:
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 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):

PM (or PMA) review: Initials AT Date 1/31/23 Page 1 of 1

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

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-2023S1
						Yes, please supply isotopic info) (7) Known or possible Hazards	Total number of containers	C1, F, S04, TDS, NO3	EPA 300, SM 2540C	Total & Bicarb Alk	SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	
BRA- BRGWC-17S	01/24/23	1618	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 6.37 field ferrous iron = 0.0
BRA- BRGWC-33S	01/24/23	1340	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 4.79 field ferrous iron = 0.0
BRA- BRGWC-34S	01/24/23	1253	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 5.93 field ferrous iron = 0.0
BRA- BRGWC-35S	01/24/23	1444	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 6.08 field ferrous iron = 0.0
BRA-														field pH = field ferrous iron =

Chain of Custody Signatures			
Relinquished By (Signed)	Date	Time	Received by (signed)
<i>[Signature]</i>	1-25-23	6:30	<i>[Signature]</i>
<i>[Signature]</i>	1-25-23	1:25	<i>[Signature]</i>

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Bi,Cd,Cr,Cu,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, 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 = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste, CO = Corrosive, RE = Reactive, TSCA Regulated, PCB = Polychlorinated biphenyls
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
 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.)

SAMPLE RECEIPT & REVIEW FORM

Client: GPEC SDG/AR/COC/Work Order: 606422 608423
 Received By: PG Date Received: 1/25/23

Carrier and Tracking Number
 Circle Applicable:
 FedEx Express FedEx Ground UPS Field Services Courier Other

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): <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?		<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"/>			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 ≤ deg. C)?*	<input checked="" 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"/>			Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?			<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

List of current GEL Certifications as of 10 February 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

List of current GEL Certifications as of 07 February 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

List of current GEL Certifications as of 09 February 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

List of current GEL Certifications as of 07 February 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

VALIDATION REPORTS

Fall 2022

Memorandum

Date: 31 October 2022
To: Max Cange
From: Ashley Wilson
CC: J. Caprio
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 590838, 590845, 590855, 590857, 591351, 591355, 591881 and 591887**

SITE: Plant Branch CCR Groundwater Compliance AP-BCD and AP-E

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of forty groundwater samples, four equipment blanks, four field blanks and four field duplicate samples, collected 23-25 August 2022, 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:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by US EPA Method 7470A
- Anions (Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- 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 as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment, and the following documents:

US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and

the 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
590838001	BRGWA-2S
590838002	BRGWA-2I
590838003	BRGWA-5S
590838004	BRGWA-5I
590838005	BRGWA-6S
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
590857006	FB-04
591351001	BRGWC-17S
591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
591355001	FD-01
591355002	PZ-58I

Laboratory IDs	Client IDs
591355003	PZ-60I
591355004	FB-02
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355011	PZ-51I
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
591355015	FD-02
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I
591355021	FB-03
591355022	PZ-63I
591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
591881001	PZ-70
591887001	PZ-52D

The samples were received at 1.0, 2.0 and 5.0 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.

The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, FD-01, FD-02, FD-03 and FD-04. The laboratory logged the samples in with the collection time of 12:00.

591355 and 590855: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

590838 and 590845: The year was not documented on the COC for the relinquished by date for the second sample transfer.

591881 and 591887: The relinquished by signature, date and time and the received by time for the second sample transfer were not documented on the COC.

The field pH data included in the laboratory report were not validated.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B. Mercury was evaluated separately in Section 2.0, below.

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
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ⊗ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

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%.

1.2 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). Four method blanks were reported (batches 2308385, 2310153, 2310155 and 2312380). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exception.

591881: Molybdenum was detected in the method blank in batch 2312380 at an estimated concentration greater than the MDL and less than the reporting limit (RL). Therefore, the molybdenum concentration in sample PZ-70 was J+ qualified as estimated with a high bias.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-70	Molybdenum	0.00142	NA	0.00142	J+	3

mg/L- milligram per liter

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

1.4 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 BRGWA-2S, PZ-51D, PZ-70 and BRGWC-17S. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exception.

590838: The magnesium recovery in the MS using sample BRGWA-2S was high and outside the laboratory specified acceptance criteria and the magnesium recovery in the post digestion spike (PDS) was within the laboratory specified acceptance criteria. Therefore, the magnesium concentration in sample BRGWA-2S was J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2S	Magnesium	4.86	NA	4.86	J	4

mg/L- milligram per liter

NA-not applicable

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). Four LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Field Blank

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. Metals were not detected in the field blanks above the MDLs, with the following exceptions.

Sodium (0.565 mg/L) and calcium (0.25 mg/L) were detected in FB-01 at concentrations greater than the RLs and magnesium was detected in FB-01 at an estimated concentration greater than the MDL and less than the RL. Iron was detected in FB-04 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated magnesium and iron concentrations in the associated samples were U qualified as not detected at the RLs and based on professional and technical judgment the iron concentrations in samples BRGWA-23S, BRGWC-47 and BRGWC-25I, and sodium and calcium concentrations in the associated samples greater than the RLs and less than ten times the field blank concentration were J+ qualified as estimated with high biases.

Manganese (0.00513 mg/L) was detected in FB-03 at a concentration greater than the RL and sodium and boron were detected in FB-03 at estimated concentrations greater than the MDLs and less than the RLs. Based on the concentration of sodium in the associated samples and professional and technical judgment, no qualifications were applied to the sodium data. However, the estimated manganese concentration in the associated samples were U qualified as not detected at the RL, based on professional and technical judgment the boron concentration in samples EB-07, EB-06 and BRGWC-32S and the manganese concentrations greater than the RLs and less than the times the RLs were J+ qualified as estimated with high biases.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2I	Iron	0.183	NA	0.183	J+	3
BRGWA-2S	Iron	0.0763	J	0.100	U	3
BRGWA-2S	Sodium	3.36	NA	3.36	J+	3
BRGWA-5I	Sodium	4.93	NA	4.93	J+	3
BRGWA-5S	Iron	0.151	NA	0.151	J+	3
BRGWA-5S	Sodium	4.03	NA	4.03	J+	3
BRGWA-6S	Iron	0.0701	J	0.100	U	3
BRGWA-6S	Sodium	2.44	NA	2.44	J+	3
EB-05	Sodium	0.703	NA	0.703	J+	3

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
EB-05	Magnesium	0.0152	J	0.0300	U	3
EB-05	Calcium	0.313	NA	0.313	J+	3
BRGWA-23S	Iron	0.114	NA	0.114	J+	3
BRGWC-47	Iron	0.101	NA	0.101	J+	3
BRGWA-12S	Sodium	5.41	NA	5.41	J+	3
BRGWC-25I	Iron	0.193	NA	0.193	J+	3
BRGWC-33S	Iron	0.0381	J	0.100	U	3
BRGWC-37S	Sodium	4.51	NA	4.51	J+	3
EB-06	Manganese	0.00523	NA	0.00523	J+	3
EB-07	Manganese	0.00387	J	0.00500	U	3
EB-07	Boron	0.0159	NA	0.0159	J+	3
BRGWC-32S	Manganese	0.0107	NA	0.0107	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

1.7 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. Metals were not detected in the equipment blanks above the MDLs, with the following exceptions.

Barium and magnesium were detected in EB-05 at estimated concentrations greater than the MDLs and less than the RLs and sodium (0.703 mg/L) and calcium (0.313 mg/L) were detected in EB-05 at concentrations greater than the RLs. Since the magnesium concentration in EB-05 was U qualified due to field blank contamination and based on the barium concentrations in the associated samples and professional and technical judgment, no additional qualifications were applied to the barium and magnesium data. Also, based on professional and technical judgment, no additional qualifications were applied to the sodium concentrations in the associated samples that were qualified based on field blank contamination. In addition, since the calcium concentrations in the associated samples were greater than ten times the equipment blank concentration, no qualifications were applied to the calcium data. However, the sodium concentration in sample BRGWA-2I was J+ qualified as estimated with high bias.

Manganese was detected in EB-08 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated manganese concentration in the associated sample was U qualified as not detected at the RL.

Manganese (0.00523 mg/L) was detected in EB-06 at a concentration greater than the RL. Manganese was detected in EB-07 at an estimated concentration greater than the MDL and less

than the RL and boron (0.0159 mg/L) was detected in EB-07 at a concentration greater than the RL. Since the associated manganese and boron results 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
BRGWA-2I	Sodium	5.73	NA	5.73	J+	3
BRGWC-36S	Manganese	0.00295	J	0.00500	U	3
FD-04	Manganese	0.00286	J	0.00500	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

1.8 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or the difference between the concentrations $< RL$) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively.

1.9 Serial Dilution

Two sample set specific serial dilutions were reported for metals using samples PZ-70, BRGWC-17S, BRGWC-33S, BRGWA-2S and PZ-51D. The percent difference (%D) results were within the method specified acceptance criteria, with the following exception.

590838: The %D of magnesium in the serial dilution using sample BRGWA-2S was greater than 10% and the sample concentration was greater than 50 times the MDL. Therefore, the magnesium concentration in sample BRGWA-2S was J qualified as estimated.

Two batch serial dilutions 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.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2S	Magnesium	4.86	NA	4.86	J	8

mg/L- milligram per liter

NA-not applicable

1.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

1.11 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 Time

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). Five method blanks were reported (batches 2308549, 2308555, 2310246, 2310248 and 2312733). Mercury was not detected in the method blanks 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). One sample set specific MS was reported using sample PZ-58I.

591355: The mercury recovery in the MS was low and outside laboratory specified acceptance criteria and the recovery of mercury in the PDS was also low and outside of laboratory specified acceptance criteria. Therefore, the mercury result in sample PZ-58I was UJ qualified as estimated below the RL.

Four 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.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-58I	Mercury	0.000067	U	0.000067	UJ	4

mg/L- milligram per liter

U-not detected at or above the MDL

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). Five LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

One sample set specific MS was reported using sample PZ-58I. The RPD result was within the laboratory specified acceptance criteria.

Four batch laboratory duplicates were 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.

2.7 Field Blank

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. Mercury was not detected in the field blanks above the MDL.

2.8 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. Mercury was not detected in the equipment blanks above the MDL.

2.9 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision (RPD < 20% or the difference between the concentrations < RL) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively.

2.10 Serial Dilution

One sample set specific serial dilution was performed on sample PZ-58I. The %D results were within the method specified acceptance criteria. Four 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 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 Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

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%.

3.2 Holding Times

The holding time for the anion (fluoride, chloride, sulfate) analyses of a water sample are 28 days from sample collection to analysis. The holding time for the TDS analysis of a water sample is 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). Five method blanks were reported for anions (batches 2310523, 2310658, 2310688, 2308691 and 2312366). Six method blanks were reported for TDS (batches 2308573, 2309029, 2309058, 2310249, 2313724 and 2310760). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike

Six sample set specific MSs were reported for anions, using samples BRGWA-2S, BRGWC-17S, BRGWC-29I, FD-02, BRGWC-52I, and BRGWC-33S. Six sample set specific MSs were reported for total alkalinity, using samples BRGWA-2S, BRGWC-17S, BRGWC-52I, PZ-51D and FD-03, BRGWC-33S. The recovery results were within the laboratory specified acceptance criteria, with the following exceptions

590838: The recovery of sulfate in the MS using sample BRGWA-2S was high and outside the laboratory specified acceptance criteria. Therefore, the sulfate concentration in sample BRGWA-2S was J+ qualified as estimated with a high bias.

591355: The recoveries of chloride in the MSs using samples BRGWC-29I, FD-02 and BRGWC-52I were high and outside the laboratory specified acceptance criteria. Therefore, the chloride concentrations in samples BRGWC-29I, FD-02 and BRGWC-52I were J+ qualified as estimated with high biases.

Batch MSs were also reported for alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2S	Sulfate	0.452	NA	0.452	J+	4
BRGWC-29I	Chloride	5.84	NA	5.84	J+	4
BRGWC-52I	Chloride	6.27	NA	6.27	J+	4
FD-02	Chloride	4.20	NA	4.20	J+	4

mg/L- milligram per liter

NA-not applicable

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 was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Six sample set specific laboratory duplicates were reported for anions, using samples BRGWA-2S, BRGWC-29I, FD-02, BRGWC-17S, BRGWC-33S and BRGWC-52I. Six sample set specific laboratory duplicates were reported for alkalinity, using samples BRGWA-2S, PZ-51D, FD-03, BRGWC-52I, BRGWC-17S and BRGWC-33S. Three sample set specific laboratory duplicates were reported for TDS using samples BRGWC-50, BRGWC-32S and BRGWC-33S.

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. The RPD results were within the laboratory specified acceptance criteria.

3.7 Field Blank

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. The wet chemistry parameters were not detected in the field blanks above the MDLs with the following exceptions.

Chloride was detected in FB-01 at an estimated concentration greater than the MDL and less than the RL and alkalinity (31.0 mg/L) was detected in FB-01 at a concentration greater than the RL. Chloride (0.329 mg/L) and alkalinity (33.2 mg/L) were detected in FB-04 at concentrations greater than the RLs. Therefore, the estimated total alkalinity and bicarbonate alkalinity concentrations in the associated sample were U qualified as not detected at the RLs, the total alkalinity and bicarbonate alkalinity concentrations in the associated samples greater than the RLs and less than the field blank concentrations were U qualified as not detected at the reported concentrations and the chloride, total alkalinity and bicarbonate alkalinity concentrations in the associated samples greater than the RLs and less than ten times the RLs were J+ qualified as estimated with high biases.

Chloride (0.207 mg/L) was detected in FB-02 at a concentration greater than the RL and alkalinity was detected in FB-02 at an estimated concentration greater than the MDL and less than the RL. Since the chloride concentrations in the associated samples were greater than ten times the field blank concentration, no qualifications were applied to the chloride data. However, the estimated total alkalinity and bicarbonate alkalinity concentrations in the associated sample were U qualified as not detected at the RL.

Fluoride and alkalinity were detected in FB-03 at estimated concentrations greater than the MDLs and less than the RLs. Therefore, the estimated chloride, total alkalinity and bicarbonate alkalinity concentrations in the associated samples were U qualified as not detected at the RLs and based on professional and technical judgment the fluoride concentrations in samples BRGWC-27I,

BRGWC-32S, BRGWC-45, BRGWC-52I, FD-03, PZ-44, PZ-50D, PZ-57I and PZ-63I were J+ qualified as estimated with high biases.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-23S	Chloride	3.16	NA	3.16	J+	3
BRGWC-37S	Chloride	1.97	NA	1.97	J+	3
EB-07	Fluoride	0.0758	J	0.100	U	3
BRGWC-27I	Fluoride	0.234	NA	0.234	J+	3
BRGWC-32S	Fluoride	0.138	NA	0.138	J+	3
BRGWC-45	Fluoride	0.166	NA	0.166	J+	3
RGWC-52I	Fluoride	0.157	NA	0.157	J+	3
FD-03	Fluoride	0.163	NA	0.163	J+	3
PZ-44	Fluoride	0.184	NA	0.184	J+	3
PZ-50D	Fluoride	0.106	NA	0.106	J+	3
PZ-57I	Fluoride	0.235	NA	0.235	J+	3
PZ-63I	Fluoride	0.235	NA	0.235	J+	3
EB-05	Alkalinity, Total as CaCO ₃	20.6	NA	20.6	U	3
EB-05	Bicarbonate alkalinity (CaCO ₃)	20.6	NA	20.6	U	3
BRGWA-2I	Bicarbonate alkalinity (CaCO ₃)	62.4	NA	62.4	J+	3
BRGWA-2I	Alkalinity, Total as CaCO ₃	62.4	NA	62.4	J+	3
BRGWA-2S	Bicarbonate alkalinity (CaCO ₃)	32.6	NA	32.6	J+	3
BRGWA-2S	Alkalinity, Total as CaCO ₃	32.6	NA	32.6	J+	3
BRGWA-5I	Bicarbonate alkalinity (CaCO ₃)	72.8	NA	72.8	J+	3
BRGWA-5I	Alkalinity, Total as CaCO ₃	72.8	NA	72.8	J+	3
BRGWA-5S	Bicarbonate alkalinity (CaCO ₃)	73.8	NA	73.8	J+	3
BRGWA-5S	Alkalinity, Total as CaCO ₃	73.8	NA	73.8	J+	3
BRGWA-6S	Bicarbonate alkalinity (CaCO ₃)	58.2	NA	58.2	J+	3
BRGWA-6S	Alkalinity, Total as CaCO ₃	58.2	NA	58.2	J+	3
BRGWA-23S	Bicarbonate alkalinity (CaCO ₃)	30.4	NA	30.4	U	3
BRGWA-23S	Alkalinity, Total as CaCO ₃	30.4	NA	30.4	U	3

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Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWC-47	Bicarbonate alkalinity (CaCO ₃)	28.4	NA	28.4	U	3
BRGWC-47	Alkalinity, Total as CaCO ₃	28.4	NA	28.4	U	3
BRGWA-12I	Bicarbonate alkalinity (CaCO ₃)	65.8	NA	65.8	J+	3
BRGWA-12I	Alkalinity, Total as CaCO ₃	65.8	NA	65.8	J+	3
BRGWA-12S	Bicarbonate alkalinity (CaCO ₃)	32.0	NA	32.0	U	3
BRGWA-12S	Alkalinity, Total as CaCO ₃	32.0	NA	32.0	U	3
BRGWC-25I	Bicarbonate alkalinity (CaCO ₃)	75.6	NA	75.6	J+	3
BRGWC-25I	Alkalinity, Total as CaCO ₃	75.6	NA	75.6	J+	3
BRGWC-33S	Bicarbonate alkalinity (CaCO ₃)	3.40	J	4.00	U	3
BRGWC-33S	Alkalinity, Total as CaCO ₃	3.40	J	4.00	U	3
BRGWC-37S	Bicarbonate alkalinity (CaCO ₃)	21.2	NA	21.2	U	3
BRGWC-37S	Alkalinity, Total as CaCO ₃	21.2	NA	21.2	U	3
PZ-13S	Bicarbonate alkalinity (CaCO ₃)	21.4	NA	21.4	U	3
PZ-13S	Alkalinity, Total as CaCO ₃	21.4	NA	21.4	U	3
PZ-53D	Bicarbonate alkalinity (CaCO ₃)	82.8	NA	82.8	J+	3
PZ-53D	Alkalinity, Total as CaCO ₃	82.8	NA	82.8	J+	3
EB-08	Bicarbonate alkalinity (CaCO ₃)	2.40	J	4.00	U	3
EB-08	Alkalinity, Total as CaCO ₃	2.40	J	4.00	U	3
EB-06	Bicarbonate alkalinity (CaCO ₃)	3.00	J	4.00	U	3
EB-06	Alkalinity, Total as CaCO ₃	3.00	J	4.00	U	3
EB-07	Bicarbonate alkalinity (CaCO ₃)	2.80	J	4.00	U	3
EB-07	Alkalinity, Total as CaCO ₃	2.80	J	4.00	U	3
PZ-60I	Bicarbonate alkalinity (CaCO ₃)	2.00	J	4.00	U	3

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-60I	Alkalinity, Total as CaCO ₃	2.00	J	4.00	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

3.8 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. The wet chemistry parameters were not detected in the equipment blanks above the MDLs, with the following exceptions.

Chloride was detected in EB-05 at an estimated concentration greater than the MDL and less than the RL and alkalinity (20.6 mg/L) was detected in EB-05 at a concentration greater than the RL. Since the chloride and alkalinity concentrations in EB-05 were U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Fluoride and alkalinity were detected in EB-08 at estimated concentrations greater than the MDLs and less than the RLs. Since the alkalinity concentration in EB-08 was U qualified due to field blank contamination and based on the fluoride concentrations in the associated samples and professional and technical judgment, no additional qualifications were applied to the data.

Alkalinity was detected in EB-06 at an estimated concentration greater than the MDL and less than the RL. Fluoride and alkalinity were detected in EB-07 at estimated concentrations greater than the MDLs and less than the RLs. Since the alkalinity concentrations in EB-06 and EB-07 and fluoride concentration in EB-07 were U qualified due to field blank contamination 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.

3.9 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision (RPD < 20% or the difference between the concentrations < RL) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

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.

**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

Memorandum

Date: November 7, 2022
To: Adria Reimer
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 590840, 590851, 590856, 590859, 591353 and 591358**

SITE: Plant Branch CCR Groundwater Compliance Upgradient, APBCD and AP-E

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of thirty-eight groundwater samples, four equipment blanks, four field blanks and four field duplicate samples, collected 23-25 August 2022 and 1 September 2022, 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:

- Radium-226 by Modified United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by Modified US EPA Method 9320
- 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. Qualified data should be used within the limitations of the 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
590840001	BRGWA-2S
590840002	BRGWA-2I
590840003	BRGWA-5S
590840004	BRGWA-5I
590840005	BRGWA-6S
590851001	BRGWA-23S
590851002	BRGWC-47
590851003	EB-05
590856001	BRGWA-12I
590856002	FB-01
590856003	BRGWA-12S
590856004	BRGWC-25I
590859001	BRGWC-33S
590859002	BRGWC-37S
590859003	BRGWC-38S
590859004	PZ-53D
590859005	PZ-13S
590859006	FB-04
591353001	BRGWC-17S
591353002	BRGWC-35S
591353003	BRGWC-36S
591353004	FD-04
591353005	BRGWC-34S
591353006	EB-08
591358001	FD-01

Laboratory ID	Client ID
591358002	PZ-58I
591358003	PZ-60I
591358004	FB-02
591358005	BRGWC-29I
591358006	BRGWC-30I
591358007	BRGWC-50
591358008	FD-03
591358009	BRGWC-45
591358010	PZ-44
591358011	PZ-51I
591358012	PZ-51D
591358013	PZ-61I
591358014	PZ-51S
591358015	FD-02
591358016	PZ-50D
591358017	EB-06
591358018	PZ-62I
591358019	PZ-59I
591358020	BRGWC-27I
591358021	FB-03
591358022	PZ-63I
591358023	PZ-57I
591358024	BRGWC-32S
591358025	EB-07
591358026	BRGWC-52I

No sample preservation issues were noted by the laboratory.

The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, FD-01, FD-02, FD-03 and FD-04. Collection times were not documented in the laboratory reports.

591358: : Incorrect error corrections were observed on the COC, instead of the proper procedure of a single strike through, correction, and date and initials of person making the corrections.

590840 and 590851: The year was not documented on the COCs for the relinquished by date for the second sample transfer.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by modified US EPA method 9315, modified radium-228 by US EPA method 9320 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
- ⊗ Equipment Blank
- ✓ Field 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

590851: The radium-228 result in sample BRGWA-23S was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample BRGWA-23S was UJ qualified as estimated less than the minimum detectable concentration (MDC).

590856: The radium-228 result in sample BRGWC-25I was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample BRGWC-25I was UJ qualified as estimated less than the MDC.

591353: The radium-228 result in sample BRGWC-17S was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample BRGWC-17S was UJ qualified as estimated less than the MDC.

591358: The radium-228 result in sample PZ-51I was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample PZ-51I was UJ qualified as estimated less than the MDC.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier*	Reason Code**
BRGWA-23S	Radium-228	-4.51	U	-4.51	UJ	13
BRGWC-25I	Radium-228	-1.62	U	-1.62	UJ	13
BRGWC-17S	Radium-228	-2.32	U	-2.32	UJ	13
PZ-51I	Radium-228	-3.03	U	-3.03	UJ	13

pCi/L-picocuries per liter

U-not detected at or above the MDC

* 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 2309179, 2310752 and 2310764). Three method blanks were reported for the radium-228 data (batches 2309177, 2310792 and 2310793). Radium-226 and radium-228 were not detected in the method blanks above the MDCs.

590840, 590851, 590856 and 590859: Radium-226 (0.319 pCi/L) was detected in the method blank in batch 2309179 at a concentration greater than the MDC. Therefore, the radium-226 and total radium concentrations in samples BRGWA-5S, BRGWA-23S, BRGWC-47, BRGWA-12I, BRGWA-12S, BRGWC-25I, FB-04, BRGWC-33S, BRGWC-37S, BRGWC-38S, PZ-13S and PZ-53D were J+ qualified as estimated with high biases and the radium-226 and total radium concentrations in FB-01 were U qualified as not detected at the MDCs.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRGWA-5S	Radium-226	0.735	NA	0.735	J+	3

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRGWA-5S	Radium-226+228 Sum	0.735	NA	0.735	J+	3
BRGWA-23S	Radium-226	1.59	NA	1.59	J+	3
BRGWA-23S	Radium-226+228 Sum	1.59	NA	1.59	J+	3
BRGWC-47	Radium-226	1.29	NA	1.29	J+	3
BRGWC-47	Radium-226+228 Sum	3.74	NA	3.74	J+	3
BRGWA-12I	Radium-226	0.558	NA	0.558	J+	3
BRGWA-12I	Radium-226+228 Sum	0.558	NA	0.558	J+	3
BRGWA-12S	Radium-226	0.360	NA	0.360	J+	3
BRGWA-12S	Radium-226+228 Sum	1.69	NA	1.69	J+	3
BRGWC-25I	Radium-226	1.90	NA	1.90	J+	3
BRGWC-25I	Radium-226+228 Sum	1.90	NA	1.90	J+	3
FB-04	Radium-226	0.458	NA	0.458	J+	3
FB-04	Radium-226+228 Sum	2.10	NA	2.10	J+	3
BRGWC-33S	Radium-226	1.10	NA	1.10	J+	3
BRGWC-33S	Radium-226+228 Sum	1.94	NA	1.94	J+	3
BRGWC-37S	Radium-226	1.29	NA	1.29	J+	3
BRGWC-37S	Radium-226+228 Sum	2.37	NA	2.37	J+	3
BRGWC-38S	Radium-226	0.407	NA	0.407	J+	3
BRGWC-38S	Radium-226+228 Sum	3.12	NA	3.12	J+	3
PZ-13S	Radium-226	0.956	NA	0.956	J+	3
PZ-13S	Radium-226+228 Sum	1.83	NA	1.83	J+	3
PZ-53D	Radium-226	0.695	NA	0.695	J+	3
PZ-53D	Radium-226+228 Sum	3.04	NA	3.04	J+	3
FB-01	Radium-226	0.320	NA	0.320	U	3
FB-01	Radium-226+228 Sum	1.60	NA	1.60	U	3

pCi/L-picocuries per liter

NA-not applicable

1.4 Matrix Spike

Three sample set specific MSs were reported for radium-226 using samples BRGWA-2S, BRGWC-17S and FD-01 . 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 three LCSs were reported for radium-228. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for radium-228 using samples BRGWA-2S and BRGWC-17S and three sample set specific laboratory duplicates were reported for radium-226 using samples BRGWA-2S, BRGWC-17S and FD-01. The relative 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 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs, with the following exceptions.

Radium-226 (0.286 pCi/L) was detected in EB-06 at a concentration greater than the MDC. Therefore, the radium-226 and total radium concentrations in samples FD-03, BRGWC-27I, BRGWC-32S, BRGWC-45, BRGWC-52I, PZ-44, PZ-50D, PZ-57I, PZ-59I, PZ-62I and PZ-63I were J+ qualified as estimated with high biases.

Radium-226 (0.556 pCi/L) was detected in EB-08 at a concentration greater than the MDC. Therefore, the radium-226 and total radium concentrations in samples FD-04, BRGWC-35S, BRGWC-36S, FD-01, BRGWC-50, PZ-51D, PZ-51I, PZ-51S and PZ-60I and total radium concentrations in samples BRGWC-30I and PZ-61I were J+ qualified as estimated with high biases and the radium-226 and total radium concentrations in samples FD-02, BRGWC-29I and PZ-58I and radium-226 concentrations in samples BRGWC-30I and PZ-61I were U qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
FD-03	Radium-226	0.561	NA	0.561	J+	3
FD-03	Radium-226+228 Sum	2.44	NA	2.44	J+	3
BRGWC-27I	Radium-226	0.488	NA	0.488	J+	3
BRGWC-27I	Radium-226+228 Sum	1.79	NA	1.79	J+	3
BRGWC-32S	Radium-226	0.462	NA	0.462	J+	3
BRGWC-32S	Radium-226+228 Sum	1.32	NA	1.32	J+	3
BRGWC-45	Radium-226	0.491	NA	0.491	J+	3
BRGWC-45	Radium-226+228 Sum	1.65	NA	1.65	J+	3
BRGWC-52I	Radium-226	1.57	NA	1.57	J+	3

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Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRGWC-52I	Radium-226+228 Sum	4.97	NA	4.97	J+	3
PZ-44	Radium-226	0.287	NA	0.287	J+	3
PZ-44	Radium-226+228 Sum	1.60	NA	1.60	J+	3
PZ-50D	Radium-226	0.640	NA	0.640	J+	3
PZ-50D	Radium-226+228 Sum	2.26	NA	2.26	J+	3
PZ-57I	Radium-226	0.395	NA	0.395	J+	3
PZ-57I	Radium-226+228 Sum	0.773	NA	0.773	J+	3
PZ-59I	Radium-226	0.366	NA	0.366	J+	3
PZ-59I	Radium-226+228 Sum	1.02	NA	1.02	J+	3
PZ-62I	Radium-226	0.674	NA	0.674	J+	3
PZ-62I	Radium-226+228 Sum	1.88	NA	1.88	J+	3
PZ-63I	Radium-226	0.882	NA	0.882	J+	3
PZ-63I	Radium-226+228 Sum	1.52	NA	1.52	J+	3
FD-04	Radium-226	2.52	NA	2.52	J+	3
FD-04	Radium-226+228 Sum	3.24	NA	3.24	J+	3
BRGWC-35S	Radium-226	0.669	NA	0.669	J+	3
BRGWC-35S	Radium-226+228 Sum	3.10	NA	3.10	J+	3
BRGWC-36S	Radium-226	0.673	NA	0.673	J+	3
BRGWC-36S	Radium-226+228 Sum	1.38	NA	1.38	J+	3
FD-01	Radium-226	0.571	NA	0.571	J+	3
FD-01	Radium-226+228 Sum	1.89	NA	1.89	J+	3
FD-02	Radium-226	0.403	NA	0.403	U	3
FD-02	Radium-226+228 Sum	1.20	NA	1.20	U	3
BRGWC-29I	Radium-226	0.368	NA	0.368	U	3
BRGWC-29I	Radium-226+228 Sum	1.97	NA	1.97	U	3
BRGWC-30I	Radium-226	0.542	NA	0.542	U	3
BRGWC-30I	Radium-226+228 Sum	3.26	NA	3.26	J+	3
BRGWC-50	Radium-226	0.649	NA	0.649	J+	3
BRGWC-50	Radium-226+228 Sum	1.87	NA	1.87	J+	3
PZ-51D	Radium-226	0.823	NA	0.823	J+	3
PZ-51D	Radium-226+228 Sum	3.33	NA	3.33	J+	3
PZ-51I	Radium-226	0.625	NA	0.625	J+	3
PZ-51I	Radium-226+228 Sum	0.625	NA	0.625	J+	3
PZ-51S	Radium-226	0.878	NA	0.878	J+	3
PZ-51S	Radium-226+228 Sum	1.20	NA	1.20	J+	3
PZ-58I	Radium-226	0.322	NA	0.322	U	3
PZ-58I	Radium-226+228 Sum	1.16	NA	1.16	U	3
PZ-60I	Radium-226	0.704	NA	0.704	J+	3
PZ-60I	Radium-226+228 Sum	3.50	NA	3.50	J+	3
PZ-61I	Radium-226	0.488	NA	0.488	U	3
PZ-61I	Radium-226+228 Sum	2.91	NA	2.91	J+	3

pCi/L-picocuries per liter

NA-not applicable

1.9 Field Blank

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs, with the following exceptions.

Radium-226 (0.320 pCi/L) was detected in FB-01 at a concentration greater than the MDC. Since the radium-226 concentration in FB-01 was U qualified due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Radium-226 (0.458 pCi/L) was detected in FB-04 at a concentration greater than the MDC. Since the radium-226 concentrations in the associated samples were qualified due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

1.10 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively, with the following exception.

The RER of radium-226 in field duplicate pair BRGWC-36S/FD-04 was greater than 3; therefore, the radium-226 and total radium concentrations in field duplicate pair BRGWC-36S/FD-04 were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	RER	Validation Result (pCi/L)	Validation Qualifier	Reason Code
FD-04	Radium-226	2.52	NA	4.7	2.52	J	7
BRGWC-36S	Radium-226	0.673	NA		0.673	J	7
FD-04	Radium-226+228 Sum	3.24	NA	NA	3.24	J	7
BRGWC-36S	Radium-226+228 Sum	1.38	NA		1.38	J	7

pCi/L-picocuries per liter

RER-replicate error ratio

NA-not applicable

1.11 Sensitivity

The samples were reported to the MDCs. Elevated non-detect results were not reported.

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.

**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

January/February 2023

Memorandum

Date: 27 July 2023
To: Lauren Fitzgerald
Courtney Collins
From: Ashley Wilson
CC: K. Henderson
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders:
AP-BCD: 608413, 608602, 608803, 608969, 609212, 614819, 616295,
621821, 622760, 623143, 624176, 624375, 624831 and 624832
AP-E: 608815, 608614, 608422 and 608418
Both: 608410**

SITE: Plant Branch CCR Groundwater Compliance AP-BCD and AP-E

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of fifty-nine groundwater samples, five equipment blanks, five field blanks and five field duplicate samples, collected 24-26 & 30 January 2023, 1 February 2023, 3 & 29 March 2023, 11, 18, 22 & 31 May 2023 and 1, 5 & 6 June 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:

- 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

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. Qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment, and the following documents:

US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and

the 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
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06

Laboratory IDs	Client IDs
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815005	BRA-PZ-52D
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
608410001	BRA-BRGWA-2S
608410002	BRA-BRGWA-2I
608410003	BRA-BRGWA-5S
608410004	BRA-BRGWA-5I
608410005	BRA-BRGWA-6S

Laboratory IDs	Client IDs
614819001	BRA-PZ-69I
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
621821001	BRA-PZ-71I
622760001	BRA-PZ-71I
623143001	BRA-PZ-72I
623143002	BRA-PZ-73I

Laboratory IDs	Client IDs
624176001	BRA-PZ-73I
624375001	BRA-PZ-73I
624375002	BRA-PZ-72I
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
624832001	BRA-PZ-74I

The samples were received at 0.0, 1.0 and 2.0 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.

The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, APBCD-FD-01, APBCD-FD-02, APBCD-FD-03, BRA-APE-FD-04 and BRA-APE-FD-05. The laboratory logged the samples in with the collection time of 12:00.

624276: COC was missing both relinquishing and receiving signatures, dates and times.

622760: The relinquishing time was not documented on the COC.

608413, 608803, 608602 and 608815: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

The field pH and field ferrous iron data included in the laboratory reports were not validated.

The DVR was revised on July 27, 2023, to include data from work orders: 614819, 616295, 621821, 622760, 623143, 624176, 624375, 624831 and 624832.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B. Mercury was evaluated separately in Section 2.0, below.

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
- ⊗ 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

All reports: The laboratory noted that the interference check standard analysis (ICSA) solution contained trace impurities for metals.

608602 and 608614: The laboratory noted that the contract required detection limits (CRDLs) were met for the metals except for boron. Since boron was either not detected in the associated samples or based on the boron concentrations in the associated samples and professional and technical judgment, no qualifications were applied to the data.

624176 and 624831: The laboratory noted that the CRDLs were met for the metals except for calcium. Since calcium was either not detected in the associated samples or based on the boron concentrations in the associated samples and professional and technical judgment, no qualifications were applied to the data.

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). Sixteen method blanks were reported (batches 2375324, 2377747, 2376276, 2374786, 2374301, 2375511, 2400579, 2406504, 2410791, 2428156, 2431467, 2433108, 2436929, 2437819, 2439850 and 2439740). Metals were not detected in the method blanks at or above the method detection limits (MDLs), with the following exceptions.

608803: Molybdenum was detected in the method blank in batch 2375324 at an estimated concentration greater than the MDL and less than the reporting limit (RL). Therefore, the estimated molybdenum concentrations in samples BRA-BRGWC-25I, BRA-BRGWC-47, BRA-PZ-50D, BRA-PZ-51D and BRA-PZ-51I were U qualified as not detected at or above the RL.

608969: Beryllium was detected in the method blank in batch 2376276 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of beryllium in samples BRA-APBCD-FD03, BRA-PZ-62I and BRA-PZ-66I 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-BRGWC-25I	Molybdenum	0.000920	J	0.00100	U	3
BRA-BRGWC-47	Molybdenum	0.000270	J	0.00100	U	3
BRA-PZ-50D	Molybdenum	0.000817	J	0.00100	U	3
BRA-PZ-51D	Molybdenum	0.000850	J	0.00100	U	3
BRA-PZ-51I	Molybdenum	0.000283	J	0.00100	U	3
BRA-APBCD-FD03	Beryllium	0.000291	J	0.000500	U	3
BRA-PZ-62I	Beryllium	0.000293	J	0.000500	U	3
BRA-PZ-66I	Beryllium	0.000318	J	0.000500	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

* 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

1.4 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). Fourteen sample set specific MS/MSD pairs were reported, using samples BRA-BRGWC-25I, BRA-PZ-66I, BRA-PZ-44, BRA-PZ-13S, BRA-BRGWA-2S, BRA-PZ-18S, BRA-PZ-19S, BRA-PZ-71I, BRA-PZ-71I, BRA-PZ-72I, BRA-PZ-73I, BRA-PZ-72I, BRA-PZ-74I and BRA-IW-B-5. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

Two batch MS/MSD pairs 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). Sixteen LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 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.

608602: Arsenic was detected in field blank BRA-APBCD-FB-01 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of arsenic in samples BRA-APBCD-EB-04, BRA-BRGWC-45, BRA-BRGWC-50 and BRA-PZ-44 were U qualified as not detected at or above the RL.

608969: Manganese (0.017 mg/L) and molybdenum (0.00113 mg/L) were detected in field blank BRA-APBCD-FB-03 at concentrations greater than the RLs. Therefore, the estimated manganese concentration in sample BRA-APBCD-EB-06 and the estimated molybdenum concentrations in samples BRA-APBCD-FD03, BRA-PZ-62I, BRA-PZ-63I, BRA-PZ-64I and BRA-PZ-66I were U qualified as not detected at or above the RLs.

608614: Arsenic was detected in field blank BRA-APE-FB-08 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of arsenic in samples BRA-APE-EB-09, BRA-BRGWC-37S and BRA-BRGWC-38S 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-APBCD-EB-04	Arsenic	0.00285	J	0.00500	U	3
BRA-BRGWC-45	Arsenic	0.00225	J	0.00500	U	3
BRA-BRGWC-50	Arsenic	0.00236	J	0.00500	U	3
BRA-PZ-44	Arsenic	0.00221	J	0.00500	U	3
BRA-APBCD-EB-06	Manganese	0.00112	J	0.00500	U	3
BRA-APBCD-FD03	Molybdenum	0.000251	J	0.00100	U	3
BRA-PZ-62I	Molybdenum	0.000247	J	0.00100	U	3
BRA-PZ-63I	Molybdenum	0.000803	J	0.00100	U	3

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-64I	Molybdenum	0.000201	J	0.00100	U	3
BRA-PZ-66I	Molybdenum	0.000675	J	0.00100	U	3
BRA-APE-EB-09	Arsenic	0.00210	J	0.00500	U	3
BRA-BRGWC-37S	Arsenic	0.00300	J	0.00500	U	3
BRA-BRGWC-38S	Arsenic	0.00486	J	0.00500	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

1.7 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.

608602: Arsenic was detected in equipment blank BRA-APBCD-EB-04 at an estimated concentration greater than the MDL and less than the RL. Since the arsenic concentration in BRA-APBCD-EB-04 was U qualified due to field blank contamination, no additional qualifications were applied to the arsenic data.

608803: Boron was detected in equipment blank BRA-APBCD-EB-05 at an estimated concentration greater than the MDL and less than the RL. Since boron was detected in the associated samples at concentrations greater than the RL and based on professional and technical judgment, no qualifications were applied to the data.

608969: Manganese was detected in equipment blank BRA-APBCD-EB-06 at an estimated concentration greater than the MDL and less than the RL. Since the manganese concentration in BRA-APBCD-EB-06 was U qualified due to field blank contamination, no additional qualifications were applied to the data.

608815: Arsenic was detected in equipment blank BRA-APE-EB-10 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of arsenic in samples BRA-APE-FD-05, BRA-PZ-13S, BRA-PZ-52D and BRA-PZ-70I were U qualified as not detected at or above the RL.

608614: Arsenic was detected in equipment blank BRA-APE-EB-09 at an estimated concentration greater than the MDL and less than the RL. Since the arsenic concentration in BRA-APE-EB-09 was U qualified due to field blank contamination, no additional qualifications were applied to the arsenic data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APE-FD-05-WG-20230126	Arsenic	0.00470	J	0.00500	U	3
BRA-PZ-13S-WG-20230126	Arsenic	0.00388	J	0.00500	U	3
BRA-PZ-52D-WG-20230125	Arsenic	0.00368	J	0.00500	U	3
BRA-PZ-70I-WG-20230126	Arsenic	0.00366	J	0.00500	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

1.8 Field Duplicate

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or the difference between the concentrations $< RL$) was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively, with the following exceptions.

608602: Arsenic and lead were not detected in BRA-APBCD-FD-01 and detected in sample BRA-BRGWC-45, resulting in a noncalculable RPD. Since the arsenic concentration in BRA-BRGWC-45 was U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the arsenic data. However, based on professional and technical judgment, the lead concentration in sample BRA-BRGWC-45 was J qualified as estimated and the non-detect result in BRA-APBCD-FD-01 was UJ qualified as estimated less than the MDL.

608969: Arsenic was not detected in sample BRA-PZ-62I and detected in BRA-APBCD-FD03, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the arsenic concentration in BRA-APBCD-FD03 was J qualified as estimated and the non-detect result in sample BRA-PZ-62I was UJ qualified as estimated less than the MDL.

608422/608418: Arsenic was not detected in BRA-APE-FD-04 and detected in sample BRA-BRGWC-33S, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the arsenic concentration in sample BRA-BRGWC-33S was J qualified as estimated and the non-detect results in BRA-APE-FD-04 was UJ qualified as estimated less than the MDL.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-FD-01	Lead	0.00200	U	NC	0.00200	UJ	7

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-BRGWC-45	Lead	0.000595	J		0.000595	J	7
BRA-APBCD-FD03	Arsenic	0.00201	J	NC	0.00201	J	7
BRA-PZ-62I	Arsenic	0.00200	U		0.00200	UJ	7
BRA-APE-FD-04	Arsenic	0.00200	U	NC	0.00200	UJ	7
BRA-BRGWC-33S	Arsenic	0.00201	J		0.00201	J	7

mg/L- milligram per liter

U-not detected at or above the MDL

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

1.9 Serial Dilution

Fourteen sample set specific serial dilutions were reported for metals using samples BRA-BRGWC-25I, BRA-PZ-66I, BRA-PZ-44, BRA-PZ-13S, BRA-BRGWA-2S, BRA-PZ-18S, BRA-PZ-19S, BRA-PZ-71I, BRA-PZ-71I, BRA-PZ-72I, BRA-PZ-73I, BRA-PZ-72I, BRA-PZ-74I and BRA-IW-B-5. The percent difference (%D) results were within the method specified acceptance criteria, with the following exceptions.

608969: The %Ds of magnesium, calcium and sodium in the serial dilution using sample BRA-PZ-66I were greater than 20% and the sample concentrations were greater than 50 times the MDLs. Therefore, the magnesium, calcium and sodium concentrations in sample BRA-PZ-66I were J qualified as estimated.

Two 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.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-66I	Magnesium	303	NA	303	J	8
BRA-PZ-66I	Calcium	217	NA	217	J	8
BRA-PZ-66I	Sodium	62.9	NA	62.9	J	8

mg/L- milligram per liter

NA-not applicable

1.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.11 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 Time

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). Eight method blanks were reported (batches 2375754, 2378878, 2376750, 2375028, 2374419, 2401400, 2428103 and 2437128). 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). One sample set specific MS was reported using sample BRA-BRGWC-30I. The recovery result was within the laboratory specified acceptance criteria

Seven 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). Eight LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported using sample BRA-BRGWC-30I. The RPD result was within the laboratory specified acceptance criteria.

Eight batch laboratory duplicates were 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.

2.7 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 field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, 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 < RL) was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively.

2.10 Serial Dilution

One sample set specific serial dilution was performed on sample BRA-BRGWC-30I. The %D results were within the method specified acceptance criteria. Seven 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

608803, 608969, 608413, 608815, 621821, 624831 and 624832: Manual integrations were performed to position the baseline as set in the calibration standard for the anion analyses.

616295: Additional information from the laboratory states that the sulfide samples in work order 616295 were not within preservation range upon arrival. The provided correspondence between the client and laboratory states that the client allowed the laboratory to preserve the samples and proceed with analysis.

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 anion (fluoride, chloride, sulfate) analyses of a water sample is 28 days from sample collection to analysis. The holding time for the TDS and total sulfide analysis of a water sample is 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). Fourteen method blanks were reported for anions (batches 2375330, 2375336, 2377739, 2376273, 2374768, 2374002, 2375453, 2373867, 2374833, 2400698, 2406403, 2428256, 2437803 and 2439679). Thirteen method blanks were reported for TDS (batches 2376741, 2377374, 2379677, 2377347, 2374524, 2374521, 2376170, 2376740, 2400767, 2406625, 2428760, 2437940 and 2440211). Eleven method blanks were reported for total sulfide (batches 2375859, 2376122, 2377896, 2374524, 2374521, 2375142, 2406779, 2408818, 2427582, 2437743 and 2440523). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

Eight sample set specific MSs were reported for anions, using samples BRA-PZ-50D, BRA-PZ-64I, BRA-PZ-44, BRA-BRGWA-12S, BRA-PZ-13S, BRA-BRGWC-35S, BRA-PZ-69I and BRA-IW-B-5. Seven sample set specific MS/MSDs were reported for total sulfide, using samples BRA-BRGWC-25I, BRA-BRGWC-50, BRA-BRGWC-33S, BRA-PZ-52D, BRA-BRGWC-33S, BRA-PZ-53D and BRA-BRGWA-2S. Five sample set specific MS/MSDs were reported for total alkalinity, using samples BRA-BRGWC-25I, BRA-PZ-60I, BRA-PZ-68D, BRA-PZ-66I and BRA-PZ-71I. The recovery results were within the laboratory specified acceptance criteria, with the following exceptions

608803: The recovery of chloride in the MS using sample BRA-PZ-50D was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-PZ-50D was J+ qualified as estimated with a high bias.

608803: The recovery of total sulfide in the MS/MSD pair using sample BRA-BRGWC-25I was low and outside the laboratory specified acceptance criteria. Therefore, the non-detect total sulfide result in sample BRA-BRGWC-25I was UJ qualified as estimated less than the MDL.

608602: The recovery of chloride in the MS using sample BRA-PZ-44 was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-PZ-44 was J+ qualified as estimated with a high bias.

608418: The recoveries of chloride and sulfate in the MS using sample BRA-BRGWC-35S were high and outside the laboratory specified acceptance criteria. Therefore, the concentrations of chloride and sulfate in sample BRA-BRGWC-35S were J+ qualified as estimated with high biases.

614819: The recovery of chloride in the MS using sample BRA-PZ-69I was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-PZ-69I was J+ qualified as estimated with a high bias.

614831: The recovery of nitrate-N in the MS using sample BRA-IW-B-5 was high and outside the laboratory specified acceptance criteria. Therefore, the non-detect nitrate-N result in sample BRA-IW-B-5 was UJ qualified as estimated less than the MDL.

Batch MSs were also reported for alkalinity and anions and batch MS/MSD pairs were reported for total 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-PZ-50D	Chloride	11.5	NA	11.5	J+	4
BRA-BRGWC-25I	Total Sulfide	0.033	U	0.033	UJ	4
BRA-PZ-44	Chloride	5.84	NA	5.84	J+	4
BRA-BRGWC-35S	Sulfate	334	NA	334	J+	4
BRA-BRGWC-35S	Chloride	6.46	NA	6.46	J+	4
BRA-PZ-69I	Chloride	5.71	NA	5.71	J+	4
BRA-IW-B-5	Nitrate-N	0.066	U	0.066	UJ	4

mg/L- milligram per liter

NA-not applicable

U-not detected at or above the MDL

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 was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Eight sample set specific laboratory duplicates were reported for anions, using samples BRA-BRGWC-35S, BRA-PZ-50D, BRA-PZ-64I, BRA-PZ-44, BRA-BRGWA-12S, BRA-PZ-13S, BRA-PZ-69I and BRA-IW-B-5. Five sample set specific laboratory duplicates were reported for alkalinity, using samples BRA-BRGWC-25I, BRA-PZ-60I, BRA-PZ-68D, BRA-PZ-66I and BRA-PZ-71I. Six sample set specific laboratory duplicates were reported for TDS using samples BRA-PZ-51D, BRA-PZ-61I, BRA-PZ-57I, BRA-PZ-44, BRA-BRGWC-17S and BRA-BRGWC-17S. The RPD results were 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. The RPD results were within the laboratory specified acceptance criteria.

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. The wet chemistry parameters were not detected in the field blanks at or above the MDLs with the following exceptions.

608602: Fluoride was detected in BRA-APBCD-FB-01 at an estimated concentration greater than the MDL and less than the RL. Therefore, based on professional and technical judgment, the concentrations of fluoride in samples BRA-PZ-44, BRA-APBCD-FD-01, BRA-BRGWC-27I and BRA-BRGWC-45 were J+ qualified as estimated with high biases.

608803: Chloride was detected in field blank BRA-APBCD-FB-02 at a concentration greater than the MDL and less than the RL. Since the chloride concentration in the associated samples were greater than the RL and based on technical and professional judgement, no qualifications were applied to the data.

608969: Chloride (0.204 mg/L) was detected in field blank BRA-APBCD-FB-03 at a concentration greater than the RL and bicarbonate alkalinity and total alkalinity were detected at estimated concentrations greater than the MDLs and less than the RLs. Therefore, the concentration of chloride in BRA-APBCD-EB-06 was J+ qualified as estimated with a high bias, and the estimated concentrations of total alkalinity and bicarbonate alkalinity in sample BRA-APBCD-EB-06 were U qualified as not detected at or above the RL.

608422: Total alkalinity and bicarbonate alkalinity were detected at estimated concentrations greater than the MDLs and less than the RLs in field blank BRA-APE-FB-07. Therefore, the estimated concentrations of total alkalinity and bicarbonate alkalinity in sample BRA-APE-FD-04 were U qualified as not detected at or above the RLs.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-44	Fluoride	0.130	NA	0.130	J+	3
BRA-APBCD-FD-01	Fluoride	0.151	NA	0.151	J+	3
BRA-BRGWC-27I	Fluoride	0.152	NA	0.152	J+	3
BRA-BRGWC-45	Fluoride	0.163	NA	0.163	J+	3
BRA-APBCD-EB-06	Chloride	0.667	NA	0.667	J+	3
BRA-APBCD-EB-06	Bicarbonate alkalinity (CaCO ₃)	1.80	J	4.00	U	3
BRA-APBCD-EB-06	Alkalinity, Total as CaCO ₃	1.80	J	4.00	U	3
BRA-APE-FD-04	Alkalinity, Total as CaCO ₃	3.40	J	4.00	U	3

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APE-FD-04	Bicarbonate alkalinity (CaCO ₃)	3.40	J	4.00	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

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. The wet chemistry parameters were not detected in the equipment blanks at or above the MDLs, with the following exceptions.

608602: Nitrate-n was detected at an estimated concentration greater than the MDL and less than the RL in equipment blank BRA-APBCD-EB-04. Therefore, the estimated concentrations in samples BRA-APBCD-FD-01 and BRA-BRGWC-45 were U qualified as not detected at or above the RL.

608803: Total alkalinity and bicarbonate alkalinity were detected at estimated concentrations greater than the MDLs and less than the RL in equipment blank BRA-APBCD-EB-05. Since the total and bicarbonate alkalinity concentrations in the associated samples were greater than the RLs and based on technical and professional judgement, no qualifications were applied to the data.

608969: Chloride (0.667 mg/L) was detected in equipment blank BRA-APBCD-EB-06 at a concentration greater than the RL and bicarbonate alkalinity and total alkalinity were detected at estimated concentrations greater than the MDL and less than the RL. Since the total and the bicarbonate alkalinity concentrations in BRA-APBCD-EB-06 were U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the total and the bicarbonate alkalinity data. However, the chloride concentration in sample BRA-PZ-51S was J+ qualified as estimated with high bias.

608815: Total and bicarbonate alkalinity were detected in equipment blank BRA-APE-EB-10 at estimated concentrations greater than the MDLs and less than the RLs. Since the total and bicarbonate alkalinity concentrations in the associated samples were greater than the RLs and based on technical and professional judgement, no qualifications were applied to the data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-FD-01	Nitrate-N	0.0824	J	0.100	U	3
BRA-BRGWC-45	Nitrate-N	0.126	J	0.200	U	3
BRA-PZ-51S	Chloride	4.45	NA	4.45	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 field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, 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 < RL) was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively.

608969: Fluoride was not detected in BRA-APBCD-FD03 and detected in sample BRA-PZ-62I, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the fluoride concentration in sample BRA-PZ-62I was J qualified as estimated and the non-detect results in BRA-APBCD-FD03 was UJ qualified as estimated less than the MDL.

608422/608418: Nitrate-n was not detected in BRA-APE-FD-04 and detected in sample BRA-BRGWC-33S, resulting in a noncalculable RPD. Based on the difference in dilution analyzed and professional and technical judgment, no qualifications were applied to the data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-FD03	Fluoride	0.100	U	NC	0.100	UJ	7
BRA-PZ-62I	Fluoride	0.161	NA		0.161	J	7

mg/L- milligram per liter

U-not detected at or above the MDL

NA-not applicable

NC-not calculable

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.

**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

Memorandum

Date: July 21, 2023
To: Lauren Fitzgerald
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders (WOs) 608412, 609213, 608972, 608609, 608813, 608416, 609400, 608420, 608819, 608622, 608423, 614823, 621822 and 624382**

SITE: Plant Branch CCR Groundwater Compliance

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of forty-eight groundwater samples, five equipment blanks, five field blanks and five field duplicate samples, collected between 24 January 2023, 2 February 2023, 16 March 2023, 11 and 31 May 2023, and 1 June 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:

- Radium-226 by Modified United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by Modified US EPA Method 9320
- 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. Qualified data should be used within the limitations of the 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
608412001	BRA-BRGWA-2S
608412002	BRA-BRGWA-2I
608412003	BRA-BRGWA-5S
608412004	BRA-BRGWA-5I
608412005	BRA-BRGWA-6S
608416001	BRA-BRGWA-12S
608416002	BRA-BRGWA-12I
608416003	BRA-BRGWA-23S
608416004	BRA-BRGWC-32S
608420001	BRA-BRGWC-17S
608420002	BRA-BRGWC-33S
608420003	BRA-BRGWC-34S
608420004	BRA-BRGWC-35S
608423001	BRA-APE-FD-04
608423002	BRA-APE-FB-07
608609001	BRA-PZ-44
608609002	BRA-APBCD-FD-01
608609003	BRA-BRGWC-45
608609004	BRA-APBCD-EB-04
608609005	BRA-APBCD-FB-01
608609006	BRA-BRGWC-50
608609007	BRA-BRGWC-52I
608609008	BRA-BRGWC-27I
608622001	BRA-BRGWC-36S
608622002	BRA-BRGWC-37S
608622003	BRA-BRGWC-38S
608622004	BRA-PZ-53D
608622005	BRA-APE-EB-09
608622006	BRA-APE-FB-08
608813001	BRA-BRGWC-25I
608813002	BRA-BRGWC-29I
608813003	BRA-BRGWC-30I

Laboratory ID	Client ID
608813004	BRA-APBCD-EB-05
608813005	BRA-APBCD-FB-02
608813006	BRA-PZ-51I
608813007	BRA-APBCD-FD-02
608813008	BRA-BRGWC-47
608813009	BRA-PZ-51D
608813010	BRA-PZ-58I
608813011	BRA-PZ-59I
608813012	BRA-PZ-60I
608813013	BRA-PZ-61I
608813014	BRA-PZ-65I
608813015	BRA-PZ-50D
608819001	BRA-PZ-13S
608819002	BRA-PZ-70I
608819003	BRA-APE-FD-05
608819004	BRA-APE-EB-10
608972001	BRA-PZ-66I
608972002	BRA-APBCD-FB-03
608972003	BRA-APBCD-EB-06
608972004	BRA-PZ-57I
608972005	BRA-APBCD-FD03
608972006	BRA-PZ-63I
608972007	BRA-PZ-62I
608972008	BRA-PZ-51S
608972009	BRA-PZ-64I
609213001	BRA-PZ-68D
609213002	BRA-PZ-69I
609400001	BRA-PZ-52D
614823001	BRA-PZ-69I
621822001	BRA-PZ-71I
624382001	BRA-PZ-73I

No sample preservation issues were noted by the laboratory.

WOs 608423, 608609, 608813, 608819 and 608972: The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05. Collection times were not documented in the laboratory reports.

WOs 608423, 608622, 608813, 608819 and 608972: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and date and initials of person making the corrections.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by modified US EPA method 9315, modified radium-228 by US EPA method 9320 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

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%.

1.2 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). Nine method blanks were reported for the radium-226 data (batches 2374665, 2377436, 2378760, 2377431, 2377423, 2378777, 2406187, 2430843 and 2438535). Nine method blanks were reported for the radium-228 data (batches 2374674, 2377496, 2378772, 2377475, 2377470, 2378762, 2406247, 2430849 and 2438733). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs), with the following exception.

608813: Radium-228 was detected in the method blank in batch 2377475 at a concentration greater than the MDC. Therefore, the radium-228 and radium-226+228 concentrations in samples BRA-PZ-51D and BRA-PZ-60I were J+ qualified as estimated with high biases.

624382: Radium-228 was detected in the method blank in batch 2438733 at a concentration greater than the MDC. Since radium-228 was not detected at a concentration greater than the MDC in the associated sample, no qualifications were applied to the data.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier*	Reason Code**
BRA-PZ-51D	Radium-228	2.96	NA	2.96	J+	3
BRA-PZ-51D	Radium-226+228 Sum	3.70	NA	3.70	J+	3
BRA-PZ-60I	Radium-228	3.21	NA	3.21	J+	3
BRA-PZ-60I	Radium-226+228 Sum	5.31	NA	5.31	J+	3

pCi/L-picocuries per liter

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

1.4 Matrix Spike

Four sample set specific MSs were reported for radium-226 using samples BRA-PZ-66I, BRA-PZ-68D, BRA-BRGWC-25I and BRA-PZ-71I. The recovery results were within the laboratory specified acceptance criteria.

Six batch MSs were also reported for radium-226. 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). Nine LCSs were reported for radium-226 and nine 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-PZ-66I, BRA-PZ-68D, BRA-BRGWC-25I and BRA-PZ-71I and four sample set specific laboratory duplicates were reported for radium-228 using samples BRA-PZ-66I, BRA-PZ-68D, BRA-BRGWC-25I and BRA-PZ-71I. The relative error ratio (RER) results were within the laboratory specified acceptance criteria.

In addition, six batch laboratory duplicates were reported for radium-226 and six batch laboratory duplicates were reported for radium-228. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 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 above the MDCs, with the following exceptions.

608609: Radium-226 [0.246 picocuries per liter (pCi/L)] was detected in BRA-APBCD-FB-01 at a concentration greater than the MDC. Therefore, the radium-226 concentrations in samples BRA-APBCD-FD-01, BRA-BRGWC-27I and BRA-PZ-44 were J+ qualified as estimated with high biases.

608622: Radium-226+228 (2.11 pCi/L) was detected in BRA-APE-FB-08 at a concentration greater than the MDC. Since radium-226 and radium-228 were not detected in BRA-APE-FB-08 at concentrations greater than the MDCs and based on professional and technical judgment, no qualifications were applied to the data.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-APBCD-FD-01	Radium-226	0.599	NA	0.599	J+	3
BRA-BRGWC-27I	Radium-226	1.27	NA	1.27	J+	3
BRA-PZ-44	Radium-226	1.15	NA	1.15	J+	3

pCi/L-picocuries per liter

NA-not applicable

1.9 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. Radium-226 and radium-228 were not detected in the equipment blanks above the MDCs, with the following exceptions.

608609: Radium-228 (2.59 pCi/L) was detected in BRA-APBCD-EB-04 at a concentration greater than the MDC. Therefore, the radium-228 and radium-226+228 concentrations in samples BRA-PZ-13S and BRA-BRGWC-36S were J+ qualified as estimated with high biases.

608972: Radium-228 (2.97 pCi/L) was detected in BRA-APBCD-EB-06 at a concentration greater than the MDC. Therefore, the radium-228 concentration in sample BRA-PZ-51S was U qualified as not detected at the reported concentration and the radium-228 concentrations in samples BRA-PZ-68D, BRA-PZ-63I and BRA-PZ-64I and radium-226+228 concentrations in samples BRA-PZ-68D, BRA-PZ-51S, BRA-PZ-63I and BRA-PZ-64I were J+ qualified as estimated with high biases.

608622: Radium-228 (3.13 pCi/L) was detected in BRA-APE-EB-10 at concentration greater than the MDCs. Since the radium-228 concentrations in the associated samples were qualified due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-PZ-68D	Radium-228	3.77	NA	3.77	J+	3
BRA-PZ-68D	Radium-226+228 Sum	4.16	NA	4.16	J+	3
BRA-PZ-51S	Radium-228	2.36	NA	2.36	U	3
BRA-PZ-51S	Radium-226+228 Sum	3.19	NA	3.19	J+	3
BRA-PZ-63I	Radium-228	4.19	NA	4.19	J+	3
BRA-PZ-63I	Radium-226+228 Sum	6.03	NA	6.03	J+	3
BRA-PZ-64I	Radium-228	3.38	NA	3.38	J+	3
BRA-PZ-64I	Radium-226+228 Sum	3.50	NA	3.50	J+	3
BRA-PZ-13S	Radium-228	2.88	NA	2.88	J+	3
BRA-PZ-13S	Radium-226+228 Sum	4.77	NA	4.77	J+	3
BRA-BRGWC-36S	Radium-228	3.49	NA	3.49	J+	3
BRA-BRGWC-36S	Radium-226+228 Sum	4.86	NA	4.86	J+	3

pCi/L-picocuries per liter

NA-not applicable

1.10 Field Duplicate

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, 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-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively, with the following exception.

The RER of radium-226 in field duplicate pair BRA-PZ-13S/BRA-APE-FD-05 was greater than 3; therefore, based on professional and technical judgment, the radium-226 and radium-226+228 concentrations in the field duplicate pair were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	RER	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-PZ-13S	Radium-226	1.88	NA	3.8	1.88	J	7
BRA-APE-FD-05	Radium-226	0.583	NA		0.583	J	7
BRA-PZ-13S	Radium-226+228	4.77	NA	NA	4.77	J	7
BRA-APE-FD-05	Radium-226+228	2.70	NA		2.70	J	7

pCi/L-picocuries per liter

RER-replicate error ratio

NA-not applicable

1.11 Sensitivity

The samples were reported to the MDCs. Elevated non-detect results were not reported.

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.

**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

FIELD SAMPLING REPORTS

Fall 2022

Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:25:17 AM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

Location Name: BRGWA-2I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 56 ft Total Depth: 66.96 ft Initial Depth to Water: 12.55 ft	Pump Type: QED Bladder pump Tubing Type: Poly Pump Intake From TOC: 59 ft Estimated Total Volume Pumped: 5.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 125 ml/min Final Draw Down: 12 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Cloudy, sample time-1010

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
8/23/2022 9:25 AM	00:00	7.27 pH	22.54 °C	11.00 µS/cm	8.44 mg/L	2.61 NTU	253.6 mV	12.55 ft	125.00 ml/min
8/23/2022 9:30 AM	05:00	6.75 pH	21.94 °C	120.34 µS/cm	1.91 mg/L	1.77 NTU	89.6 mV	13.10 ft	125.00 ml/min
8/23/2022 9:35 AM	10:00	6.55 pH	20.93 °C	116.96 µS/cm	1.58 mg/L	2.05 NTU	84.3 mV	13.50 ft	125.00 ml/min
8/23/2022 9:40 AM	15:00	6.61 pH	20.77 °C	117.42 µS/cm	1.37 mg/L	1.69 NTU	86.9 mV	13.50 ft	125.00 ml/min
8/23/2022 9:45 AM	20:00	6.64 pH	20.79 °C	117.44 µS/cm	1.33 mg/L	1.83 NTU	82.8 mV	13.50 ft	125.00 ml/min
8/23/2022 9:50 AM	25:00	6.64 pH	20.75 °C	117.74 µS/cm	1.26 mg/L	1.12 NTU	86.9 mV	13.50 ft	125.00 ml/min
8/23/2022 9:55 AM	30:00	6.65 pH	20.81 °C	117.27 µS/cm	1.16 mg/L	1.65 NTU	82.4 mV	13.50 ft	125.00 ml/min
8/23/2022 10:00 AM	35:00	6.66 pH	20.80 °C	117.44 µS/cm	1.05 mg/L	1.27 NTU	81.8 mV	13.50 ft	125.00 ml/min
8/23/2022 10:05 AM	40:00	6.66 pH	20.84 °C	118.00 µS/cm	0.97 mg/L	1.08 NTU	86.2 mV	13.50 ft	125.00 ml/min
8/23/2022 10:10 AM	45:00	6.67 pH	20.93 °C	118.47 µS/cm	0.91 mg/L	1.22 NTU	81.8 mV	13.50 ft	125.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 10:30:04 AM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

Location Name: BRGWA-2S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37 ft Total Depth: 47.39 ft Initial Depth to Water: 12.72 ft	Pump Type: QED Bladder pump Tubing Type: Poly Pump Intake From TOC: 42 ft Estimated Total Volume Pumped: 5.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 1 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Cloudy, sample time-1055

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
8/23/2022 10:30 AM	00:00	6.71 pH	22.32 °C	122.72 µS/cm	1.24 mg/L	1.11 NTU	82.0 mV	12.72 ft	225.00 ml/min
8/23/2022 10:35 AM	05:00	6.04 pH	20.71 °C	56.96 µS/cm	2.13 mg/L	0.89 NTU	61.3 mV	12.80 ft	225.00 ml/min
8/23/2022 10:40 AM	10:00	5.95 pH	20.40 °C	57.02 µS/cm	1.77 mg/L	0.64 NTU	58.6 mV	12.80 ft	225.00 ml/min
8/23/2022 10:45 AM	15:00	5.95 pH	20.53 °C	55.52 µS/cm	2.87 mg/L	0.55 NTU	65.0 mV	12.80 ft	225.00 ml/min
8/23/2022 10:50 AM	20:00	5.94 pH	20.57 °C	54.65 µS/cm	2.77 mg/L	0.83 NTU	66.6 mV	12.80 ft	225.00 ml/min
8/23/2022 10:55 AM	25:00	5.95 pH	20.61 °C	55.77 µS/cm	3.00 mg/L	0.48 NTU	68.3 mV	12.80 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:40:06 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: 53.82 ft Total Depth: 63.82 ft Initial Depth to Water: 12.08 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 58 ft Estimated Total Volume Pumped: 8.3 liter Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 3 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes:

Sample time 1015. Overcast 80s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/23/2022 9:40 AM	00:00	6.25 pH	19.62 °C	141.33 µS/cm	5.44 mg/L	5.23 NTU	81.6 mV	12.08 ft	275.00 ml/min
8/23/2022 9:45 AM	05:00	6.25 pH	19.61 °C	142.04 µS/cm	5.43 mg/L	5.19 NTU	71.4 mV	12.30 ft	275.00 ml/min
8/23/2022 9:50 AM	10:00	6.25 pH	19.55 °C	141.67 µS/cm	5.45 mg/L	5.11 NTU	67.6 mV	12.30 ft	275.00 ml/min
8/23/2022 9:55 AM	15:00	6.25 pH	19.59 °C	141.73 µS/cm	5.46 mg/L	4.10 NTU	66.5 mV	12.30 ft	275.00 ml/min
8/23/2022 10:00 AM	20:00	6.24 pH	19.14 °C	141.26 µS/cm	5.45 mg/L	4.05 NTU	65.7 mV	12.30 ft	275.00 ml/min
8/23/2022 10:05 AM	25:00	6.24 pH	18.97 °C	141.33 µS/cm	5.47 mg/L	2.77 NTU	65.2 mV	12.30 ft	275.00 ml/min
8/23/2022 10:10 AM	30:00	6.24 pH	18.97 °C	141.26 µS/cm	5.47 mg/L	3.75 NTU	64.7 mV	12.30 ft	275.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:26:43 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

Location Name: BRGWA-5S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33 ft Total Depth: 43.01 ft Initial Depth to Water: 12.13 ft	Pump Type: Bladder pump Tubing Type: Poly Pump Intake From TOC: 38 ft Estimated Total Volume Pumped: 5.3 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 1.6 in	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Sampled at 1000 on 8-23-22. Cloudy 70s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/23/2022 9:26 AM	00:00	6.34 pH	21.42 °C	132.45 µS/cm	3.38 mg/L	10.00 NTU	84.2 mV	12.13 ft	150.00 ml/min
8/23/2022 9:31 AM	05:00	6.28 pH	20.31 °C	125.12 µS/cm	2.22 mg/L	3.50 NTU	75.2 mV	12.25 ft	150.00 ml/min
8/23/2022 9:36 AM	10:00	6.29 pH	20.13 °C	129.89 µS/cm	1.97 mg/L	3.90 NTU	76.2 mV	12.25 ft	150.00 ml/min
8/23/2022 9:41 AM	15:00	6.33 pH	20.14 °C	132.68 µS/cm	1.79 mg/L	3.80 NTU	73.3 mV	12.25 ft	150.00 ml/min
8/23/2022 9:46 AM	20:00	6.34 pH	20.10 °C	134.01 µS/cm	1.70 mg/L	2.70 NTU	74.4 mV	12.25 ft	150.00 ml/min
8/23/2022 9:51 AM	25:00	6.32 pH	20.06 °C	133.97 µS/cm	1.66 mg/L	3.10 NTU	84.7 mV	12.25 ft	150.00 ml/min
8/23/2022 9:56 AM	30:00	6.36 pH	20.09 °C	134.88 µS/cm	1.63 mg/L	3.00 NTU	74.7 mV	12.25 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:20:13 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: 42.9 ft Total Depth: 52.9 ft Initial Depth to Water: 26.95 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 47 ft Estimated Total Volume Pumped: 6600 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.57 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 0950. Mostly cloudy 75 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2022 9:20 AM	00:00	6.49 pH	20.39 °C	57.64 µS/cm	6.90 mg/L	4.05 NTU	84.9 mV	26.95 ft	220.00 ml/min
8/23/2022 9:25 AM	05:00	6.46 pH	20.30 °C	56.89 µS/cm	6.94 mg/L	2.27 NTU	65.6 mV	27.33 ft	220.00 ml/min
8/23/2022 9:30 AM	10:00	6.50 pH	20.21 °C	56.29 µS/cm	6.92 mg/L	1.60 NTU	67.8 mV	27.50 ft	220.00 ml/min
8/23/2022 9:35 AM	15:00	6.52 pH	20.11 °C	56.40 µS/cm	6.94 mg/L	1.66 NTU	69.9 mV	27.52 ft	220.00 ml/min
8/23/2022 9:40 AM	20:00	6.49 pH	20.05 °C	56.54 µS/cm	6.86 mg/L	1.85 NTU	72.6 mV	27.52 ft	220.00 ml/min
8/23/2022 9:45 AM	25:00	6.51 pH	20.04 °C	56.73 µS/cm	6.95 mg/L	1.74 NTU	75.2 mV	27.52 ft	220.00 ml/min
8/23/2022 9:50 AM	30:00	6.51 pH	20.04 °C	56.92 µS/cm	7.04 mg/L	1.71 NTU	77.0 mV	27.52 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/24/2022 11:02:05 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

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: 5.95 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 7 ft Estimated Total Volume Pumped: 7700 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.37 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1137. Partly cloudy 79 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/24/2022 11:02 AM	00:00	5.96 pH	26.18 °C	0.46 µS/cm	4.67 mg/L	16.10 NTU	107.1 mV	6.16 ft	220.00 ml/min
8/24/2022 11:07 AM	05:00	6.33 pH	22.06 °C	444.21 µS/cm	4.61 mg/L	14.50 NTU	74.8 mV	6.30 ft	220.00 ml/min
8/24/2022 11:12 AM	10:00	6.45 pH	22.13 °C	479.46 µS/cm	6.28 mg/L	11.50 NTU	75.0 mV	6.32 ft	220.00 ml/min
8/24/2022 11:17 AM	15:00	6.56 pH	22.31 °C	479.22 µS/cm	6.81 mg/L	7.12 NTU	77.0 mV	6.32 ft	220.00 ml/min
8/24/2022 11:22 AM	20:00	6.59 pH	22.34 °C	469.02 µS/cm	6.99 mg/L	5.94 NTU	77.9 mV	6.32 ft	220.00 ml/min
8/24/2022 11:27 AM	25:00	6.60 pH	22.44 °C	482.93 µS/cm	7.04 mg/L	3.88 NTU	79.2 mV	6.32 ft	220.00 ml/min
8/24/2022 11:32 AM	30:00	6.61 pH	22.49 °C	487.38 µS/cm	7.09 mg/L	3.20 NTU	81.5 mV	6.32 ft	220.00 ml/min
8/24/2022 11:37 AM	35:00	6.62 pH	22.62 °C	487.35 µS/cm	7.11 mg/L	3.08 NTU	82.1 mV	6.32 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 1:55:10 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

Location Name: BRGWC-33S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 18.8 ft Total Depth: 28.88 ft Initial Depth to Water: 8.94 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 22 ft Estimated Total Volume Pumped: 13 liter Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 1 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes:

Sample time 1445. Overcast 80s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/23/2022 1:55 PM	00:00	4.67 pH	20.82 °C	739.89 µS/cm	0.07 mg/L	1.43 NTU	100.4 mV	8.94 ft	275.00 ml/min
8/23/2022 2:00 PM	05:00	4.67 pH	20.75 °C	740.18 µS/cm	0.07 mg/L	1.27 NTU	108.1 mV	9.00 ft	275.00 ml/min
8/23/2022 2:05 PM	10:00	4.68 pH	20.75 °C	739.16 µS/cm	0.07 mg/L	1.37 NTU	91.8 mV	9.00 ft	275.00 ml/min
8/23/2022 2:10 PM	15:00	4.68 pH	20.72 °C	740.40 µS/cm	0.08 mg/L	1.36 NTU	101.6 mV	9.00 ft	275.00 ml/min
8/23/2022 2:15 PM	20:00	4.67 pH	20.82 °C	739.48 µS/cm	0.09 mg/L	1.17 NTU	88.9 mV	9.00 ft	275.00 ml/min
8/23/2022 2:20 PM	25:00	4.67 pH	20.75 °C	739.31 µS/cm	0.10 mg/L	1.03 NTU	98.3 mV	9.00 ft	275.00 ml/min
8/23/2022 2:25 PM	30:00	4.67 pH	20.89 °C	746.72 µS/cm	0.10 mg/L	1.07 NTU	87.1 mV	9.00 ft	275.00 ml/min
8/23/2022 2:30 PM	35:00	4.67 pH	20.89 °C	746.30 µS/cm	0.10 mg/L	1.04 NTU	95.7 mV	9.00 ft	275.00 ml/min
8/23/2022 2:35 PM	40:00	4.67 pH	20.93 °C	742.43 µS/cm	0.10 mg/L	1.05 NTU	85.6 mV	9.00 ft	275.00 ml/min
8/23/2022 2:40 PM	45:00	4.67 pH	21.12 °C	742.13 µS/cm	0.10 mg/L	1.04 NTU	84.4 mV	9.00 ft	275.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/24/2022 1:50:04 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

Location Name: BRGWC-34S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 15.7 ft Total Depth: 25.76 ft Initial Depth to Water: 2.72 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 20 ft Estimated Total Volume Pumped: 13 liter Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 1 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes:

Sample time 1440. Overcast 80s. EB-8 here at 1325.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/24/2022 1:50 PM	00:00	5.78 pH	22.63 °C	562.25 µS/cm	1.57 mg/L	3.31 NTU	26.4 mV	2.72 ft	280.00 ml/min
8/24/2022 1:55 PM	05:00	5.79 pH	22.46 °C	562.46 µS/cm	1.64 mg/L	2.92 NTU	31.3 mV	2.80 ft	280.00 ml/min
8/24/2022 2:00 PM	10:00	5.77 pH	22.52 °C	560.29 µS/cm	1.62 mg/L	2.87 NTU	34.3 mV	2.80 ft	280.00 ml/min
8/24/2022 2:05 PM	15:00	5.78 pH	22.58 °C	558.31 µS/cm	1.61 mg/L	2.71 NTU	38.5 mV	2.80 ft	280.00 ml/min
8/24/2022 2:10 PM	20:00	5.77 pH	22.71 °C	556.19 µS/cm	1.63 mg/L	1.84 NTU	40.4 mV	2.80 ft	280.00 ml/min
8/24/2022 2:15 PM	25:00	5.78 pH	22.65 °C	553.86 µS/cm	1.59 mg/L	1.48 NTU	44.0 mV	2.80 ft	280.00 ml/min
8/24/2022 2:20 PM	30:00	5.78 pH	22.61 °C	551.30 µS/cm	1.67 mg/L	1.34 NTU	46.1 mV	2.80 ft	280.00 ml/min
8/24/2022 2:25 PM	35:00	5.77 pH	22.58 °C	550.85 µS/cm	1.60 mg/L	1.39 NTU	49.1 mV	2.80 ft	280.00 ml/min
8/24/2022 2:30 PM	40:00	5.77 pH	22.57 °C	550.20 µS/cm	1.53 mg/L	1.11 NTU	51.6 mV	2.80 ft	280.00 ml/min
8/24/2022 2:35 PM	45:00	5.75 pH	22.44 °C	552.86 µS/cm	1.48 mg/L	0.97 NTU	54.7 mV	2.80 ft	280.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/24/2022 1:28:19 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

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: 2.03 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 25 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1358. Partly cloudy 83 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/24/2022 1:28 PM	00:00	6.45 pH	30.90 °C	612.09 µS/cm	4.27 mg/L	1.67 NTU	55.1 mV	2.03 ft	300.00 ml/min
8/24/2022 1:33 PM	05:00	6.06 pH	22.17 °C	615.07 µS/cm	1.29 mg/L	7.71 NTU	63.9 mV	2.03 ft	300.00 ml/min
8/24/2022 1:38 PM	10:00	6.06 pH	21.65 °C	635.07 µS/cm	0.39 mg/L	9.98 NTU	70.7 mV	2.03 ft	300.00 ml/min
8/24/2022 1:43 PM	15:00	6.05 pH	21.43 °C	636.25 µS/cm	0.15 mg/L	5.05 NTU	75.5 mV	2.03 ft	300.00 ml/min
8/24/2022 1:48 PM	20:00	6.05 pH	21.33 °C	639.17 µS/cm	0.18 mg/L	3.28 NTU	79.4 mV	2.03 ft	300.00 ml/min
8/24/2022 1:53 PM	25:00	6.05 pH	21.31 °C	631.59 µS/cm	0.49 mg/L	2.90 NTU	82.1 mV	2.03 ft	300.00 ml/min
8/24/2022 1:58 PM	30:00	6.05 pH	21.27 °C	631.41 µS/cm	0.38 mg/L	2.66 NTU	84.6 mV	2.03 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/24/2022 9:22:58 AM

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: 4.07 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 30 ft Estimated Total Volume Pumped: 8700 ml Flow Cell Volume: 90 ml Final Flow Rate: 290 ml/min Final Draw Down: 0.18 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 0952. Partly cloudy 76 degrees. FD-04 taken here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/24/2022 9:22 AM	00:00	5.95 pH	23.14 °C	506.13 µS/cm	2.50 mg/L	0.60 NTU	108.6 mV	4.22 ft	290.00 ml/min
8/24/2022 9:27 AM	05:00	5.60 pH	21.64 °C	534.39 µS/cm	2.04 mg/L	0.68 NTU	94.9 mV	4.25 ft	290.00 ml/min
8/24/2022 9:32 AM	10:00	5.59 pH	21.21 °C	533.95 µS/cm	2.03 mg/L	1.17 NTU	92.5 mV	4.25 ft	290.00 ml/min
8/24/2022 9:37 AM	15:00	5.59 pH	20.95 °C	531.70 µS/cm	2.03 mg/L	1.22 NTU	93.8 mV	4.25 ft	290.00 ml/min
8/24/2022 9:42 AM	20:00	5.58 pH	20.95 °C	521.95 µS/cm	2.01 mg/L	1.76 NTU	90.9 mV	4.25 ft	290.00 ml/min
8/24/2022 9:47 AM	25:00	5.58 pH	20.79 °C	519.24 µS/cm	2.01 mg/L	1.99 NTU	92.9 mV	4.25 ft	290.00 ml/min
8/24/2022 9:52 AM	30:00	5.59 pH	20.76 °C	513.38 µS/cm	1.99 mg/L	1.58 NTU	93.0 mV	4.25 ft	290.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 11:06:43 AM

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: 52.71 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 61 ft Estimated Total Volume Pumped: 4800 ml Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 0.75 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1136. Cloudy 77 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2022 11:06 AM	00:00	6.91 pH	23.76 °C	47.52 µS/cm	7.76 mg/L	1.16 NTU	101.2 mV	53.08 ft	160.00 ml/min
8/23/2022 11:11 AM	05:00	5.90 pH	20.79 °C	49.06 µS/cm	7.69 mg/L	0.81 NTU	103.0 mV	53.42 ft	160.00 ml/min
8/23/2022 11:16 AM	10:00	5.85 pH	20.52 °C	48.80 µS/cm	7.77 mg/L	0.66 NTU	104.2 mV	53.45 ft	160.00 ml/min
8/23/2022 11:21 AM	15:00	5.85 pH	20.46 °C	48.77 µS/cm	7.75 mg/L	0.58 NTU	105.2 mV	53.46 ft	160.00 ml/min
8/23/2022 11:26 AM	20:00	5.85 pH	20.52 °C	48.80 µS/cm	7.72 mg/L	0.77 NTU	104.4 mV	53.46 ft	160.00 ml/min
8/23/2022 11:31 AM	25:00	5.85 pH	20.57 °C	48.84 µS/cm	7.77 mg/L	0.98 NTU	105.3 mV	53.46 ft	160.00 ml/min
8/23/2022 11:36 AM	30:00	5.82 pH	20.48 °C	48.90 µS/cm	7.71 mg/L	1.12 NTU	106.8 mV	53.46 ft	160.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 3:30:10 PM

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: 22.98 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.83 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1600. Mostly cloudy 85 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2022 3:30 PM	00:00	4.31 pH	30.67 °C	557.73 µS/cm	5.60 mg/L	1.09 NTU	128.6 mV	23.52 ft	180.00 ml/min
8/23/2022 3:35 PM	05:00	4.03 pH	22.44 °C	693.27 µS/cm	3.00 mg/L	0.97 NTU	135.3 mV	23.79 ft	180.00 ml/min
8/23/2022 3:40 PM	10:00	4.00 pH	21.96 °C	698.98 µS/cm	2.38 mg/L	0.83 NTU	144.9 mV	23.81 ft	180.00 ml/min
8/23/2022 3:45 PM	15:00	3.99 pH	21.64 °C	697.87 µS/cm	1.94 mg/L	0.92 NTU	146.4 mV	23.81 ft	180.00 ml/min
8/23/2022 3:50 PM	20:00	3.98 pH	21.69 °C	692.66 µS/cm	1.76 mg/L	0.65 NTU	148.0 mV	23.81 ft	180.00 ml/min
8/23/2022 3:55 PM	25:00	3.98 pH	21.68 °C	688.64 µS/cm	1.71 mg/L	0.60 NTU	151.6 mV	23.81 ft	180.00 ml/min
8/23/2022 4:00 PM	30:00	3.97 pH	21.40 °C	690.15 µS/cm	1.63 mg/L	0.55 NTU	153.4 mV	23.81 ft	180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 11:35:23 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 28.26 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 32 ft Estimated Total Volume Pumped: 25 liter Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes:

Sample time 1315. Overcast 80s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/23/2022 11:35 AM	00:00	5.54 pH	21.73 °C	208.47 µS/cm	3.79 mg/L	2.11 NTU	80.5 mV	28.26 ft	250.00 ml/min
8/23/2022 11:40 AM	05:00	5.51 pH	20.00 °C	185.67 µS/cm	3.68 mg/L	1.46 NTU	88.4 mV	28.40 ft	250.00 ml/min
8/23/2022 11:45 AM	10:00	5.51 pH	19.71 °C	179.09 µS/cm	3.96 mg/L	1.30 NTU	87.0 mV	28.40 ft	250.00 ml/min
8/23/2022 11:50 AM	15:00	5.49 pH	19.59 °C	171.25 µS/cm	4.24 mg/L	1.65 NTU	87.5 mV	28.40 ft	250.00 ml/min
8/23/2022 11:55 AM	20:00	5.46 pH	19.73 °C	164.95 µS/cm	4.20 mg/L	1.55 NTU	89.0 mV	28.40 ft	250.00 ml/min
8/23/2022 12:00 PM	25:00	5.50 pH	19.79 °C	162.79 µS/cm	4.49 mg/L	1.49 NTU	86.4 mV	28.40 ft	250.00 ml/min
8/23/2022 12:05 PM	30:00	5.45 pH	19.71 °C	159.19 µS/cm	4.81 mg/L	1.43 NTU	89.7 mV	28.40 ft	250.00 ml/min
8/23/2022 12:10 PM	35:00	5.48 pH	19.80 °C	153.14 µS/cm	4.70 mg/L	1.39 NTU	87.3 mV	28.40 ft	250.00 ml/min
8/23/2022 12:15 PM	40:00	5.42 pH	19.82 °C	153.70 µS/cm	4.72 mg/L	1.37 NTU	90.3 mV	28.40 ft	275.00 ml/min
8/23/2022 12:20 PM	45:00	5.47 pH	19.95 °C	149.54 µS/cm	5.03 mg/L	1.39 NTU	88.1 mV	28.40 ft	275.00 ml/min
8/23/2022 12:25 PM	50:00	5.42 pH	19.96 °C	150.98 µS/cm	4.78 mg/L	1.34 NTU	90.2 mV	28.40 ft	275.00 ml/min
8/23/2022 12:30 PM	55:00	5.42 pH	19.90 °C	151.00 µS/cm	4.67 mg/L	1.53 NTU	90.4 mV	28.40 ft	275.00 ml/min
8/23/2022 12:35 PM	01:00:00	5.44 pH	19.90 °C	149.40 µS/cm	5.01 mg/L	1.64 NTU	89.8 mV	28.40 ft	275.00 ml/min
8/23/2022 12:40 PM	01:05:00	5.42 pH	20.04 °C	152.95 µS/cm	4.81 mg/L	1.36 NTU	90.7 mV	28.40 ft	275.00 ml/min
8/23/2022 12:45 PM	01:10:00	5.41 pH	20.17 °C	149.41 µS/cm	4.81 mg/L	1.32 NTU	91.6 mV	28.40 ft	275.00 ml/min

8/23/2022 12:50 PM	01:15:00	5.42 pH	20.02 °C	148.06 µS/cm	4.85 mg/L	1.31 NTU	90.7 mV	28.40 ft	275.00 ml/min
8/23/2022 12:55 PM	01:20:00	5.67 pH	21.64 °C	144.75 µS/cm	4.14 mg/L	1.39 NTU	104.4 mV	28.40 ft	275.00 ml/min
8/23/2022 1:00 PM	01:25:00	5.48 pH	19.68 °C	150.47 µS/cm	4.28 mg/L	1.34 NTU	87.4 mV	28.40 ft	275.00 ml/min
8/23/2022 1:05 PM	01:30:00	5.47 pH	19.73 °C	148.67 µS/cm	4.25 mg/L	1.31 NTU	83.8 mV	28.40 ft	275.00 ml/min
8/23/2022 1:10 PM	01:35:00	5.46 pH	19.80 °C	148.22 µS/cm	4.32 mg/L	1.31 NTU	82.2 mV	28.40 ft	275.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/23/2022 3:25:23 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 10.3 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 57 ft Estimated Total Volume Pumped: 11 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 249 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes:

Water level not stable. Log 1. Resume on next log.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/23/2022 3:25 PM	00:00	7.48 pH	24.17 °C	1,084.0 µS/cm	4.10 mg/L	2.21 NTU	97.2 mV	10.30 ft	200.00 ml/min
8/23/2022 3:30 PM	05:00	7.58 pH	24.78 °C	1,080.7 µS/cm	4.00 mg/L	1.89 NTU	90.4 mV	14.60 ft	200.00 ml/min
8/23/2022 3:35 PM	10:00	7.61 pH	24.78 °C	1,086.9 µS/cm	3.99 mg/L	1.83 NTU	86.4 mV	15.30 ft	150.00 ml/min
8/23/2022 3:40 PM	15:00	7.63 pH	25.28 °C	1,079.4 µS/cm	3.96 mg/L	1.73 NTU	83.3 mV	15.90 ft	150.00 ml/min
8/23/2022 3:45 PM	20:00	7.64 pH	25.08 °C	1,077.8 µS/cm	3.96 mg/L	1.56 NTU	81.3 mV	17.20 ft	100.00 ml/min
8/23/2022 3:50 PM	25:00	7.64 pH	25.27 °C	1,081.5 µS/cm	3.92 mg/L	1.55 NTU	78.9 mV	17.90 ft	100.00 ml/min
8/23/2022 3:55 PM	30:00	7.65 pH	24.88 °C	1,068.8 µS/cm	3.88 mg/L	1.47 NTU	77.5 mV	18.80 ft	100.00 ml/min
8/23/2022 4:00 PM	35:00	7.66 pH	24.63 °C	1,073.9 µS/cm	3.91 mg/L	1.43 NTU	75.7 mV	19.40 ft	100.00 ml/min
8/23/2022 4:05 PM	40:00	7.65 pH	24.53 °C	1,073.6 µS/cm	3.92 mg/L	1.43 NTU	75.1 mV	20.30 ft	100.00 ml/min
8/23/2022 4:10 PM	45:00	7.67 pH	24.70 °C	1,075.6 µS/cm	3.93 mg/L	1.46 NTU	73.3 mV	21.40 ft	100.00 ml/min
8/23/2022 4:15 PM	50:00	7.67 pH	24.96 °C	1,064.0 µS/cm	4.39 mg/L	1.44 NTU	77.0 mV	22.20 ft	100.00 ml/min
8/23/2022 4:20 PM	55:00	7.67 pH	24.14 °C	1,068.7 µS/cm	4.19 mg/L	2.46 NTU	72.3 mV	22.90 ft	100.00 ml/min
8/23/2022 4:25 PM	01:00:00	7.67 pH	23.75 °C	1,070.9 µS/cm	3.91 mg/L	2.33 NTU	71.7 mV	23.50 ft	100.00 ml/min
8/23/2022 4:30 PM	01:05:00	7.67 pH	23.95 °C	1,081.3 µS/cm	3.95 mg/L	2.92 NTU	70.5 mV	24.60 ft	100.00 ml/min
8/23/2022 4:35 PM	01:10:00	7.66 pH	24.47 °C	1,075.2 µS/cm	3.93 mg/L	2.57 NTU	73.3 mV	25.90 ft	100.00 ml/min

8/23/2022 4:40 PM	01:15:00	7.67 pH	24.60 °C	1,078.9 µS/cm	3.86 mg/L	1.94 NTU	69.2 mV	27.00 ft	100.00 ml/min
8/23/2022 4:45 PM	01:20:00	7.67 pH	26.64 °C	1,068.4 µS/cm	4.45 mg/L	1.33 NTU	71.4 mV	28.10 ft	100.00 ml/min
8/23/2022 4:50 PM	01:25:00	7.70 pH	22.49 °C	1,046.5 µS/cm	4.45 mg/L	1.77 NTU	73.4 mV	29.20 ft	100.00 ml/min
8/23/2022 4:55 PM	01:30:00	7.69 pH	22.06 °C	1,071.7 µS/cm	4.10 mg/L	1.74 NTU	72.7 mV	30.10 ft	100.00 ml/min
8/23/2022 5:00 PM	01:35:00	7.69 pH	23.14 °C	1,081.1 µS/cm	3.88 mg/L	1.73 NTU	71.3 mV	31.10 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/24/2022 9:50:10 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 32.26 ft	Pump Type: Portable Bladder Pump Tubing Type: Poly Pump Intake From TOC: 57 ft Estimated Total Volume Pumped: 36 liter Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 339 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes: Well purged dry. Came back next morning. No recharge observed. Tried to purge, but no sample was produced. Unable to sample.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/24/2022 9:50 AM	00:00	7.14 pH	22.31 °C	1,051.4 µS/cm	0.87 mg/L	61.20 NTU	138.0 mV	31.21 ft	100.00 ml/min
8/24/2022 9:55 AM	05:00	7.24 pH	22.01 °C	1,037.1 µS/cm	0.68 mg/L	63.90 NTU	107.5 mV	32.30 ft	100.00 ml/min
8/24/2022 10:00 AM	10:00	7.25 pH	22.05 °C	1,034.8 µS/cm	0.49 mg/L	65.00 NTU	121.3 mV	33.00 ft	100.00 ml/min
8/24/2022 10:05 AM	15:00	7.26 pH	22.09 °C	1,028.5 µS/cm	0.40 mg/L	54.40 NTU	88.9 mV	34.00 ft	100.00 ml/min
8/24/2022 10:10 AM	20:00	7.26 pH	22.18 °C	1,019.3 µS/cm	0.36 mg/L	14.80 NTU	104.1 mV	34.60 ft	100.00 ml/min
8/24/2022 10:15 AM	25:00	7.26 pH	22.18 °C	1,021.3 µS/cm	0.38 mg/L	12.60 NTU	80.9 mV	35.40 ft	100.00 ml/min
8/24/2022 10:20 AM	30:00	7.27 pH	22.15 °C	1,024.3 µS/cm	0.44 mg/L	11.50 NTU	95.9 mV	36.00 ft	100.00 ml/min
8/24/2022 10:25 AM	35:00	7.28 pH	22.72 °C	1,026.5 µS/cm	0.59 mg/L	9.94 NTU	79.3 mV	36.50 ft	65.00 ml/min
8/24/2022 10:30 AM	40:00	7.30 pH	23.04 °C	1,023.6 µS/cm	0.69 mg/L	7.82 NTU	75.8 mV	37.00 ft	65.00 ml/min
8/24/2022 10:35 AM	45:00	7.31 pH	23.07 °C	1,015.8 µS/cm	0.88 mg/L	6.56 NTU	89.1 mV	37.50 ft	65.00 ml/min
8/24/2022 10:40 AM	50:00	7.33 pH	23.44 °C	1,011.4 µS/cm	0.96 mg/L	6.63 NTU	87.9 mV	37.80 ft	50.00 ml/min
8/24/2022 10:45 AM	55:00	7.34 pH	23.66 °C	1,000.5 µS/cm	1.18 mg/L	6.54 NTU	87.4 mV	38.20 ft	50.00 ml/min
8/24/2022 10:50 AM	01:00:00	7.37 pH	23.52 °C	1,027.6 µS/cm	1.49 mg/L	6.26 NTU	86.5 mV	38.60 ft	50.00 ml/min
8/24/2022 10:55 AM	01:05:00	7.40 pH	23.61 °C	1,023.1 µS/cm	1.69 mg/L	5.93 NTU	85.4 mV	38.90 ft	50.00 ml/min
8/24/2022 11:00 AM	01:10:00	7.42 pH	23.52 °C	1,029.4 µS/cm	2.04 mg/L	5.49 NTU	84.6 mV	39.10 ft	50.00 ml/min

8/24/2022 11:05 AM	01:15:00	7.44 pH	23.43 °C	1,028.8 µS/cm	2.20 mg/L	5.39 NTU	71.7 mV	39.70 ft	50.00 ml/min
8/24/2022 11:10 AM	01:20:00	7.45 pH	23.57 °C	1,027.8 µS/cm	2.25 mg/L	5.24 NTU	81.4 mV	40.00 ft	50.00 ml/min
8/24/2022 11:15 AM	01:25:00	7.47 pH	23.75 °C	1,020.6 µS/cm	2.34 mg/L	5.11 NTU	70.3 mV	40.30 ft	50.00 ml/min
8/24/2022 11:20 AM	01:30:00	7.47 pH	23.74 °C	1,019.6 µS/cm	2.43 mg/L	5.30 NTU	79.3 mV	40.70 ft	50.00 ml/min
8/24/2022 11:25 AM	01:35:00	7.48 pH	23.70 °C	1,020.6 µS/cm	2.56 mg/L	5.21 NTU	68.9 mV	41.00 ft	50.00 ml/min
8/24/2022 11:30 AM	01:40:00	7.49 pH	23.90 °C	1,032.5 µS/cm	2.67 mg/L	5.20 NTU	77.1 mV	41.40 ft	50.00 ml/min
8/24/2022 11:35 AM	01:45:00	7.50 pH	24.11 °C	1,029.7 µS/cm	2.63 mg/L	5.30 NTU	67.9 mV	41.80 ft	50.00 ml/min
8/24/2022 11:40 AM	01:50:00	7.49 pH	24.37 °C	1,034.6 µS/cm	2.78 mg/L	5.12 NTU	79.4 mV	42.10 ft	50.00 ml/min
8/24/2022 11:45 AM	01:55:00	7.50 pH	24.54 °C	1,040.4 µS/cm	2.86 mg/L	5.18 NTU	67.1 mV	42.40 ft	50.00 ml/min
8/24/2022 11:50 AM	02:00:00	7.51 pH	24.71 °C	1,038.9 µS/cm	2.81 mg/L	6.73 NTU	66.5 mV	42.70 ft	50.00 ml/min
8/24/2022 11:55 AM	02:05:00	7.51 pH	24.79 °C	1,037.1 µS/cm	2.80 mg/L	7.73 NTU	73.3 mV	43.10 ft	50.00 ml/min
8/24/2022 12:00 PM	02:10:00	7.51 pH	24.80 °C	1,034.7 µS/cm	2.84 mg/L	7.38 NTU	65.8 mV	43.70 ft	50.00 ml/min
8/24/2022 12:05 PM	02:15:00	7.52 pH	24.69 °C	1,036.4 µS/cm	2.87 mg/L	7.61 NTU	65.1 mV	44.00 ft	50.00 ml/min
8/24/2022 12:10 PM	02:20:00	7.54 pH	23.20 °C	1,004.4 µS/cm	3.03 mg/L	7.38 NTU	65.5 mV	44.70 ft	250.00 ml/min
8/24/2022 12:15 PM	02:25:00	7.56 pH	21.82 °C	1,029.7 µS/cm	3.36 mg/L	8.85 NTU	72.3 mV	46.30 ft	250.00 ml/min
8/24/2022 12:20 PM	02:30:00	7.57 pH	21.84 °C	1,033.0 µS/cm	3.51 mg/L	8.27 NTU	72.0 mV	47.90 ft	250.00 ml/min
8/24/2022 12:25 PM	02:35:00	7.57 pH	21.91 °C	1,027.5 µS/cm	3.48 mg/L	8.64 NTU	64.6 mV	49.80 ft	250.00 ml/min
8/24/2022 12:30 PM	02:40:00	7.55 pH	21.90 °C	1,047.0 µS/cm	3.54 mg/L	9.89 NTU	63.5 mV	50.70 ft	250.00 ml/min
8/24/2022 12:35 PM	02:45:00	7.53 pH	22.00 °C	1,049.9 µS/cm	3.45 mg/L	10.70 NTU	61.4 mV	52.50 ft	250.00 ml/min
8/24/2022 12:40 PM	02:50:00	7.53 pH	21.91 °C	1,044.5 µS/cm	3.48 mg/L	11.30 NTU	59.1 mV	53.20 ft	250.00 ml/min
8/24/2022 12:45 PM	02:55:00	7.43 pH	21.86 °C	1,062.2 µS/cm	2.40 mg/L	15.70 NTU	62.1 mV	53.80 ft	250.00 ml/min
8/24/2022 12:50 PM	03:00:00	7.34 pH	21.83 °C	1,065.8 µS/cm	1.13 mg/L	11.30 NTU	61.2 mV	54.20 ft	250.00 ml/min
8/24/2022 12:55 PM	03:05:00	7.30 pH	21.75 °C	1,052.2 µS/cm	0.62 mg/L	14.60 NTU	61.0 mV	55.30 ft	250.00 ml/min
8/24/2022 1:00 PM	03:10:00	7.29 pH	21.73 °C	1,048.3 µS/cm	0.34 mg/L	12.40 NTU	58.7 mV	56.40 ft	250.00 ml/min
8/24/2022 1:05 PM	03:15:00	7.28 pH	21.90 °C	1,034.3 µS/cm	0.54 mg/L	11.50 NTU	39.7 mV	57.80 ft	250.00 ml/min
8/24/2022 1:10 PM	03:20:00	7.31 pH	21.92 °C	1,037.2 µS/cm	0.51 mg/L	11.40 NTU	41.3 mV	59.90 ft	250.00 ml/min
8/24/2022 1:15 PM	03:25:00	7.33 pH	22.77 °C	1,042.9 µS/cm	0.94 mg/L	11.50 NTU	43.6 mV	60.50 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 8/23/2022 1:00:10 PM

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: 23.44 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 137 ft Estimated Total Volume Pumped: 5600 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.24 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1355. Mostly cloudy 81 degrees. FB-04 taken here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2022 1:00 PM	00:00	6.82 pH	29.45 °C	179.44 µS/cm	3.69 mg/L	1.82 NTU	101.1 mV	23.58 ft	120.00 ml/min
8/23/2022 1:05 PM	05:00	7.16 pH	25.87 °C	173.66 µS/cm	2.15 mg/L	1.50 NTU	13.1 mV	23.63 ft	100.00 ml/min
8/23/2022 1:10 PM	10:00	7.17 pH	24.79 °C	196.45 µS/cm	2.21 mg/L	1.36 NTU	-28.4 mV	23.66 ft	100.00 ml/min
8/23/2022 1:15 PM	15:00	7.23 pH	24.38 °C	353.36 µS/cm	1.69 mg/L	1.27 NTU	-22.7 mV	23.68 ft	100.00 ml/min
8/23/2022 1:20 PM	20:00	7.20 pH	24.21 °C	483.54 µS/cm	2.73 mg/L	1.22 NTU	-3.9 mV	23.68 ft	100.00 ml/min
8/23/2022 1:25 PM	25:00	7.17 pH	24.37 °C	596.69 µS/cm	2.02 mg/L	1.35 NTU	3.0 mV	23.68 ft	100.00 ml/min
8/23/2022 1:30 PM	30:00	7.16 pH	24.31 °C	661.05 µS/cm	1.69 mg/L	1.17 NTU	7.9 mV	23.68 ft	100.00 ml/min
8/23/2022 1:35 PM	35:00	7.16 pH	24.48 °C	686.94 µS/cm	2.05 mg/L	1.64 NTU	16.5 mV	23.68 ft	100.00 ml/min
8/23/2022 1:40 PM	40:00	7.17 pH	24.83 °C	690.26 µS/cm	1.96 mg/L	1.53 NTU	21.6 mV	23.68 ft	100.00 ml/min
8/23/2022 1:45 PM	45:00	7.17 pH	24.80 °C	692.71 µS/cm	2.29 mg/L	1.15 NTU	23.7 mV	23.68 ft	100.00 ml/min
8/23/2022 1:50 PM	50:00	7.18 pH	24.82 °C	692.54 µS/cm	2.37 mg/L	0.99 NTU	26.9 mV	23.68 ft	100.00 ml/min
8/23/2022 1:55 PM	55:00	7.18 pH	25.13 °C	689.90 µS/cm	2.10 mg/L	0.95 NTU	28.3 mV	23.68 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/1/2022 9:23:50 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld



Location Name: PZ-70 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 42.9 ft Total Depth: 52.99 ft Initial Depth to Water: 28.66 ft	Pump Type: Peri pump Tubing Type: Poly Pump Intake From TOC: 48 ft Estimated Total Volume Pumped: 15.8 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 1.1 in	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Sampled at 1055 on 9-1-22. Fair, 84.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
9/1/2022 9:23 AM	00:00	6.83 pH	26.33 °C	64.48 µS/cm	6.85 mg/L	10.00 NTU	228.8 mV	28.66 ft	150.00 ml/min
9/1/2022 9:28 AM	05:00	6.12 pH	23.79 °C	366.18 µS/cm	0.26 mg/L	22.00 NTU	83.1 mV	28.75 ft	150.00 ml/min
9/1/2022 9:33 AM	10:00	6.09 pH	23.62 °C	363.11 µS/cm	0.15 mg/L	21.00 NTU	84.5 mV	28.75 ft	150.00 ml/min
9/1/2022 9:38 AM	15:00	6.05 pH	23.82 °C	354.78 µS/cm	0.13 mg/L	20.00 NTU	90.4 mV	28.75 ft	150.00 ml/min
9/1/2022 9:43 AM	20:00	6.09 pH	23.71 °C	363.42 µS/cm	0.11 mg/L	15.00 NTU	87.5 mV	28.75 ft	150.00 ml/min
9/1/2022 9:48 AM	25:00	6.13 pH	23.83 °C	367.41 µS/cm	0.10 mg/L	12.60 NTU	84.0 mV	28.75 ft	150.00 ml/min
9/1/2022 9:53 AM	30:00	6.13 pH	23.90 °C	367.40 µS/cm	0.09 mg/L	12.50 NTU	84.0 mV	28.75 ft	150.00 ml/min
9/1/2022 9:58 AM	35:00	6.13 pH	23.98 °C	365.61 µS/cm	0.08 mg/L	12.90 NTU	84.1 mV	28.75 ft	150.00 ml/min
9/1/2022 10:03 AM	40:00	6.14 pH	23.99 °C	367.68 µS/cm	0.07 mg/L	12.10 NTU	82.4 mV	28.75 ft	150.00 ml/min
9/1/2022 10:08 AM	45:00	6.14 pH	24.15 °C	366.51 µS/cm	0.07 mg/L	11.10 NTU	82.6 mV	28.75 ft	150.00 ml/min
9/1/2022 10:13 AM	50:00	6.14 pH	24.16 °C	367.72 µS/cm	0.08 mg/L	8.90 NTU	82.2 mV	28.75 ft	150.00 ml/min
9/1/2022 10:18 AM	55:00	6.14 pH	24.29 °C	368.04 µS/cm	0.08 mg/L	8.70 NTU	82.2 mV	28.75 ft	150.00 ml/min
9/1/2022 10:23 AM	01:00:00	6.14 pH	24.19 °C	366.41 µS/cm	0.09 mg/L	6.90 NTU	83.5 mV	28.75 ft	150.00 ml/min
9/1/2022 10:28 AM	01:05:00	6.15 pH	24.31 °C	368.09 µS/cm	0.09 mg/L	7.40 NTU	82.8 mV	28.75 ft	150.00 ml/min
9/1/2022 10:33 AM	01:10:00	6.16 pH	24.51 °C	366.10 µS/cm	0.09 mg/L	6.80 NTU	83.5 mV	28.75 ft	150.00 ml/min

9/1/2022 10:38 AM	01:15:00	6.16 pH	24.20 °C	367.00 µS/cm	0.09 mg/L	6.40 NTU	84.7 mV	28.75 ft	150.00 ml/min
9/1/2022 10:43 AM	01:20:00	6.16 pH	24.47 °C	366.99 µS/cm	0.10 mg/L	5.60 NTU	85.0 mV	28.75 ft	150.00 ml/min
9/1/2022 10:48 AM	01:25:00	6.15 pH	24.28 °C	367.95 µS/cm	0.11 mg/L	5.20 NTU	85.3 mV	28.75 ft	150.00 ml/min
9/1/2022 10:53 AM	01:30:00	6.13 pH	24.20 °C	365.64 µS/cm	0.11 mg/L	4.78 NTU	88.4 mV	28.75 ft	150.00 ml/min

Samples

Sample ID:	Description:
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January/February 2023

Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:10:21 AM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

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: 10.63 ft	Pump Type: Ded Bladder Pump Tubing Type: Poly Pump Intake From TOC: 59 ft Estimated Total Volume Pumped: 8.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 33 in	Instrument Used: Aqua TROLL 400 Serial Number: 965678
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Test Notes:

Sunny, sample time-1105

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/24/2023 10:10 AM	00:00	6.83 pH	9.42 °C	107.72 µS/cm	3.45 mg/L	3.09 NTU	100.5 mV	10.63 ft	150.00 ml/min
1/24/2023 10:15 AM	05:00	6.67 pH	14.47 °C	105.20 µS/cm	0.75 mg/L	2.21 NTU	53.8 mV	11.80 ft	150.00 ml/min
1/24/2023 10:20 AM	10:00	6.81 pH	15.08 °C	105.35 µS/cm	0.73 mg/L	1.27 NTU	48.9 mV	12.50 ft	150.00 ml/min
1/24/2023 10:25 AM	15:00	6.88 pH	15.39 °C	105.76 µS/cm	0.63 mg/L	1.39 NTU	48.8 mV	13.00 ft	150.00 ml/min
1/24/2023 10:30 AM	20:00	6.90 pH	15.51 °C	105.92 µS/cm	0.49 mg/L	1.64 NTU	49.2 mV	13.20 ft	150.00 ml/min
1/24/2023 10:35 AM	25:00	6.91 pH	15.49 °C	107.98 µS/cm	0.34 mg/L	1.43 NTU	49.0 mV	13.30 ft	150.00 ml/min
1/24/2023 10:40 AM	30:00	6.93 pH	15.62 °C	115.36 µS/cm	0.29 mg/L	1.22 NTU	50.1 mV	13.30 ft	150.00 ml/min
1/24/2023 10:45 AM	35:00	6.91 pH	15.62 °C	114.77 µS/cm	0.37 mg/L	1.83 NTU	44.8 mV	13.30 ft	150.00 ml/min
1/24/2023 10:50 AM	40:00	6.82 pH	15.73 °C	109.74 µS/cm	0.53 mg/L	1.68 NTU	43.7 mV	13.30 ft	150.00 ml/min
1/24/2023 10:55 AM	45:00	6.75 pH	16.02 °C	105.52 µS/cm	0.66 mg/L	1.22 NTU	42.9 mV	13.30 ft	150.00 ml/min
1/24/2023 11:00 AM	50:00	6.72 pH	16.11 °C	103.10 µS/cm	0.74 mg/L	1.77 NTU	42.4 mV	13.30 ft	150.00 ml/min
1/24/2023 11:05 AM	55:00	6.70 pH	15.89 °C	102.25 µS/cm	0.79 mg/L	1.69 NTU	42.8 mV	13.30 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:15:35 AM

Project: Plant Branch Ash Ponds

Operator Name: Dever Johnson

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: 10.67 ft	Pump Type: Ded Bladder Pump Tubing Type: Poly Pump Intake From TOC: 39.6 ft Estimated Total Volume Pumped: 6.75 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 0.3 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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Test Notes:

Sunny, sample time-1045

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/24/2023 10:15 AM	00:00	5.69 pH	16.76 °C	67.30 µS/cm	3.71 mg/L	1.08 NTU	116.8 mV	10.69 ft	225.00 ml/min
1/24/2023 10:16 AM	00:30	5.63 pH	16.48 °C	67.03 µS/cm	3.77 mg/L	0.59 NTU	112.3 mV	10.92 ft	225.00 ml/min
1/24/2023 10:20 AM	05:13	5.46 pH	16.42 °C	51.66 µS/cm	3.80 mg/L	0.60 NTU	109.3 mV	10.92 ft	225.00 ml/min
1/24/2023 10:25 AM	10:13	5.39 pH	16.04 °C	65.43 µS/cm	3.94 mg/L	0.50 NTU	108.0 mV	10.92 ft	225.00 ml/min
1/24/2023 10:30 AM	15:13	5.33 pH	15.41 °C	65.70 µS/cm	4.23 mg/L	0.53 NTU	106.6 mV	10.92 ft	225.00 ml/min
1/24/2023 10:35 AM	20:13	5.29 pH	15.71 °C	65.21 µS/cm	4.19 mg/L	0.71 NTU	106.7 mV	10.92 ft	225.00 ml/min
1/24/2023 10:40 AM	25:13	5.27 pH	15.86 °C	64.65 µS/cm	4.23 mg/L	0.54 NTU	105.7 mV	10.92 ft	225.00 ml/min
1/24/2023 10:45 AM	30:13	5.26 pH	15.58 °C	65.34 µS/cm	4.39 mg/L	0.64 NTU	105.1 mV	10.92 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:10:28 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: 12.4 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 58 ft Estimated Total Volume Pumped: 10 liter Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 4 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Sample time 10:50. Sunny 40s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/24/2023 10:10 AM	00:00	6.59 pH	14.22 °C	125.40 µS/cm	5.07 mg/L	3.04 NTU	158.5 mV	12.40 ft	250.00 ml/min
1/24/2023 10:15 AM	05:00	6.46 pH	16.39 °C	145.68 µS/cm	2.10 mg/L	2.72 NTU	130.1 mV	12.70 ft	250.00 ml/min
1/24/2023 10:20 AM	10:00	6.45 pH	16.64 °C	147.40 µS/cm	1.50 mg/L	2.84 NTU	120.0 mV	12.70 ft	250.00 ml/min
1/24/2023 10:25 AM	15:00	6.45 pH	16.83 °C	145.94 µS/cm	1.89 mg/L	2.35 NTU	134.0 mV	12.70 ft	250.00 ml/min
1/24/2023 10:30 AM	20:00	6.44 pH	16.79 °C	141.85 µS/cm	2.45 mg/L	1.57 NTU	136.5 mV	12.70 ft	250.00 ml/min
1/24/2023 10:35 AM	25:00	6.43 pH	16.75 °C	139.76 µS/cm	2.82 mg/L	1.87 NTU	137.8 mV	12.70 ft	250.00 ml/min
1/24/2023 10:40 AM	30:00	6.40 pH	16.88 °C	138.24 µS/cm	3.00 mg/L	1.58 NTU	138.1 mV	12.70 ft	250.00 ml/min
1/24/2023 10:45 AM	35:00	6.43 pH	16.92 °C	137.16 µS/cm	3.16 mg/L	0.79 NTU	135.5 mV	12.70 ft	250.00 ml/min
1/24/2023 10:50 AM	40:00	6.42 pH	17.02 °C	135.71 µS/cm	3.33 mg/L	1.13 NTU	135.3 mV	12.70 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:00:50 AM

Project: Plant Branch Ash Ponds

Operator Name: Toby 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: 12.54 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 38 ft Estimated Total Volume Pumped: 5 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 0.72 in	Instrument Used: Aqua TROLL 400 Serial Number: 965658
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Test Notes:

Sunny, sampled at 1031, Fe2+=0.0mg

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/24/2023 10:00 AM	00:00	6.68 pH	13.08 °C	160.99 µS/cm	8.96 mg/L	3.99 NTU	161.4 mV	12.54 ft	150.00 ml/min
1/24/2023 10:05 AM	05:00	6.37 pH	14.65 °C	148.88 µS/cm	4.38 mg/L	3.07 NTU	88.3 mV	12.60 ft	150.00 ml/min
1/24/2023 10:10 AM	10:00	6.40 pH	17.14 °C	148.81 µS/cm	2.47 mg/L	4.09 NTU	78.1 mV	12.60 ft	175.00 ml/min
1/24/2023 10:15 AM	15:00	6.42 pH	17.54 °C	153.45 µS/cm	2.25 mg/L	5.11 NTU	69.7 mV	12.60 ft	175.00 ml/min
1/24/2023 10:20 AM	20:00	6.45 pH	17.50 °C	155.42 µS/cm	1.97 mg/L	3.61 NTU	67.1 mV	12.60 ft	175.00 ml/min
1/24/2023 10:25 AM	25:00	6.47 pH	17.63 °C	156.95 µS/cm	1.93 mg/L	4.72 NTU	65.6 mV	12.60 ft	175.00 ml/min
1/24/2023 10:30 AM	30:00	6.47 pH	17.59 °C	157.20 µS/cm	1.90 mg/L	3.61 NTU	65.0 mV	12.60 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:22:37 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: 25.69 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 47 ft Estimated Total Volume Pumped: 6900 ml Flow Cell Volume: 90 ml Final Flow Rate: 230 ml/min Final Draw Down: 0.7 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1053. Sunny 40 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/24/2023 10:22 AM	00:00	8.04 pH	17.32 °C	83.76 µS/cm	7.59 mg/L	3.14 NTU	113.7 mV	26.19 ft	230.00 ml/min
1/24/2023 10:27 AM	05:00	6.93 pH	17.45 °C	52.65 µS/cm	6.54 mg/L	3.01 NTU	13.9 mV	26.27 ft	230.00 ml/min
1/24/2023 10:32 AM	10:00	6.66 pH	17.57 °C	52.60 µS/cm	6.38 mg/L	1.40 NTU	15.5 mV	26.39 ft	230.00 ml/min
1/24/2023 10:37 AM	15:00	6.59 pH	17.51 °C	52.57 µS/cm	6.34 mg/L	1.28 NTU	18.2 mV	26.39 ft	230.00 ml/min
1/24/2023 10:42 AM	20:00	6.57 pH	17.63 °C	52.18 µS/cm	6.29 mg/L	1.02 NTU	20.8 mV	26.39 ft	230.00 ml/min
1/24/2023 10:47 AM	25:00	6.56 pH	17.50 °C	52.74 µS/cm	6.34 mg/L	1.07 NTU	22.8 mV	26.39 ft	230.00 ml/min
1/24/2023 10:52 AM	30:00	6.54 pH	17.51 °C	53.27 µS/cm	6.98 mg/L	0.96 NTU	27.6 mV	26.39 ft	230.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 3:37:52 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

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: 5.76 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 7.5 ft Estimated Total Volume Pumped: 8800 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.45 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1618. Clear 51 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	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/24/2023 3:37 PM	00:00	6.59 pH	16.70 °C	433.30 µS/cm	5.28 mg/L	10.20 NTU	38.8 mV	5.90 ft	220.00 ml/min
1/24/2023 3:42 PM	05:00	6.37 pH	15.48 °C	442.92 µS/cm	1.98 mg/L	7.90 NTU	30.6 mV	6.03 ft	220.00 ml/min
1/24/2023 3:47 PM	10:00	6.36 pH	15.20 °C	440.47 µS/cm	1.75 mg/L	5.51 NTU	29.5 mV	6.13 ft	220.00 ml/min
1/24/2023 3:52 PM	15:00	6.36 pH	15.08 °C	441.24 µS/cm	1.67 mg/L	2.52 NTU	27.6 mV	6.21 ft	220.00 ml/min
1/24/2023 3:57 PM	20:00	6.36 pH	14.95 °C	440.64 µS/cm	1.61 mg/L	1.70 NTU	26.9 mV	6.21 ft	220.00 ml/min
1/24/2023 4:02 PM	25:00	6.36 pH	14.94 °C	440.20 µS/cm	1.57 mg/L	1.17 NTU	27.3 mV	6.21 ft	220.00 ml/min
1/24/2023 4:07 PM	30:00	6.36 pH	14.84 °C	439.23 µS/cm	1.57 mg/L	0.92 NTU	26.9 mV	6.21 ft	220.00 ml/min
1/24/2023 4:12 PM	35:00	6.37 pH	14.76 °C	436.34 µS/cm	1.57 mg/L	0.60 NTU	26.7 mV	6.21 ft	220.00 ml/min
1/24/2023 4:17 PM	40:00	6.37 pH	14.75 °C	434.81 µS/cm	1.59 mg/L	0.57 NTU	26.8 mV	6.21 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 1:10:19 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 10.19 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 8.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 13 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Ferrous iron: 0.0 mg/L. Sample time 1340. Sunny 50s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/24/2023 1:10 PM	00:00	4.80 pH	19.99 °C	696.91 µS/cm	-0.01 mg/L	1.97 NTU	123.0 mV	10.19 ft	275.00 ml/min
1/24/2023 1:15 PM	05:00	4.79 pH	20.14 °C	675.57 µS/cm	-0.03 mg/L	0.75 NTU	147.9 mV	11.30 ft	275.00 ml/min
1/24/2023 1:20 PM	10:00	4.79 pH	20.17 °C	675.43 µS/cm	-0.03 mg/L	0.39 NTU	159.0 mV	11.30 ft	275.00 ml/min
1/24/2023 1:25 PM	15:00	4.79 pH	20.26 °C	677.86 µS/cm	-0.03 mg/L	0.37 NTU	142.2 mV	11.30 ft	275.00 ml/min
1/24/2023 1:30 PM	20:00	4.79 pH	20.39 °C	674.69 µS/cm	-0.03 mg/L	0.50 NTU	167.7 mV	11.30 ft	275.00 ml/min
1/24/2023 1:35 PM	25:00	4.79 pH	20.41 °C	676.44 µS/cm	-0.04 mg/L	0.41 NTU	173.1 mV	11.30 ft	275.00 ml/min
1/24/2023 1:40 PM	30:00	4.79 pH	20.53 °C	676.33 µS/cm	-0.04 mg/L	0.31 NTU	176.9 mV	11.30 ft	275.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 11:59:31 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: BRGWC-34S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 15.76 ft Total Depth: 25.76 ft Initial Depth to Water: 2.68 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 20 ft Estimated Total Volume Pumped: 14821.333 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1253. Sunny 46 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/24/2023 11:59 AM	00:00	5.95 pH	17.21 °C	576.85 µS/cm	3.85 mg/L	0.52 NTU	-3.4 mV	2.72 ft	280.00 ml/min
1/24/2023 12:04 PM	05:00	5.91 pH	17.72 °C	574.68 µS/cm	2.09 mg/L	0.59 NTU	17.0 mV	2.72 ft	280.00 ml/min
1/24/2023 12:09 PM	10:00	5.91 pH	17.88 °C	572.63 µS/cm	1.58 mg/L	0.53 NTU	21.2 mV	2.72 ft	280.00 ml/min
1/24/2023 12:14 PM	15:00	5.94 pH	17.83 °C	568.63 µS/cm	1.71 mg/L	0.56 NTU	23.7 mV	2.72 ft	280.00 ml/min
1/24/2023 12:19 PM	20:00	5.97 pH	17.89 °C	557.62 µS/cm	2.81 mg/L	0.62 NTU	27.3 mV	2.72 ft	280.00 ml/min
1/24/2023 12:24 PM	25:00	5.93 pH	17.99 °C	568.05 µS/cm	1.71 mg/L	0.45 NTU	27.3 mV	2.72 ft	280.00 ml/min
1/24/2023 12:29 PM	30:00	5.93 pH	18.21 °C	571.08 µS/cm	1.61 mg/L	0.44 NTU	28.4 mV	2.72 ft	280.00 ml/min
1/24/2023 12:32 PM	32:56	5.92 pH	18.17 °C	570.06 µS/cm	1.69 mg/L	0.50 NTU	30.2 mV	2.72 ft	280.00 ml/min
1/24/2023 12:37 PM	37:56	5.93 pH	18.20 °C	386.96 µS/cm	1.67 mg/L	0.52 NTU	31.1 mV	2.72 ft	280.00 ml/min
1/24/2023 12:42 PM	42:56	5.93 pH	18.37 °C	563.45 µS/cm	1.80 mg/L	0.77 NTU	30.6 mV	2.72 ft	280.00 ml/min
1/24/2023 12:47 PM	47:56	5.93 pH	18.24 °C	561.68 µS/cm	1.60 mg/L	0.63 NTU	31.9 mV	2.72 ft	280.00 ml/min
1/24/2023 12:52 PM	52:56	5.93 pH	18.39 °C	561.59 µS/cm	1.65 mg/L	0.65 NTU	32.3 mV	2.72 ft	280.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 2:13:54 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

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: 1.85 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 25 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.02 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1444. Sunny 50 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	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/24/2023 2:13 PM	00:00	6.15 pH	17.23 °C	581.83 µS/cm	3.48 mg/L	1.12 NTU	28.2 mV	1.87 ft	300.00 ml/min
1/24/2023 2:18 PM	05:00	6.07 pH	17.54 °C	586.81 µS/cm	0.44 mg/L	1.06 NTU	34.5 mV	1.87 ft	300.00 ml/min
1/24/2023 2:23 PM	10:00	6.07 pH	17.77 °C	583.14 µS/cm	0.23 mg/L	0.69 NTU	37.1 mV	1.87 ft	300.00 ml/min
1/24/2023 2:28 PM	15:00	6.07 pH	17.73 °C	587.20 µS/cm	0.19 mg/L	0.52 NTU	36.0 mV	1.87 ft	300.00 ml/min
1/24/2023 2:33 PM	20:00	6.07 pH	17.86 °C	591.42 µS/cm	0.18 mg/L	0.33 NTU	36.4 mV	1.87 ft	300.00 ml/min
1/24/2023 2:38 PM	25:00	6.08 pH	17.86 °C	588.47 µS/cm	0.17 mg/L	0.27 NTU	36.4 mV	1.87 ft	300.00 ml/min
1/24/2023 2:43 PM	30:00	6.08 pH	17.86 °C	590.15 µS/cm	0.17 mg/L	0.22 NTU	36.6 mV	1.87 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/25/2023 3:22:59 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: 3.88 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 30 ft Estimated Total Volume Pumped: 9075 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.07 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1553. Cloudy 63 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	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/25/2023 3:22 PM	00:00	5.47 pH	20.86 °C	546.31 µS/cm	4.94 mg/L	2.04 NTU	115.5 mV	3.93 ft	300.00 ml/min
1/25/2023 3:27 PM	05:00	5.64 pH	14.82 °C	586.08 µS/cm	2.07 mg/L	2.37 NTU	99.7 mV	3.95 ft	300.00 ml/min
1/25/2023 3:32 PM	10:00	5.65 pH	14.83 °C	585.41 µS/cm	2.03 mg/L	2.82 NTU	116.5 mV	3.95 ft	300.00 ml/min
1/25/2023 3:37 PM	15:00	5.64 pH	15.05 °C	589.09 µS/cm	2.02 mg/L	3.06 NTU	91.3 mV	3.95 ft	300.00 ml/min
1/25/2023 3:42 PM	20:00	5.64 pH	15.45 °C	588.47 µS/cm	1.99 mg/L	3.11 NTU	105.9 mV	3.95 ft	300.00 ml/min
1/25/2023 3:47 PM	25:00	5.64 pH	15.71 °C	586.62 µS/cm	1.99 mg/L	3.17 NTU	103.6 mV	3.95 ft	300.00 ml/min
1/25/2023 3:53 PM	30:15	5.64 pH	15.80 °C	598.90 µS/cm	2.00 mg/L	3.34 NTU	93.0 mV	3.95 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/25/2023 12:50:04 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 53.66 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 61 ft Estimated Total Volume Pumped: 4.8 liter Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 8 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Ferrous Iron: 0.0mg/L. Sample time 13:20. Cloudy 60s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/25/2023 12:50 PM	00:00	5.90 pH	18.66 °C	48.33 µS/cm	7.25 mg/L	1.94 NTU	147.3 mV	53.66 ft	160.00 ml/min
1/25/2023 12:55 PM	05:00	5.84 pH	18.68 °C	48.35 µS/cm	7.17 mg/L	1.53 NTU	174.1 mV	54.30 ft	160.00 ml/min
1/25/2023 1:00 PM	10:00	5.83 pH	18.71 °C	48.15 µS/cm	7.14 mg/L	1.14 NTU	170.6 mV	54.30 ft	160.00 ml/min
1/25/2023 1:05 PM	15:00	5.83 pH	18.75 °C	48.00 µS/cm	7.14 mg/L	0.91 NTU	166.8 mV	54.30 ft	160.00 ml/min
1/25/2023 1:10 PM	20:00	5.84 pH	18.87 °C	47.79 µS/cm	7.12 mg/L	0.97 NTU	135.5 mV	54.30 ft	160.00 ml/min
1/25/2023 1:15 PM	25:00	5.83 pH	18.83 °C	47.93 µS/cm	7.14 mg/L	0.23 NTU	156.4 mV	54.30 ft	160.00 ml/min
1/25/2023 1:20 PM	30:00	5.84 pH	18.88 °C	47.92 µS/cm	7.14 mg/L	0.19 NTU	156.2 mV	54.30 ft	160.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/25/2023 1:03:24 PM

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: 22.16 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 9500 ml Flow Cell Volume: 90 ml Final Flow Rate: 190 ml/min Final Draw Down: 0.96 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1353. Cloudy 65 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	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/25/2023 1:03 PM	00:00	5.91 pH	18.17 °C	731.79 µS/cm	7.73 mg/L	0.44 NTU	193.2 mV	22.70 ft	190.00 ml/min
1/25/2023 1:08 PM	05:00	4.40 pH	18.61 °C	753.91 µS/cm	2.56 mg/L	0.39 NTU	153.4 mV	22.83 ft	190.00 ml/min
1/25/2023 1:13 PM	10:00	4.38 pH	18.72 °C	715.05 µS/cm	2.04 mg/L	0.41 NTU	187.2 mV	22.94 ft	190.00 ml/min
1/25/2023 1:18 PM	15:00	4.36 pH	18.77 °C	710.28 µS/cm	1.66 mg/L	0.56 NTU	181.6 mV	23.03 ft	190.00 ml/min
1/25/2023 1:23 PM	20:00	4.37 pH	18.79 °C	699.31 µS/cm	1.59 mg/L	0.50 NTU	144.8 mV	23.09 ft	190.00 ml/min
1/25/2023 1:28 PM	25:00	4.43 pH	18.70 °C	681.40 µS/cm	1.62 mg/L	0.66 NTU	141.0 mV	23.12 ft	190.00 ml/min
1/25/2023 1:33 PM	30:00	4.52 pH	18.68 °C	671.46 µS/cm	1.66 mg/L	0.64 NTU	136.2 mV	23.12 ft	190.00 ml/min
1/25/2023 1:38 PM	35:00	4.63 pH	18.65 °C	669.13 µS/cm	1.70 mg/L	0.68 NTU	132.4 mV	23.12 ft	190.00 ml/min
1/25/2023 1:43 PM	40:00	4.69 pH	18.52 °C	668.07 µS/cm	1.72 mg/L	0.75 NTU	154.5 mV	23.12 ft	190.00 ml/min
1/25/2023 1:48 PM	45:00	4.73 pH	18.55 °C	670.75 µS/cm	1.71 mg/L	0.71 NTU	152.9 mV	23.12 ft	190.00 ml/min
1/25/2023 1:53 PM	50:00	4.75 pH	18.53 °C	675.19 µS/cm	1.71 mg/L	0.88 NTU	124.2 mV	23.12 ft	190.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/26/2023 9:50:13 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 28.17 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 33 ft Estimated Total Volume Pumped: 24.7 liter Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 1 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Ferrous iron: 0.0 mg/L. Sample time 1120. Cloudy 40s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/26/2023 9:50 AM	00:00	5.56 pH	11.62 °C	184.64 µS/cm	3.99 mg/L	2.11 NTU	188.5 mV	28.17 ft	275.00 ml/min
1/26/2023 9:55 AM	05:00	5.51 pH	13.12 °C	171.29 µS/cm	3.62 mg/L	1.92 NTU	157.8 mV	28.20 ft	275.00 ml/min
1/26/2023 10:00 AM	10:00	5.53 pH	13.47 °C	166.12 µS/cm	3.44 mg/L	1.85 NTU	171.8 mV	28.20 ft	275.00 ml/min
1/26/2023 10:05 AM	15:00	5.53 pH	13.63 °C	161.45 µS/cm	3.32 mg/L	1.63 NTU	161.2 mV	28.20 ft	275.00 ml/min
1/26/2023 10:10 AM	20:00	5.53 pH	14.15 °C	155.47 µS/cm	3.53 mg/L	1.36 NTU	122.2 mV	28.20 ft	275.00 ml/min
1/26/2023 10:15 AM	25:00	5.53 pH	14.00 °C	154.87 µS/cm	3.67 mg/L	1.29 NTU	140.9 mV	28.20 ft	275.00 ml/min
1/26/2023 10:20 AM	30:00	5.54 pH	14.04 °C	154.41 µS/cm	3.36 mg/L	1.21 NTU	138.7 mV	28.20 ft	275.00 ml/min
1/26/2023 10:25 AM	35:00	5.55 pH	14.11 °C	154.43 µS/cm	3.44 mg/L	0.93 NTU	135.6 mV	28.20 ft	275.00 ml/min
1/26/2023 10:30 AM	40:00	5.56 pH	14.50 °C	152.87 µS/cm	3.32 mg/L	0.98 NTU	133.1 mV	28.20 ft	275.00 ml/min
1/26/2023 10:35 AM	45:00	5.56 pH	14.78 °C	149.99 µS/cm	3.36 mg/L	0.72 NTU	130.9 mV	28.20 ft	275.00 ml/min
1/26/2023 10:40 AM	50:00	5.57 pH	14.56 °C	152.77 µS/cm	3.39 mg/L	0.85 NTU	128.6 mV	28.20 ft	275.00 ml/min
1/26/2023 10:45 AM	55:00	5.56 pH	14.72 °C	150.94 µS/cm	4.14 mg/L	0.76 NTU	127.0 mV	28.20 ft	275.00 ml/min
1/26/2023 10:50 AM	01:00:00	5.56 pH	15.04 °C	149.45 µS/cm	4.06 mg/L	0.52 NTU	126.0 mV	28.20 ft	275.00 ml/min
1/26/2023 10:55 AM	01:05:00	5.55 pH	15.36 °C	149.26 µS/cm	3.80 mg/L	0.58 NTU	125.3 mV	28.20 ft	275.00 ml/min
1/26/2023 11:00 AM	01:10:00	5.56 pH	15.26 °C	150.02 µS/cm	3.62 mg/L	0.45 NTU	124.3 mV	28.20 ft	275.00 ml/min

1/26/2023 11:05 AM	01:15:00	5.56 pH	15.40 °C	149.23 µS/cm	3.62 mg/L	0.36 NTU	123.5 mV	28.20 ft	275.00 ml/min
1/26/2023 11:10 AM	01:20:00	5.56 pH	15.41 °C	148.63 µS/cm	3.87 mg/L	0.41 NTU	122.9 mV	28.20 ft	275.00 ml/min
1/26/2023 11:15 AM	01:25:00	5.56 pH	15.49 °C	147.81 µS/cm	3.53 mg/L	0.34 NTU	122.2 mV	28.20 ft	275.00 ml/min
1/26/2023 11:20 AM	01:30:00	5.56 pH	15.52 °C	147.80 µS/cm	3.59 mg/L	0.36 NTU	121.8 mV	28.20 ft	275.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/24/2023 2:50:14 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 35.25 ft	Pump Type: Portable Bladder Pump Tubing Type: Poly Pump Intake From TOC: 57 ft Estimated Total Volume Pumped: 16 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 285 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Purged dry.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/24/2023 2:50 PM	00:00	7.28 pH	21.25 °C	573.90 µS/cm	5.83 mg/L	2.86 NTU	138.3 mV	35.25 ft	50.00 ml/min
1/24/2023 2:55 PM	05:00	7.43 pH	20.13 °C	577.52 µS/cm	5.06 mg/L	1.94 NTU	118.9 mV	35.70 ft	50.00 ml/min
1/24/2023 3:00 PM	10:00	7.48 pH	20.00 °C	566.74 µS/cm	4.85 mg/L	1.07 NTU	108.7 mV	36.40 ft	50.00 ml/min
1/24/2023 3:05 PM	15:00	7.50 pH	19.77 °C	575.45 µS/cm	5.05 mg/L	1.28 NTU	102.7 mV	36.90 ft	50.00 ml/min
1/24/2023 3:10 PM	20:00	7.50 pH	20.03 °C	573.67 µS/cm	5.03 mg/L	1.38 NTU	111.2 mV	37.20 ft	50.00 ml/min
1/24/2023 3:15 PM	25:00	7.51 pH	20.15 °C	569.88 µS/cm	4.96 mg/L	1.33 NTU	110.9 mV	37.60 ft	50.00 ml/min
1/24/2023 3:20 PM	30:00	7.51 pH	20.26 °C	568.42 µS/cm	4.86 mg/L	1.19 NTU	110.4 mV	38.20 ft	50.00 ml/min
1/24/2023 3:25 PM	35:00	7.51 pH	20.13 °C	564.26 µS/cm	4.85 mg/L	1.38 NTU	109.8 mV	38.20 ft	50.00 ml/min
1/24/2023 3:30 PM	40:00	7.51 pH	20.22 °C	561.97 µS/cm	4.80 mg/L	1.31 NTU	109.1 mV	38.90 ft	50.00 ml/min
1/24/2023 3:35 PM	45:00	7.51 pH	20.11 °C	558.49 µS/cm	4.80 mg/L	1.21 NTU	108.7 mV	39.20 ft	50.00 ml/min
1/24/2023 3:40 PM	50:00	7.51 pH	20.31 °C	555.53 µS/cm	4.77 mg/L	1.29 NTU	108.2 mV	39.60 ft	50.00 ml/min
1/24/2023 3:45 PM	55:00	7.51 pH	20.25 °C	551.98 µS/cm	4.77 mg/L	1.38 NTU	108.3 mV	40.00 ft	50.00 ml/min
1/24/2023 3:50 PM	01:00:00	7.51 pH	20.04 °C	551.44 µS/cm	4.79 mg/L	1.36 NTU	108.1 mV	40.40 ft	50.00 ml/min
1/24/2023 3:55 PM	01:05:00	7.51 pH	19.79 °C	549.47 µS/cm	4.78 mg/L	1.54 NTU	96.1 mV	40.70 ft	50.00 ml/min
1/24/2023 4:00 PM	01:10:00	7.51 pH	19.68 °C	554.95 µS/cm	4.82 mg/L	1.34 NTU	104.9 mV	41.00 ft	50.00 ml/min

1/24/2023 4:05 PM	01:15:00	7.52 pH	19.43 °C	555.53 µS/cm	4.82 mg/L	1.32 NTU	105.4 mV	41.40 ft	50.00 ml/min
1/24/2023 4:10 PM	01:20:00	7.52 pH	19.17 °C	557.89 µS/cm	4.77 mg/L	1.43 NTU	92.7 mV	41.70 ft	50.00 ml/min
1/24/2023 4:15 PM	01:25:00	7.52 pH	17.96 °C	552.66 µS/cm	5.20 mg/L	1.66 NTU	90.7 mV	42.00 ft	50.00 ml/min
1/24/2023 4:20 PM	01:30:00	7.52 pH	18.59 °C	555.55 µS/cm	5.12 mg/L	1.74 NTU	87.4 mV	42.30 ft	50.00 ml/min
1/24/2023 4:25 PM	01:35:00	7.52 pH	18.35 °C	550.31 µS/cm	5.06 mg/L	1.34 NTU	95.3 mV	42.80 ft	150.00 ml/min
1/24/2023 4:30 PM	01:40:00	7.53 pH	17.84 °C	546.57 µS/cm	4.98 mg/L	1.59 NTU	95.8 mV	43.30 ft	150.00 ml/min
1/24/2023 4:35 PM	01:45:00	7.53 pH	17.55 °C	549.24 µS/cm	4.92 mg/L	1.43 NTU	86.0 mV	43.70 ft	150.00 ml/min
1/24/2023 4:40 PM	01:50:00	7.52 pH	18.12 °C	557.37 µS/cm	5.02 mg/L	1.58 NTU	93.0 mV	46.00 ft	150.00 ml/min
1/24/2023 4:45 PM	01:55:00	7.52 pH	19.72 °C	562.72 µS/cm	5.31 mg/L	4.99 NTU	95.8 mV	47.10 ft	150.00 ml/min
1/24/2023 4:50 PM	02:00:00	7.52 pH	19.80 °C	568.81 µS/cm	5.32 mg/L	5.13 NTU	97.9 mV	49.00 ft	150.00 ml/min
1/24/2023 4:55 PM	02:05:00	7.52 pH	19.65 °C	569.91 µS/cm	5.40 mg/L	7.88 NTU	89.8 mV	51.40 ft	150.00 ml/min
1/24/2023 5:00 PM	02:10:00	7.51 pH	19.60 °C	583.73 µS/cm	4.93 mg/L	15.90 NTU	94.7 mV	52.00 ft	150.00 ml/min
1/24/2023 5:05 PM	02:15:00	7.51 pH	19.42 °C	589.39 µS/cm	5.33 mg/L	14.60 NTU	86.1 mV	52.90 ft	150.00 ml/min
1/24/2023 5:10 PM	02:20:00	7.49 pH	19.37 °C	590.52 µS/cm	5.43 mg/L	14.20 NTU	34.2 mV	54.00 ft	150.00 ml/min
1/24/2023 5:15 PM	02:25:00	7.52 pH	18.82 °C	591.78 µS/cm	5.30 mg/L	11.80 NTU	35.5 mV	54.00 ft	0.00 ml/min
1/24/2023 5:20 PM	02:30:00	7.51 pH	19.02 °C	599.70 µS/cm	5.56 mg/L	8.28 NTU	43.1 mV	54.50 ft	150.00 ml/min
1/24/2023 5:25 PM	02:35:00	7.52 pH	19.33 °C	596.36 µS/cm	5.07 mg/L	8.79 NTU	59.9 mV	55.10 ft	150.00 ml/min
1/24/2023 5:30 PM	02:40:00	7.53 pH	19.18 °C	599.97 µS/cm	5.22 mg/L	15.00 NTU	68.4 mV	56.00 ft	150.00 ml/min
1/24/2023 5:35 PM	02:45:00	7.54 pH	19.18 °C	555.30 µS/cm	4.56 mg/L	19.50 NTU	73.0 mV	56.70 ft	150.00 ml/min
1/24/2023 5:40 PM	02:50:00	7.54 pH	19.11 °C	535.27 µS/cm	3.65 mg/L	17.90 NTU	74.2 mV	57.30 ft	150.00 ml/min
1/24/2023 5:45 PM	02:55:00	7.57 pH	18.26 °C	535.89 µS/cm	3.43 mg/L	16.80 NTU	74.5 mV	59.00 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/25/2023 2:22:04 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 56.61 ft	Pump Type: Portable Bladder Pump Tubing Type: Poly Pump Intake From TOC: 57 ft Estimated Total Volume Pumped: 0.1 liter Flow Cell Volume: 90 ml Final Flow Rate: 50 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Ferrous iron: 0.0 mg/L. Sample time 1424. Rainy 60s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/25/2023 2:22 PM	00:00	6.69 pH	18.96 °C	635.18 µS/cm	7.58 mg/L	4.46 NTU	150.6 mV	56.61 ft	50.00 ml/min
1/25/2023 2:23 PM	01:00	6.97 pH	18.48 °C	650.03 µS/cm	6.96 mg/L	4.80 NTU	135.7 mV	56.70 ft	50.00 ml/min
1/25/2023 2:24 PM	02:00	7.14 pH	18.47 °C	651.81 µS/cm	7.16 mg/L	3.79 NTU	146.5 mV	56.80 ft	50.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/25/2023 3:35:05 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

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: 22.55 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Poly Pump Intake From TOC: 137 ft Estimated Total Volume Pumped: 4 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 5 in	Instrument Used: Aqua TROLL 400 Serial Number: 884186
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Test Notes:

Ferrous iron: 0.0 mg/L. Sample time 1615. Rainy 50s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/25/2023 3:35 PM	00:00	7.43 pH	16.70 °C	682.37 µS/cm	7.29 mg/L	1.16 NTU	143.4 mV	22.55 ft	100.00 ml/min
1/25/2023 3:40 PM	05:00	6.98 pH	17.72 °C	687.36 µS/cm	2.24 mg/L	1.12 NTU	-103.8 mV	22.80 ft	100.00 ml/min
1/25/2023 3:45 PM	10:00	7.03 pH	18.08 °C	673.83 µS/cm	1.67 mg/L	0.94 NTU	-132.8 mV	22.80 ft	100.00 ml/min
1/25/2023 3:50 PM	15:00	7.08 pH	18.00 °C	674.58 µS/cm	1.55 mg/L	1.36 NTU	-93.2 mV	22.80 ft	100.00 ml/min
1/25/2023 3:55 PM	20:00	7.09 pH	17.77 °C	673.58 µS/cm	1.56 mg/L	1.73 NTU	-106.9 mV	23.00 ft	100.00 ml/min
1/25/2023 4:00 PM	25:00	7.08 pH	18.70 °C	668.27 µS/cm	1.97 mg/L	1.89 NTU	-32.6 mV	23.00 ft	100.00 ml/min
1/25/2023 4:05 PM	30:00	7.09 pH	18.80 °C	676.53 µS/cm	2.04 mg/L	2.86 NTU	-9.8 mV	23.00 ft	100.00 ml/min
1/25/2023 4:10 PM	35:00	7.10 pH	18.82 °C	680.82 µS/cm	2.09 mg/L	2.93 NTU	-1.7 mV	23.00 ft	100.00 ml/min
1/25/2023 4:15 PM	40:00	7.10 pH	18.79 °C	675.06 µS/cm	2.16 mg/L	2.83 NTU	0.6 mV	23.00 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/26/2023 9:52:11 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

Location Name: PZ-70I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 44.72 ft Total Depth: 54.72 ft Initial Depth to Water: 28.47 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 49 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.27 ft	Instrument Used: Aqua TROLL 400 Serial Number: 877800
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Test Notes:

Sampled at 1022. Cloudy 43 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	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/26/2023 9:52 AM	00:00	7.35 pH	13.28 °C	397.89 µS/cm	6.30 mg/L	1.70 NTU	180.3 mV	28.68 ft	200.00 ml/min
1/26/2023 9:57 AM	05:00	5.86 pH	15.44 °C	399.51 µS/cm	1.69 mg/L	0.91 NTU	96.7 mV	28.72 ft	200.00 ml/min
1/26/2023 10:02 AM	10:00	5.64 pH	16.20 °C	400.11 µS/cm	1.69 mg/L	0.66 NTU	109.2 mV	28.74 ft	200.00 ml/min
1/26/2023 10:07 AM	15:00	5.64 pH	16.38 °C	394.09 µS/cm	1.59 mg/L	0.62 NTU	78.7 mV	28.74 ft	200.00 ml/min
1/26/2023 10:12 AM	20:00	5.63 pH	16.76 °C	392.89 µS/cm	1.60 mg/L	0.40 NTU	75.1 mV	28.74 ft	200.00 ml/min
1/26/2023 10:17 AM	25:00	5.63 pH	17.30 °C	393.43 µS/cm	1.60 mg/L	0.45 NTU	71.7 mV	28.74 ft	200.00 ml/min
1/26/2023 10:22 AM	30:00	5.60 pH	16.95 °C	396.73 µS/cm	1.56 mg/L	0.55 NTU	79.8 mV	28.74 ft	200.00 ml/min

Samples

Sample ID:	Description:
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CALIBRATION REPORTS

Fall 2022



Daily Instrument Calibration Log

SITE: _____ Plant Branch
 TECHNICIAN: J. Berrisford
 WATER LEVEL: Solent
 WATER LEVEL S/N: 267304

INSTRUMENT S/N: 850751
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS:
 ID: pH 4 LOT #: 21470032 EXP. DATE: 4/23
 ID: pH 7 LOT #: 2158002 EXP. DATE: 4/23
 ID: pH 10 LOT #: 20086056 EXP. DATE: 4/23
 ID: Cond LOT #: 160805 EXP. DATE: 11/22
 ID: ORP LOT #: 21146143 EXP. DATE: 4/23

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 8/23/22

RDO: 100% sat. = 106.3
 PH: 4.00 = 9.66 7.00 = 7.02 10.00 = 9.91 Midday pH check
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = 7.01
 CONDUCTIVITY: 1413 = 1441 post recal check
 ORP (mV) 228 = 228

Calibration Date: 8/24/22

RDO: 100% sat. = 99.9
 PH: 4.00 = 9.03 7.00 = 7.04 10.00 = 9.84 Midday pH check
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = 7.06
 CONDUCTIVITY: 1413 = 1423
 ORP (mV) 228 = 229

Calibration Date: 8/25/22

RDO: 100% sat. = 99.6
 PH: 4.00 = 9.00 7.00 = 6.99 10.00 = 10.18 Midday pH check
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = 7.02
 CONDUCTIVITY: 1413 = 1406
 ORP (mV) 228 = 230

Calibration Date:

RDO: 100% sat. = _____ Midday pH check
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Calibration Date:

RDO: 100% sat. = _____ Midday pH check
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____



Daily Instrument Calibration Log

SITE: _____ Plant Branch
TECHNICIAN: J. P. Riefel

INSTRUMENT S/N: 17120663767
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # PI 1126 EXP. DATE: N/A
10 NTU - LOT # A12012 EXP. DATE: 11/22
20 NTU - LOT # A1267 EXP. DATE: 11/22

Calibration Date: 8/23/22

Calibration Solution	Instrument Reading	
0.0	<u>0.27</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>20.6</u>	NTU

Calibration Date: 8/24/22

Calibration Solution	Instrument Reading	
0.0	<u>0.19</u>	NTU
10.0	<u>9.98</u>	NTU
20.0	<u>20.4</u>	NTU

Calibration Date: 8/25/22

Calibration Solution	Instrument Reading	
0.0	<u>0.17</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date: _____

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: _____

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: _____

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
 TECHNICIAN: H. Ancl
 WATER LEVEL: Solinst
 WATER LEVEL S/N: 48832

INSTRUMENT S/N: 883530
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS/ID: pH 4 LOT #: 2GE870 EXP. DATE: 8/24
 ID: pH 7 LOT #: 21010036 EXP. DATE: 8/2022
 ID: pH 10 LOT #: 20086056 EXP. DATE: 04/23
 ID: Cond. LOT #: 2681062 EXP. DATE: 02/23
 ID: ORP LOT #: 21140143 EXP. DATE: 04/23

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 8-23-22

RDO: 100% sat. = 81% 106%
 PH: 4.00 = 4.07 7.00 = 7.01 10.00 = 9.99 7.0 = 7.03
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1660
 ORP (mV) 228 = 226

Midday pH check

Calibration Date: 8-24-22

RDO: 100% sat. = 98.4
 PH: 4.00 = 4.01 7.00 = 6.94 10.00 = 9.91 7.0 = 7.01
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1390
 ORP (mV) 228 = 230

Midday pH check

Calibration Date: 8-25-22

RDO: 100% sat. = 98.9%
 PH: 4.00 = 4.02 7.00 = 6.99 10.00 = 9.97 7.0 = 7.04
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1428
 ORP (mV) 228 = 229

Midday pH check

Calibration Date:

RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Midday pH check

Calibration Date:

RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Midday pH check



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
TECHNICIAN: H. Amiel

INSTRUMENT S/N: 12050C017705
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI
10 NTU - LOT # A2122 EXP. DATE: 8/23
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 8-23-22

Calibration Solution	Instrument Reading	
0.0	<u>0.3</u>	NTU
10.0	<u>9.7</u>	NTU
20.0	<u>19.9</u>	NTU

Calibration Date: 8-24-22

Calibration Solution	Instrument Reading	
0.0	<u>0.2</u>	NTU
10.0	<u>9.91</u>	NTU
20.0	<u>19.2</u>	NTU

Calibration Date: 8-25-22

Calibration Solution	Instrument Reading	
0.0	<u>0.3</u>	NTU
10.0	<u>19.6</u>	NTU
20.0	<u>20.9</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: Plant Branch
 TECHNICIAN: A Schmidt
 WATER LEVEL: Solinst
 WATER LEVEL S/N: 377060

INSTRUMENT S/N: 728566
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS/ID: pH 4 LOT #: 16K617 EXP. DATE: 11/23
 ID: pH 7 LOT #: 266169 EXP. DATE: 3/24
 ID: pH 10 LOT #: 166429 EXP. DATE: 7/23
 ID: Cond LOT #: 26F806 EXP. DATE: 6/23
 ID: ORP LOT #: 21140143 EXP. DATE: 4/23

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 8/23/22
 RDO: 100% sat. = 96.46
 PH: 4.00 = 5.89 7.00 = 7.00 10.00 = 9.98
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check
 CONDUCTIVITY: 1413 = 1142
 ORP (mV) 228 = 229.4

Midday pH check
 7.0 = 6.98
 7.0 = NA post recal check

Calibration Date: 8/24/22
 RDO: 100% sat. = 104.38
 PH: 4.00 = 4.05 7.00 = 7.04 10.00 = 10.01
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check
 CONDUCTIVITY: 1413 = 1422
 ORP (mV) 228 = 233

Midday pH check
 7.0 = 6.99
 7.0 = NA post recal check

Calibration Date: 8/25/22
 RDO: 100% sat. = 99.0
 PH: 4.00 = 4.00 7.00 = 7.02 10.00 = 9.96
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = 7.00 post recal check
 CONDUCTIVITY: 1413 = 1447.6
 ORP (mV) 228 = 228.3

Midday pH check
 7.0 = 7.00

Calibration Date:
 RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Midday pH check
 7.0 =

Calibration Date:
 RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Midday pH check
 7.0 =



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
TECHNICIAN: A Schmittler

INSTRUMENT S/N: 11090C012353
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI
10 NTU - LOT # A2122 EXP. DATE: 8/23
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 8/23/22

Calibration Solution	Instrument Reading	
0.0	0.57	NTU
10.0	10.1	NTU
20.0	20.8	NTU

Calibration Date: 8/24/22

Calibration Solution	Instrument Reading	
0.0	0.28	NTU
10.0	10.7	NTU
20.0	19.5	NTU

Calibration Date: 8/25/22

Calibration Solution	Instrument Reading	
0.0	0.23	NTU
10.0	9.88	NTU
20.0	20.5	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: _____ Plant Branch
 TECHNICIAN: _____ T. Goble
 WATER LEVEL: _____ Solinst
 WATER LEVEL S/N: _____ 236986

INSTRUMENT S/N: _____ 883536
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTION/S: ID: PH 4 LOT #: 21470032 EXP. DATE: 4/23
 ID: PH 7 LOT #: 21380102 EXP. DATE: 4/23
 ID: PH 10 LOT #: 20080056 EXP. DATE: 4/23
 ID: Cond LOT #: 21470032 EXP. DATE: 4/23
 ID: ORP LOT #: 2114013 EXP. DATE: 4/23

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 8-23-22

RDO: 100% sat. = 102.18
 PH: 4.00 = 4.12 7.00 = 7.01 10.00 = 9.93
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check *N/A*
 CONDUCTIVITY: 4490 = 4410
 ORP (mV) 226 = 217.7

Midday pH check
 7.0 = 7.04

Calibration Date: 8-24-22

RDO: 100% sat. = 101.93
 PH: 4.00 = 4.03 7.00 = 7.01 10.00 = 10.09
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check *N/A*
 CONDUCTIVITY: 4490 = 4468
 ORP (mV) 228 = 227.1

Midday pH check
 7.0 = 7.02

Calibration Date: 8-25-22

RDO: 100% sat. = 100.14
 PH: 4.00 = 4.03 7.00 = 6.99 10.00 = 9.97
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check *N/A*
 CONDUCTIVITY: 4490 = 4470
 ORP (mV) 228 =

Midday pH check
 7.0 = 7.02

Calibration Date:

RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: = =
 ORP (mV) = =

Midday pH check

Calibration Date:

RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: = =
 ORP (mV) = =

Midday pH check



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
TECHNICIAN: T. Goble

INSTRUMENT S/N: 150410C040490
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI
10 NTU - LOT # 2964401 EXP. DATE: 10/22
20 NTU - LOT # 2684801 EXP. DATE: 10/22

Calibration Date: 8-23-22

Calibration Solution	Instrument Reading	
0.0	0.31	NTU
10.0	10.9	NTU
20.0	21.2	NTU

100 = 101
800 = 795

Calibration Date: 8-24-22

Calibration Solution	Instrument Reading	
0.0	0.27	NTU
10.0	10.8	NTU
20.0	20.2	NTU

100 = 101
800 = 802

Calibration Date: 8-25-22

Calibration Solution	Instrument Reading	
0.0	0.24	NTU
10.0	10.6	NTU
20.0	20.0	NTU

100 = 100
800 = 803

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
TECHNICIAN: H. Auld

INSTRUMENT S/N: 120500017705
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI
10 NTU - LOT # A2122 EXP. DATE: 8/23
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 8/29/22

Calibration Solution	Instrument Reading	
0.0	<u>0.3</u>	NTU
10.0	<u>10.0</u>	NTU
20.0	<u>19.9</u>	NTU

Calibration Date: 9/1/22

Calibration Solution	Instrument Reading	
0.0	<u>0.3</u>	NTU
10.0	<u>9.9</u>	NTU
20.0	<u>20.2</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
 TECHNICIAN: _____ H. Auel _____
 WATER LEVEL: _____ Solinst _____
 WATER LEVEL S/N: _____ 48832 _____

INSTRUMENT S/N: _____ 883530 _____
 INSTRUMENT TYPE: _____ AquaTroll _____
 CAL. SOLUTIONS:
 ID: pH 4 LOT #: 26E870 EXP. DATE: 8/24
 ID: pH 7 LOT #: 21010080 EXP. DATE: 9/22 9/22 (HA)
 ID: pH 10 LOT #: 20080050 EXP. DATE: 04/23
 ID: Cond. LOT #: 26B1062 EXP. DATE: 02/23
 ID: ORP LOT #: 21140193 EXP. DATE: 04/23
 ID: _____ LOT #: _____ EXP. DATE: _____
 ID: _____ LOT #: _____ EXP. DATE: _____

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 8/29/22
 RDO: 100% sat. = 106.4 %
 PH: 4.00 = 9.01 7.00 = 7.00 10.00 = 9.96
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: 1413 = 1561
 ORP (mV) 228 = 224

Midday pH check
 7.0 = NA
 7.0 = post recal check

Calibration Date: 9/1/22
 RDO: 100% sat. = 103.8 %
 PH: 4.00 = 4.02 7.00 = 6.99 10.00 = 9.98
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: 1413 = 1497
 ORP (mV) 228 = 226

Midday pH check
 7.0 = NA
 7.0 = post recal check

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Midday pH check
 7.0 = _____
 7.0 = post recal check

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Midday pH check
 7.0 = _____
 7.0 = post recal check

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Midday pH check
 7.0 = _____
 7.0 = post recal check

January/February 2023

Calibration Report

Instrument Aqua TROLL 400
Serial Number 877800
Created 1/25/2023

Sensor **RDO**
Serial Number 878537
Last Calibrated 1/24/2023

Calibration Details

Slope 0.9834183
Offset 0.00 mg/L

Calibration point 100%

Concentration 13.16 mg/L
Temperature 4.51 °C
Barometric Pressure 1,013.9 mbar

Sensor **Conductivity**
Serial Number 877800
Last Calibrated 1/24/2023

Calibration Details

Cell Constant 0.964
Reference Temperature 20.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**
Serial Number 850056
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21624
Last Calibrated	1/24/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.00 pH
pH mV 139.7 mV
Temperature 7.35 °C

Calibration Point 2

pH of Buffer 7.06 pH
pH mV -27.9 mV
Temperature 7.12 °C

Calibration Point 3

pH of Buffer 10.14 pH
pH mV -195.0 mV
Temperature 7.51 °C

Slope and Offset 1

Slope -54.78 mV/pH
Offset -24.6 mV

Slope and Offset 2

Slope -54.24 mV/pH
Offset -24.7 mV

ORP

ORP Solution ORP Standard
Offset 3.2 mV
Temperature 7.90 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 877800
Created 1/25/2023

Sensor **RDO**

Serial Number 878537
Last Calibrated 1/25/2023

Calibration Details

Slope 1.006794
Offset 0.00 mg/L

Calibration point 100%

Concentration 8.98 mg/L
Temperature 19.43 °C
Barometric Pressure 996.26 mbar

Sensor **Conductivity**

Serial Number 877800
Last Calibrated 1/25/2023

Calibration Details

Cell Constant 1.123
Reference Temperature 20.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 850056
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21624
Last Calibrated	1/25/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	141.5 mV
Temperature	17.37 °C

Calibration Point 2

pH of Buffer	7.04 pH
pH mV	-29.3 mV
Temperature	16.02 °C

Calibration Point 3

pH of Buffer	10.11 pH
pH mV	-196.6 mV
Temperature	15.59 °C

Slope and Offset 1

Slope	-56.19 mV/pH
Offset	-27.1 mV

Slope and Offset 2

Slope	-54.5 mV/pH
Offset	-27.1 mV

ORP

ORP Solution	ORP Standard
Offset	17.2 mV
Temperature	15.75 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 877800
Created 1/26/2023

Sensor **RDO**

Serial Number 878537
Last Calibrated 1/26/2023

Calibration Details

Slope 0.9668001
Offset 0.00 mg/L

Calibration point 100%

Concentration 12.82 mg/L
Temperature 5.91 °C
Barometric Pressure 1,006.9 mbar

Sensor **Conductivity**

Serial Number 877800
Last Calibrated 1/26/2023

Calibration Details

Cell Constant 1.107
Reference Temperature 20.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 850056
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	21624
Last Calibrated	1/26/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.00 pH
pH mV 138.6 mV
Temperature 7.90 °C

Calibration Point 2

pH of Buffer 7.06 pH
pH mV -27.5 mV
Temperature 8.86 °C

Calibration Point 3

pH of Buffer 10.14 pH
pH mV -194.9 mV
Temperature 9.19 °C

Slope and Offset 1

Slope -54.29 mV/pH
Offset -24.3 mV

Slope and Offset 2

Slope -54.36 mV/pH
Offset -24.2 mV

ORP

ORP Solution ORP Standard
Offset 6.8 mV
Temperature 9.18 °C



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
 TECHNICIAN: T. Gable
 WATER LEVEL: Solinst
 WATER LEVEL S/N: 236986

INSTRUMENT S/N: 877800
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS/ID: pH4 LOT #: 21470032 EXP. DATE: 4/23
 ID: Cond LOT #: 21470032 EXP. DATE: 4/23
 ID: pH7 LOT #: 2214069 EXP. DATE: 8/23
 ID: pH10 LOT #: 2008056 EXP. DATE: 4/23
 ID: ORP LOT #: 21140143 EXP. DATE: 4/23 *Midday pH check*
 ID: _____ LOT #: _____ EXP. DATE: _____ *Must be less than .10*
 ID: _____ LOT #: _____ EXP. DATE: _____ *(6.90-7.10 range)*
Recalibrate if not within range

Calibration Date: 1-24-23
 RDO: 100% sat. = 108.36 *Midday pH check*
 PH: 4.00 = 3.38 7.00 = 7.08 10.00 = 10.24 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = 7.03 post recal check NA
 CONDUCTIVITY: 4490 = 4403
 ORP (mV) 228 = 244

Calibration Date: 1-25-23
 RDO: 100% sat. = 97.609 *Midday pH check*
 PH: 4.00 = 4.06 7.00 = 7.07 10.00 = 10.06 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = 7.08 post recal check NA
 CONDUCTIVITY: 4490 = 3946
 ORP (mV) 228 = 215.9

Calibration Date: 1-26-23
 RDO: 100% sat. = 104.94 *Midday pH check*
 PH: 4.00 = 3.97 7.00 = 7.02 10.00 = 10.17 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: 4490 = 4561
 ORP (mV) 228 = 238.1

Calibration Date: _____
 RDO: 100% sat. = _____ *Midday pH check*
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Calibration Date: _____
 RDO: 100% sat. = _____ *Midday pH check*
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
 TECHNICIAN: T. Goble

INSTRUMENT S/N: 22090D000108
 INSTRUMENT TYPE: Hach 2100Q
 CAL. SOLUTION: 0 NTU - LOT # - EXP. DATE: New DI
 10 NTU - LOT # 2964801 EXP. DATE: 1/24
 20 NTU - LOT # 2684801 EXP. DATE: 12/23

Calibration Date: 1-24-23

Calibration Solution	Instrument Reading	
0.0	<u>0.19</u>	NTU
10.0	<u>10.9</u>	NTU
20.0	<u>20.9</u>	NTU

100 = 107
800 = 803

Calibration Date: 1-25-23

Calibration Solution	Instrument Reading	
0.0	<u>0.17</u>	NTU
10.0	<u>10.7</u>	NTU
20.0	<u>20.8</u>	NTU

100 = 102
800 = 804

Calibration Date: 1-26-23

Calibration Solution	Instrument Reading	
0.0	<u>0.14</u>	NTU
10.0	<u>10.5</u>	NTU
20.0	<u>20.8</u>	NTU

100 = 103
800 = 801

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Report

Instrument Aqua TROLL 400
Serial Number 884186
Created 1/24/2023

Sensor **RDO**
Serial Number 884407
Last Calibrated 1/24/2023

Calibration Details

Slope 0.9488781
Offset 0.00 mg/L

Calibration point 100%

Concentration 13.75 mg/L
Temperature 4.25 °C
Barometric Pressure 1,015.4 mbar

Sensor **Conductivity**
Serial Number 884186
Last Calibrated 1/24/2023

Calibration Details

Cell Constant 0.85
Reference Temperature 20.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**
Serial Number 879252
Last Calibrated 3/1/2022

Calibration Details

Zero Offset -0.13 psi
Reference Depth 0.00 ft
Reference Offset 0.00 psi

Sensor	pH/ORP
Serial Number	21630
Last Calibrated	1/24/2023

Calibration Details

Total Calibration Points 3

Calibration Point 1

pH of Buffer 4.00 pH
pH mV 152.4 mV
Temperature 4.63 °C

Calibration Point 2

pH of Buffer 7.06 pH
pH mV -12.5 mV
Temperature 3.25 °C

Calibration Point 3

pH of Buffer 10.14 pH
pH mV -182.2 mV
Temperature 2.43 °C

Slope and Offset 1

Slope -53.89 mV/pH
Offset -9.3 mV

Slope and Offset 2

Slope -55.07 mV/pH
Offset -9.2 mV

ORP

ORP Solution Zobell's
Offset 22.9 mV
Temperature 4.87 °C

Calibration Report

Instrument Aqua TROLL 400
Serial Number 884186
Created 1/26/2023

Sensor **RDO**
Serial Number 884407
Last Calibrated 1/26/2023

Calibration Details

Slope 0.9747226
Offset 0.00 mg/L

Calibration point 100%

Concentration 12.16 mg/L
Temperature 7.70 °C
Barometric Pressure 1,007.2 mbar

Sensor **Conductivity**
Serial Number 884186
Last Calibrated 1/26/2023

Calibration Details

Cell Constant 0.703
Reference Temperature 20.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**
Serial Number 879252
Last Calibrated 3/1/2022

Calibration Details

Zero Offset -0.13 psi
Reference Depth 0.00 ft
Reference Offset 0.00 psi

Sensor	pH/ORP
Serial Number	21630
Last Calibrated	1/26/2023

Calibration Details

Total Calibration Points	3
--------------------------	---

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	145.4 mV
Temperature	6.59 °C

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-15.8 mV
Temperature	5.56 °C

Calibration Point 3

pH of Buffer	10.14 pH
pH mV	-182.0 mV
Temperature	5.85 °C

Slope and Offset 1

Slope	-52.68 mV/pH
Offset	-12.6 mV

Slope and Offset 2

Slope	-53.96 mV/pH
Offset	-12.6 mV

ORP

ORP Solution	Zobell's
Offset	22.5 mV
Temperature	5.41 °C



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
 TECHNICIAN: _____ A. Schnittker _____
 WATER LEVEL: _____ Solinst _____
 WATER LEVEL S/N: _____ 377060 _____

INSTRUMENT S/N: _____ 884146 _____
 INSTRUMENT TYPE: _____ AquaTroll _____
 CAL. SOLUTION/S: ID: pH4 LOT #: 266870 EXP. DATE: 5/24
 ID: pH7 LOT #: 16B200 EXP. DATE: 2/23
 ID: pH10 LOT #: 266018 EXP. DATE: 7/24
 ID: Cond LOT #: 261642 EXP. DATE: 09/23
 ID: ORP LOT #: 261022 EXP. DATE: 09/23

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 1/24/23
 RDO: 100% sat. = 113.02 *Midday pH check*
 PH: 4.00 = 4.02 7.00 = 7.15 10.00 = 10.33 7.0 = 7.04
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check
 CONDUCTIVITY: 1413 = 1220.9
 ORP (mV) 228 = 240.69 246.9

Calibration Date: 1/25/23
 RDO: 100% sat. = 100.22 *Midday pH check*
 PH: 4.00 = 4.08 7.00 = 7.03 10.00 = 10.01 7.0 = 7.01
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = _____ post recal check
 CONDUCTIVITY: 1413 = 1212.8
 ORP (mV) 228 = 236.0

Calibration Date: 1/26/23
 RDO: 100% sat. = 96.98 *Midday pH check*
 PH: 4.00 = 4.07 7.00 = 7.13 10.00 = 10.20 7.0 = 7.05
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: 1413 = 1460
 ORP (mV) 228 = 255

Calibration Date: _____
 RDO: 100% sat. = _____ *Midday pH check*
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Calibration Date: _____
 RDO: 100% sat. = _____ *Midday pH check*
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____



Daily Instrument Calibration Log

SITE: _____ Plant Branch _____
TECHNICIAN: A. Schmittker

INSTRUMENT S/N: 220700000463
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # D.I water EXP. DATE: New
10 NTU - LOT # A2264 EXP. DATE: 1/24
20 NTU - LOT # A2231 EXP. DATE: 12/23

Calibration Date: 1/24/23

Calibration Solution	Instrument Reading	
0.0	<u>0.54</u>	NTU
10.0	<u>9.98</u>	NTU
20.0	<u>24.7</u>	NTU

Calibration Date: 1/25/23

Calibration Solution	Instrument Reading	
0.0	<u>0.20</u>	NTU
10.0	<u>9.88</u>	NTU
20.0	<u>20.0</u>	NTU

Calibration Date: 1/26/23

Calibration Solution	Instrument Reading	
0.0	<u>0.16</u>	NTU
10.0	<u>9.52</u>	NTU
20.0	<u>20.6</u>	NTU

Calibration Date: _____

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: _____

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: _____

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

APPENDIX D

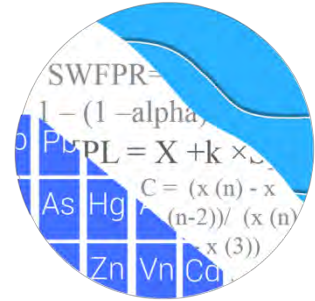
Statistical Analyses: August 2022 and January 2023

Fall 2022

GROUNDWATER STATS CONSULTING

February 28, 2023

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 2022 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August/September 2022 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). The site is in Assessment Monitoring.

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-70

Data from assessment wells are evaluated using confidence intervals when a minimum of 4 samples are available. Note that PZ-52D was only sampled for boron, calcium, chloride, cobalt, fluoride, sulfate, and TDS during the August 2022 sample event due to the well going dry.

Data were sent electronically to GSC, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to 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 well/constituent pairs with 100% non-detects follows this letter. Note that Minimum Detectable Concentrations (MDCs) were not provided for the September 2022 sample event for combined radium 226 + 228 observations at the time of this report.

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 in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. 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 were 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 2022

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2022 (Figure D). Background

(upgradient) well data were re-assessed for potential outliers during this analysis and no new values were flagged. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August/September 2022 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present. Note that the interwell prediction limit for boron decreased from 0.04 mg/L to 0.0187 mg/L as a result of a reporting limit change from 0.04 mg/L to 0.015 mg/L.

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-36S, and BRGWC-38S
- pH (lower limit): BRGWC-33S, BRGWC-34S, BRGWC-36S, BRGWC-37S, 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 natural variability in

groundwater unrelated to practices at the site. While several statistically significant decreasing trends were noted for upgradient and downgradient wells, statistically significant increasing trends were identified for boron in downgradient well BRGWC-35S, calcium in upgradient well BRGWA-6S and downgradient well BRGWC-17S, and chloride in downgradient well BRGWC-36S. A summary of the trend test results follows this letter.

Evaluation of Appendix IV Parameters – August/September 2022

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 new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2022 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)

- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well with detections (Figure H). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). 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 State and Federal 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 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. While no statistically significant increasing trends were identified, statistically significant decreasing trends were noted for the following well/constituent pairs:

- Beryllium: BRGWC-38S
- Cobalt: BRGWA-2S (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,



Andrew T. Collins
Project Manager



Kristina L. Rayner
Senior Statistician

100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 11/4/2022 1:22 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Antimony (mg/L)

BRGWC-33S, BRGWC-34S, BRGWC-35S, PZ-13S, PZ-53D, PZ-70

Arsenic (mg/L)

BRGWC-34S, PZ-13S, PZ-53D, PZ-70

Beryllium (mg/L)

BRGWC-17S, BRGWC-37S, PZ-53D, PZ-70

Cadmium (mg/L)

BRGWC-17S, BRGWC-35S, BRGWC-37S, PZ-53D, PZ-70

Chromium (mg/L)

BRGWC-34S, PZ-53D, PZ-70

Cobalt (mg/L)

BRGWC-17S, BRGWC-36S, BRGWC-37S, PZ-53D

Lead (mg/L)

PZ-53D, PZ-70

Lithium (mg/L)

BRGWC-37S

Mercury (mg/L)

PZ-13S, PZ-53D, PZ-70

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, PZ-53D

Thallium (mg/L)

BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, PZ-13S, PZ-53D, PZ-70

Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	8/24/2022	0.0273	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	8/23/2022	0.975	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	8/24/2022	2.45	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	8/24/2022	2.23	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	8/24/2022	1.1	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	8/23/2022	1.67	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	8/24/2022	43.6	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	8/23/2022	119	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	8/24/2022	75	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	8/24/2022	68.5	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	8/24/2022	48.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	8/23/2022	37.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2022	5	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/23/2022	30.3	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2022	6.17	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2022	6.53	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2022	7.96	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/23/2022	6.42	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	8/24/2022	0.274	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	8/24/2022	0.194	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	8/23/2022	0.609	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.057	5.907	8/23/2022	4.67	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.057	5.907	8/24/2022	5.75	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.057	5.907	8/24/2022	5.59	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.057	5.907	8/23/2022	5.82	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.057	5.907	8/23/2022	3.97	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/24/2022	157	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/23/2022	385	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2022	268	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/24/2022	279	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/24/2022	224	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/23/2022	389	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	8/24/2022	370	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	8/23/2022	614	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	8/24/2022	452	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	8/24/2022	507	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	8/24/2022	418	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	8/23/2022	568	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	8/24/2022	0.0273	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	8/23/2022	0.975	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	8/24/2022	2.45	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	8/24/2022	2.23	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	8/24/2022	1.1	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.0187	n/a	8/23/2022	0.015ND	No	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	8/23/2022	1.67	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	8/24/2022	43.6	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	8/23/2022	119	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	8/24/2022	75	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	8/24/2022	68.5	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	8/24/2022	48.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	8/23/2022	3.7	No	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	8/23/2022	37.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2022	5	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/23/2022	30.3	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2022	6.17	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2022	6.53	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2022	7.96	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	8/23/2022	1.97	No	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/23/2022	6.42	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	8/24/2022	0.274	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	8/23/2022	0.187	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.19	n/a	8/24/2022	0.14	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	8/24/2022	0.1ND	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	8/24/2022	0.194	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.19	n/a	8/23/2022	0.105	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	8/23/2022	0.609	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.057	5.907	8/24/2022	6.62	No	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.057	5.907	8/23/2022	4.67	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.057	5.907	8/24/2022	5.75	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.057	5.907	8/24/2022	6.05	No	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.057	5.907	8/24/2022	5.59	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.057	5.907	8/23/2022	5.82	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.057	5.907	8/23/2022	3.97	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/24/2022	157	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/23/2022	385	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2022	268	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/24/2022	279	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/24/2022	224	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	8/23/2022	0.307J	No	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/23/2022	389	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	8/24/2022	370	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	8/23/2022	614	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	8/24/2022	452	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	8/24/2022	507	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	8/24/2022	418	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	299	n/a	8/23/2022	40	No	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	8/23/2022	568	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-35S	0.1822	98	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1657	69	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.937	71	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.253	-82	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.655	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2006	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2582	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.8757	80	58	Yes	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1019	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.0368	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05383	-81	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1382	-105	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-32.85	-103	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-14.52	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-33.08	-85	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.658	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-49.48	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.15	-92	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.84	-96	-58	Yes	16	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.001506	18	58	No	16	25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-3	-58	No	16	87.5	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-6	-58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-8	-58	No	16	56.25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	2	58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-17S	-0.001021	-29	-63	No	17	41.18	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	-0.01268	-18	-58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0.001241	13	58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1822	98	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03171	58	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.04809	-40	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.5425	43	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.073	30	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.03321	5	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.5076	-36	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1657	69	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.937	71	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-2.525	-38	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.253	-82	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	2.067	57	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.4386	-29	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.655	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.04825	-38	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	-0.02501	-21	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2006	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07499	-48	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.01997	-21	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.1812	53	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-33S	0.1438	8	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2582	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.05257	26	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.8757	80	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1162	16	58	No	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-17	-68	No	18	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	49	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	54	68	No	18	72.22	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	-20	-68	No	18	38.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0	55	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-17S	-0.002182	-11	-68	No	18	5.556	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-36S	0	17	68	No	18	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0.008753	16	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1019	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.0368	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02765	-47	-68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05383	-81	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	0	0	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-33S	-0.01085	-46	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-34S	0.003222	10	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-36S	0	1	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-37S	0.009624	10	53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1382	-105	-68	Yes	18	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate (mg/L)	BRGWA-2I (bg)	-0.1382	-32	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	-0.00315	-15	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.3159	-48	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.07263	-52	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.01229	-34	-58	No	16	25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	4.317	47	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-20.1	-51	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-32.85	-103	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-1.61	-17	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-14.52	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-33.08	-85	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-6.071	-28	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.7623	11	58	No	16	6.25	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-4.462	-30	-58	No	16	6.25	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.658	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.774	-23	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-17S	2.861	19	58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-33S	-31.32	-47	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-49.48	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	2.399	12	58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.15	-92	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.84	-96	-58	Yes	16	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 11:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	N Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method	
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	85	n/a	91.76	n/a	n/a	0.01278	NP Inter(NDs)	
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	85	n/a	76.47	n/a	n/a	0.01278	NP Inter(NDs)	
Barium (mg/L)	n/a	0.063	n/a	n/a	n/a	n/a	85	n/a	0	n/a	n/a	0.01278	NP Inter(normality)	
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	85	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)	
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	85	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)	
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a	85	n/a	15.29	n/a	n/a	0.01278	NP Inter(normality)	
Cobalt (mg/L)	n/a	0.0034	n/a	n/a	n/a	n/a	83	n/a	45.78	n/a	n/a	0.01416	NP Inter(normality)	
Combined Radium 226 + 228 (pCi/L)	n/a	1.649	n/a	n/a	n/a	n/a	85	0.7756	0.2603	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	90	n/a	56.67	n/a	n/a	0.009888	NP Inter(NDs)	
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	85	n/a	80	n/a	n/a	0.01278	NP Inter(NDs)	
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a	85	n/a	43.53	n/a	n/a	0.01278	NP Inter(normality)	
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a	75	n/a	86.67	n/a	n/a	0.02134	NP Inter(NDs)	
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a	85	n/a	68.24	n/a	n/a	0.01278	NP Inter(NDs)	
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	85	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)	
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	85	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)	

Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.009374	0.007986	0.004	Yes	18	0.00868	0.001148	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05266	0.03803	0.006	Yes	18	0.04534	0.01209	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2539	0.2042	0.006	Yes	17	0.2291	0.03971	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	17	0.002876	0.0005093	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	17	0.002473	0.00101	76.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	17	0.002706	0.000831	88.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	17	0.002741	0.0007315	88.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	17	0.00413	0.001717	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	18	0.004377	0.00149	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	17	0.004202	0.001777	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	17	0.004244	0.001686	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.00078	0.01	No	17	0.004212	0.001757	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003693	0.001937	0.01	No	17	0.002815	0.001401	11.76	None	No	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04399	0.039	2	No	17	0.04149	0.00398	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.023	0.02	2	No	18	0.02246	0.004934	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.03293	0.02469	2	No	17	0.02925	0.007023	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0518	0.034	2	No	17	0.04765	0.01902	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.0415	0.03	2	No	17	0.03781	0.01045	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-37S	0.02521	0.02321	2	No	17	0.02421	0.001601	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.0141	2	No	17	0.02122	0.009821	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-33S	0.001987	0.001506	0.004	No	18	0.001698	0.0004897	5.556	None	x^2	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0002	0.00012	0.004	No	17	0.0001571	0.00005047	17.65	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.0001748	0.0001173	0.004	No	17	0.0001488	0.00004897	11.76	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	BRGWC-36S	0.00025	0.000084	0.004	No	18	0.0001367	0.00007288	27.78	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009374	0.007986	0.004	Yes	18	0.00868	0.001148	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0005007	0.0003031	0.005	No	18	0.0004116	0.0001832	5.556	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0005515	0.0002222	0.005	No	17	0.0004234	0.0003035	11.76	None	x^(1/3)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	18	0.0008989	0.0002943	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0006571	0.0004921	0.005	No	17	0.0005788	0.0001407	5.882	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-17S	0.01278	0.01004	0.1	No	17	0.01147	0.002307	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	18	0.009472	0.002242	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.007139	0.004557	0.1	No	17	0.005848	0.00206	5.882	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008297	0.007177	0.1	No	17	0.007737	0.0008931	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	17	0.003506	0.003718	23.53	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.004136	0.00349	0.1	No	17	0.003722	0.0007425	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05266	0.03803	0.006	Yes	18	0.04534	0.01209	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.00438	0.0029	0.006	No	17	0.003811	0.001305	5.882	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	17	0.001	0.0004047	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2539	0.2042	0.006	Yes	17	0.2291	0.03971	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.7634	0.3342	5	No	17	0.5488	0.3425	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.276	0.6673	5	No	17	0.9716	0.4857	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.176	0.7451	5	No	17	0.9605	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.178	0.4487	5	No	17	0.8735	0.6993	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.267	0.7139	5	No	17	0.9905	0.4415	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9215	0.3675	5	No	17	0.6882	0.5156	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.563	1.94	5	No	17	2.837	1.466	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1403	0.08203	4	No	18	0.1183	0.05866	5.556	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2244	0.1072	4	No	19	0.1753	0.1115	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1433	0.07674	4	No	18	0.1214	0.08229	5.556	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1134	0.05857	4	No	18	0.1026	0.07216	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.054	4	No	18	0.1194	0.1078	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	18	0.08083	0.02744	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9342	0.7224	4	No	18	0.8405	0.2015	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	17	0.001774	0.0006387	88.24	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.00007	0.015	No	18	0.0007376	0.0009194	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	17	0.001676	0.0007229	82.35	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	17	0.00156	0.0008179	76.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	17	0.001885	0.0004737	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	17	0.001776	0.000631	88.24	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00034	0.015	No	17	0.0006765	0.000634	17.65	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	17	0.006285	0.004577	58.82	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.01028	0.009171	0.089	No	18	0.009728	0.0009209	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	17	0.006776	0.004499	64.71	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.002	0.089	No	17	0.0026	0.001909	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0023	0.089	No	17	0.003341	0.00251	11.76	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02235	0.02036	0.089	No	17	0.02135	0.001591	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	15	0.0001763	0.00004972	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	16	0.0001769	0.00005186	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00012	0.002	No	15	0.000172	0.00005321	73.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	15	0.0001807	0.00004166	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	15	0.00018	0.00004293	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	15	0.0001807	0.00004284	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.000176	0.0001096	0.002	No	15	0.0001428	0.00004902	13.33	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002547	0.001775	0.05	No	17	0.002969	0.001325	23.53	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	18	0.0041	0.001294	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.005033	0.002974	0.05	No	17	0.004098	0.001795	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04086	0.03255	0.05	No	17	0.03671	0.006628	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	17	0.001886	0.0004691	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	18	0.0004961	0.0006923	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.00019	0.002	No	17	0.0007606	0.0008266	29.41	None	No	0.01	NP (normality)

Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 3:21 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	-0.0004476	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004021	-70	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.006188	-105	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.01947	-98	-63	Yes	17	0	n/a	n/a	0.01	NP

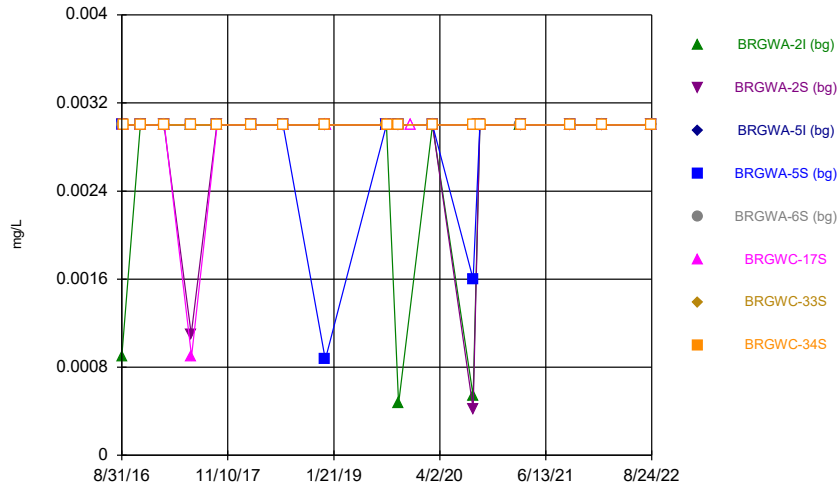
Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 3:21 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWC-38S	-0.0004476	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-16	-63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004021	-70	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001378	-49	-53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	26	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	9	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.006188	-105	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.01947	-98	-63	Yes	17	0	n/a	n/a	0.01	NP

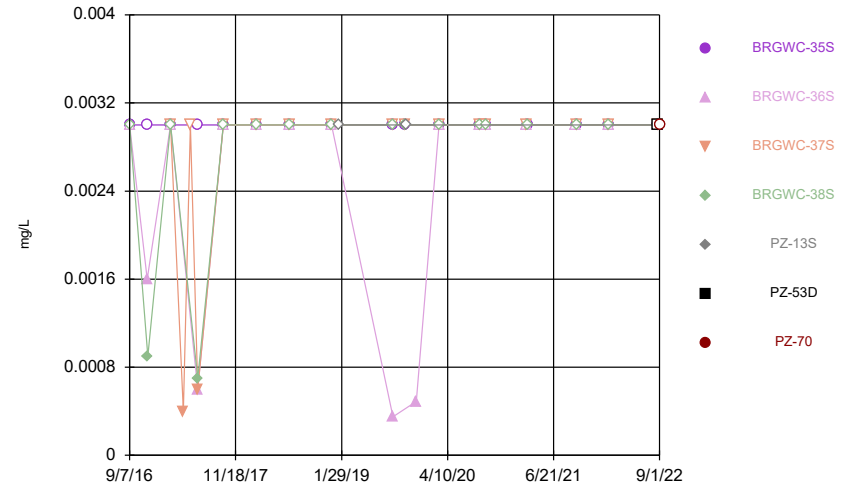
FIGURE A.

Time Series



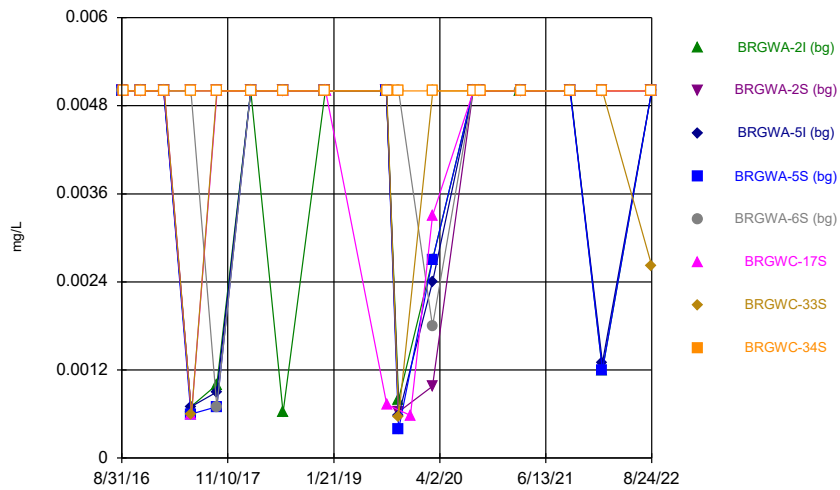
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



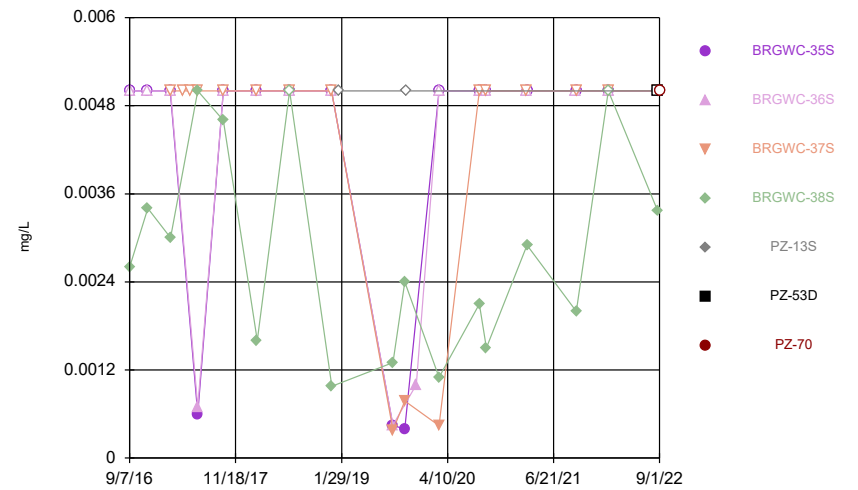
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



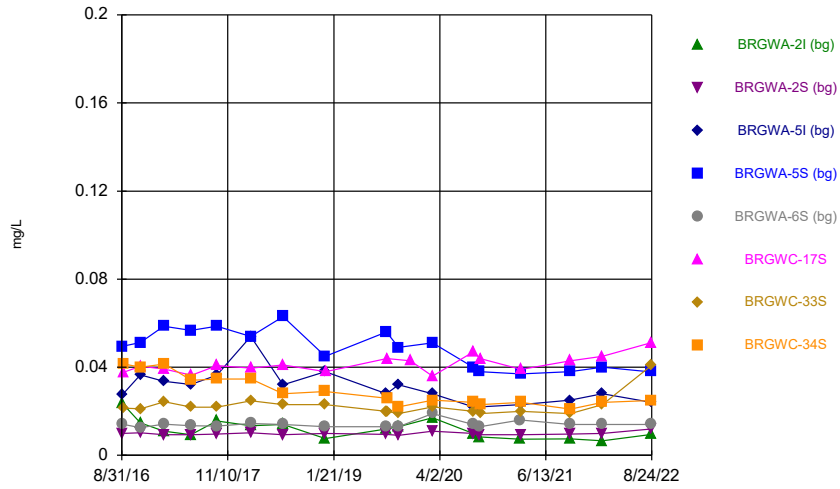
Constituent: Arsenic Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



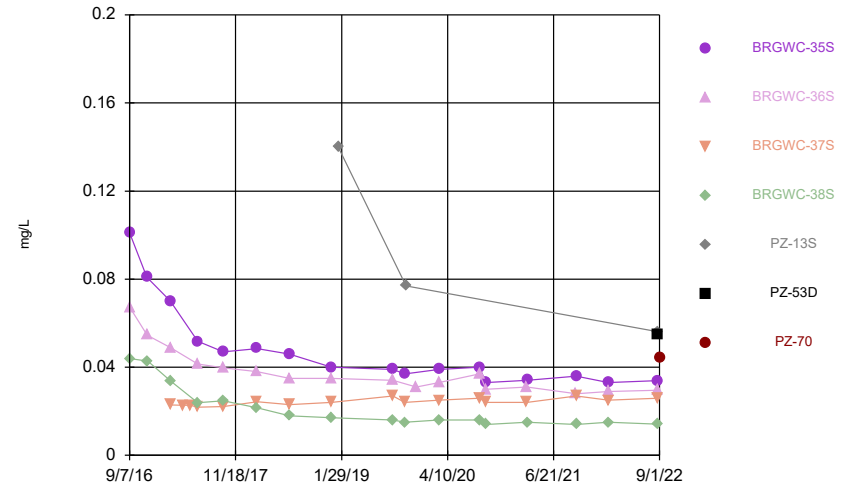
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



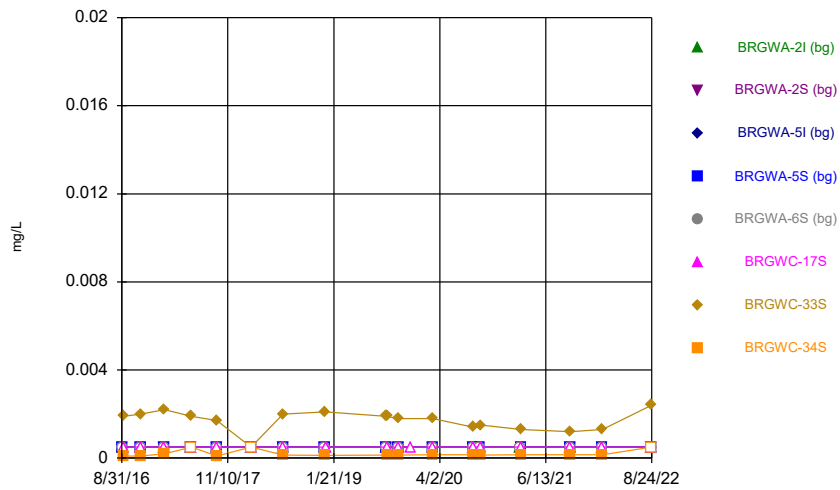
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



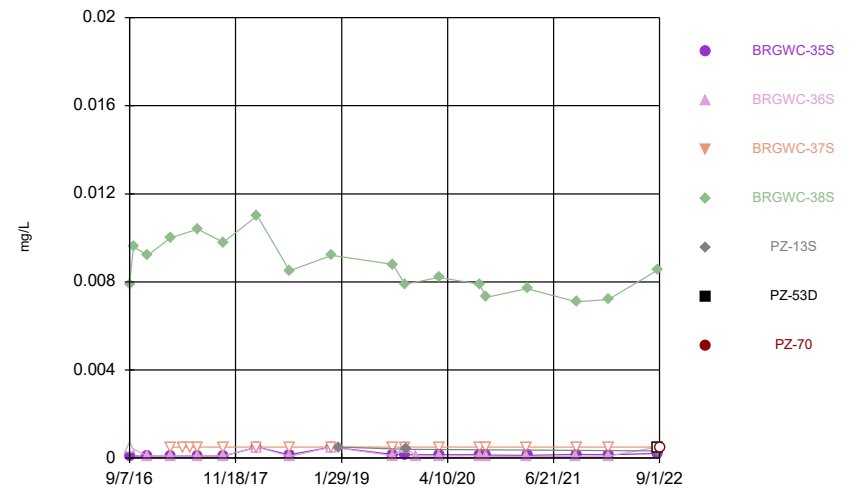
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



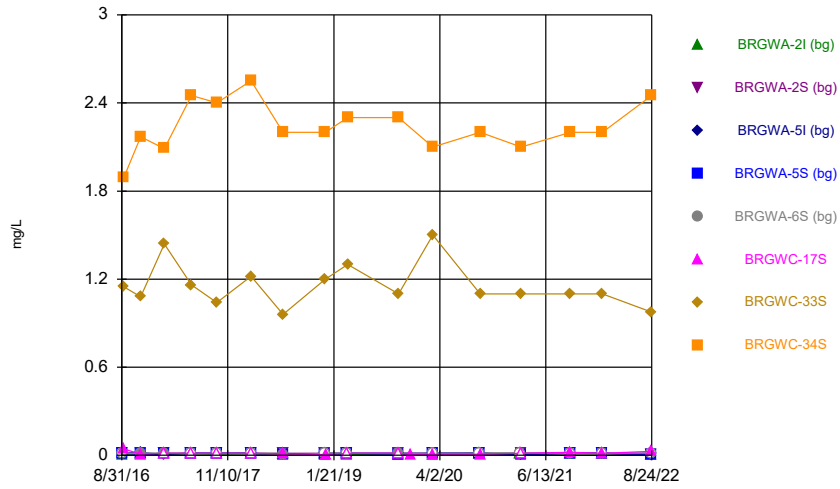
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



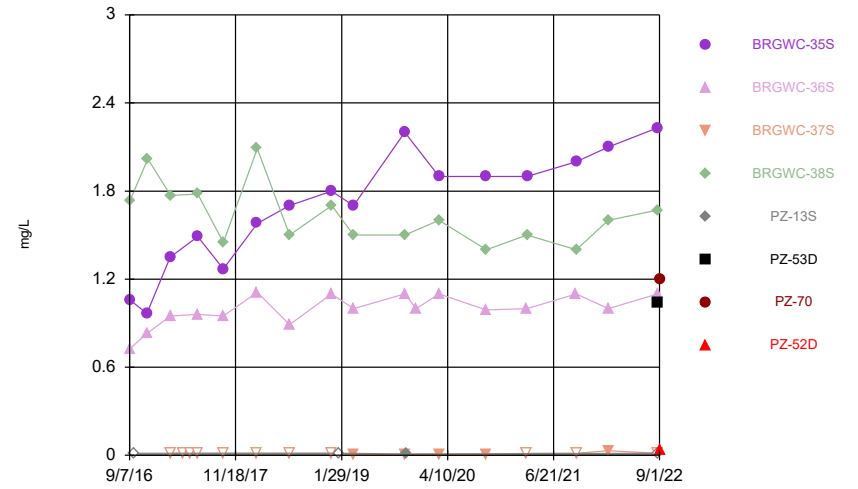
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



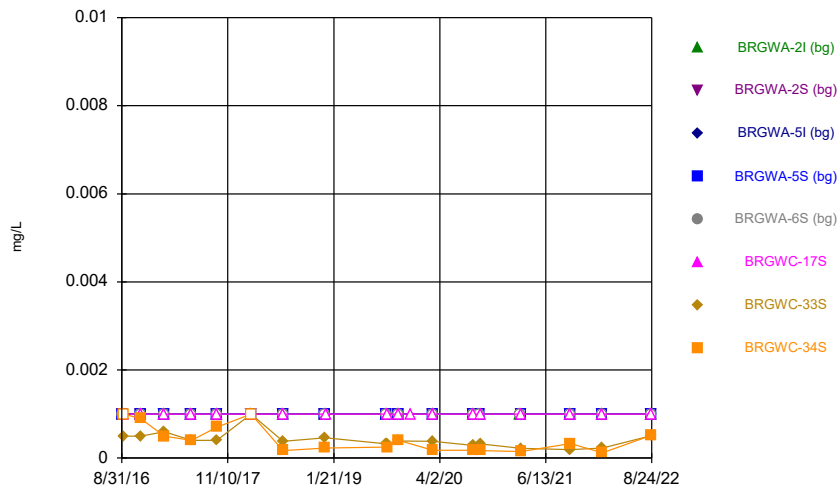
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



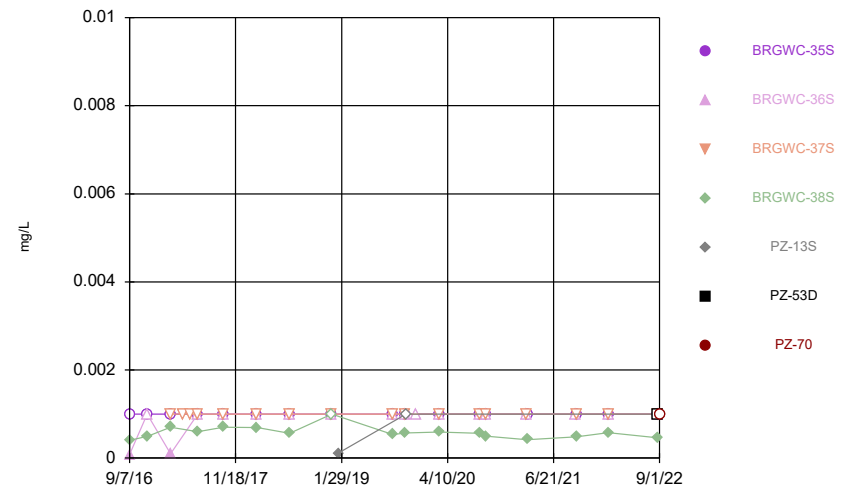
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



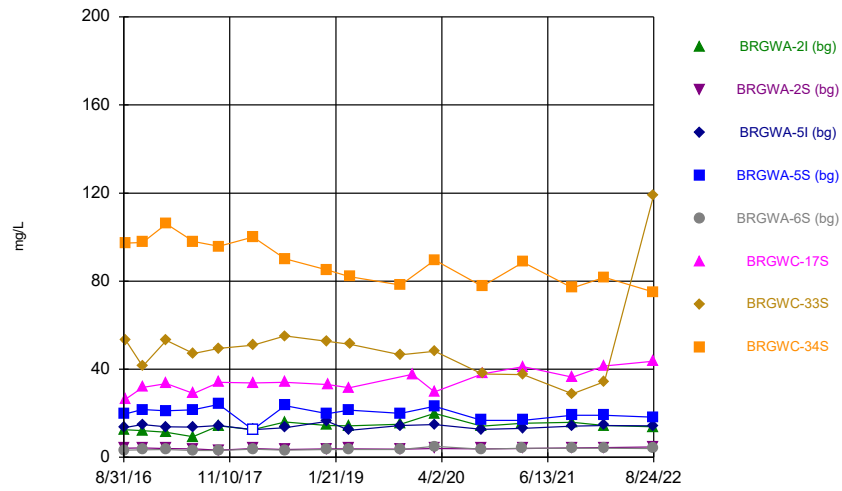
Constituent: Cadmium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



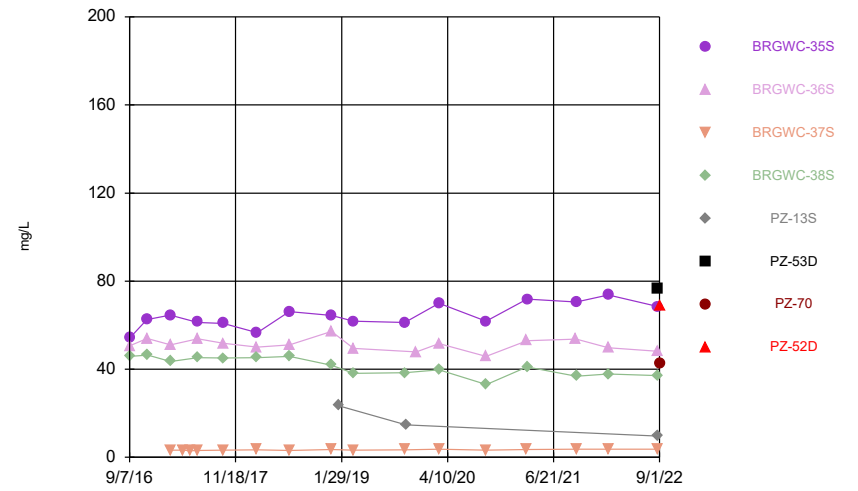
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



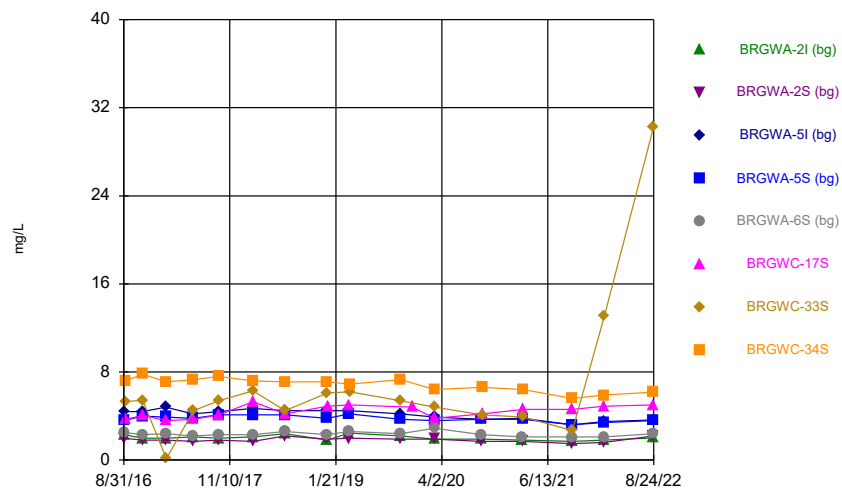
Constituent: Calcium Analysis Run 11/4/2022 11:27 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



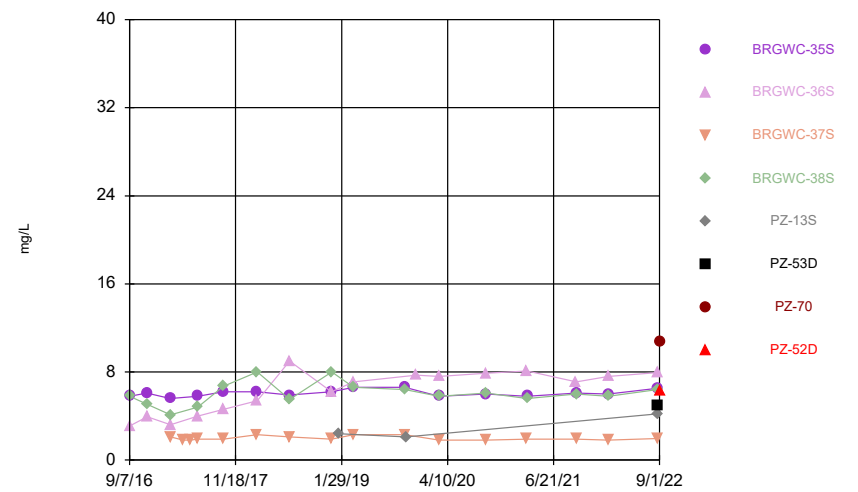
Constituent: Calcium Analysis Run 11/4/2022 11:27 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



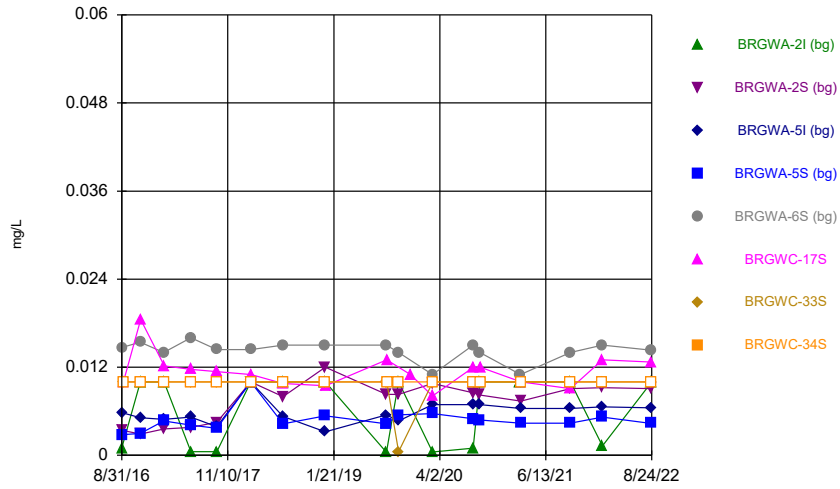
Constituent: Chloride Analysis Run 11/4/2022 11:27 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



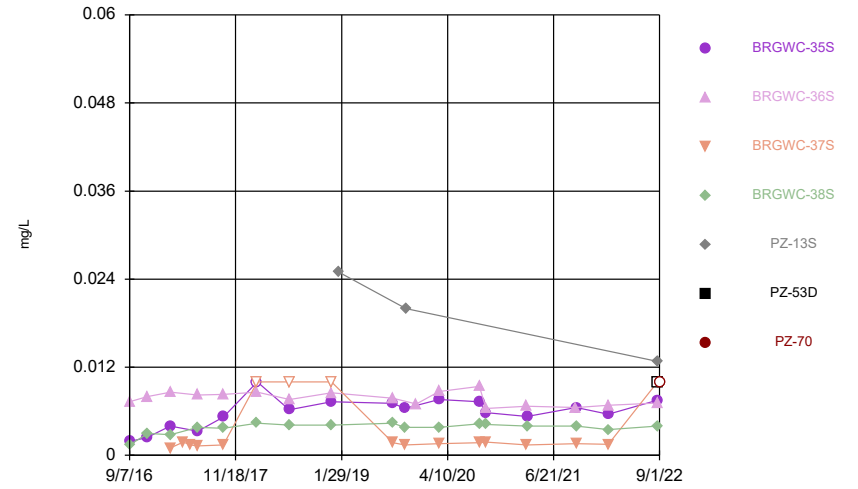
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



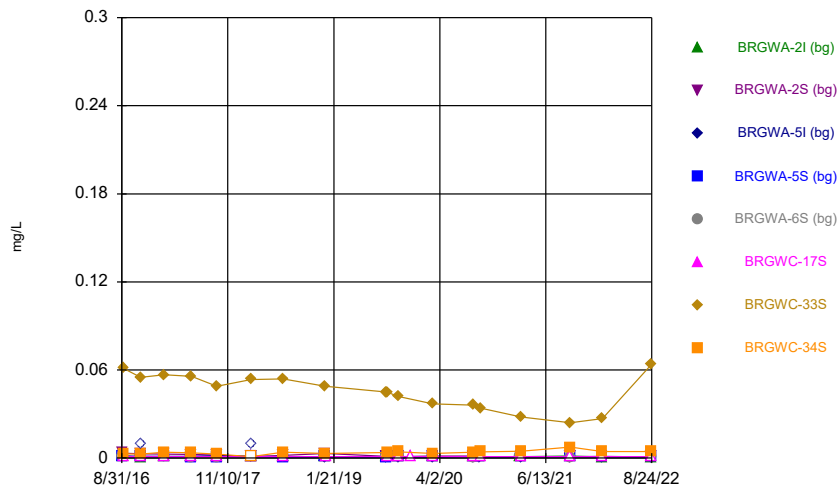
Constituent: Chromium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



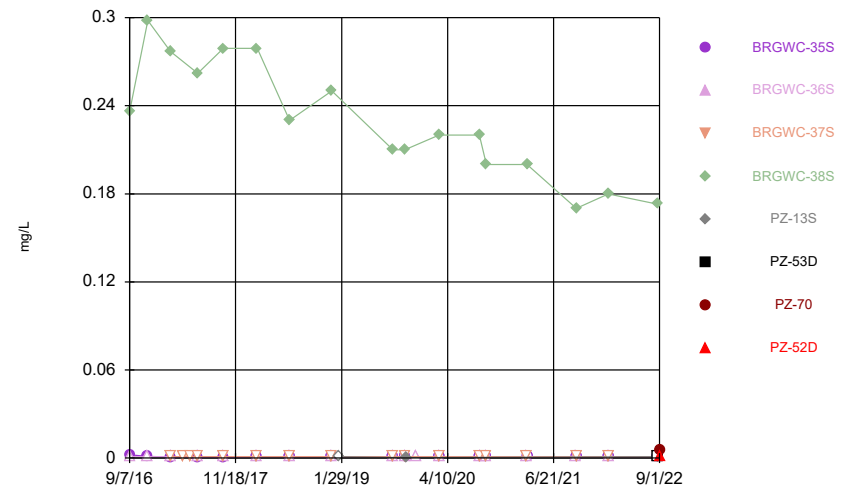
Constituent: Chromium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



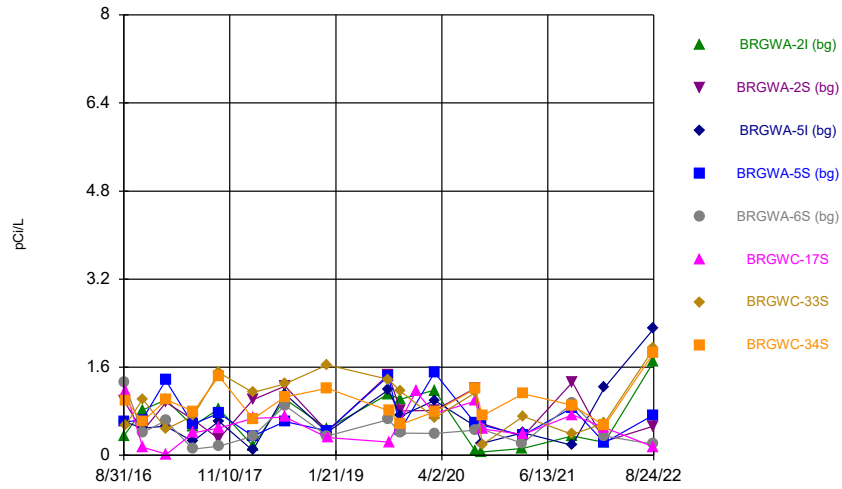
Constituent: Cobalt Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Cobalt Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

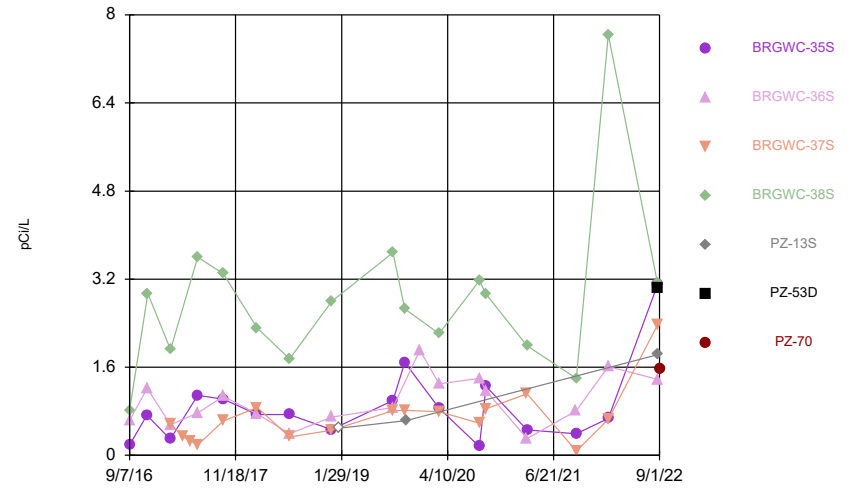
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

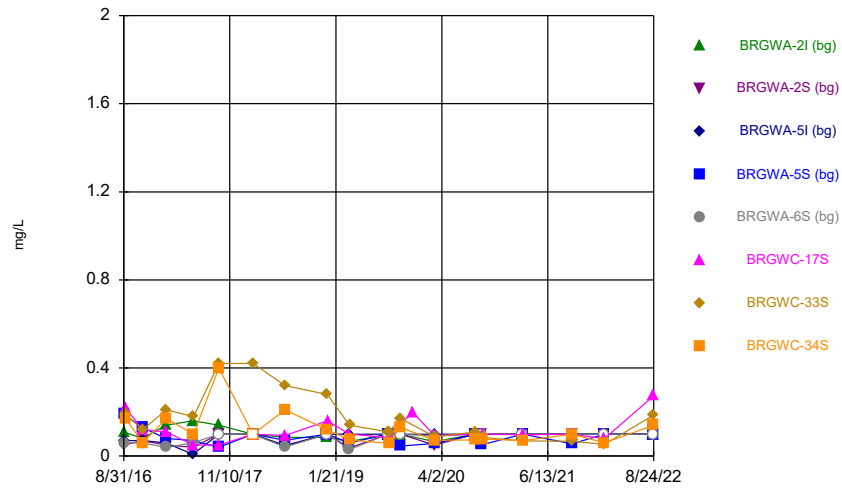
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

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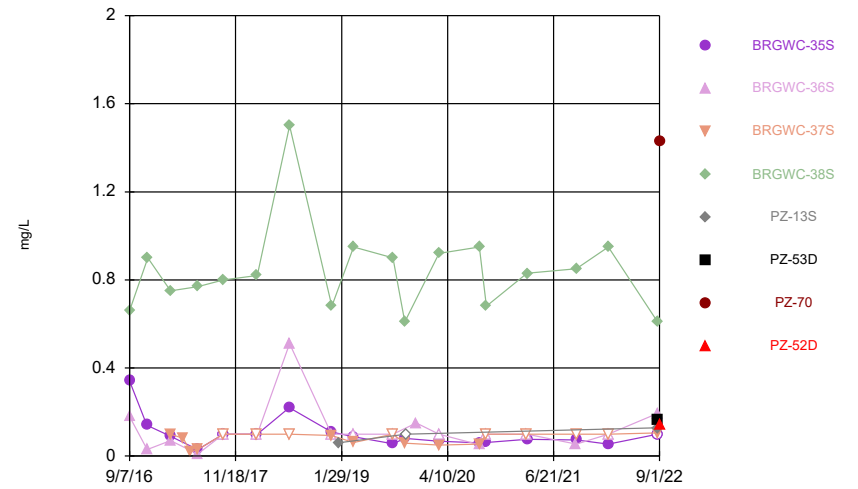
Time Series



Constituent: Fluoride Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

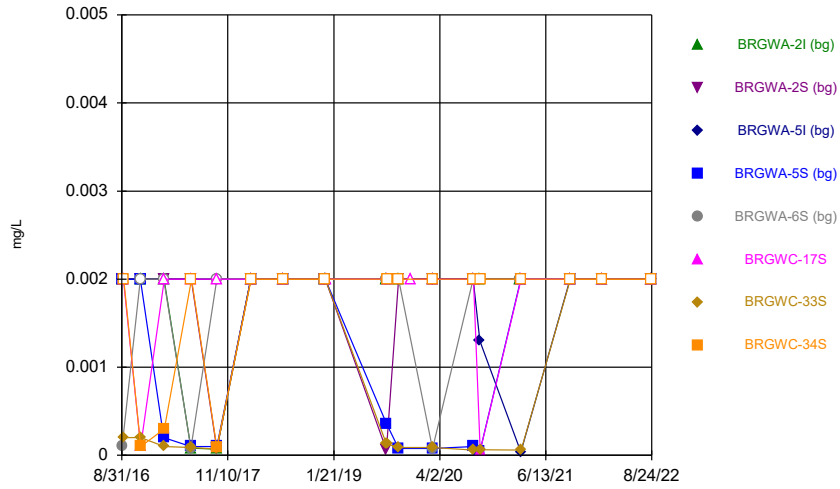
Hollow symbols indicate censored values.

Time Series



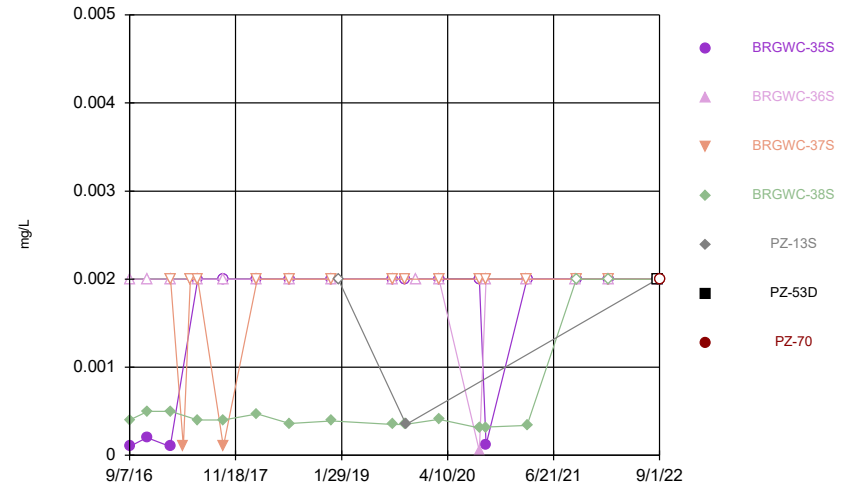
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



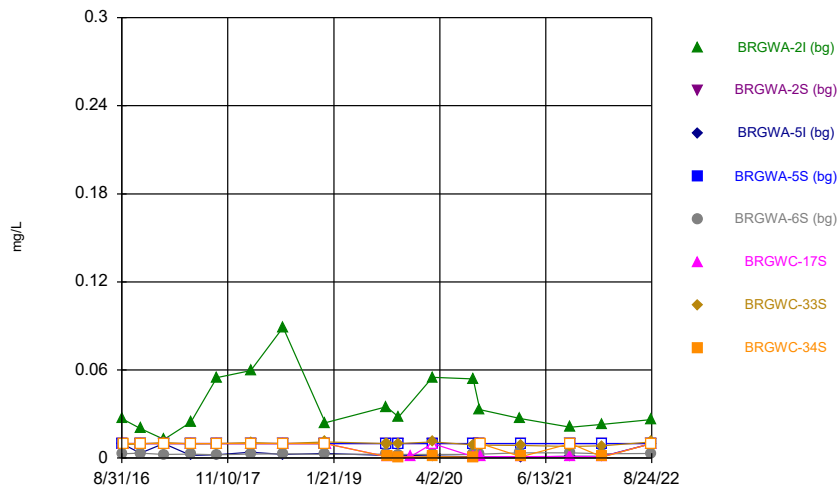
Constituent: Lead Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



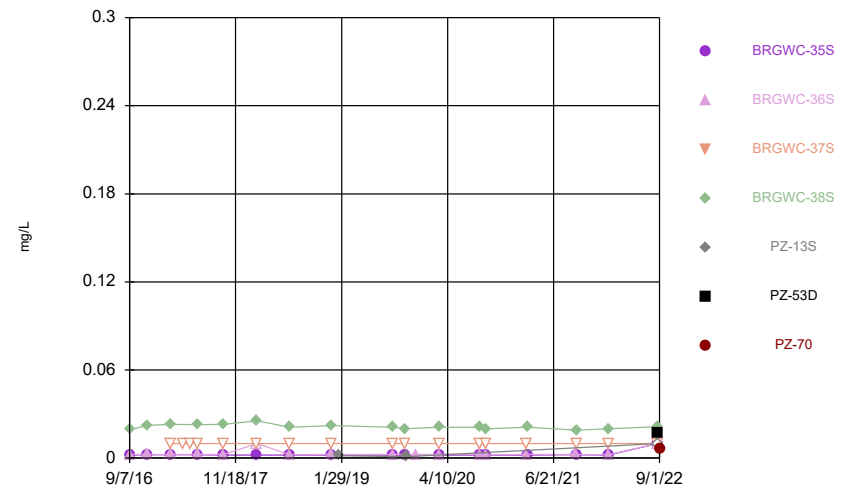
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



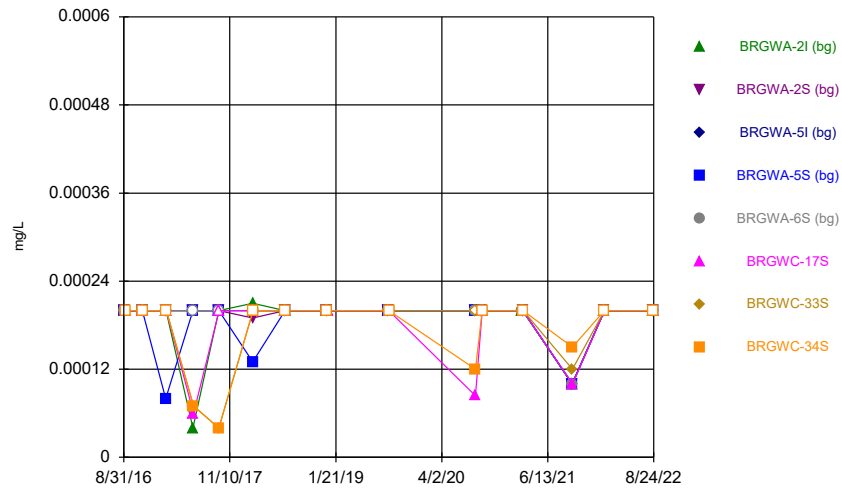
Constituent: Lithium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



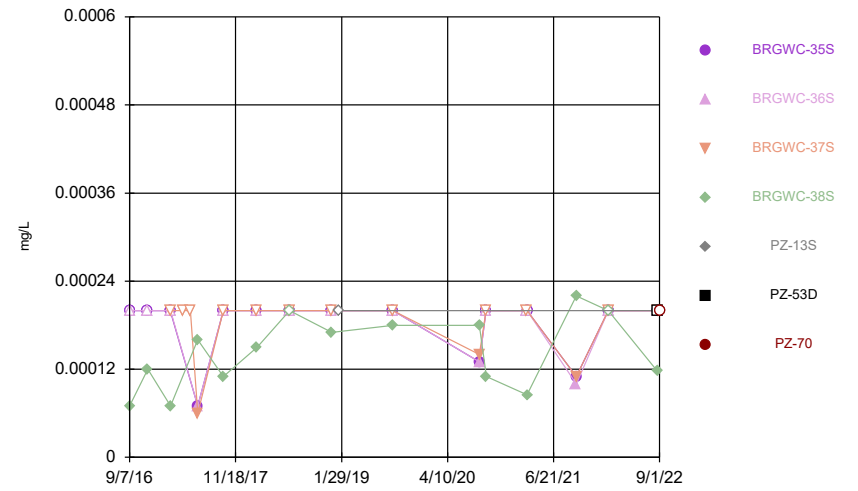
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



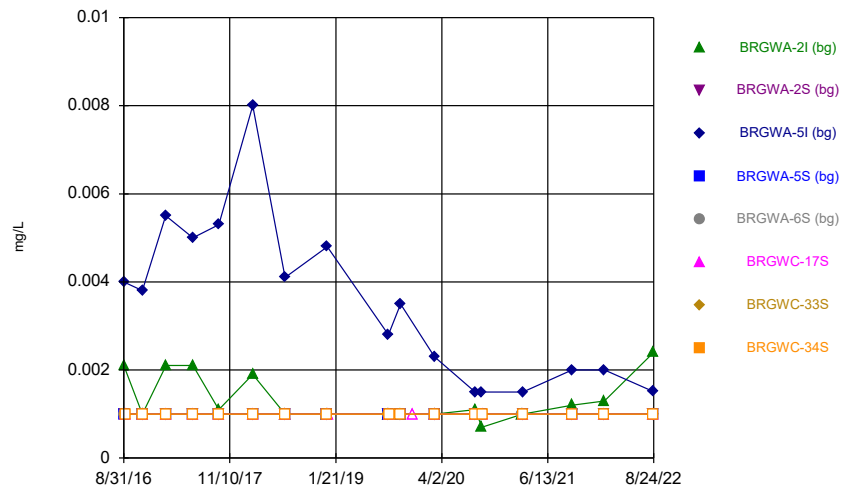
Constituent: Mercury Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



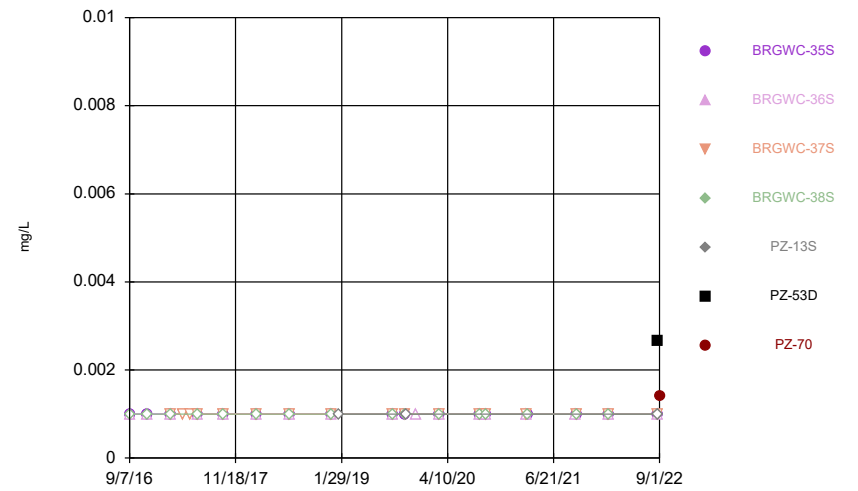
Constituent: Mercury Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



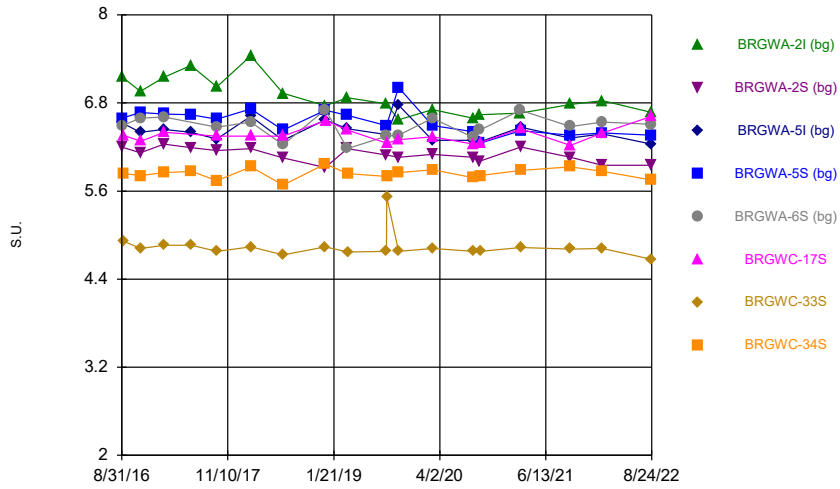
Constituent: Molybdenum Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



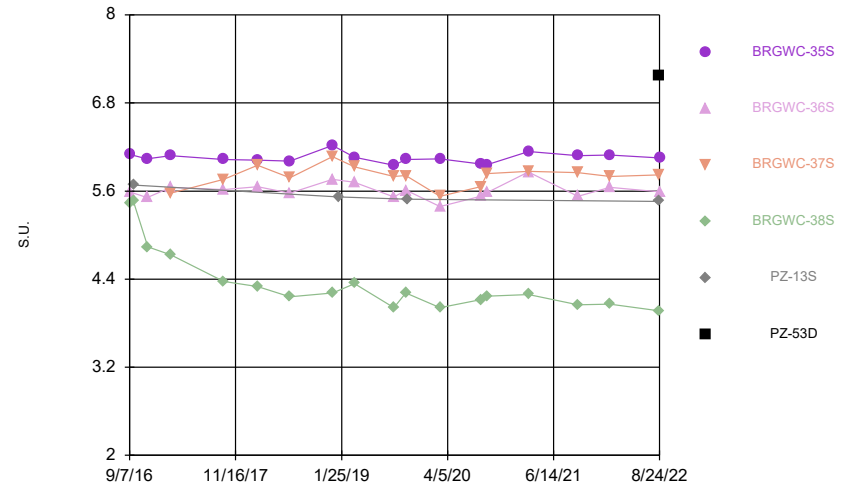
Constituent: Molybdenum Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



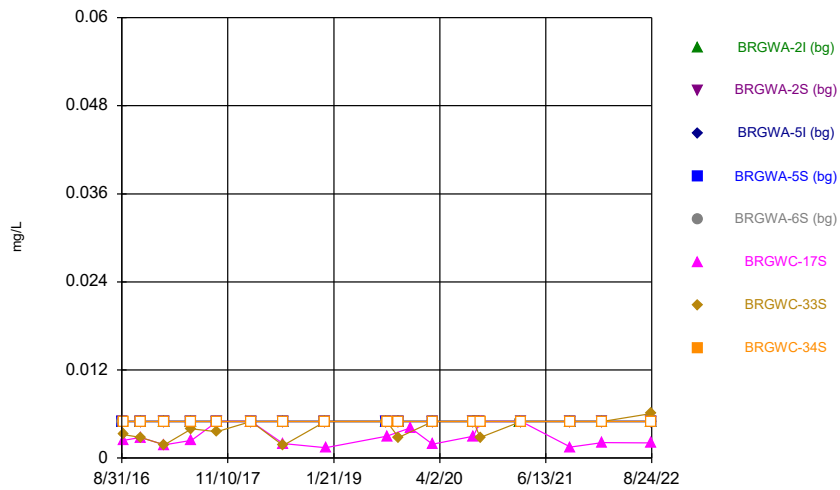
Constituent: pH, Field Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



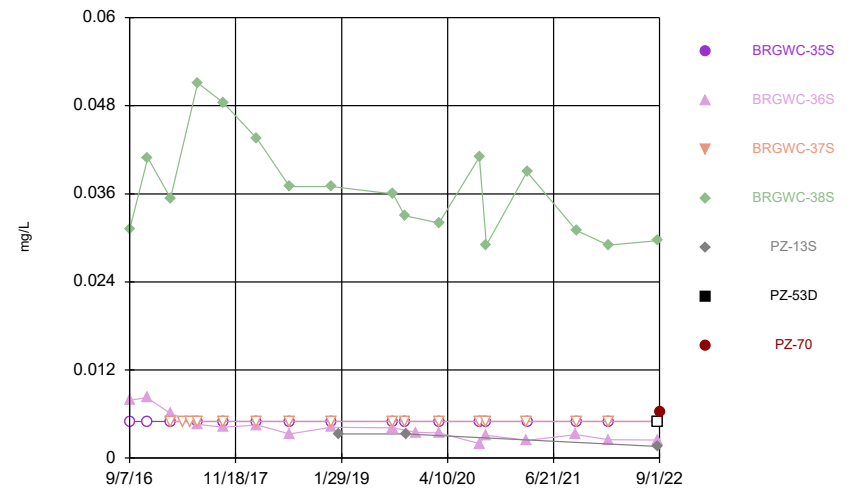
Constituent: pH, Field Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



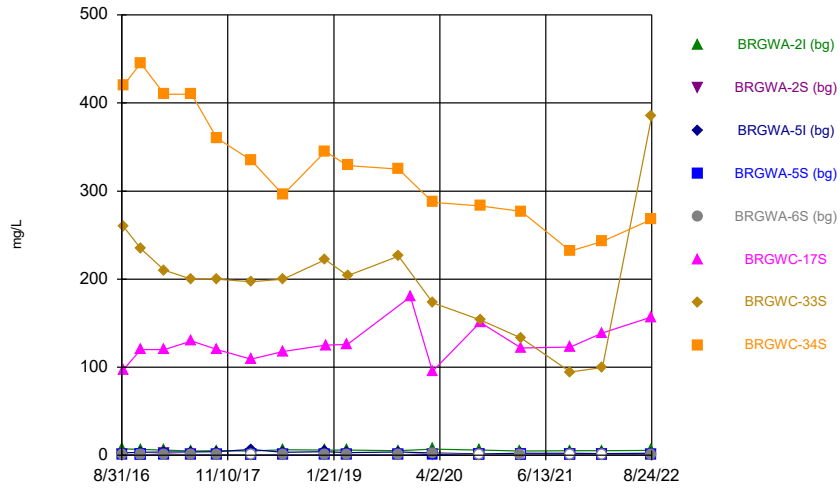
Constituent: Selenium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



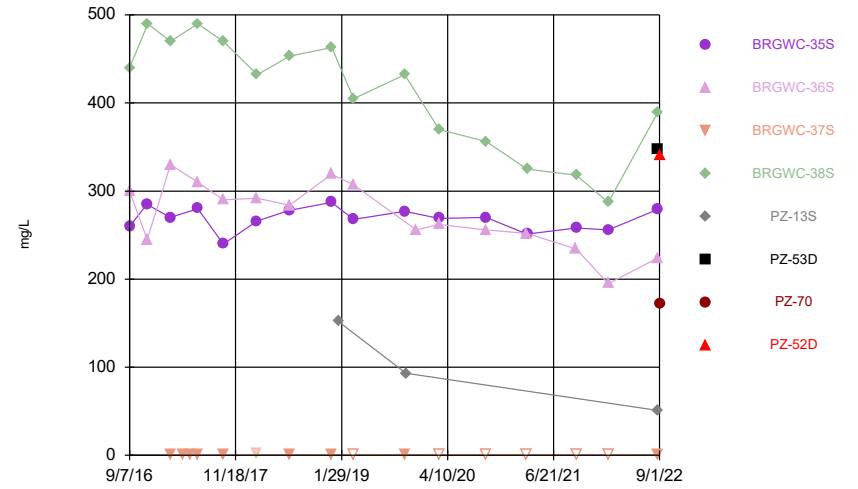
Constituent: Selenium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



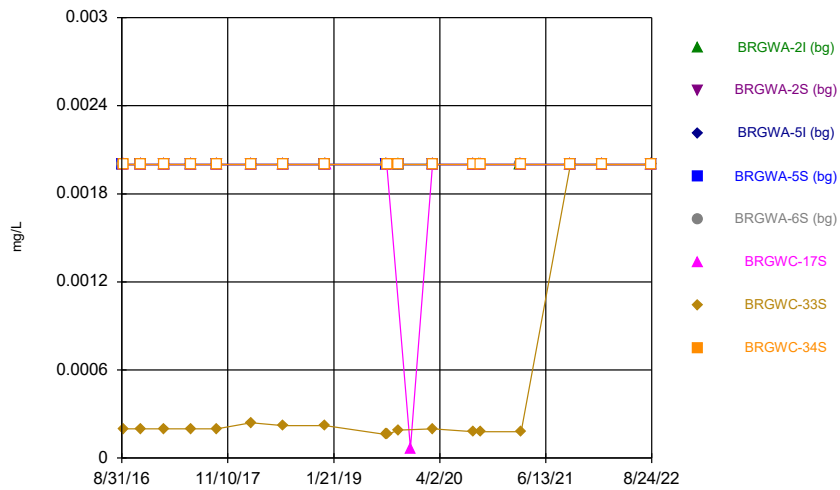
Constituent: Sulfate Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



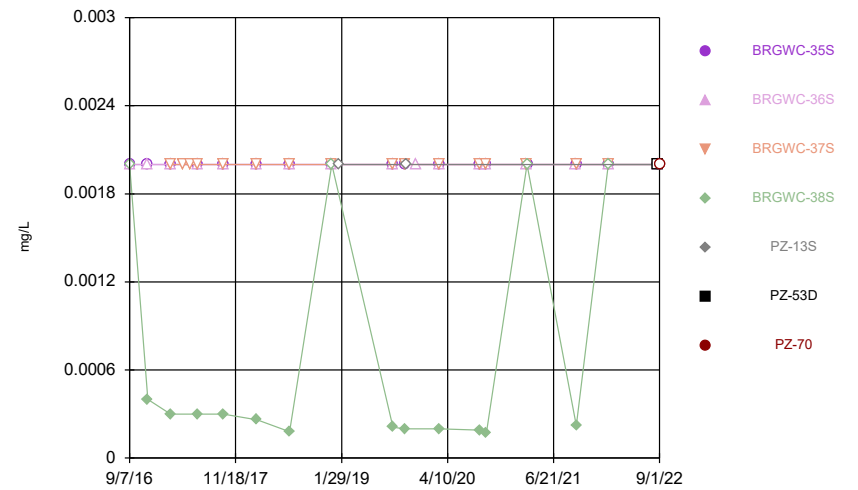
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



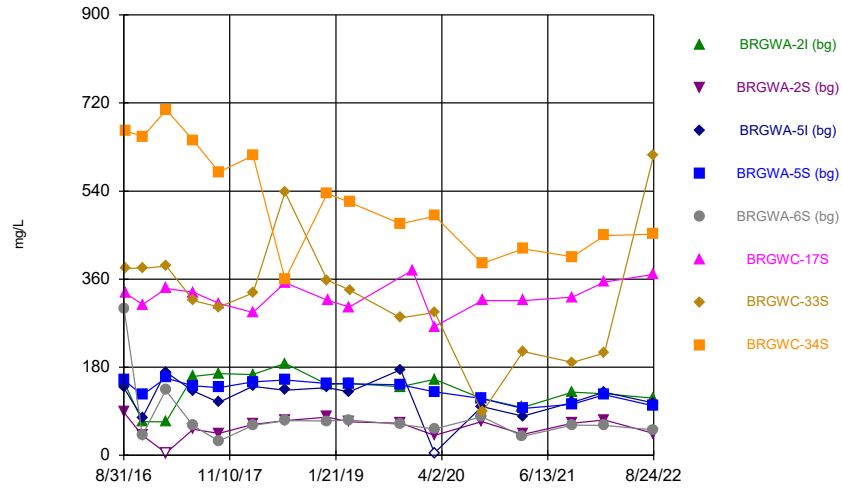
Constituent: Thallium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



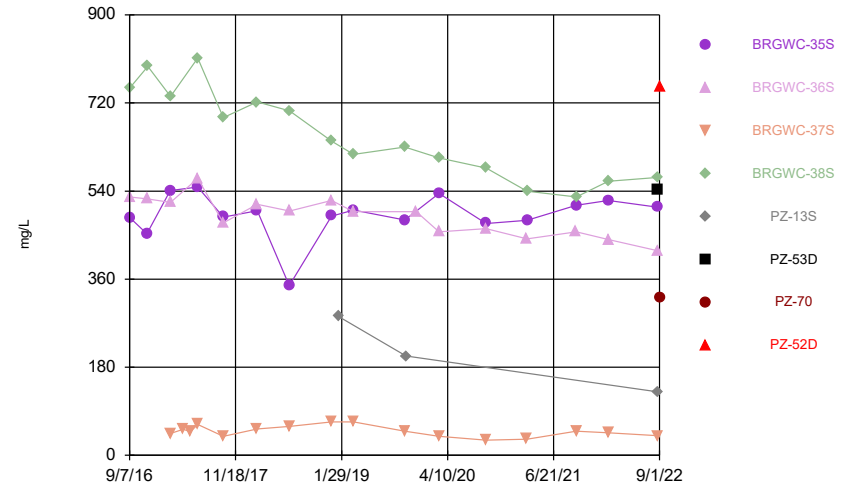
Constituent: Thallium Analysis Run 11/4/2022 11:27 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 11:27 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 11:27 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 11:34 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	<0.0005	<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

Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 11:34 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						<0.015	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						<0.015		
9/26/2017	0.0093 (J)	<0.015	<0.015	<0.015	<0.015			
9/27/2017							1.04	2.4
9/28/2017						<0.015		
2/13/2018	0.0141 (J)	<0.015	<0.015	<0.015	<0.015			
2/15/2018						<0.015	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	<0.015		
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						<0.015		
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						<0.015		
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

Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 11:34 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-70	PZ-52D
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							1.2	0.0403

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 11:34 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)

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 11:34 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-70	PZ-52D
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							42.6	69

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 11:34 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-70	PZ-52D
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							10.8	6.24

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 11:34 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	<0.001	0.0028 (J)						
2/22/2017						<0.001	0.0567	0.0041 (J)
6/12/2017	<0.001		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	<0.001	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	<0.001	<0.001	<0.01 (o)	<0.001	<0.001			
2/15/2018						<0.001	0.0536	<0.001
6/26/2018	<0.001	0.0019 (J)	0.0009 (J)	0.00052 (J)	<0.001			
6/27/2018						<0.001	0.054	0.0041 (J)
12/18/2018	<0.001	0.0032 (J)	0.00062 (J)	<0.001	<0.001		0.049	0.0032 (J)
12/19/2018						<0.001		
8/27/2019	<0.001	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	<0.001	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	<0.001	0.0015 (J)	0.00043 (J)	<0.001	0.0011 (J)	<0.001		
3/5/2020							0.037	0.0031 (J)
8/18/2020	<0.001	0.0014 (J)	0.00048 (J)	<0.001	0.00061 (J)			
8/19/2020						<0.001	0.036	0.0041 (J)
9/15/2020	<0.001	0.001 (J)	0.0005 (J)	<0.001	<0.001			
9/16/2020						<0.001	0.034	0.0042 (J)
3/1/2021	<0.001				<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)	<0.001			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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 11:34 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-70	PZ-52D
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							0.0056	0.0015

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 11:34 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						<0.1	0.42	<0.1
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

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 11:34 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-70	PZ-52D
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							1.43	0.14

Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 11:34 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	<0.001	<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	<0.001	<0.001	0.0041 (J)	<0.001	<0.001			
6/27/2018						<0.001	<0.001	<0.001
12/18/2018	<0.001	<0.001	0.0048 (J)	<0.001	<0.001		<0.001	<0.001
12/19/2018						<0.001		
8/27/2019	<0.001	<0.001	0.0028 (J)	<0.001	<0.001		<0.001	
8/28/2019						<0.001	<0.001	<0.001
10/15/2019	<0.001	<0.001	0.0035 (J)	<0.001	<0.001			
10/16/2019							<0.001	<0.001
12/3/2019						<0.001		
3/3/2020	<0.001	<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	<0.001				<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

Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 11:34 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
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				

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 11:34 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-70	PZ-52D
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							172	340

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 11:34 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

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 11:34 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			
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	<10						
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

Time Series

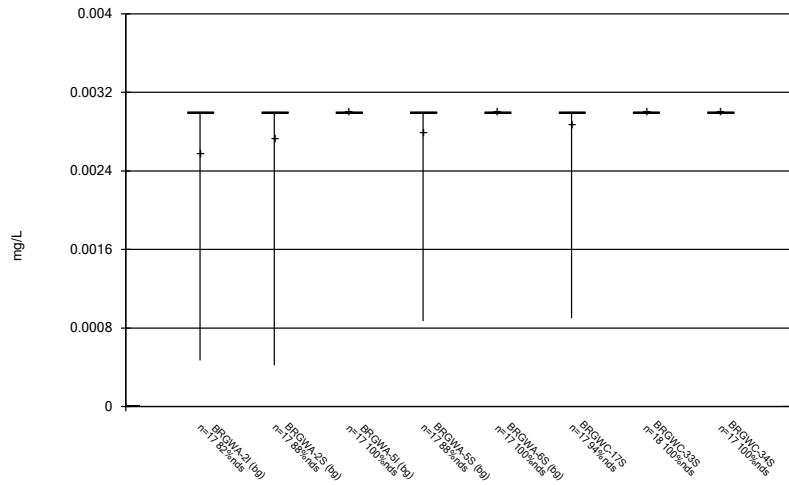
Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 11:34 AM View: Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	PZ-13S	PZ-53D	PZ-70	PZ-52D
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							321	754

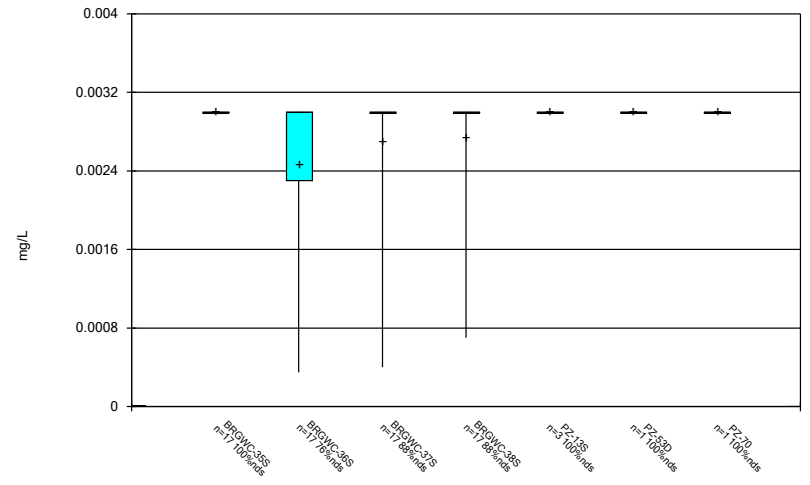
FIGURE B.

Box & Whiskers Plot



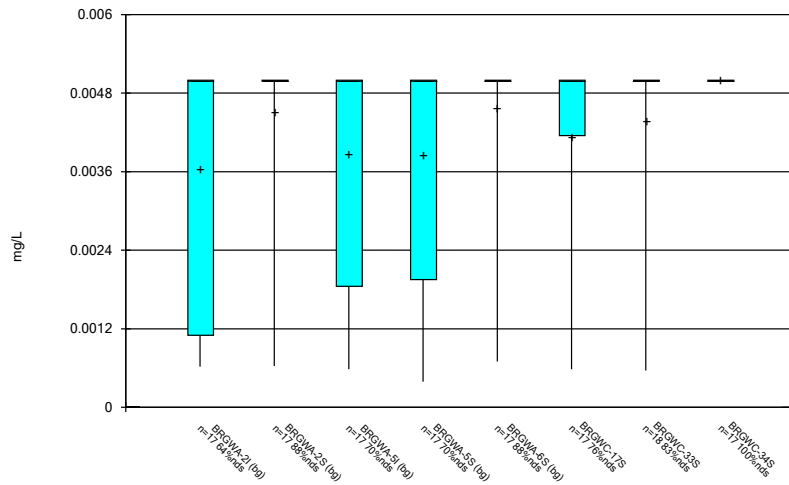
Constituent: Antimony Analysis Run 11/4/2022 11:35 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



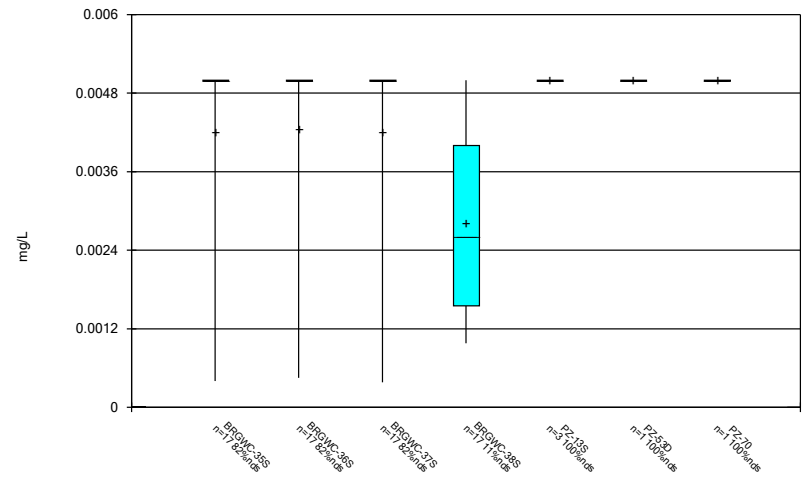
Constituent: Antimony Analysis Run 11/4/2022 11:35 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



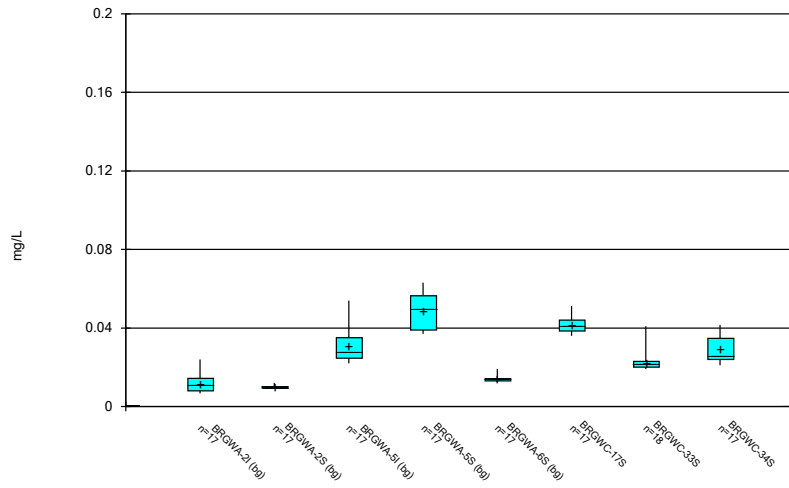
Constituent: Arsenic Analysis Run 11/4/2022 11:35 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



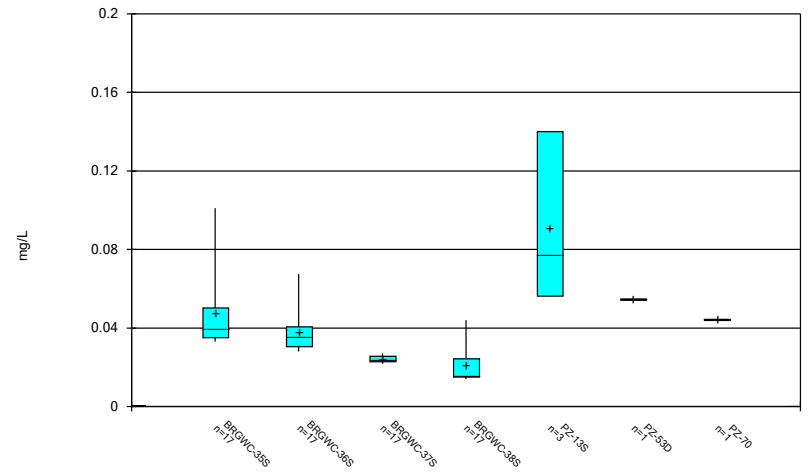
Constituent: Arsenic Analysis Run 11/4/2022 11:35 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



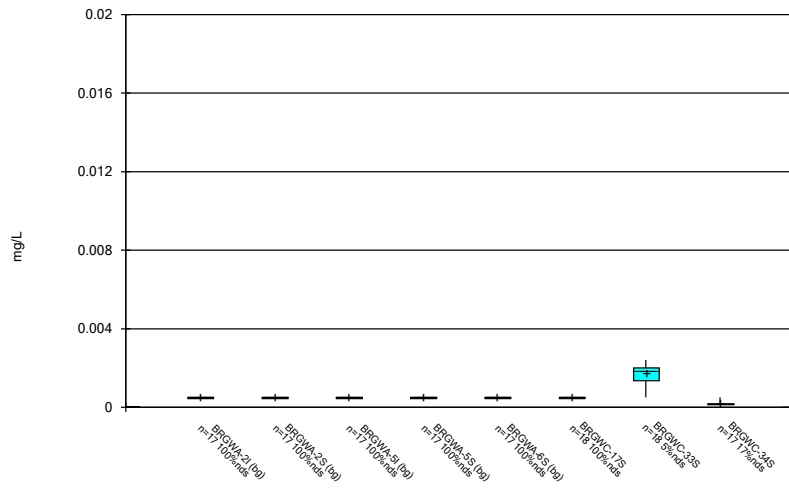
Constituent: Barium Analysis Run 11/4/2022 11:35 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



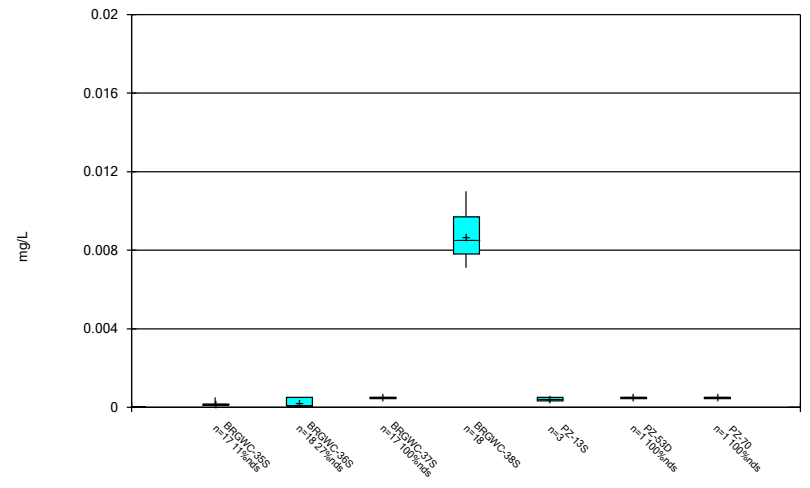
Constituent: Barium Analysis Run 11/4/2022 11:35 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



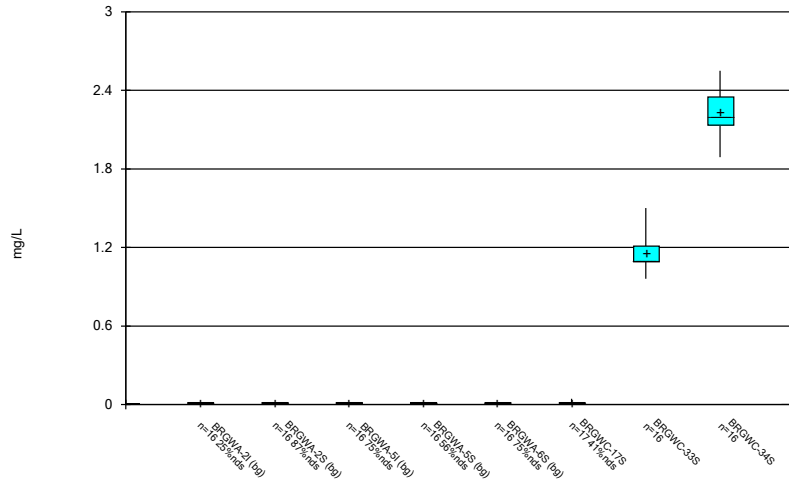
Constituent: Beryllium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



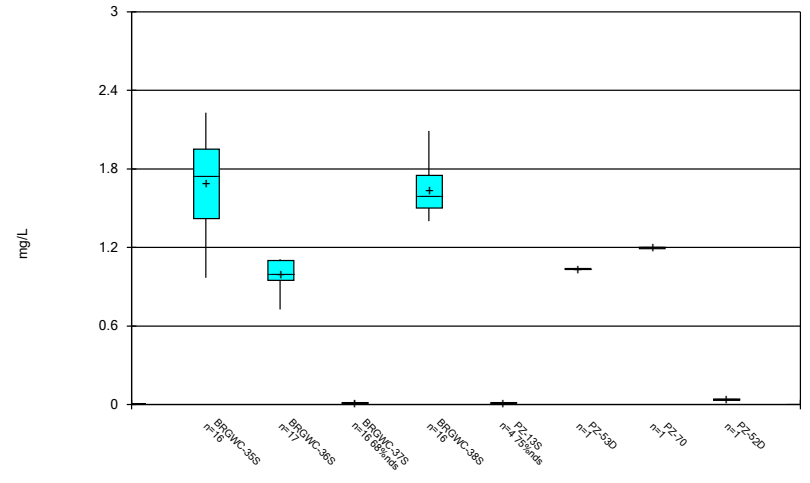
Constituent: Beryllium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



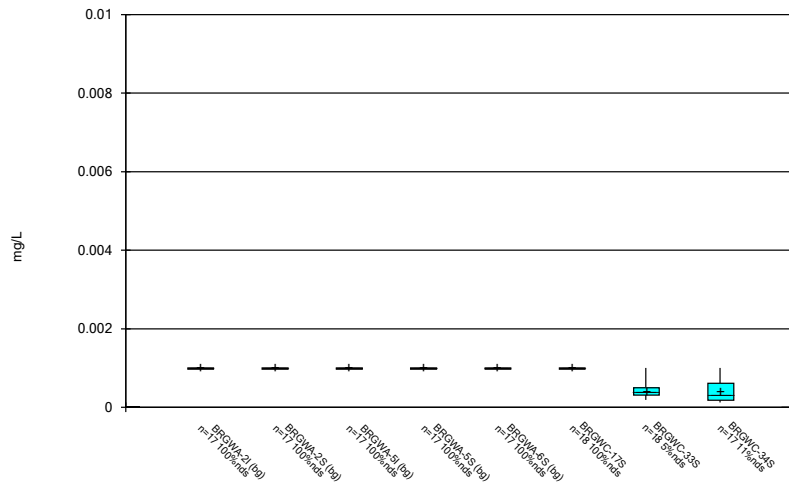
Constituent: Boron Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



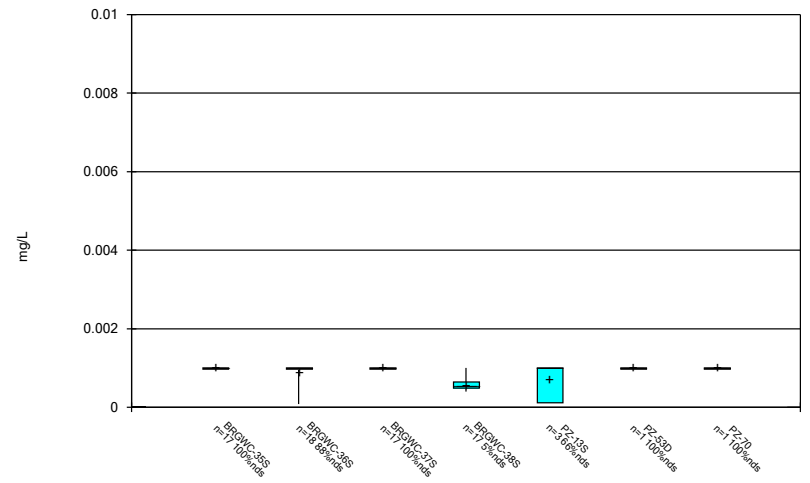
Constituent: Boron Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



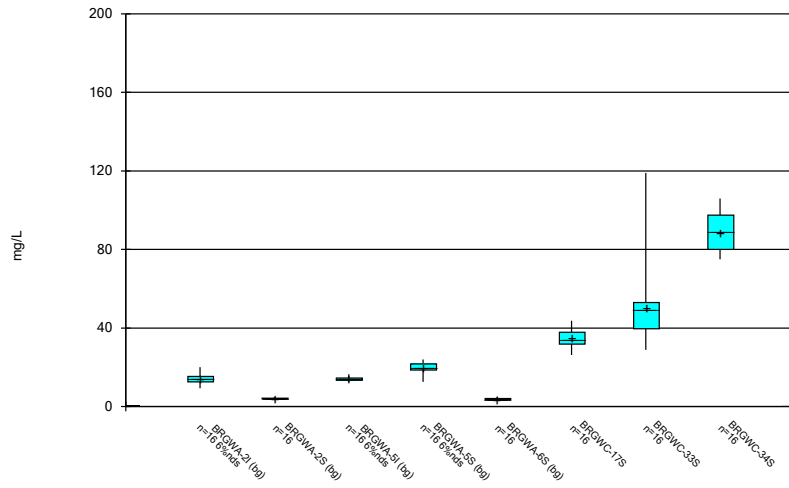
Constituent: Cadmium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



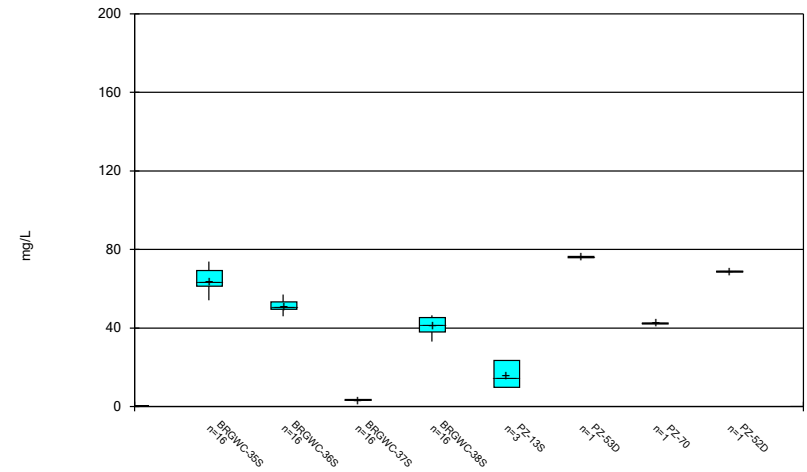
Constituent: Cadmium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



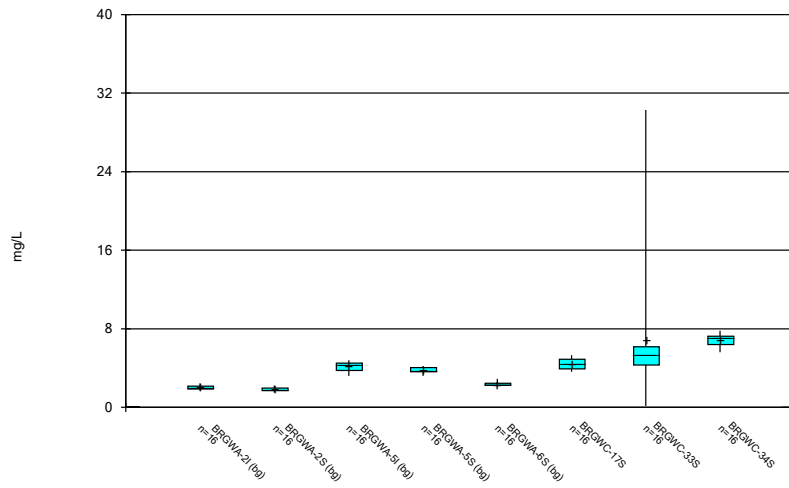
Constituent: Calcium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



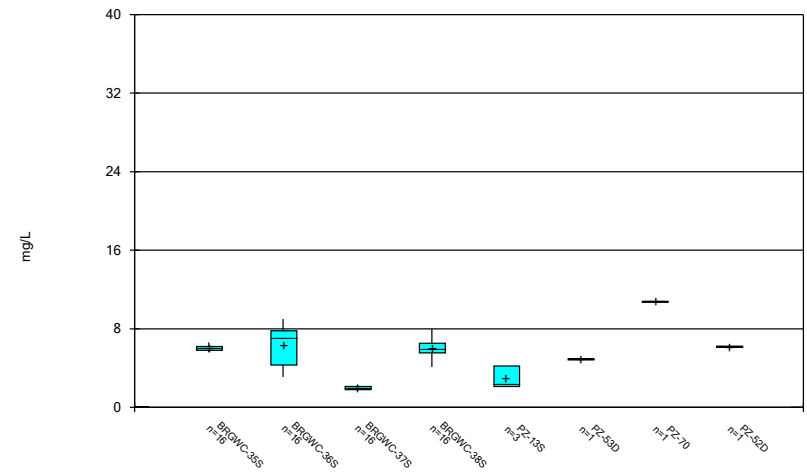
Constituent: Calcium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



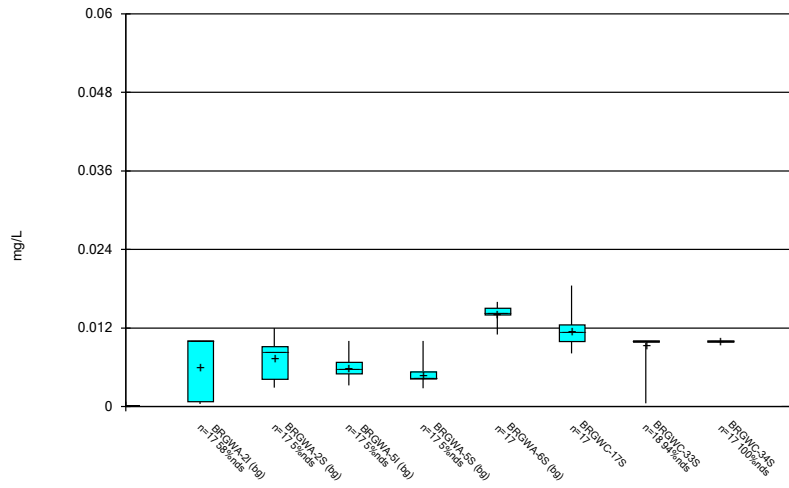
Constituent: Chloride Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



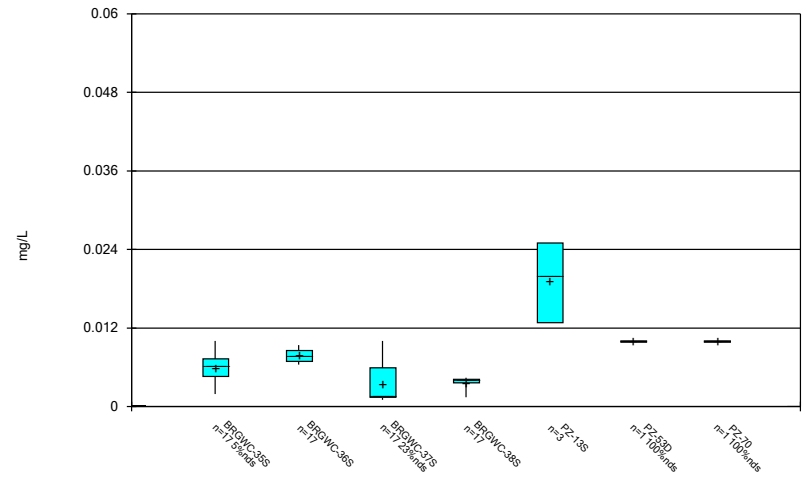
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Box & Whiskers Plot



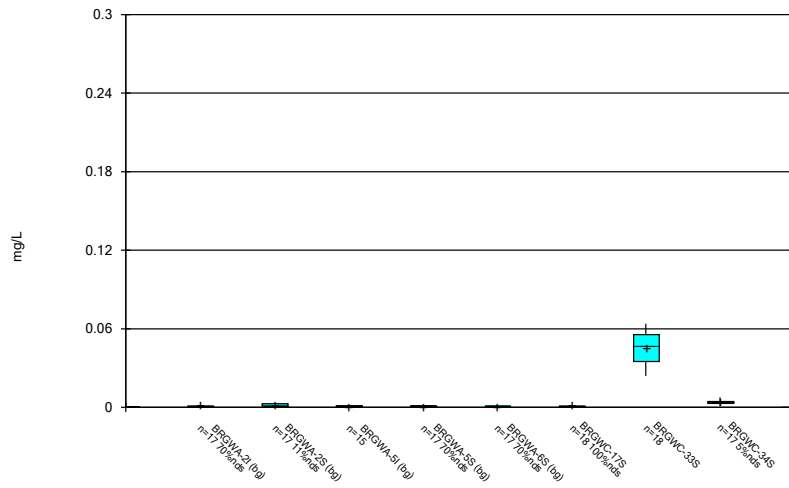
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



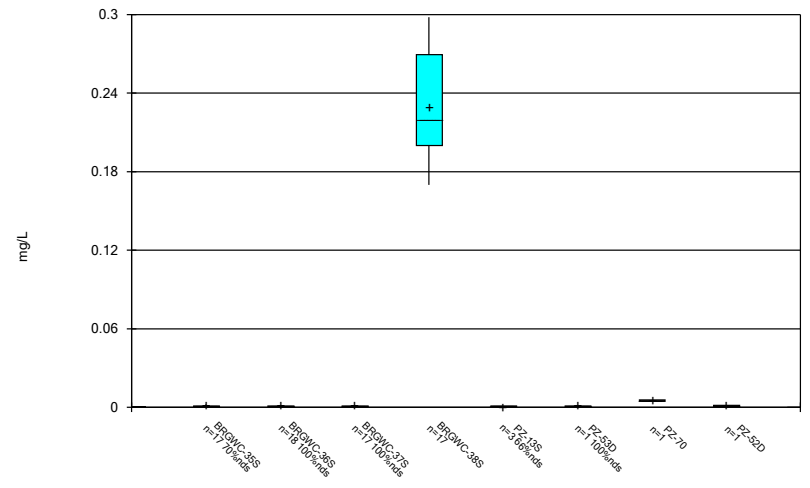
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Box & Whiskers Plot



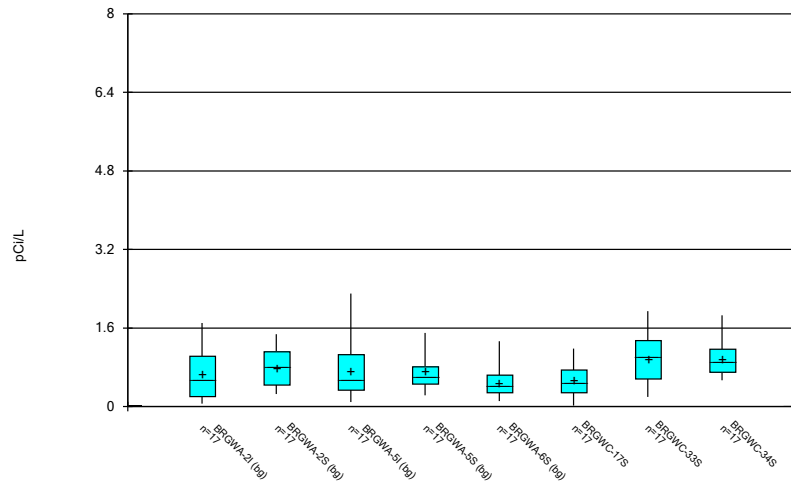
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



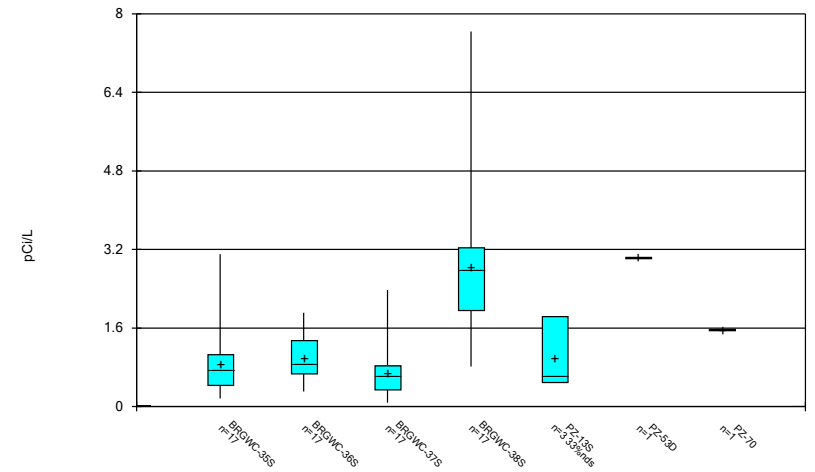
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



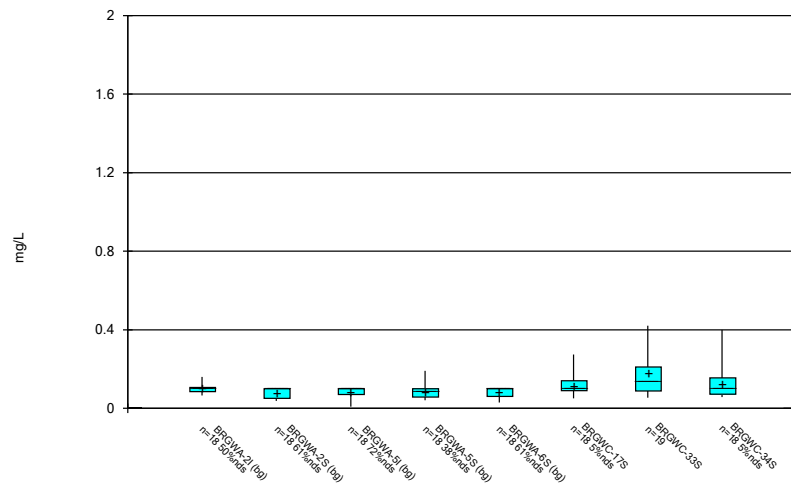
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 11:36 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



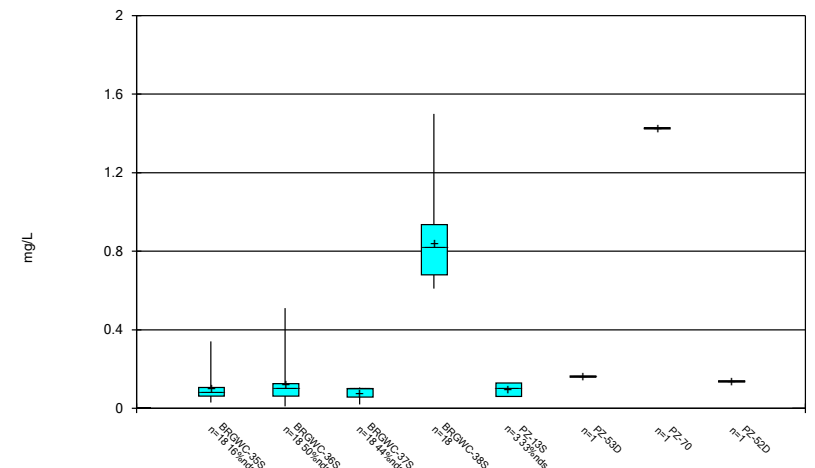
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 11:36 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



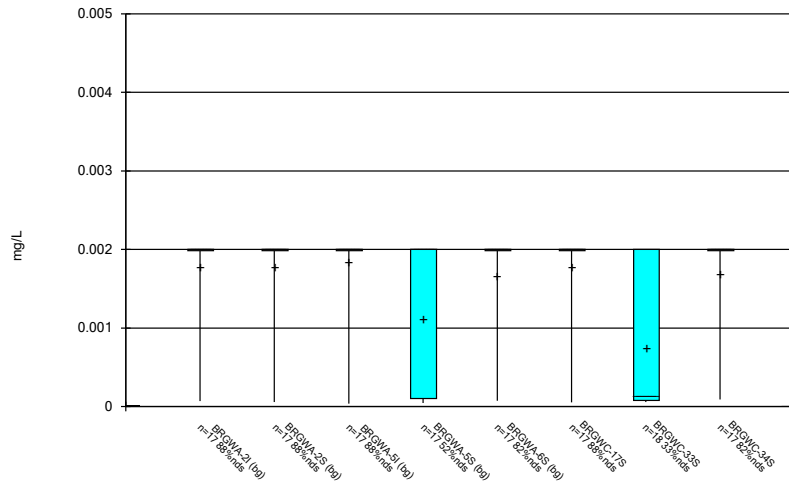
Constituent: Fluoride Analysis Run 11/4/2022 11:36 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



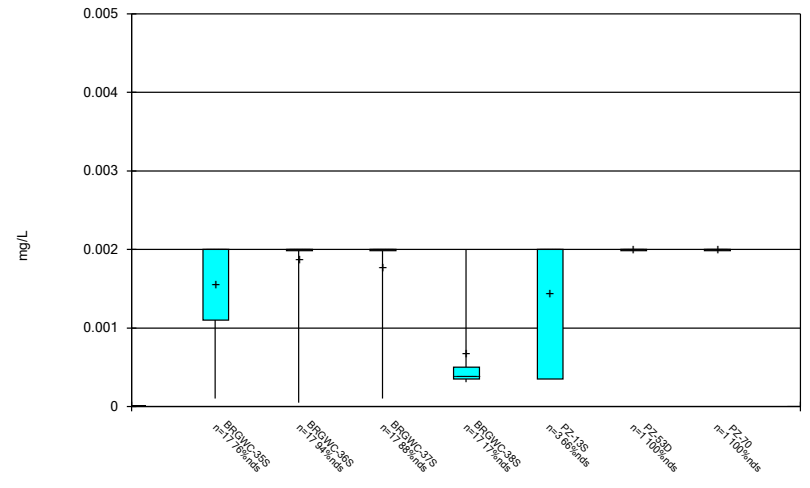
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



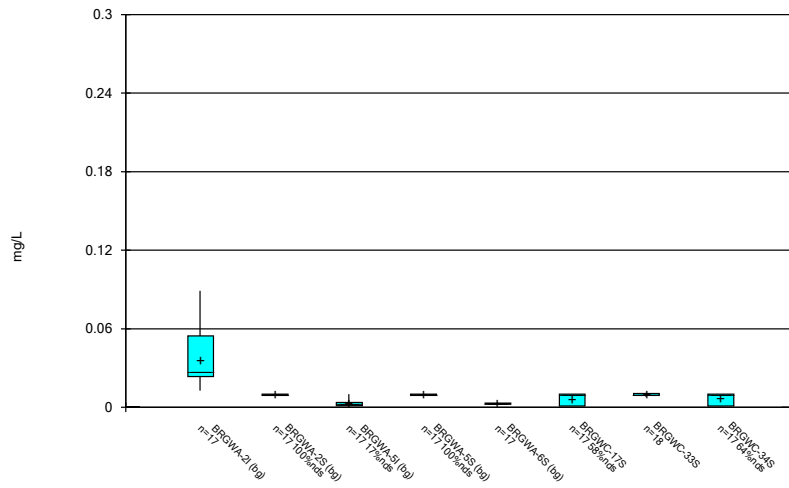
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



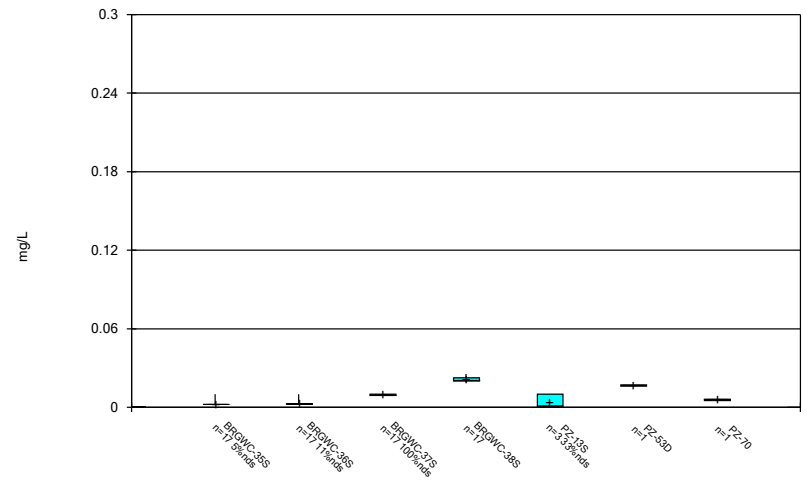
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



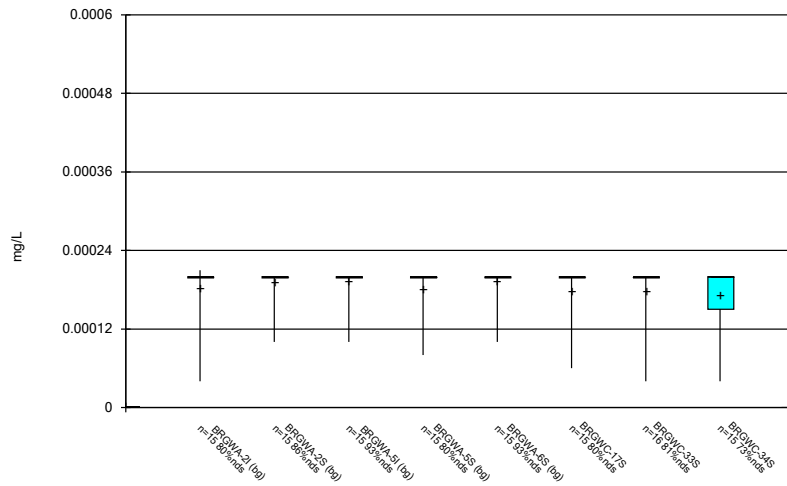
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



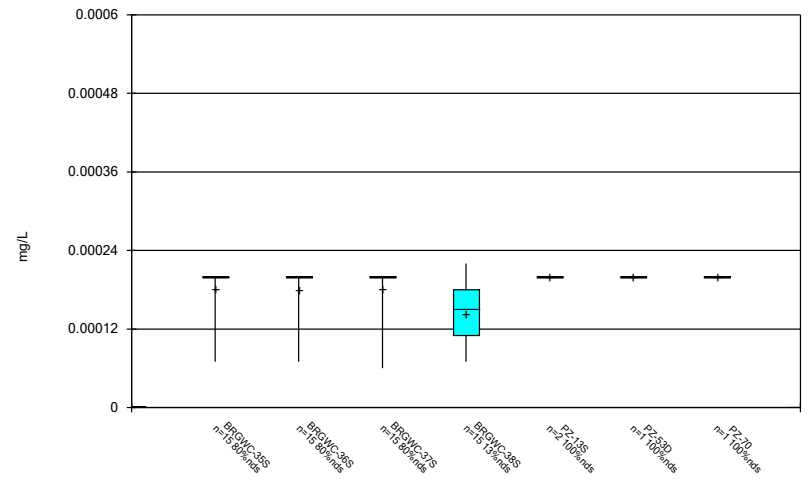
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



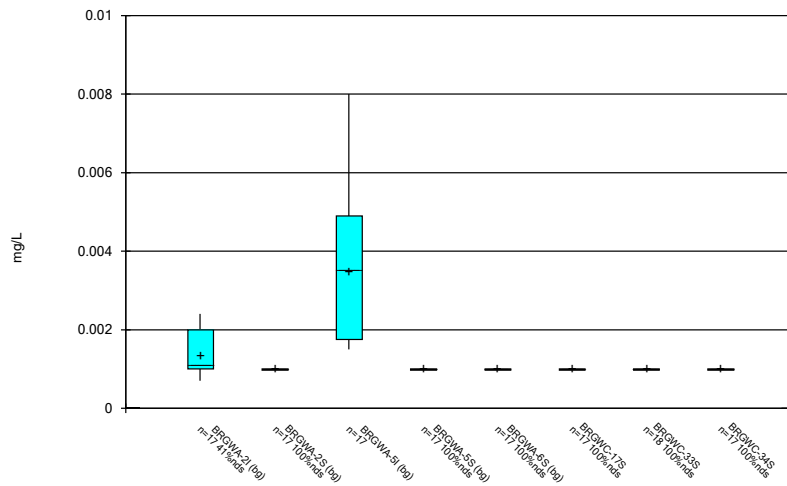
Constituent: Mercury Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



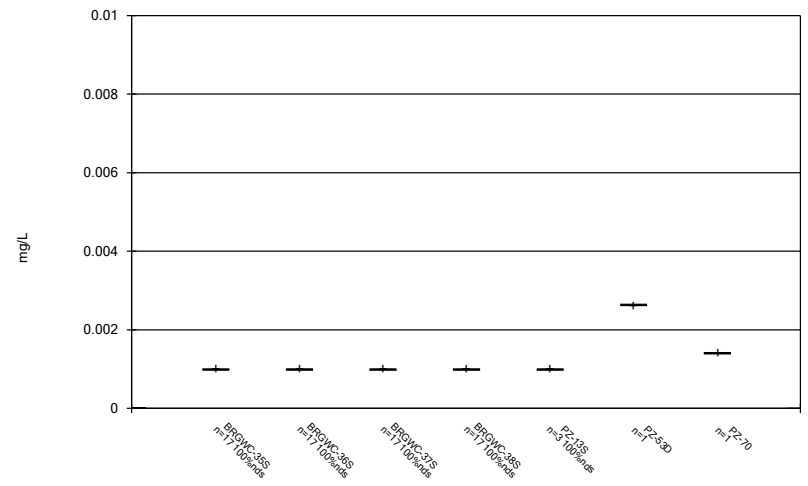
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



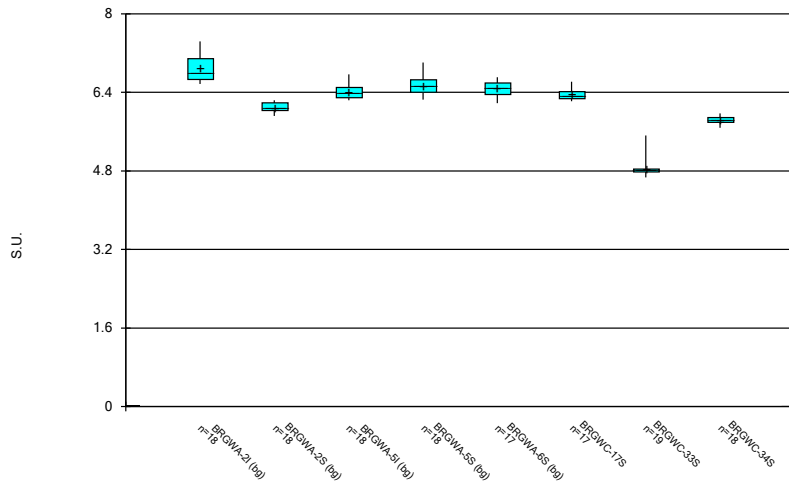
Constituent: Molybdenum Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



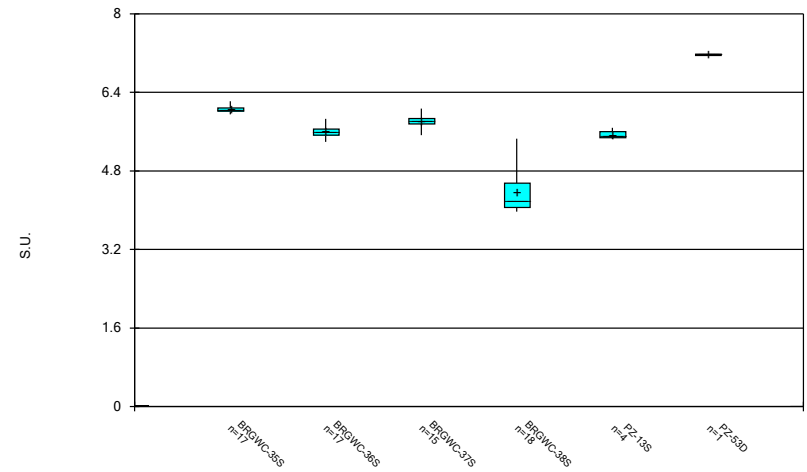
Constituent: Molybdenum Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



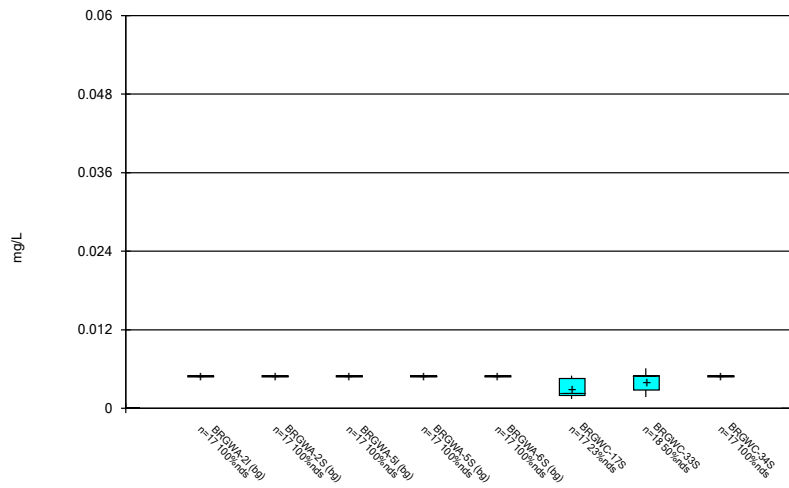
Constituent: pH, Field Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



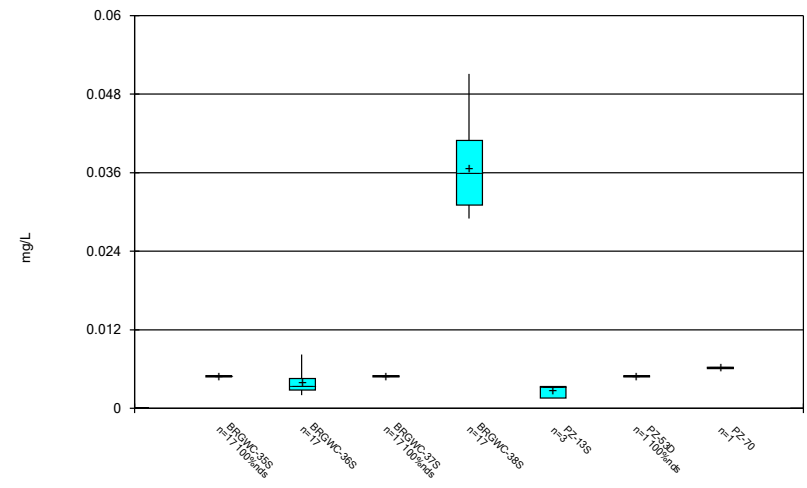
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



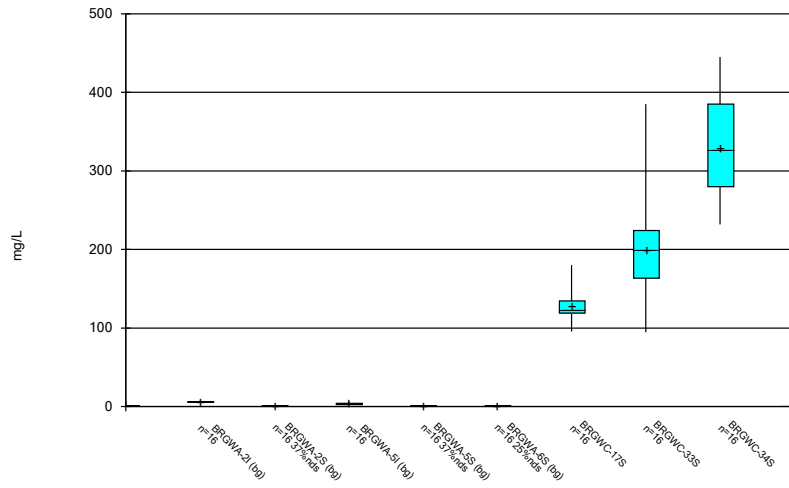
Constituent: Selenium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



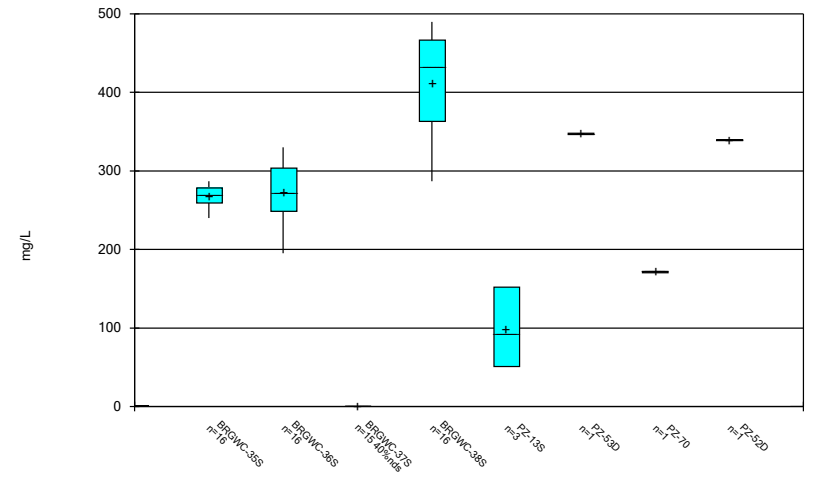
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



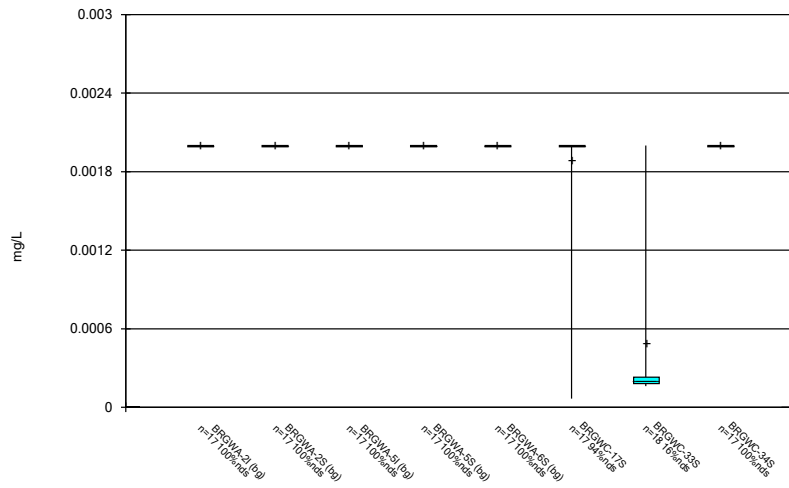
Constituent: Sulfate Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



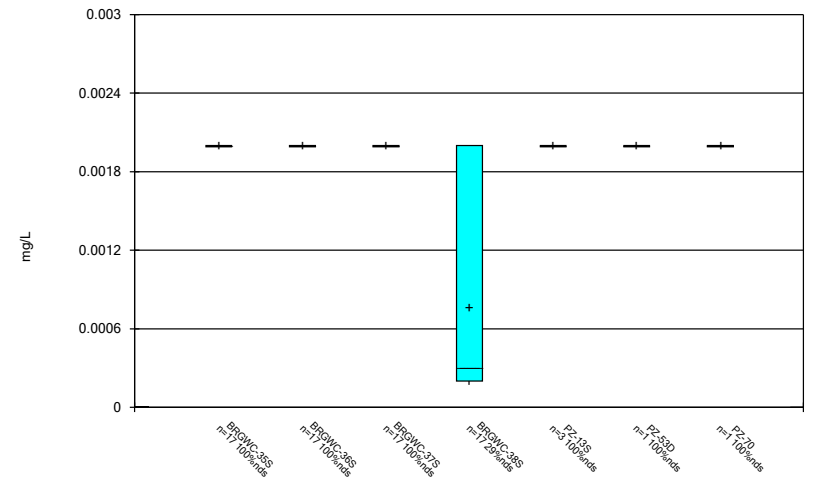
Constituent: Sulfate Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



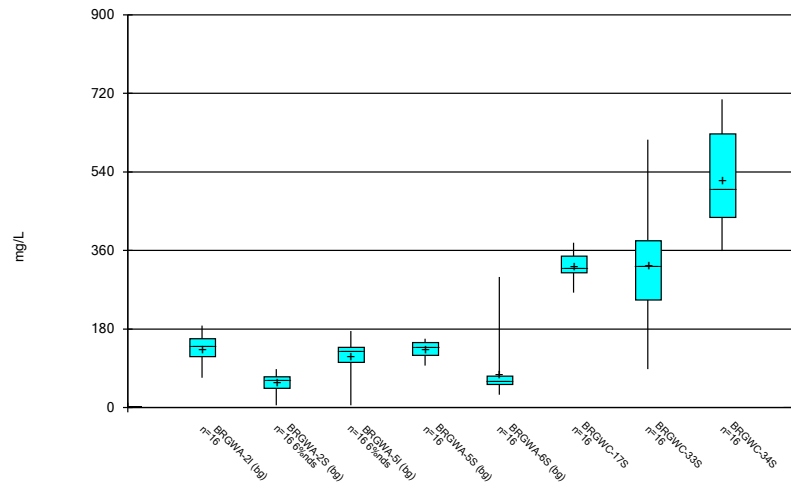
Constituent: Thallium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



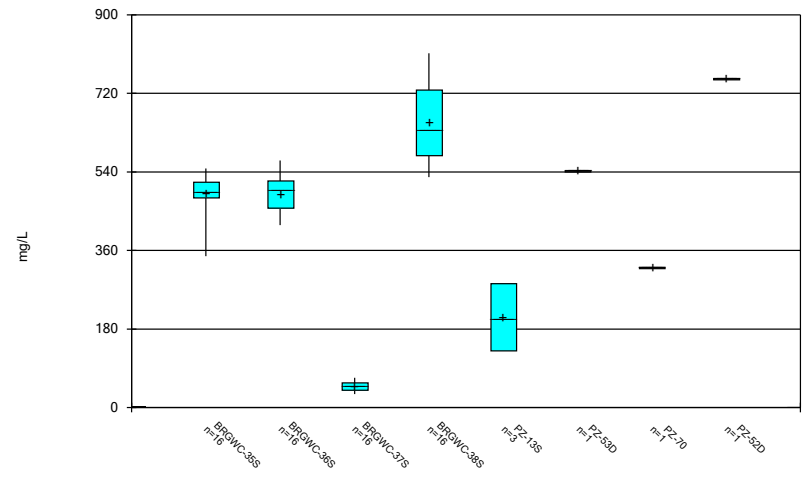
Constituent: Thallium Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 11:36 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 11:36 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 11/4/2022, 11:38 AM

	BRGWA-5I Cobalt (mg/L)	BRGWC-37S Sulfate (mg/L)
11/16/2016	<0.01 (o)	
2/13/2018	<0.01 (o)	
2/15/2018		1.9 (o)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	8/24/2022	0.0273	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	8/23/2022	0.975	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	8/24/2022	2.45	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	8/24/2022	2.23	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	8/24/2022	1.1	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	8/23/2022	1.67	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	8/24/2022	43.6	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	8/23/2022	119	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	8/24/2022	75	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	8/24/2022	68.5	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	8/24/2022	48.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	8/23/2022	37.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2022	5	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/23/2022	30.3	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2022	6.17	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2022	6.53	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2022	7.96	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/23/2022	6.42	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	8/24/2022	0.274	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	8/24/2022	0.194	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	8/23/2022	0.609	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.057	5.907	8/23/2022	4.67	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.057	5.907	8/24/2022	5.75	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.057	5.907	8/24/2022	5.59	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.057	5.907	8/23/2022	5.82	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.057	5.907	8/23/2022	3.97	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/24/2022	157	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/23/2022	385	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2022	268	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/24/2022	279	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/24/2022	224	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/23/2022	389	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	8/24/2022	370	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	8/23/2022	614	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	8/24/2022	452	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	8/24/2022	507	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	8/24/2022	418	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	8/23/2022	568	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2

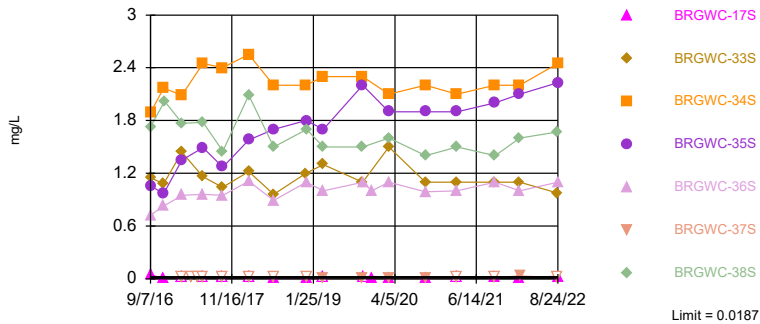
Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	8/24/2022	0.0273	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	8/23/2022	0.975	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	8/24/2022	2.45	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	8/24/2022	2.23	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	8/24/2022	1.1	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.0187	n/a	8/23/2022	0.015ND	No	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	8/23/2022	1.67	Yes	80	n/a	n/a	63.75	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	8/24/2022	43.6	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	8/23/2022	119	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	8/24/2022	75	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	8/24/2022	68.5	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	8/24/2022	48.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	8/23/2022	3.7	No	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	8/23/2022	37.1	Yes	80	n/a	n/a	3.75	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	8/24/2022	5	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	8/23/2022	30.3	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	8/24/2022	6.17	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	8/24/2022	6.53	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	8/24/2022	7.96	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	8/23/2022	1.97	No	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	8/23/2022	6.42	Yes	80	n/a	n/a	0	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	8/24/2022	0.274	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	8/23/2022	0.187	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.19	n/a	8/24/2022	0.14	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	8/24/2022	0.1ND	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	8/24/2022	0.194	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.19	n/a	8/23/2022	0.105	No	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	8/23/2022	0.609	Yes	90	n/a	n/a	56.67	n/a	n/a	0.0002371	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.057	5.907	8/24/2022	6.62	No	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.057	5.907	8/23/2022	4.67	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.057	5.907	8/24/2022	5.75	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.057	5.907	8/24/2022	6.05	No	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.057	5.907	8/24/2022	5.59	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.057	5.907	8/23/2022	5.82	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.057	5.907	8/23/2022	3.97	Yes	89	6.482	0.3048	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	8/24/2022	157	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	8/23/2022	385	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	8/24/2022	268	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	8/24/2022	279	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	8/24/2022	224	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	8/23/2022	0.307J	No	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	8/23/2022	389	Yes	80	n/a	n/a	20	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	8/24/2022	370	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	8/23/2022	614	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	8/24/2022	452	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	8/24/2022	507	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	8/24/2022	418	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	299	n/a	8/23/2022	40	No	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	8/23/2022	568	Yes	80	n/a	n/a	2.5	n/a	n/a	0.0002983	NP Inter (normality) 1 of 2

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

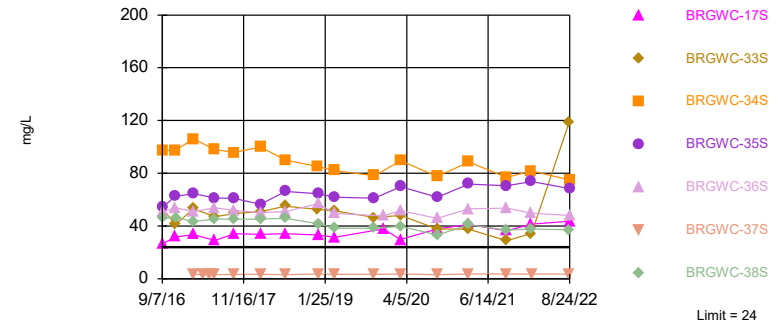


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 80 background values. 63.75% NDs. Annual per-constituent alpha = 0.004169. Individual comparison alpha = 0.0002983 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 9/30/2022 4:15 PM 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

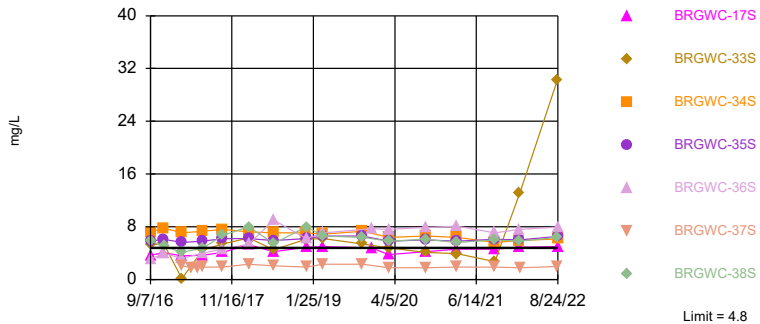


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 3.75% NDs. Annual per-constituent alpha = 0.004169. Individual comparison alpha = 0.0002983 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 9/30/2022 4:15 PM 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

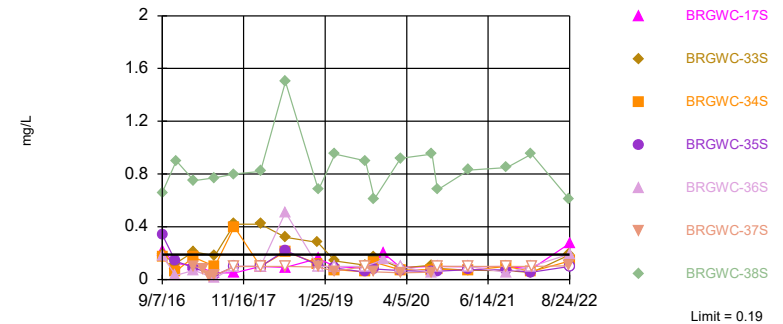


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. Annual per-constituent alpha = 0.004169. Individual comparison alpha = 0.0002983 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 9/30/2022 4:15 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

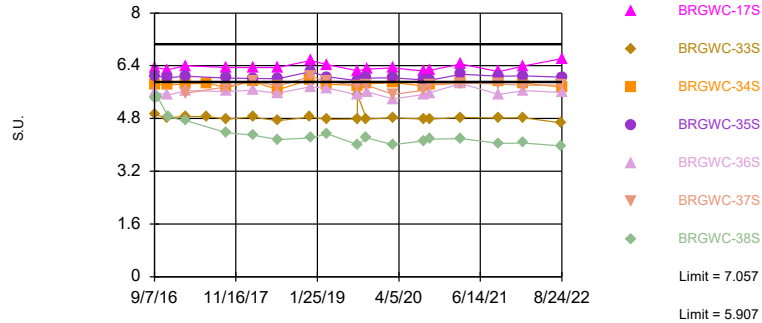


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 90 background values. 56.67% NDs. Annual per-constituent alpha = 0.003314. Individual comparison alpha = 0.0002371 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 9/30/2022 4:15 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limits: BRGWC-33S, BRGWC-34S, BRGWC-36S, BRGWC-37S, BRGWC-38S

Prediction Limit
Interwell Parametric

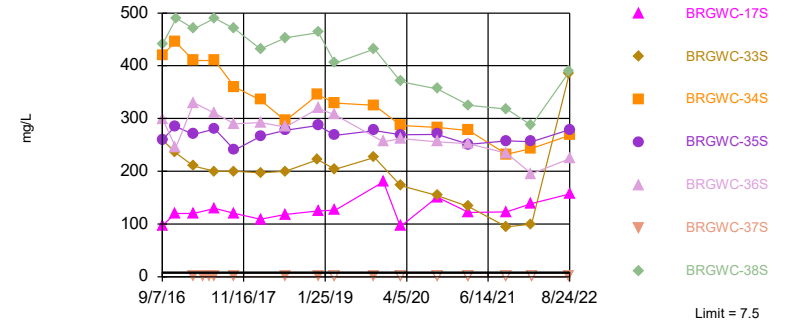


Background Data Summary: Mean=6.482, Std. Dev.=0.3048, n=89. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9721, critical = 0.961. Kappa = 1.886 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005373. Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 9/30/2022 4:15 PM 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

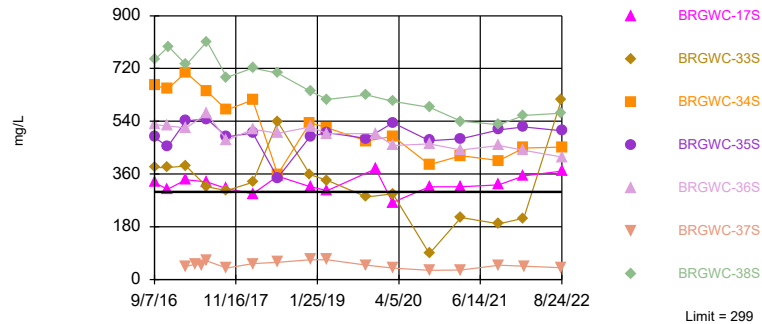


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 20% NDs. Annual per-constituent alpha = 0.004169. Individual comparison alpha = 0.0002983 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 9/30/2022 4:15 PM 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 80 background values. 2.5% NDs. Annual per-constituent alpha = 0.004169. Individual comparison alpha = 0.0002983 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:15 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/30/2022 4:18 PM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-35S	BRGWC-36S
8/31/2016	0.0072 (J)	<0.015	<0.015	<0.015					
9/1/2016						<0.015			
9/7/2016									
9/8/2016						1.73	0.0449 (J)	1.06	0.725
11/15/2016				0.0085 (J)	0.0123 (J)				
11/16/2016	0.0117 (J)	0.0187 (J)	0.0109 (J)						
11/17/2016							0.0067 (J)	0.967	
11/18/2016									0.831
11/21/2016						2.02			
2/20/2017		0.0066 (J)		0.0093 (J)	0.0157 (J)				
2/21/2017	0.0088 (J)		<0.015						
2/22/2017							<0.015	1.35	
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									
6/15/2017						1.78	<0.015	1.49	0.961
9/26/2017	0.0093 (J)	<0.015	<0.015	<0.015	<0.015				
9/27/2017									
9/28/2017						1.45	<0.015	1.27	0.948
2/13/2018	0.0141 (J)	<0.015	<0.015	<0.015	<0.015				
2/15/2018						2.09	<0.015	1.58	1.11
6/26/2018	0.012 (J)	0.0042 (J)	<0.015	0.0056 (J)	0.0041 (J)				
6/27/2018							0.0088 (J+X)	1.7 (J+X)	
6/28/2018						1.5			0.89
12/18/2018	0.0086 (J)	<0.015	<0.015	0.0062 (J)	<0.015				
12/19/2018							0.0045 (J)	1.8	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						1.5		1.7	
10/15/2019	0.0067 (J)	<0.015	<0.015	0.006 (J)	0.01 (J)				
10/16/2019						1.5		2.2	
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						1.6		1.9	1.1
9/15/2020	<0.015	<0.015	<0.015	<0.015	<0.015				
9/16/2020							0.0066 (J)	1.9	0.99
9/17/2020						1.4			
3/1/2021	<0.015				<0.015				
3/2/2021		0.0053 (J)	<0.015	0.0071 (J)					
3/3/2021									1
3/4/2021						1.5	<0.015	1.9	
9/21/2021		<0.015		<0.015					
9/22/2021	<0.015		<0.015		<0.015		0.02 (J)		1.1
9/23/2021						1.4		2	
2/1/2022	<0.015	<0.015	<0.015	<0.015	<0.015	1.6	0.013 (J)	2.1	1
2/2/2022									
8/23/2022	0.00592 (J)	<0.015	0.00532 (J)	0.00538 (J)	<0.015	1.67			
8/24/2022							0.0273	2.23	1.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/30/2022 4:18 PM 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	1.15		
9/8/2016		1.89	
11/15/2016			
11/16/2016			
11/17/2016	1.08	2.17	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	1.44	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	1.16	2.45	
6/15/2017			<0.015
9/26/2017			
9/27/2017	1.04	2.4	
9/28/2017			<0.015
2/13/2018			
2/15/2018	1.22	2.55	<0.015
6/26/2018			
6/27/2018	0.96 (J+X)	2.2 (J+X)	
6/28/2018			<0.015 (X)
12/18/2018	1.2	2.2	
12/19/2018			<0.015
12/20/2018			
3/19/2019			
3/20/2019	1.3	2.3	0.004 (J)
10/15/2019			
10/16/2019	1.1	2.3	0.0055 (J)
10/17/2019			
12/3/2019			
3/3/2020			
3/5/2020	1.5	2.1	0.0076 (J)
9/15/2020			
9/16/2020	1.1	2.2	0.0062 (J)
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	1.1	2.1	<0.015
3/4/2021			
9/21/2021			
9/22/2021	1.1	2.2	
9/23/2021			<0.015
2/1/2022	1.1	2.2	
2/2/2022			0.032 (J)
8/23/2022	0.975		<0.015
8/24/2022		2.45	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2022 4:18 PM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-35S	BRGWC-36S
8/31/2016	12.6	13.5	4.09	19.6					
9/1/2016					3.3				
9/7/2016						45.9	26.3	54.1	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		13.9		21.1	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	13.7		21.5	3.11				
6/13/2017			3.84						
6/14/2017									
6/15/2017						45.3	29	61.3	53.8
9/26/2017	14.3	14.4	3.31	24	3.15				
9/27/2017									
9/28/2017						45.1	34.1	60.8	51.8
2/13/2018	<25	<25	3.94	<25	3.65				
2/15/2018						45.3	33.8	56.6	50.1
6/26/2018	16 (J)	13.5 (J)	3.6	23.5 (J)	3.3		34.1	66.2	
6/27/2018									
6/28/2018						45.9			51
12/18/2018	14.5 (J)	16.4 (J)	3.8	19.8 (J)	3.5				
12/19/2018							33.1	64.4	57.1
12/20/2018						41.8			
3/19/2019	14.3 (JD)	12.3 (J)	3.9	21.4 (J)	3.6		31.6		49.5
3/20/2019						38.2		61.8	
10/15/2019	15.1	14.4	3.7	20	3.5				
10/16/2019						38.4		61.2	
12/3/2019							37.7		47.8
3/3/2020	20	14.9	4	23.2	5		29.7		
3/5/2020						39.8		69.9	51.7
9/15/2020	14.1	12.7	3.9	16.8	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		13.2	4	16.8					
3/3/2021									53
3/4/2021						41	41.2	71.8	
9/21/2021		14.1		19.1					
9/22/2021	15.9		4.3		4.1		36.4		53.7
9/23/2021						36.8		70.5	
2/1/2022	14.4	14.5	4.4	19.1	4.2	37.8	41.5	73.8	49.7
2/2/2022									
8/23/2022	13.9	14.3	4.65	18.2	3.97	37.1			
8/24/2022							43.6	68.5	48.1

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2022 4:18 PM 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	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2022 4:18 PM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-35S	BRGWC-36S
8/31/2016	2.3	4.4	2	3.6					
9/1/2016					2.5				
9/7/2016						5.8	3.7	5.8	3.1
9/8/2016									
11/15/2016				4	2.3				
11/16/2016	2	4.4	1.8						
11/17/2016							4.05 (D)	6.1 (D)	
11/18/2016									3.95 (D)
11/21/2016						5.05 (D)			
2/20/2017		4.8		3.9	2.4				
2/21/2017	2		1.8						
2/22/2017							3.6	5.6	
2/23/2017						4.1			3.2
4/17/2017									
5/15/2017									
6/12/2017	2.1	4.2		3.8	2.2				
6/13/2017			1.7						
6/14/2017									
6/15/2017						4.8	3.7	5.8	4
9/26/2017	2	4.4	1.8	4.1	2.3				
9/27/2017									
9/28/2017						6.7	4.1	6.2	4.6
2/13/2018	2.1	4.7	1.7	4.1	2.3				
2/15/2018						8	5.3	6.2	5.4
6/26/2018	2.4	4.5	2.2	4.1	2.6				
6/27/2018							4.2	5.9	
6/28/2018						5.5 (J-X)			9 (J-X)
12/18/2018	1.8	4.5	1.9	3.8	2.3				
12/19/2018							4.9 (J-X)	6.2 (J-X)	6.2 (J-X)
12/20/2018						8 (J-X)			
3/19/2019	2.45 (D)	4.5	2	4.2	2.6		5		7.1
3/20/2019						6.6		6.6	
10/15/2019	2.2	4.2	1.9	3.7	2.4				
10/16/2019						6.4		6.6	
12/3/2019							4.8		7.7
3/3/2020	1.9	3.9	1.9	3.6	2.9		3.8		
3/5/2020						5.8		5.8	7.6
9/15/2020	1.9	3.7	1.7	3.7	2.3				
9/16/2020							4.2	6	7.9
9/17/2020						6.1			
3/1/2021	1.8				2.1				
3/2/2021		3.8	1.7	3.7					
3/3/2021									8.1
3/4/2021						5.6	4.6	5.8	
9/21/2021		3.2		3.2					
9/22/2021	1.7		1.5		2.1		4.6		7.1
9/23/2021						6		6.1	
2/1/2022	1.8	3.5	1.6	3.4	2.1	5.8	4.9	6	7.6
2/2/2022									
8/23/2022	2.02	3.64	2.18	3.59	2.39	6.42			
8/24/2022							5	6.53	7.96

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2022 4:18 PM 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	5.3		
9/8/2016		7.2	
11/15/2016			
11/16/2016			
11/17/2016	5.45 (D)	7.8 (D)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	0.12 (J)	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	4.5	7.3	
6/15/2017			1.9
9/26/2017			
9/27/2017	5.4	7.6	
9/28/2017			1.9
2/13/2018			
2/15/2018	6.3	7.2	2.3
6/26/2018			
6/27/2018	4.5	7.1	
6/28/2018			2.1 (J-X)
12/18/2018	6.1	7.1	
12/19/2018			1.9 (J-X)
12/20/2018			
3/19/2019			
3/20/2019	6.2	6.9	2.3
10/15/2019			
10/16/2019	5.4	7.3	2.3
12/3/2019			
3/3/2020			
3/5/2020	4.8	6.4	1.8
9/15/2020			
9/16/2020	4.1	6.6	1.8
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	3.9	6.4	1.9
3/4/2021			
9/21/2021			
9/22/2021	2.7	5.6	
9/23/2021			1.9
2/1/2022	13.1	5.9	
2/2/2022			1.8
8/23/2022	30.3		1.97
8/24/2022		6.17	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/30/2022 4:18 PM 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 9/30/2022 4:18 PM 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

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/30/2022 4:18 PM 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 9/30/2022 4:18 PM 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	

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 9/30/2022 4:18 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-36S	BRGWC-38S
8/23/2022	6.67	6.24	5.95	6.36	6.51		4.67		3.97
8/24/2022						6.62		5.59	

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 9/30/2022 4:18 PM 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 9/30/2022 4:18 PM 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	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2022 4:18 PM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-35S	BRGWC-36S
8/31/2016	7.5	2.7	0.38 (J)	0.81 (J)					
9/1/2016					0.6 (J)				
9/7/2016						440	97	260	300
9/8/2016									
11/15/2016				<1 (J)	0.68 (J)				
11/16/2016	6.6	3.4	<1 (J)						
11/17/2016							120 (D)	285 (D)	
11/18/2016									245 (D)
11/21/2016						490 (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	270	
2/23/2017						470			330
4/17/2017									
5/15/2017									
6/12/2017	5	3.7		0.94 (J)	0.54 (J)				
6/13/2017			0.67 (J)						
6/14/2017									
6/15/2017						490	130	280	310
9/26/2017	5.4	4.1	0.62 (J)	0.92 (J)	0.53 (J)				
9/27/2017									
9/28/2017						470	120	240	290
2/13/2018	4.7 (J)	6.6	<1	<1	<1				
2/15/2018						432	109	266	292
6/26/2018	6.2	3.5	0.69 (J)	0.91 (J)	0.54 (J)				
6/27/2018							118	278	
6/28/2018						453			284
12/18/2018	5.9	4.3	0.72 (J)	0.68 (J)	0.39 (J)				
12/19/2018							125	287	319
12/20/2018						463			
3/19/2019	6 (D)	3	0.78 (J)	0.74 (J)	0.68 (J)		126		307
3/20/2019						405		268	
10/15/2019	5.2	3.8	0.47 (J)	0.68 (J)	0.48 (J)				
10/16/2019						432		277	
12/3/2019							180		256
3/3/2020	7.1	2.8	0.93 (J)	0.71 (J)	2.5		95.4		
3/5/2020						370		269	262
9/15/2020	5.9	1.7	<1	<1	<1				
9/16/2020							151	270	256
9/17/2020						356			
3/1/2021	4.7				0.74 (J)				
3/2/2021		2.2	<1	<1					
3/3/2021									252
3/4/2021						325	122	251	
9/21/2021		2.3		<1					
9/22/2021	5.2		<1		<1		123		234
9/23/2021						318		258	
2/1/2022	5.4	2	<1	<1	<1	287	139	256	195
2/2/2022									
8/23/2022	5.66	2.21	0.452	0.521	0.479	389			
8/24/2022							157	279	224

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2022 4:18 PM 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	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2022 4:18 PM View: Pond E - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-35S	BRGWC-36S
8/31/2016	151	138	88	154					
9/1/2016					299				
9/7/2016						750	331	486	528
9/8/2016									
11/15/2016				123	41				
11/16/2016	69	77	41						
11/17/2016							308	453	
11/18/2016									524
11/21/2016						795			
2/20/2017		170		158	133				
2/21/2017	68		<10						
2/22/2017							341	541	
2/23/2017						733			517
4/17/2017									
5/15/2017									
6/12/2017	161	132		142	61				
6/13/2017			53						
6/14/2017									
6/15/2017						812	333	548	566
9/26/2017	167	108	45	138	29				
9/27/2017									
9/28/2017						690	310	487	475
2/13/2018	165	141	63	150	61				
2/15/2018						722	292	500	513
6/26/2018	188	133	71	154	71				
6/27/2018							353 (X)	347 (X)	
6/28/2018						704			499
12/18/2018	145 (X)	138 (X)	78 (X)	147	70 (X)				
12/19/2018							317	489	521
12/20/2018						642			
3/19/2019	146.5 (D)	130	68	146	72		303		498
3/20/2019						615		501	
10/15/2019	140	175	66	144	63				
10/16/2019						630		481	
12/3/2019							378		498
3/3/2020	155	<10	41	130	54		263		
3/5/2020						608		535	457
9/15/2020	116	100	69	116	79				
9/16/2020							316	474	463
9/17/2020						587			
3/1/2021	98				39				
3/2/2021		80	43	96					
3/3/2021									442
3/4/2021						540	316	480	
9/21/2021		108		104					
9/22/2021	129		66		62		323		457
9/23/2021						528		511	
2/1/2022	126	129	72	124	61	560	354	521	441
2/2/2022									
8/23/2022	117	107	45	101	52	568			
8/24/2022							370	507	418

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2022 4:18 PM 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	382		
9/8/2016		663	
11/15/2016			
11/16/2016			
11/17/2016	382	651	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	387	706	
2/23/2017			45
4/17/2017			53
5/15/2017			48
6/12/2017			
6/13/2017			
6/14/2017	316	643	
6/15/2017			63
9/26/2017			
9/27/2017	303	579	
9/28/2017			39
2/13/2018			
2/15/2018	332	612	54
6/26/2018			
6/27/2018	538 (X)	359 (X)	
6/28/2018			59 (X)
12/18/2018	358	535	
12/19/2018			68
12/20/2018			
3/19/2019			
3/20/2019	338	517	68 (X)
10/15/2019			
10/16/2019	281	473	49
12/3/2019			
3/3/2020			
3/5/2020	292	489	39
9/15/2020			
9/16/2020	88	392	31
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	212	422	33
3/4/2021			
9/21/2021			
9/22/2021	190	406	
9/23/2021			49
2/1/2022	209	449	
2/2/2022			46
8/23/2022	614		40
8/24/2022		452	

FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-35S	0.1822	98	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1657	69	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.937	71	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.253	-82	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.655	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2006	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2582	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.8757	80	58	Yes	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1019	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.0368	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05383	-81	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1382	-105	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-32.85	-103	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-14.52	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-33.08	-85	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.658	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-49.48	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.15	-92	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.84	-96	-58	Yes	16	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.001506	18	58	No	16	25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-3	-58	No	16	87.5	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-6	-58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-8	-58	No	16	56.25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	2	58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-17S	-0.001021	-29	-63	No	17	41.18	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	-0.01268	-18	-58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0.001241	13	58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1822	98	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03171	58	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.04809	-40	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.5425	43	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.073	30	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.03321	5	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.5076	-36	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1657	69	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.937	71	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-2.525	-38	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.253	-82	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	2.067	57	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.4386	-29	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.655	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.04825	-38	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	-0.02501	-21	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2006	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07499	-48	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.01997	-21	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.1812	53	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-33S	0.1438	8	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2582	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.05257	26	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.8757	80	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1162	16	58	No	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-17	-68	No	18	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	49	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	54	68	No	18	72.22	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	-20	-68	No	18	38.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0	55	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-17S	-0.002182	-11	-68	No	18	5.556	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-36S	0	17	68	No	18	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0.008753	16	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1019	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.0368	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02765	-47	-68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05383	-81	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	0	0	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-33S	-0.01085	-46	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-34S	0.003222	10	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-36S	0	1	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-37S	0.009624	10	53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1382	-105	-68	Yes	18	0	n/a	n/a	0.01	NP

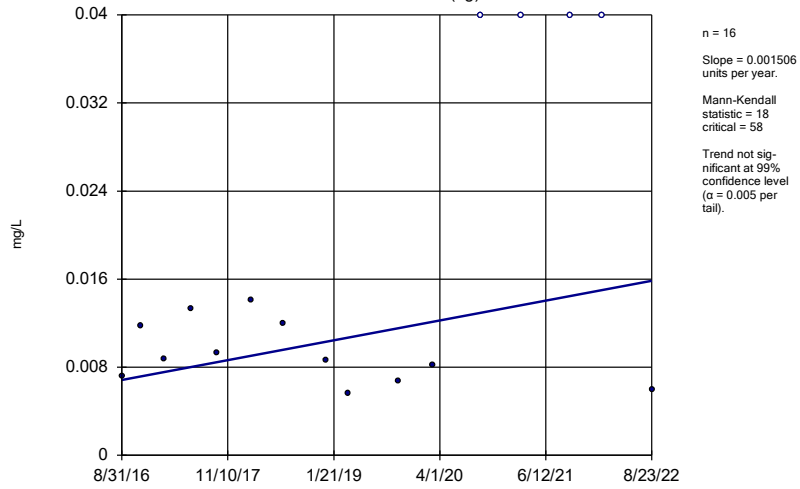
Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate (mg/L)	BRGWA-2I (bg)	-0.1382	-32	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	-0.00315	-15	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.3159	-48	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.07263	-52	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.01229	-34	-58	No	16	25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	4.317	47	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-20.1	-51	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-32.85	-103	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-1.61	-17	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-14.52	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-33.08	-85	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-6.071	-28	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.7623	11	58	No	16	6.25	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-4.462	-30	-58	No	16	6.25	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.658	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.774	-23	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-17S	2.861	19	58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-33S	-31.32	-47	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-49.48	-76	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	2.399	12	58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.15	-92	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.84	-96	-58	Yes	16	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

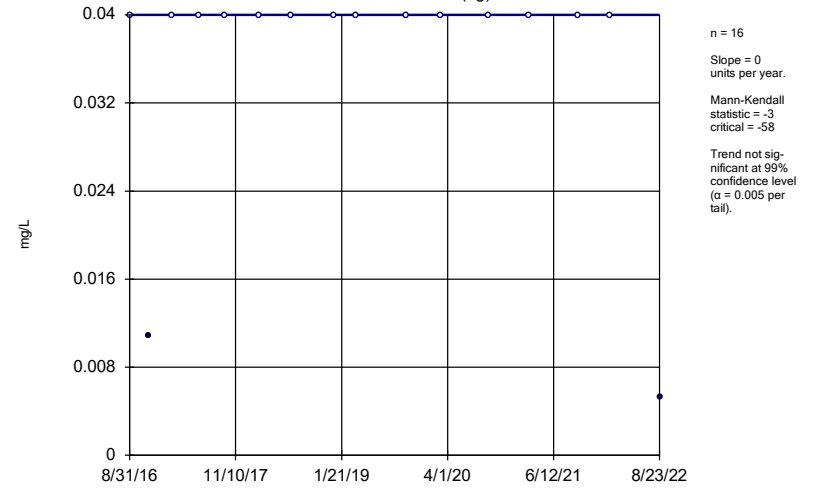
BRGWA-2I (bg)



Constituent: Boron Analysis Run 9/30/2022 4:20 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

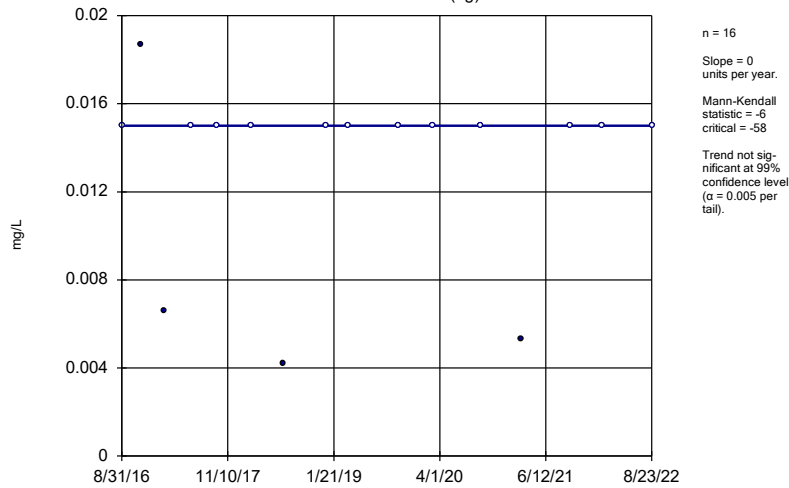
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Sen's Slope Estimator

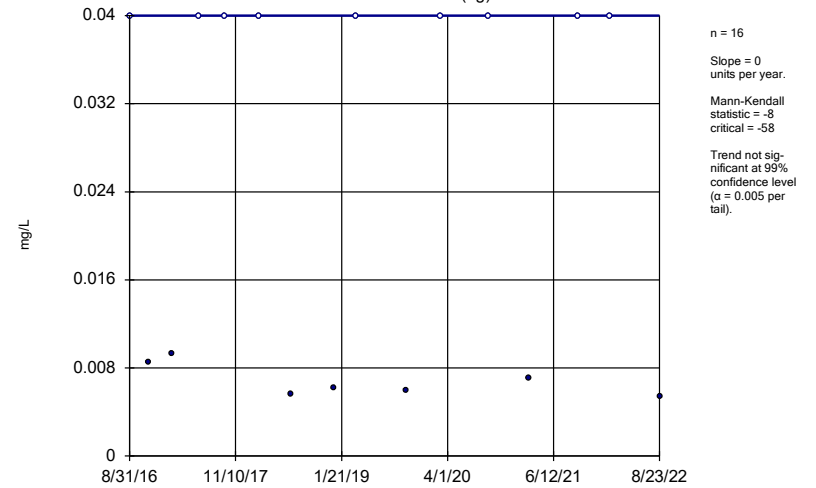
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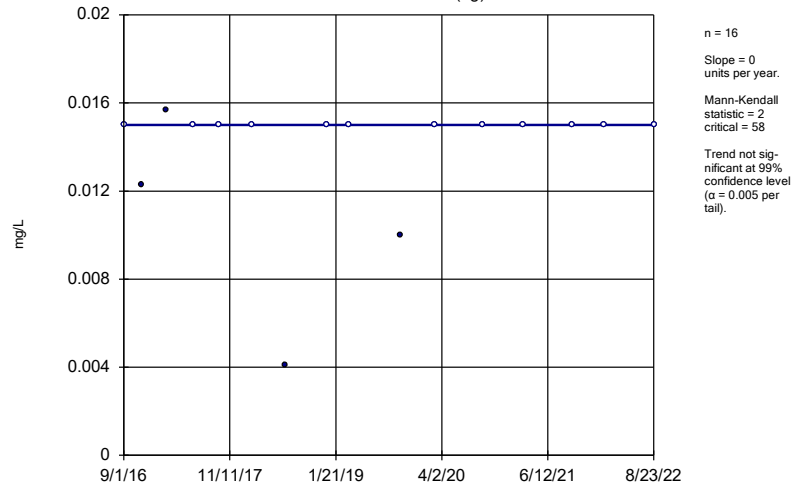
Sen's Slope Estimator

BRGWA-5S (bg)



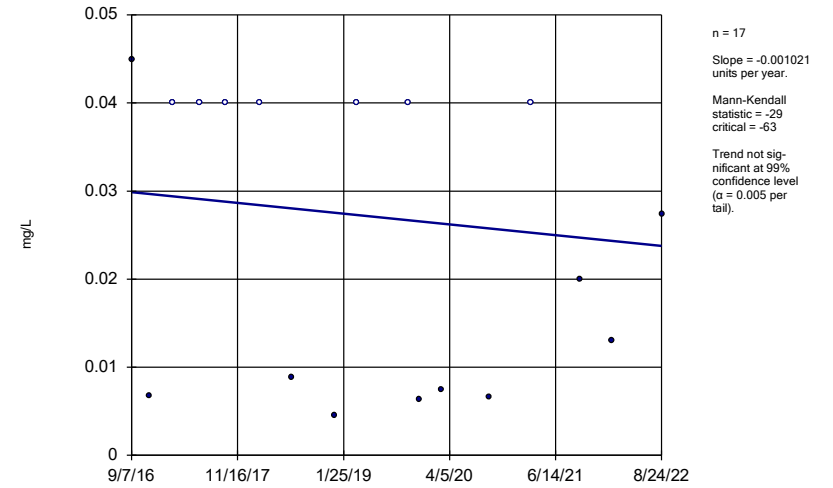
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWA-6S (bg)



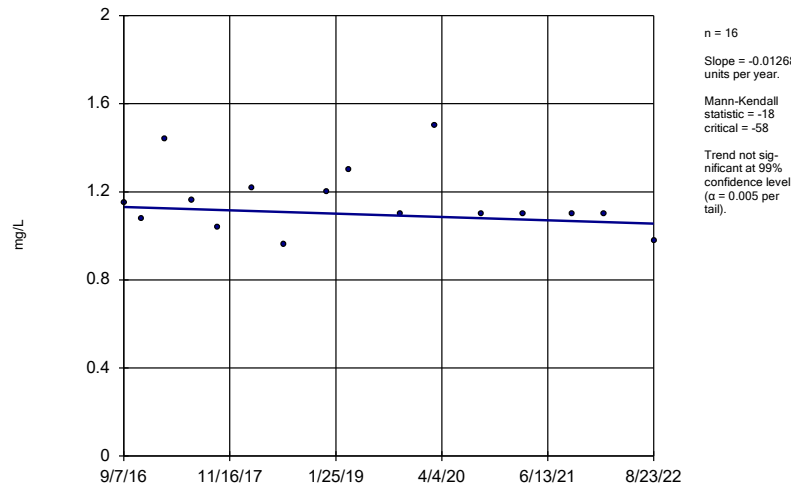
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-17S



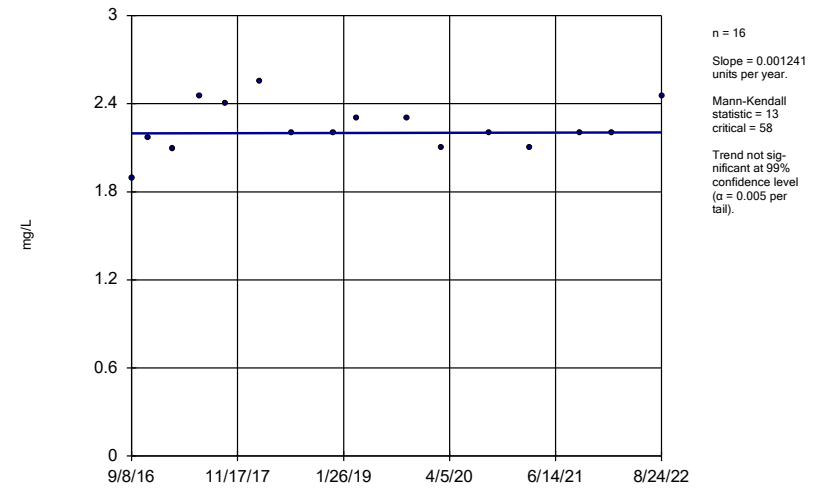
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-33S



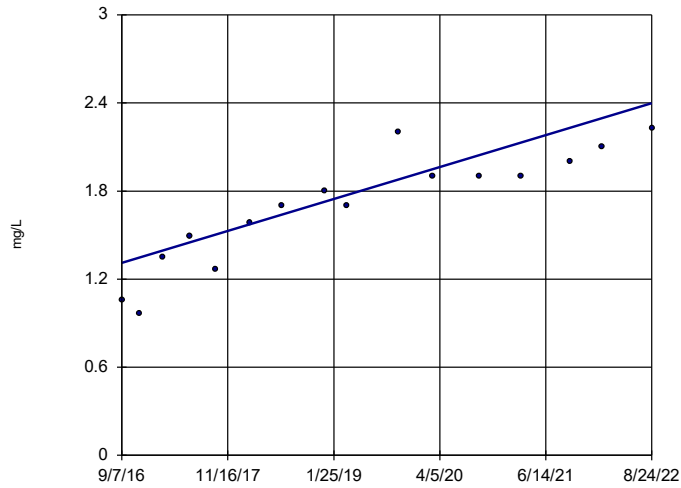
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-34S



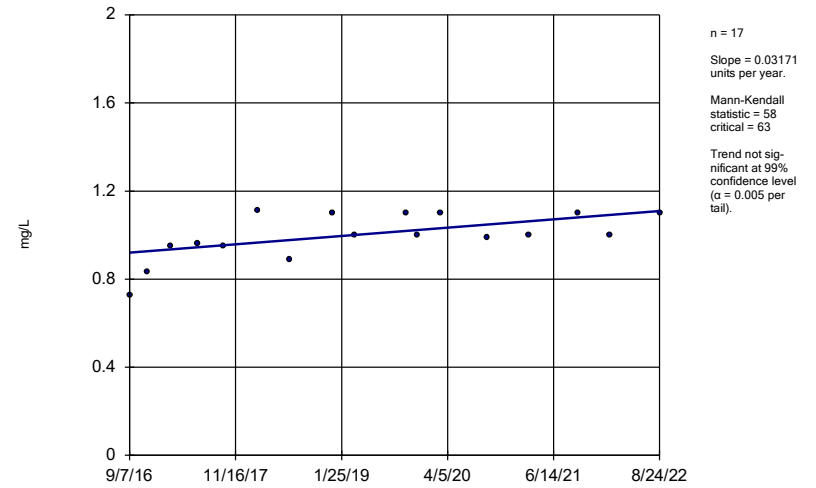
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-35S



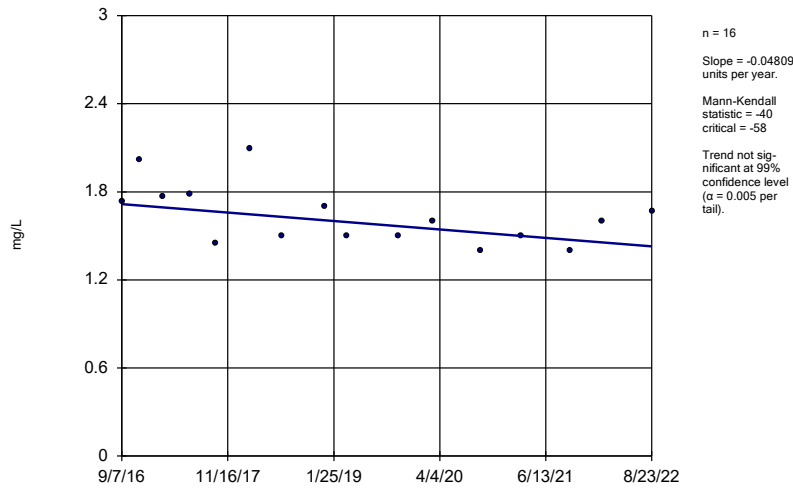
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-36S



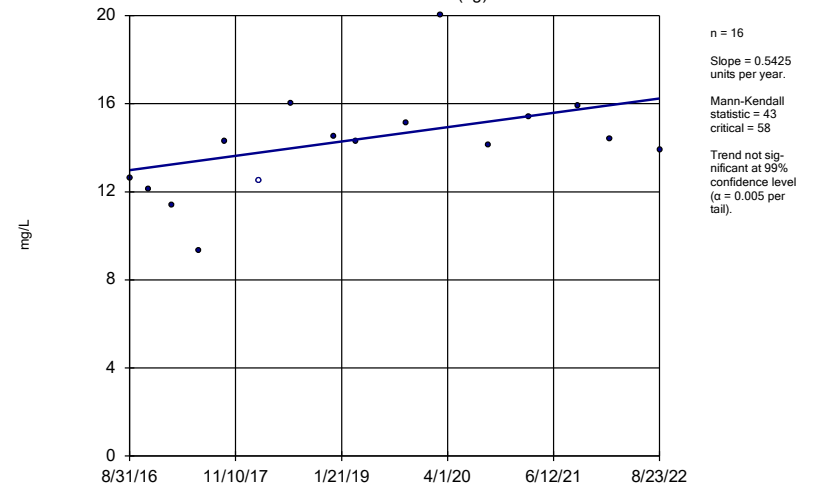
Constituent: Boron Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-38S



Constituent: Boron Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

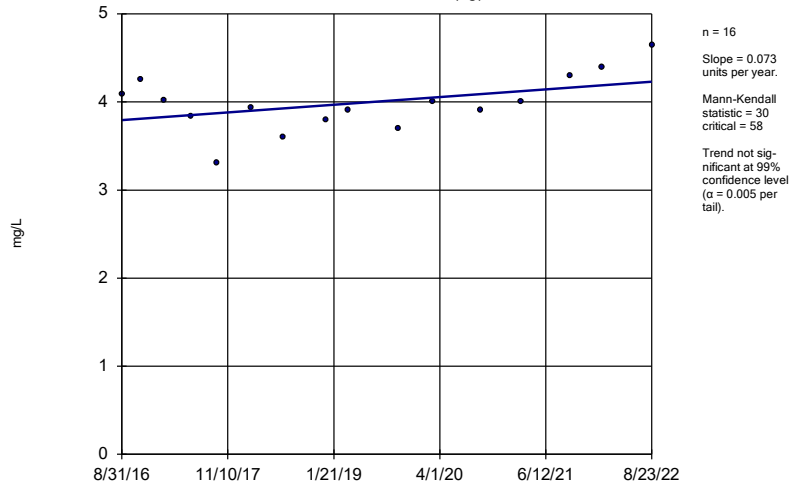
Sen's Slope Estimator
BRGWA-2I (bg)



Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

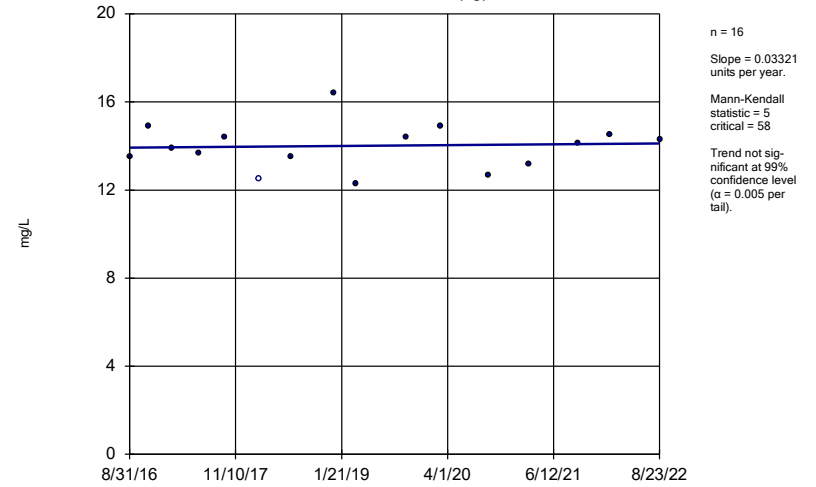
BRGWA-2S (bg)



Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

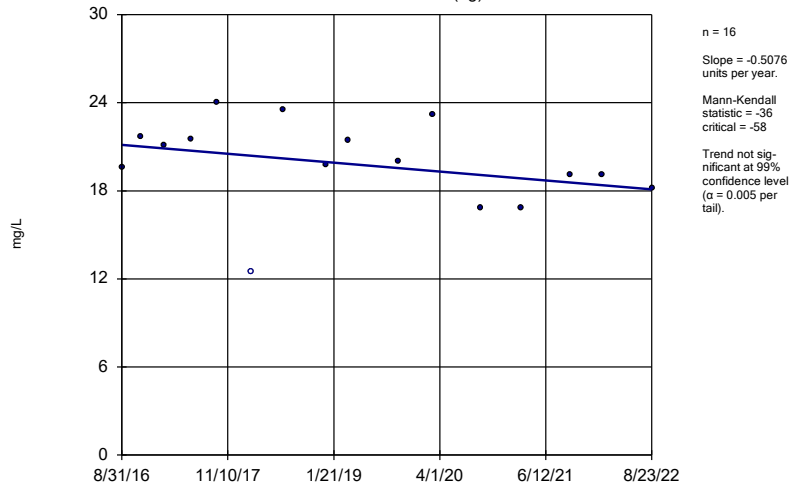
BRGWA-5I (bg)



Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

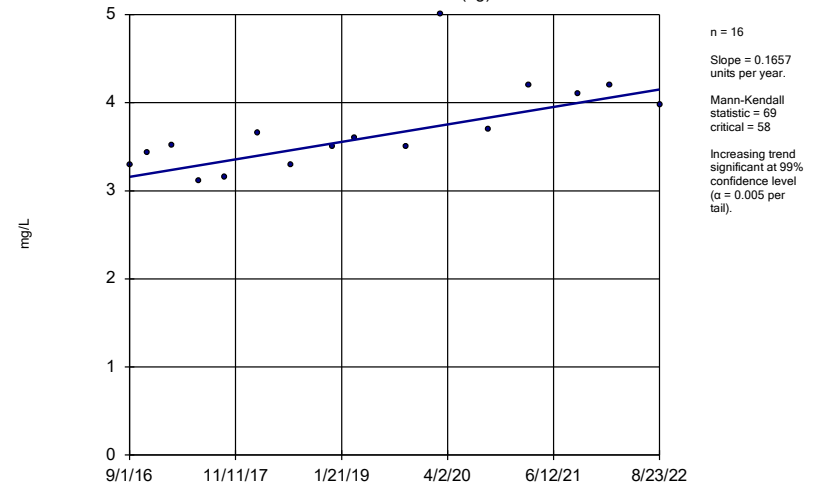
BRGWA-5S (bg)



Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

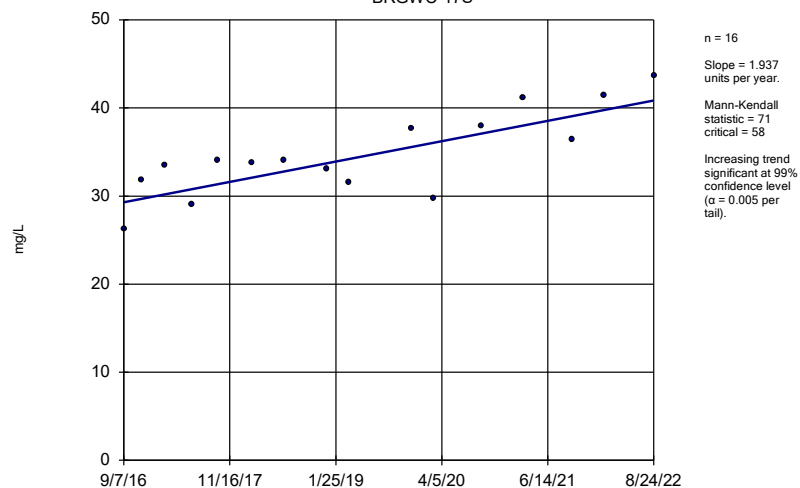
Sen's Slope Estimator

BRGWA-6S (bg)

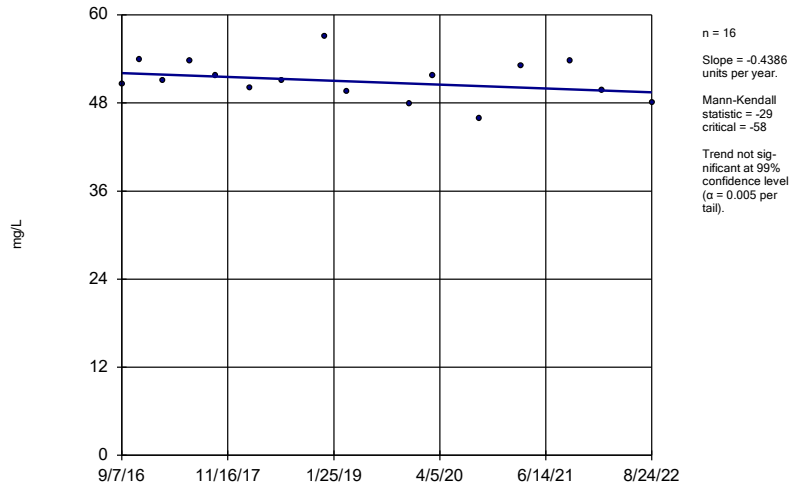


Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-17S

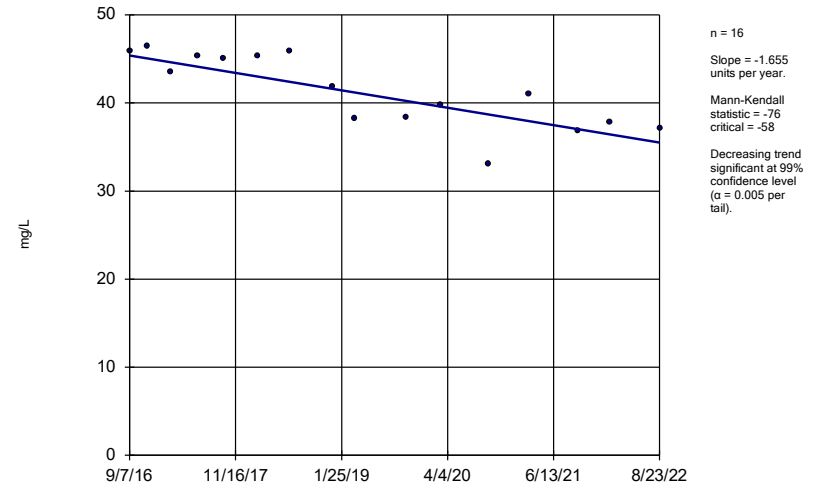


Sen's Slope Estimator
BRGWC-36S



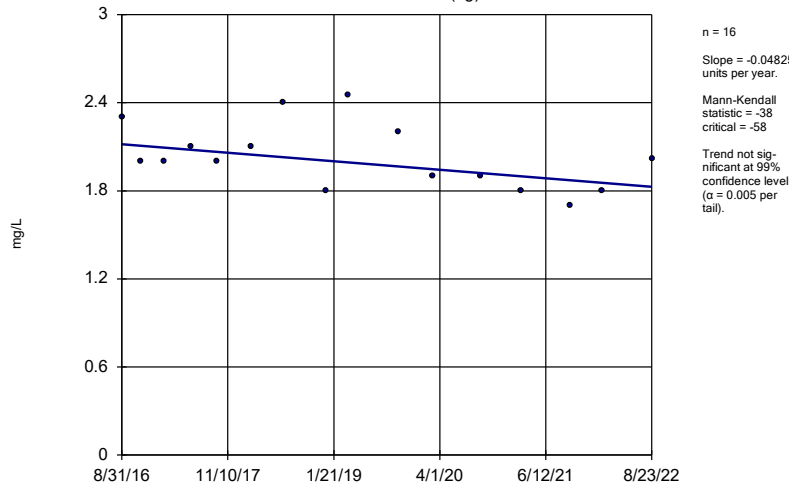
Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-38S



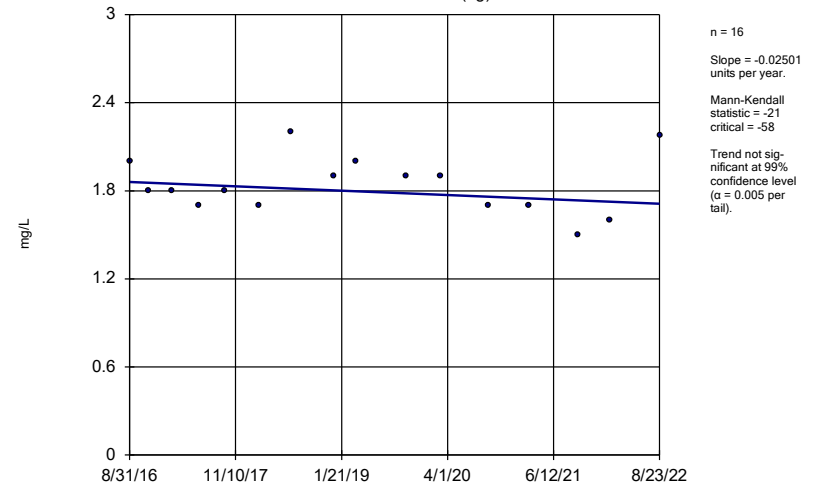
Constituent: Calcium Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-2I (bg)



Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

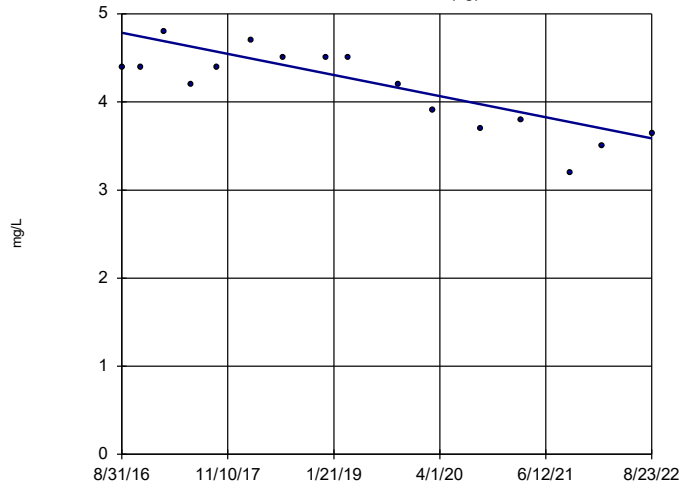
Sen's Slope Estimator
BRGWA-2S (bg)



Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

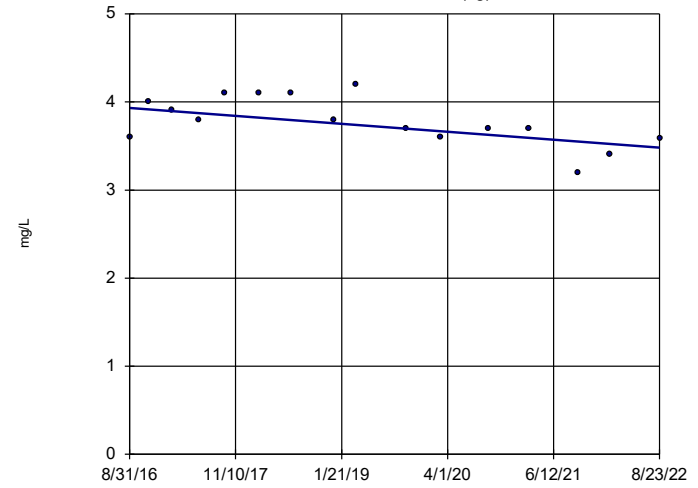


n = 16
 Slope = -0.2006
 units per year.
 Mann-Kendall
 statistic = -67
 critical = -58
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

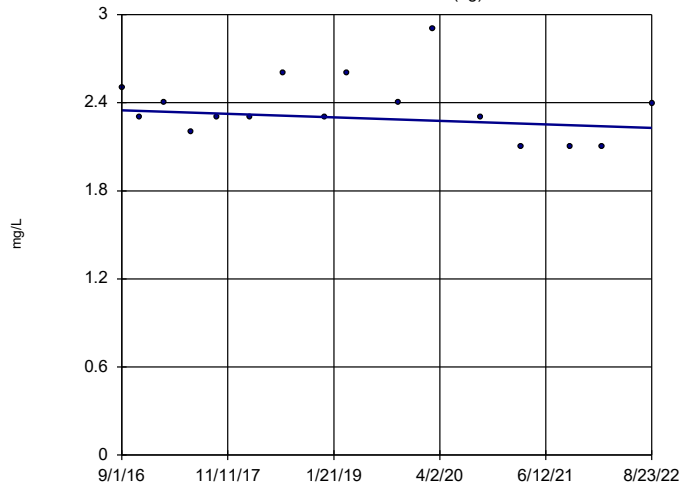


n = 16
 Slope = -0.07499
 units per year.
 Mann-Kendall
 statistic = -48
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

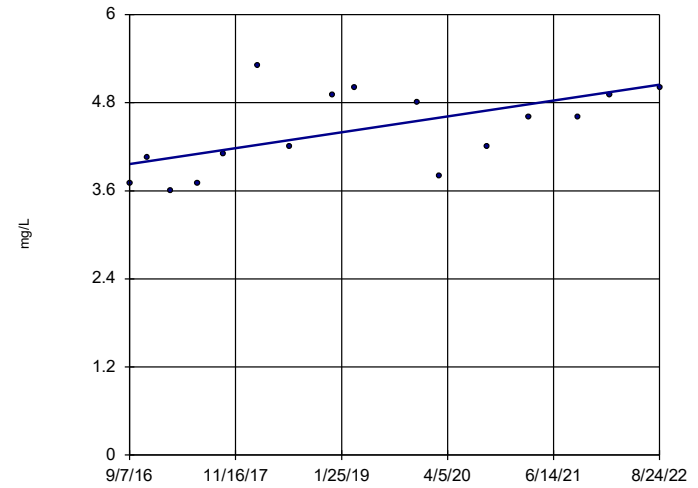


n = 16
 Slope = -0.01997
 units per year.
 Mann-Kendall
 statistic = -21
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

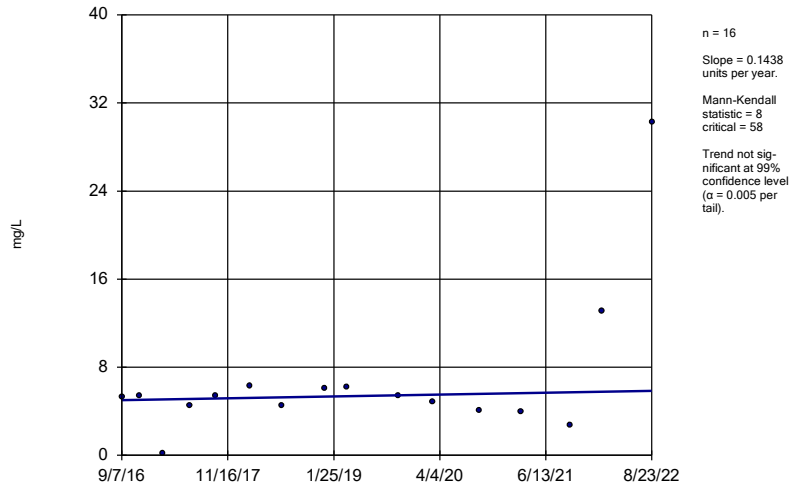
BRGWC-17S



n = 16
 Slope = 0.1812
 units per year.
 Mann-Kendall
 statistic = 53
 critical = 58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

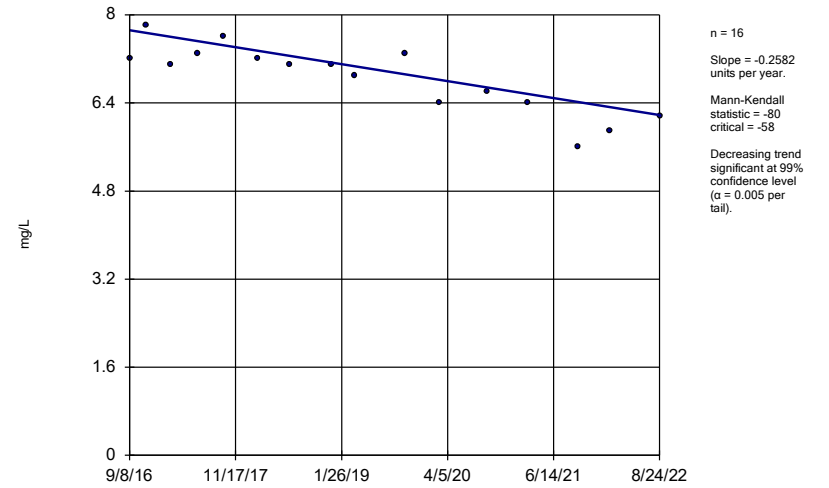
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-33S



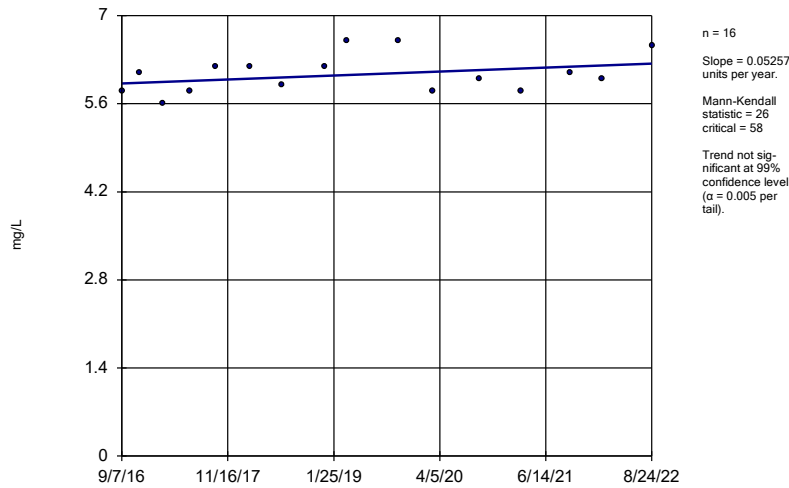
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-34S



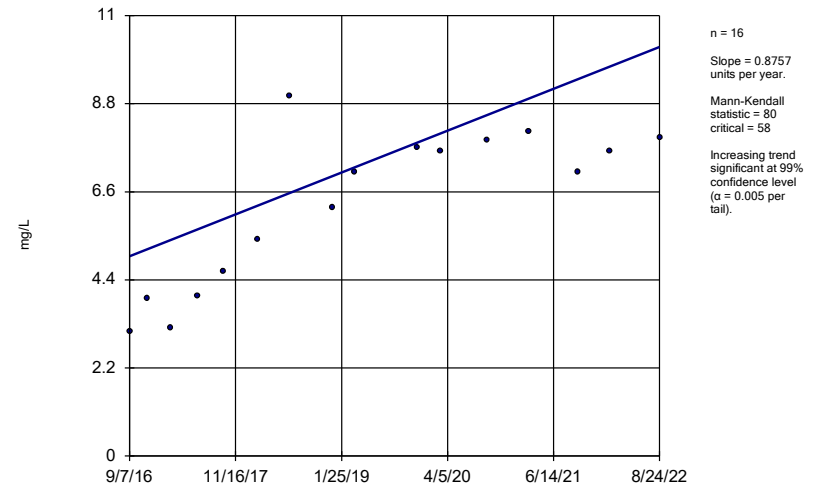
Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-35S



Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

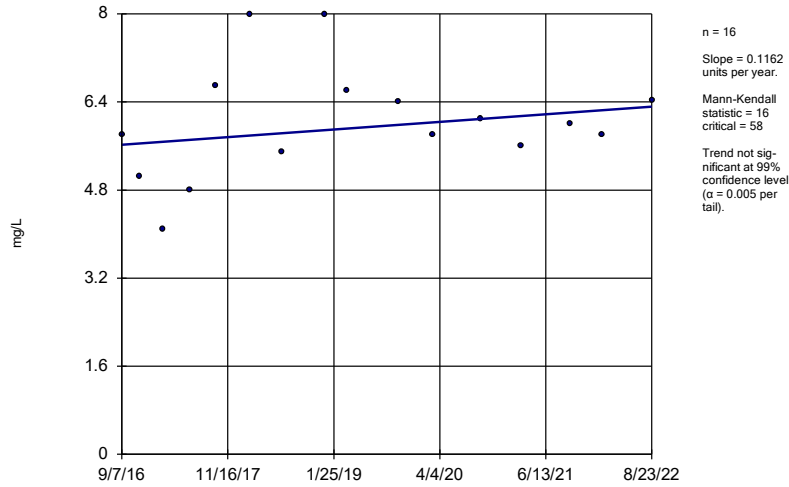
Sen's Slope Estimator
BRGWC-36S



Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

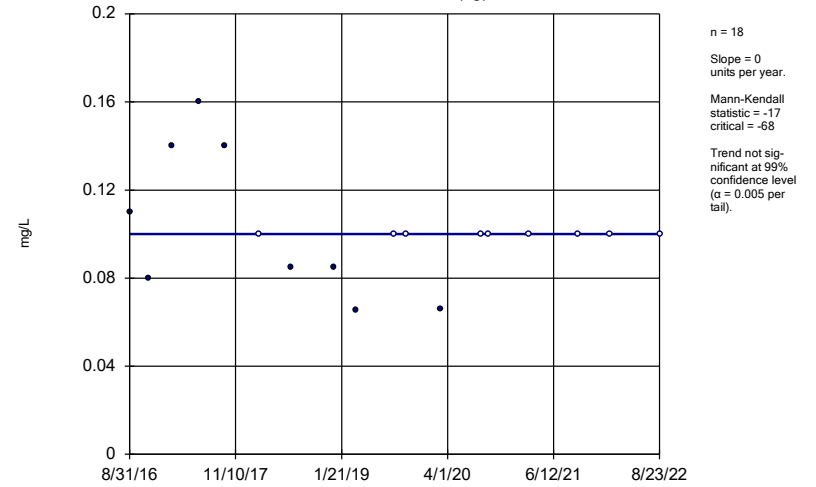


Constituent: Chloride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-2I (bg)

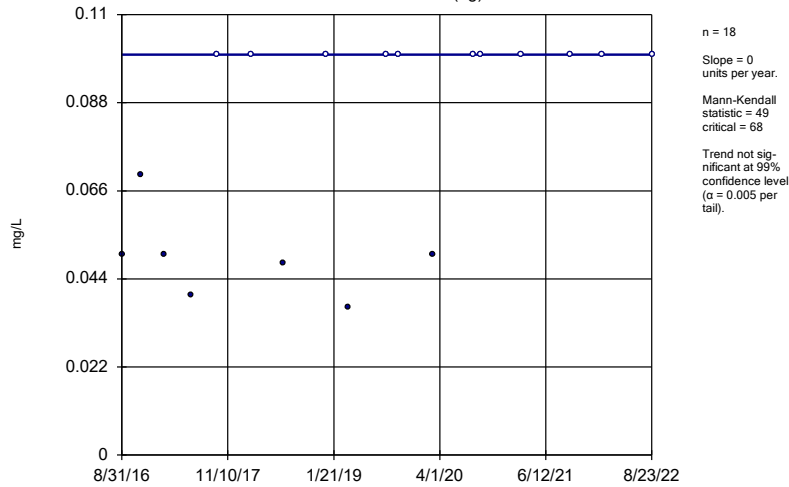


Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-2S (bg)

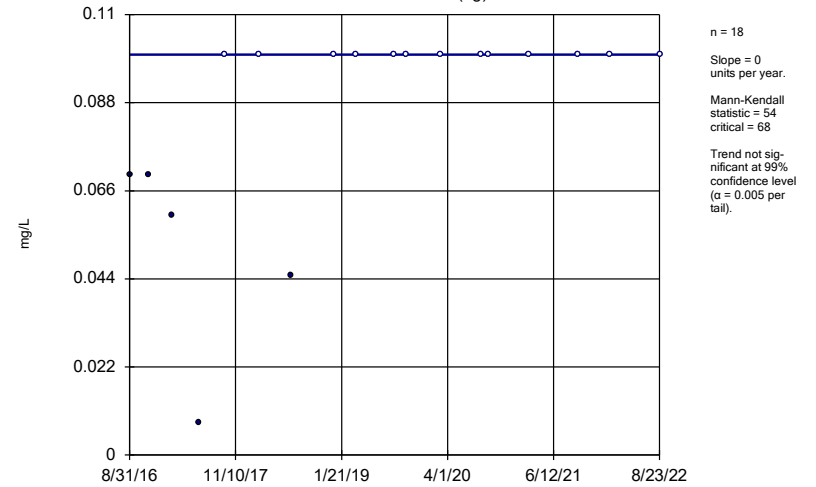


Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

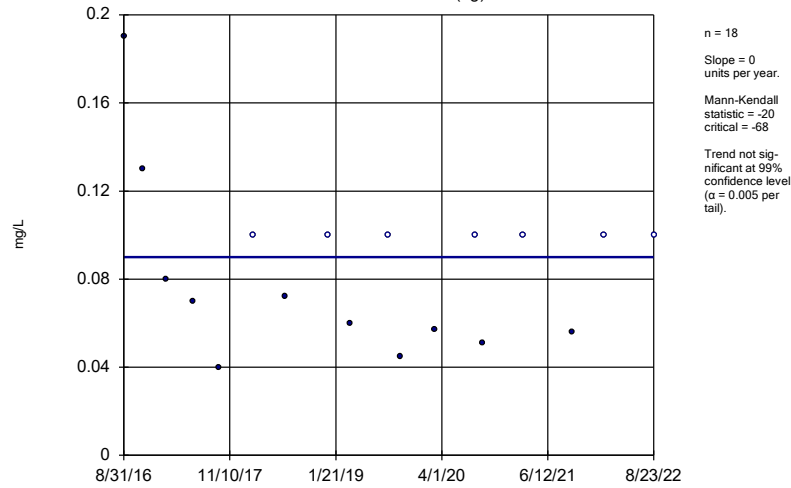
Sen's Slope Estimator

BRGWA-5I (bg)



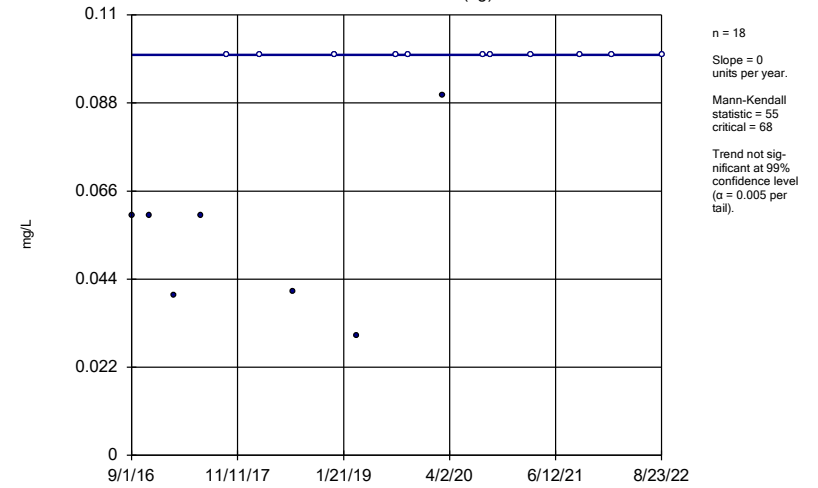
Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-5S (bg)



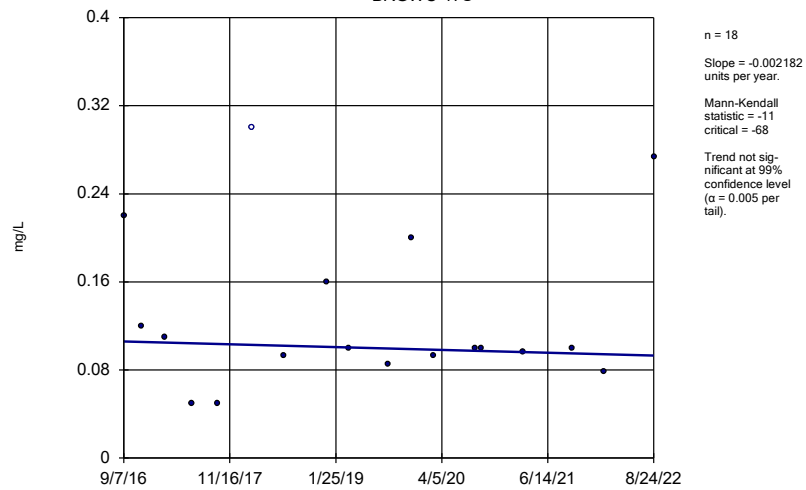
Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-6S (bg)



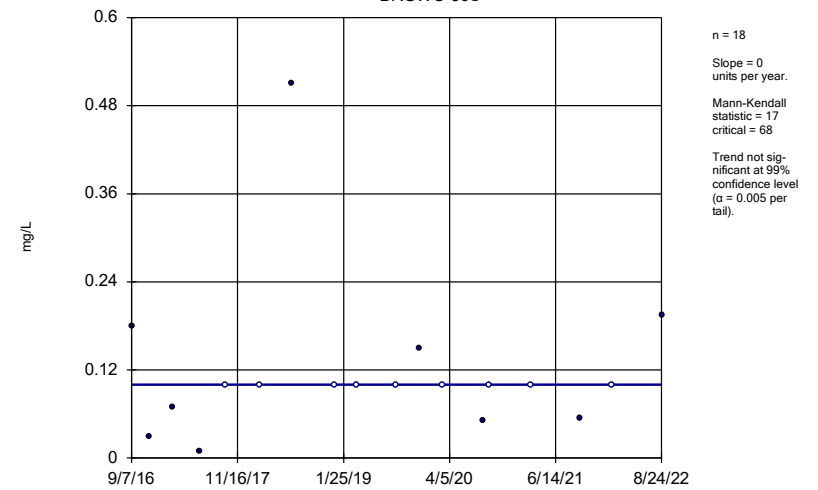
Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-17S



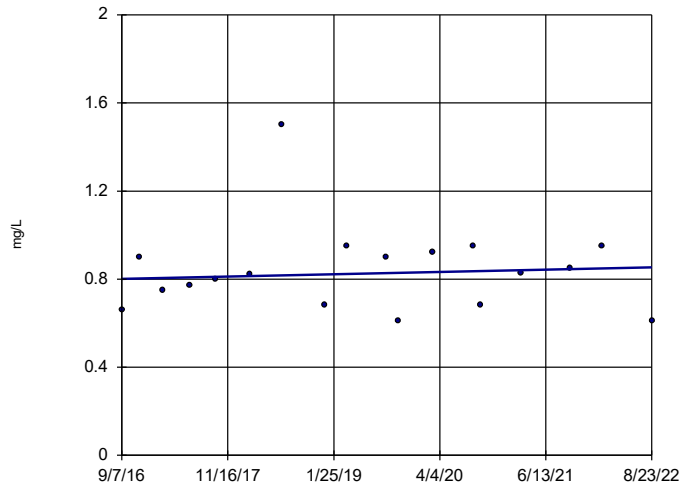
Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-36S



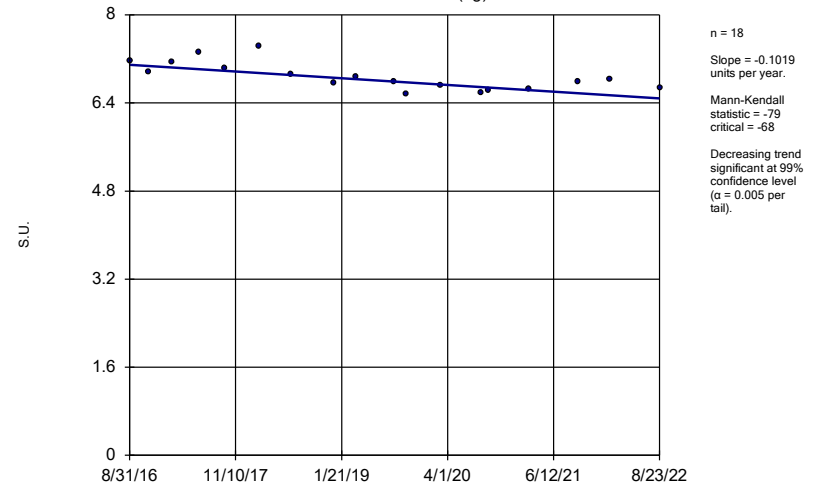
Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-38S



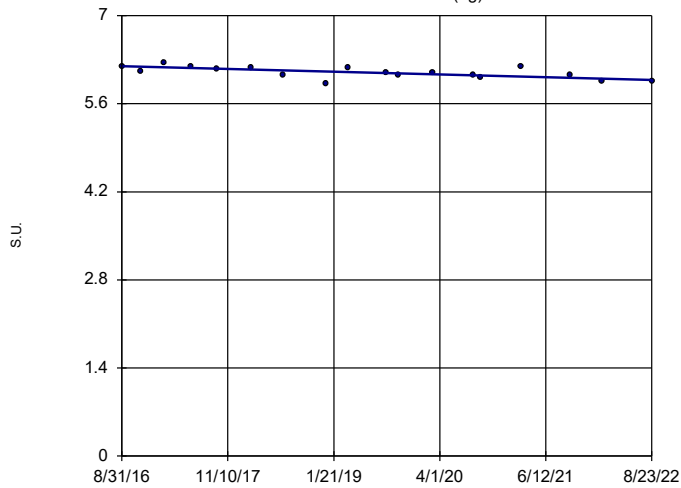
Constituent: Fluoride Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWA-2I (bg)



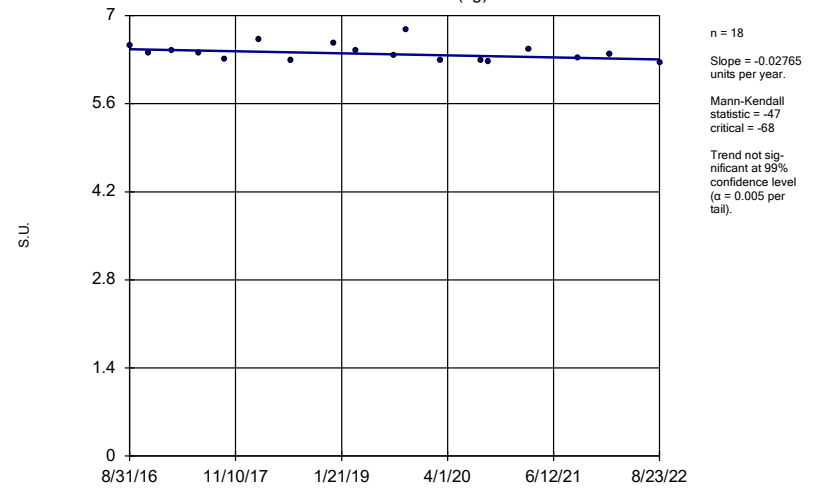
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWA-2S (bg)



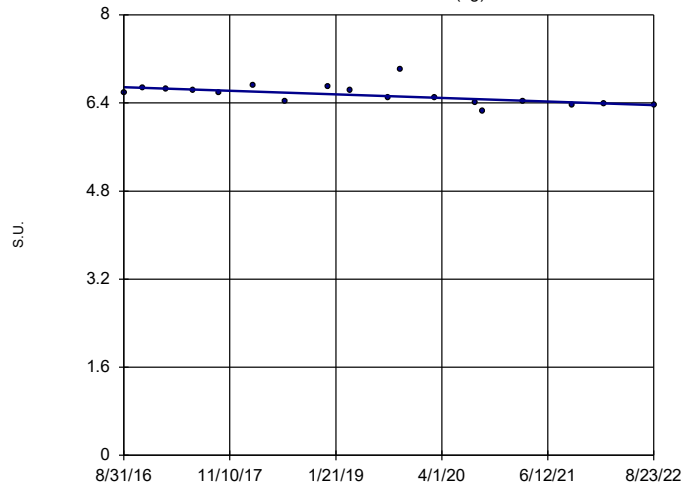
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWA-5I (bg)



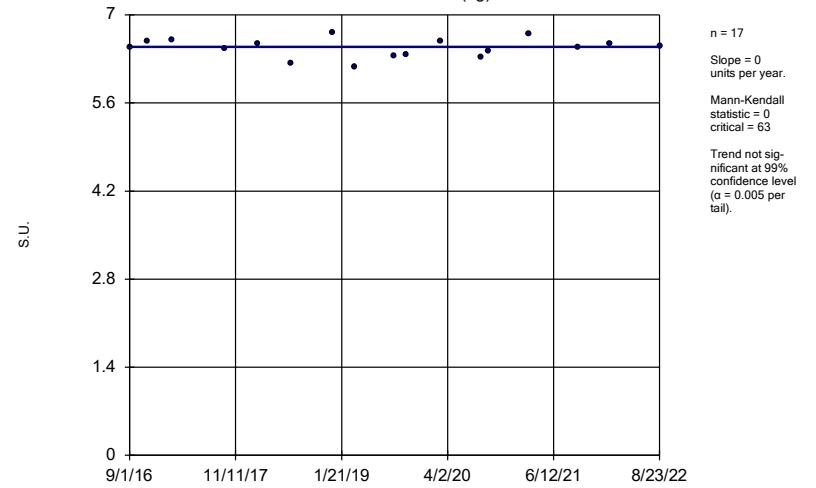
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWA-5S (bg)



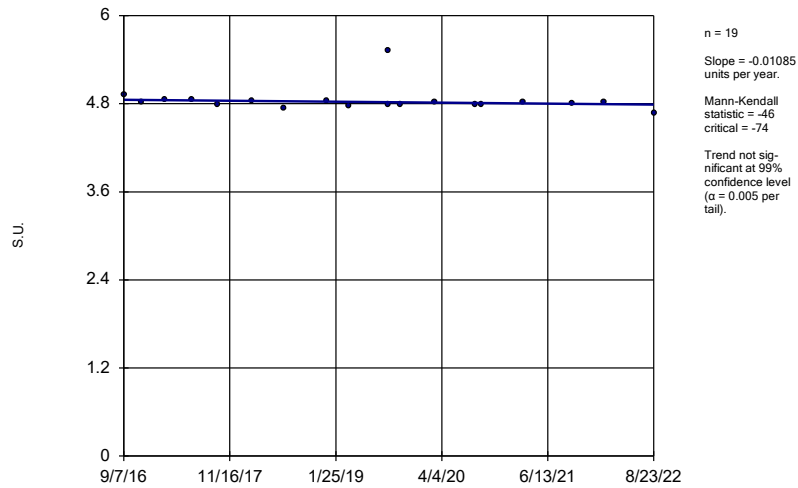
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWA-6S (bg)



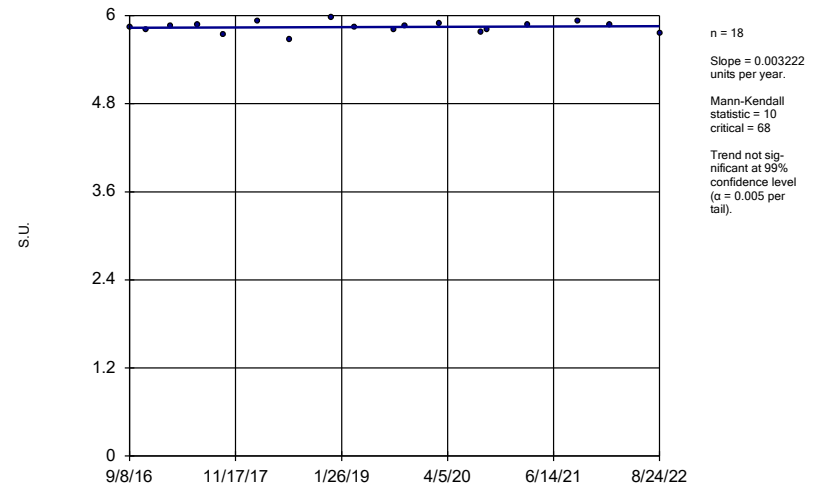
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-33S



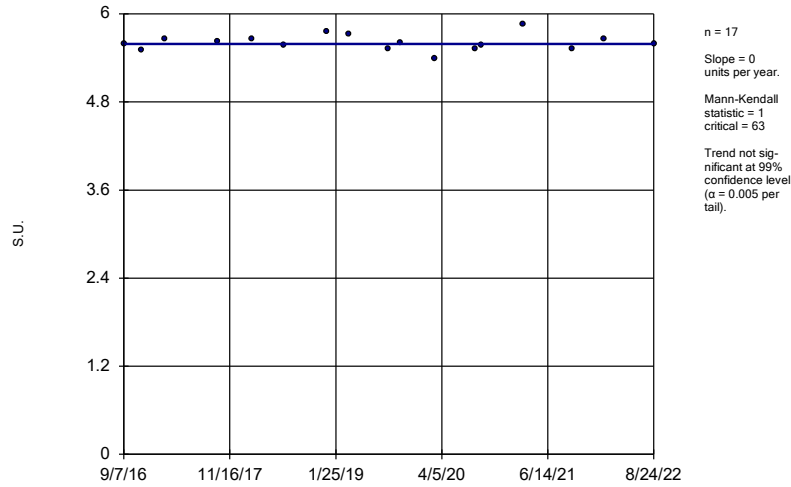
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-34S



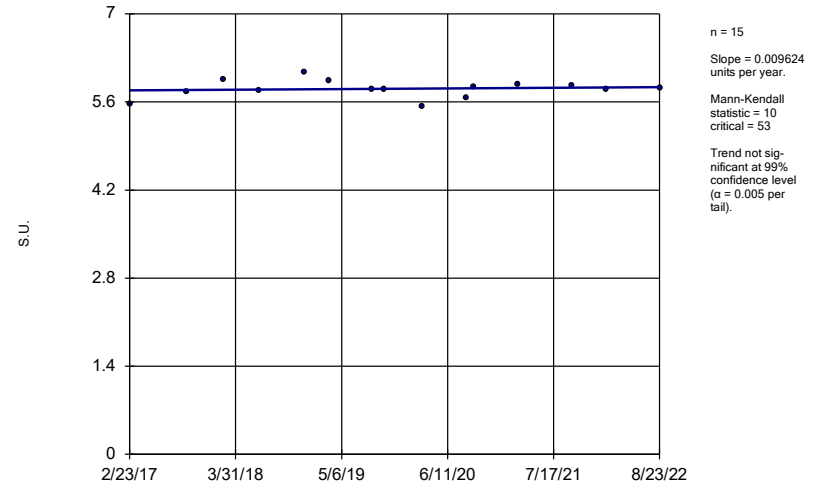
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-36S



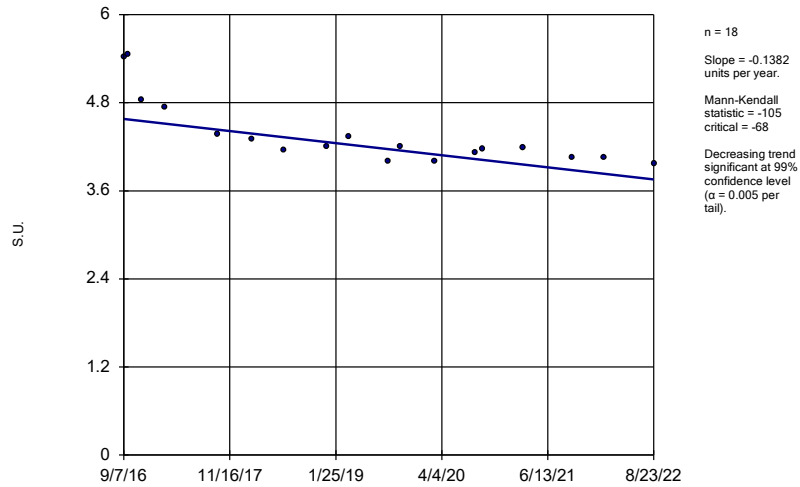
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-37S



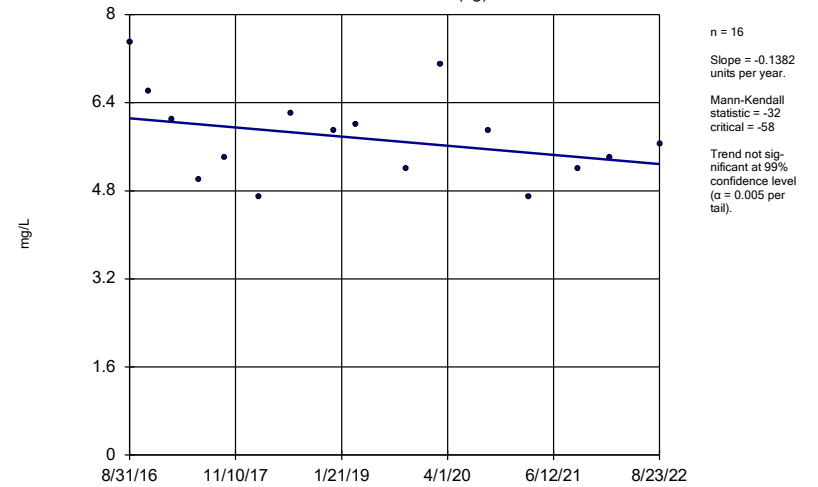
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-38S



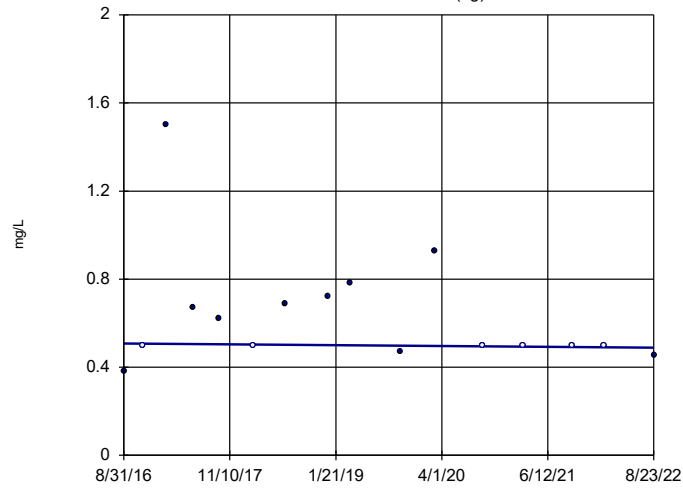
Constituent: pH, Field Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-2I (bg)



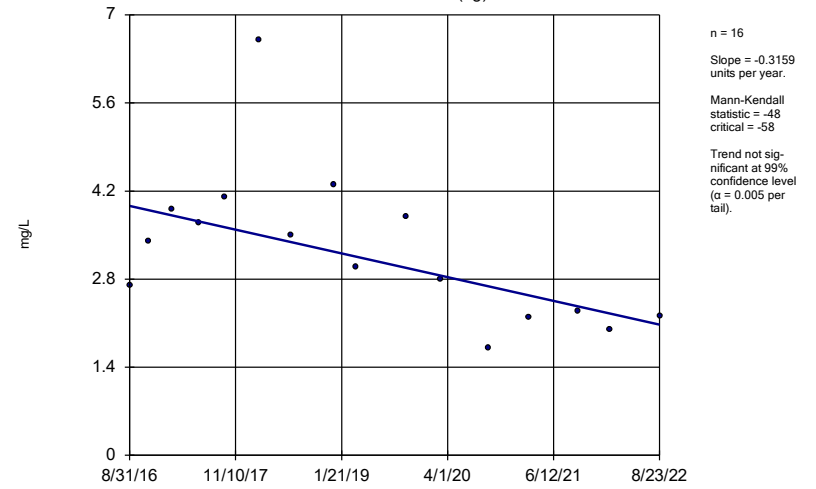
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
 BRGWA-2S (bg)



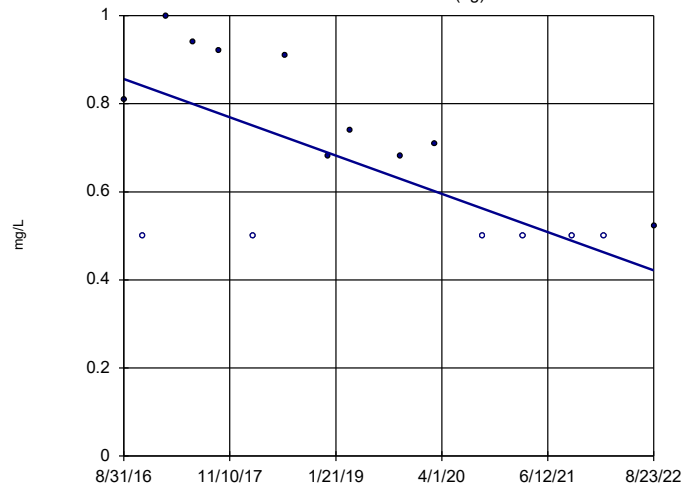
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
 BRGWA-5I (bg)



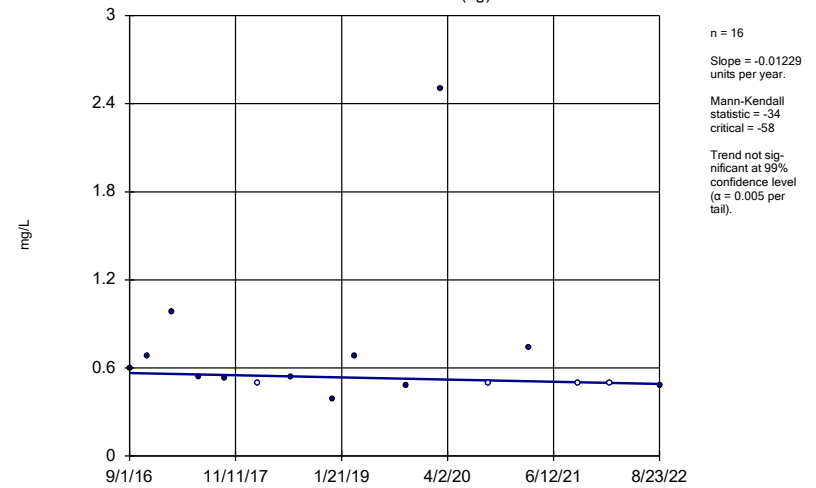
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
 BRGWA-5S (bg)



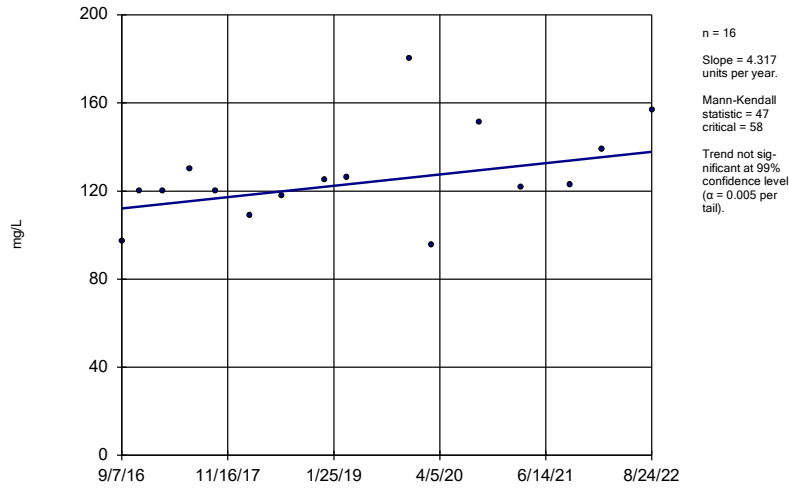
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
 BRGWA-6S (bg)



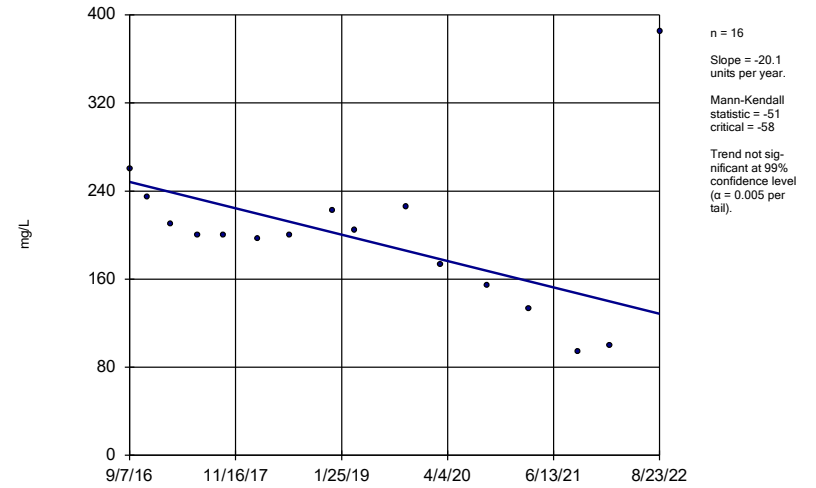
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-17S



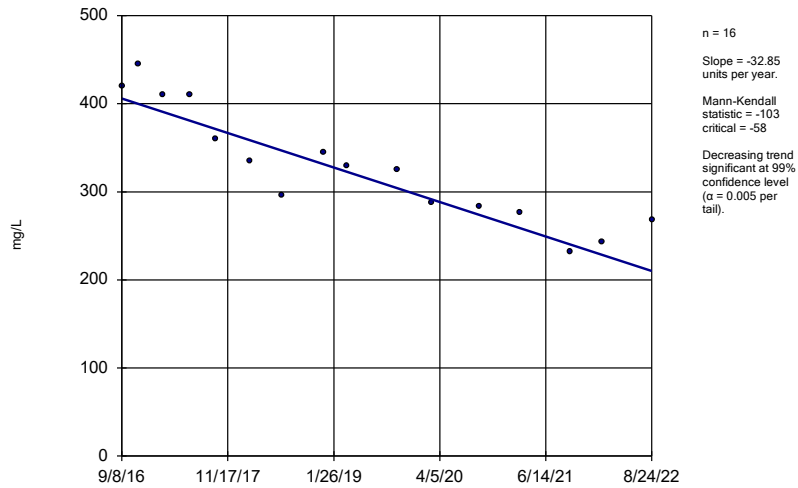
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-33S



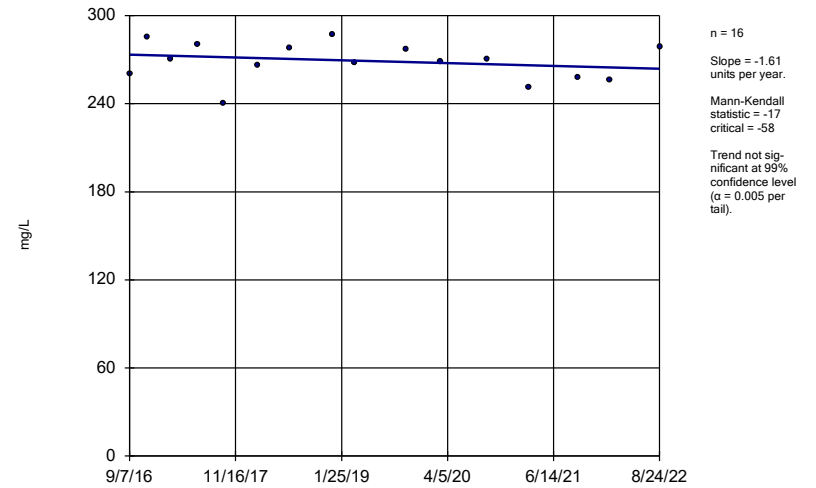
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-34S



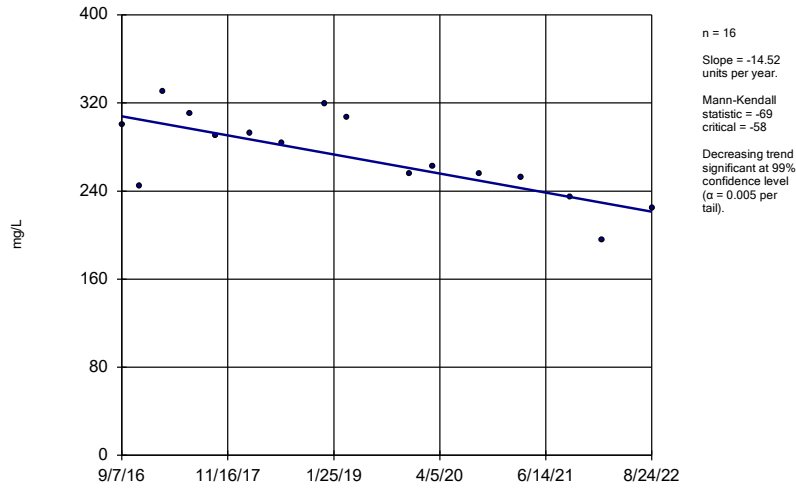
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-35S



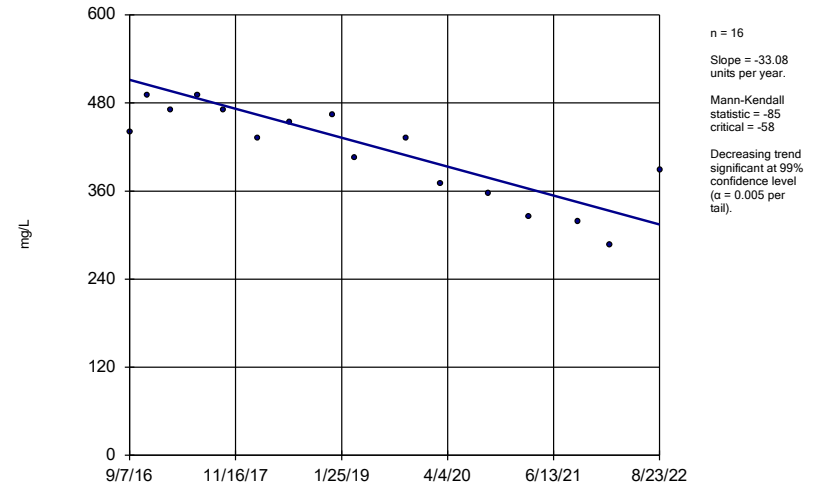
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-36S



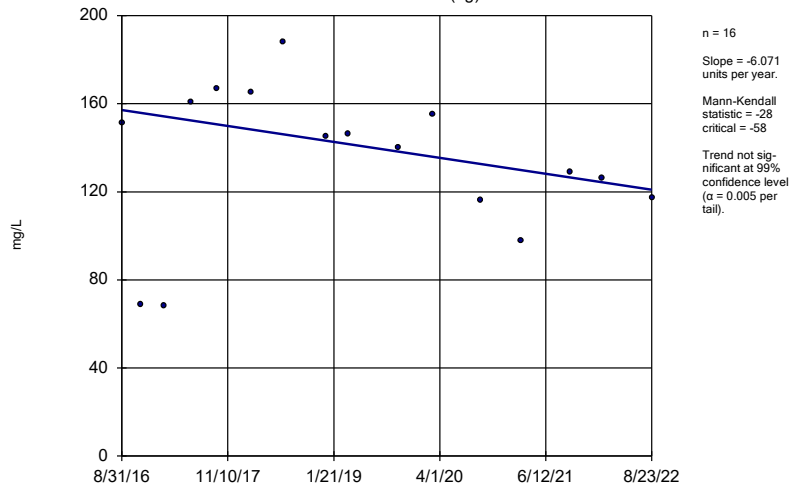
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-38S



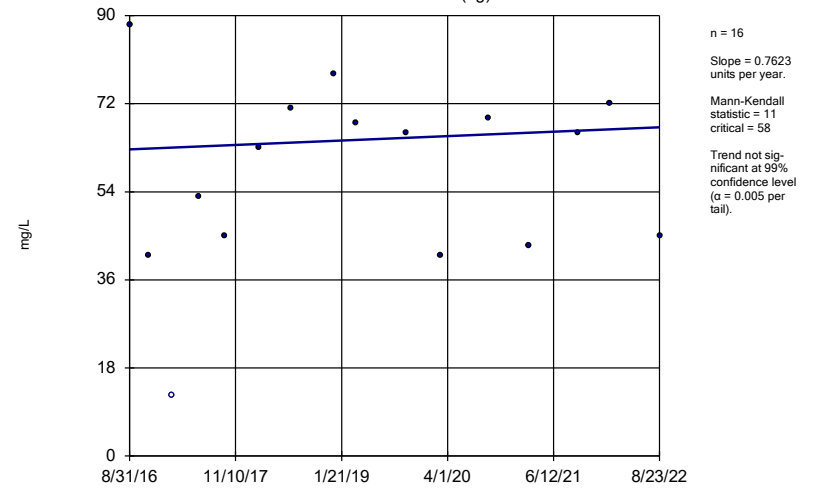
Constituent: Sulfate Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-2I (bg)



Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

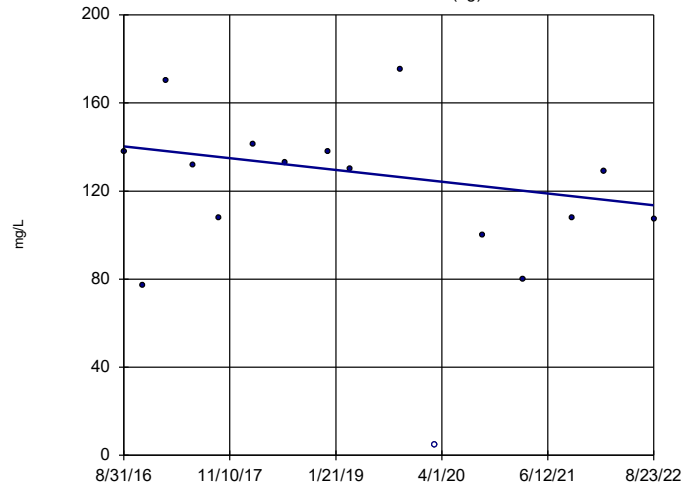
Sen's Slope Estimator
BRGWA-2S (bg)



Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

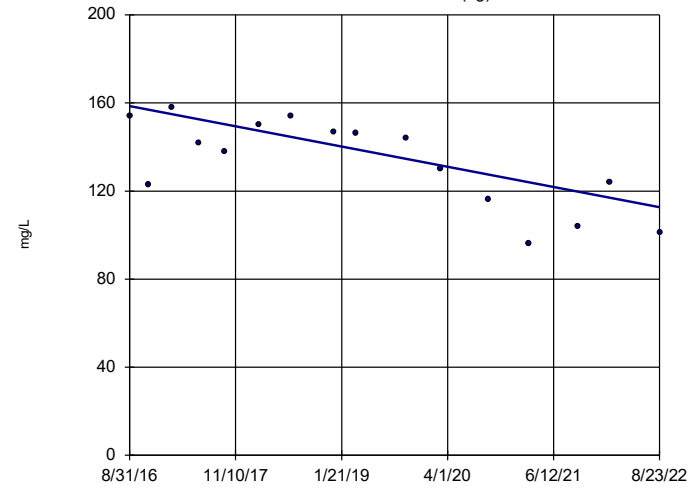


n = 16
 Slope = -4.462
 units per year.
 Mann-Kendall
 statistic = -30
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

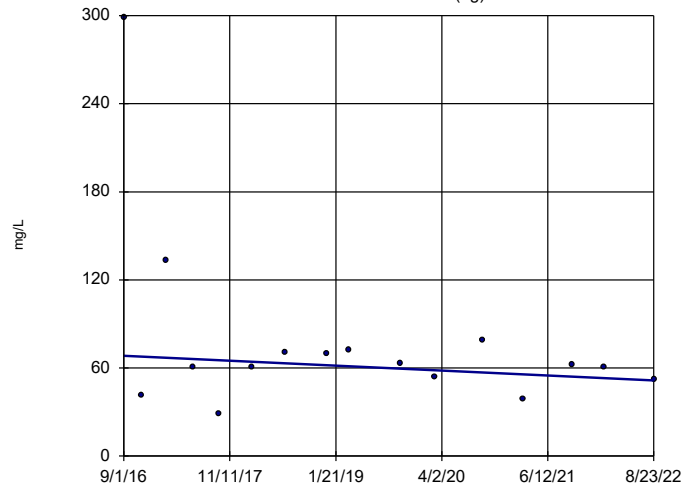


n = 16
 Slope = -7.658
 units per year.
 Mann-Kendall
 statistic = -65
 critical = -58
 Decreasing trend
 significant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

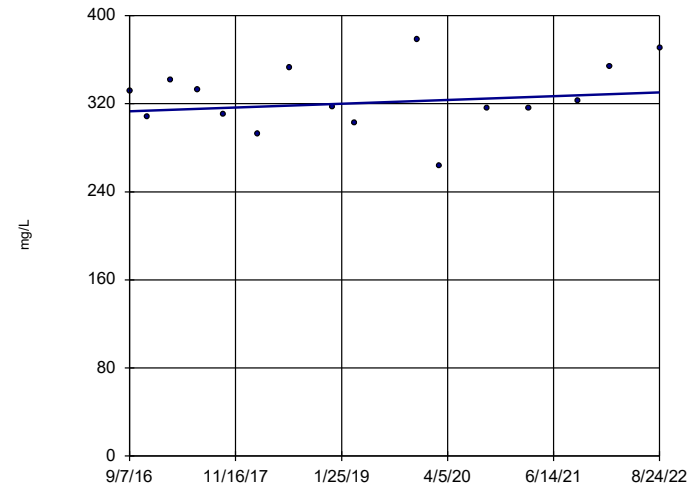


n = 16
 Slope = -2.774
 units per year.
 Mann-Kendall
 statistic = -23
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

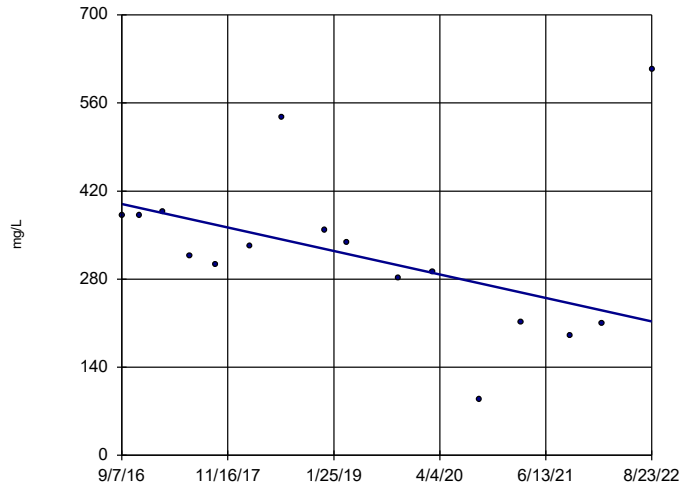
BRGWC-17S



n = 16
 Slope = 2.861
 units per year.
 Mann-Kendall
 statistic = 19
 critical = 58
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

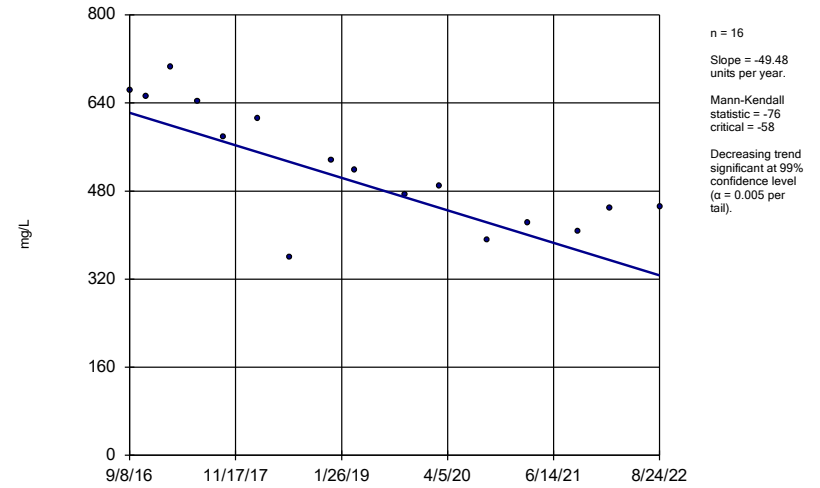
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-33S



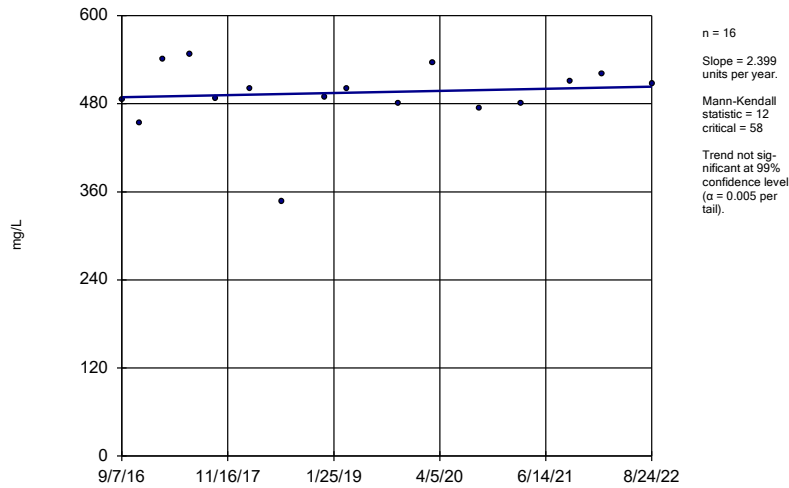
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-34S



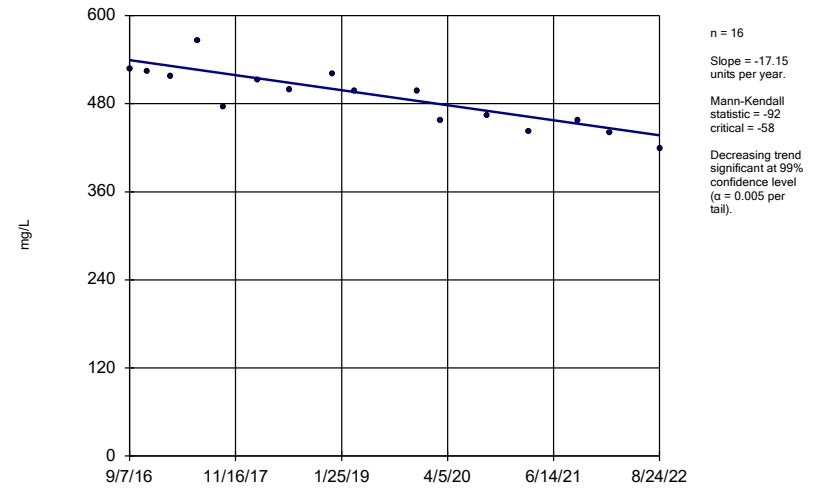
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-35S



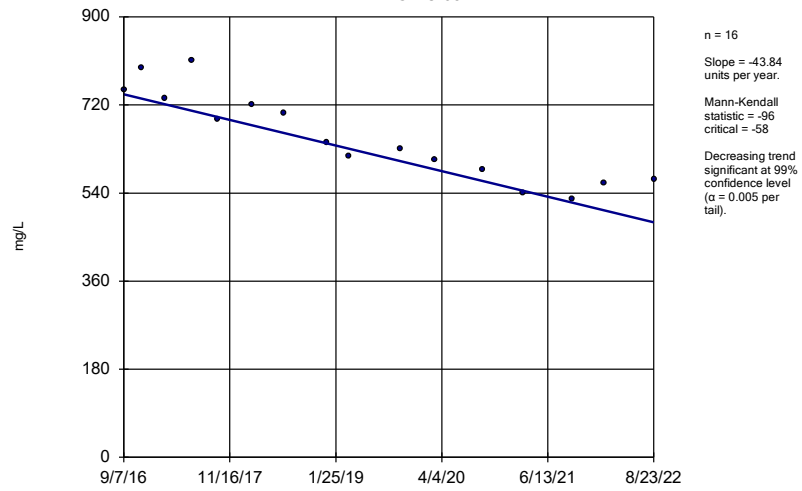
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-36S



Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:21 PM 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 9/30/2022 4:21 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE F.

Upper Tolerance Limit Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 11:44 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig. Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a 85	n/a	n/a	91.76	n/a	n/a	0.01278	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 85	n/a	n/a	76.47	n/a	n/a	0.01278	NP Inter(NDs)
Barium (mg/L)	n/a	0.063	n/a	n/a	n/a	n/a 85	n/a	n/a	0	n/a	n/a	0.01278	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a 85	n/a	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a 85	n/a	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a 85	n/a	n/a	15.29	n/a	n/a	0.01278	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0034	n/a	n/a	n/a	n/a 83	n/a	n/a	45.78	n/a	n/a	0.01416	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	1.649	n/a	n/a	n/a	n/a 85	0.7756	0.2603	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a 90	n/a	n/a	56.67	n/a	n/a	0.009888	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 85	n/a	n/a	80	n/a	n/a	0.01278	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a 85	n/a	n/a	43.53	n/a	n/a	0.01278	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a 75	n/a	n/a	86.67	n/a	n/a	0.02134	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a 85	n/a	n/a	68.24	n/a	n/a	0.01278	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 85	n/a	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 85	n/a	n/a	100	n/a	n/a	0.01278	NP Inter(NDs)

Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.009374	0.007986	0.004	Yes	18	0.00868	0.001148	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05266	0.03803	0.006	Yes	18	0.04534	0.01209	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2539	0.2042	0.006	Yes	17	0.2291	0.03971	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	17	0.002876	0.0005093	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	17	0.002473	0.00101	76.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	17	0.002706	0.000831	88.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	17	0.002741	0.0007315	88.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	17	0.00413	0.001717	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	18	0.004377	0.00149	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	17	0.004202	0.001777	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	17	0.004244	0.001686	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.00078	0.01	No	17	0.004212	0.001757	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003693	0.001937	0.01	No	17	0.002815	0.001401	11.76	None	No	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04399	0.039	2	No	17	0.04149	0.00398	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.023	0.02	2	No	18	0.02246	0.004934	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.03293	0.02469	2	No	17	0.02925	0.007023	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0518	0.034	2	No	17	0.04765	0.01902	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.0415	0.03	2	No	17	0.03781	0.01045	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-37S	0.02521	0.02321	2	No	17	0.02421	0.001601	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.0141	2	No	17	0.02122	0.009821	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-33S	0.001987	0.001506	0.004	No	18	0.001698	0.0004897	5.556	None	x^2	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0002	0.00012	0.004	No	17	0.0001571	0.00005047	17.65	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.0001748	0.0001173	0.004	No	17	0.0001488	0.00004897	11.76	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	BRGWC-36S	0.00025	0.000084	0.004	No	18	0.0001367	0.00007288	27.78	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009374	0.007986	0.004	Yes	18	0.00868	0.001148	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0005007	0.0003031	0.005	No	18	0.0004116	0.0001832	5.556	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0005515	0.0002222	0.005	No	17	0.0004234	0.0003035	11.76	None	x^(1/3)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	18	0.0008989	0.0002943	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0006571	0.0004921	0.005	No	17	0.0005788	0.0001407	5.882	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-17S	0.01278	0.01004	0.1	No	17	0.01147	0.002307	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	18	0.009472	0.002242	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.007139	0.004557	0.1	No	17	0.005848	0.00206	5.882	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008297	0.007177	0.1	No	17	0.007737	0.0008931	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	17	0.003506	0.003718	23.53	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.004136	0.00349	0.1	No	17	0.003722	0.0007425	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05266	0.03803	0.006	Yes	18	0.04534	0.01209	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.00438	0.0029	0.006	No	17	0.003811	0.001305	5.882	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	17	0.001	0.0004047	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2539	0.2042	0.006	Yes	17	0.2291	0.03971	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.7634	0.3342	5	No	17	0.5488	0.3425	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.276	0.6673	5	No	17	0.9716	0.4857	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.176	0.7451	5	No	17	0.9605	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.178	0.4487	5	No	17	0.8735	0.6993	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.267	0.7139	5	No	17	0.9905	0.4415	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9215	0.3675	5	No	17	0.6882	0.5156	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.563	1.94	5	No	17	2.837	1.466	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1403	0.08203	4	No	18	0.1183	0.05866	5.556	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2244	0.1072	4	No	19	0.1753	0.1115	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1433	0.07674	4	No	18	0.1214	0.08229	5.556	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1134	0.05857	4	No	18	0.1026	0.07216	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.054	4	No	18	0.1194	0.1078	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	18	0.08083	0.02744	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9342	0.7224	4	No	18	0.8405	0.2015	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	17	0.001774	0.0006387	88.24	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.00007	0.015	No	18	0.0007376	0.0009194	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	17	0.001676	0.0007229	82.35	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	17	0.00156	0.0008179	76.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	17	0.001885	0.0004737	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	17	0.001776	0.000631	88.24	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00034	0.015	No	17	0.0006765	0.000634	17.65	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	17	0.006285	0.004577	58.82	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.01028	0.009171	0.089	No	18	0.009728	0.0009209	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	17	0.006776	0.004499	64.71	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.002	0.089	No	17	0.0026	0.001909	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0023	0.089	No	17	0.003341	0.00251	11.76	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02235	0.02036	0.089	No	17	0.02135	0.001591	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	15	0.0001763	0.00004972	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	16	0.0001769	0.00005186	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00012	0.002	No	15	0.000172	0.00005321	73.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	15	0.0001807	0.00004166	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	15	0.00018	0.00004293	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	15	0.0001807	0.00004284	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.000176	0.0001096	0.002	No	15	0.0001428	0.00004902	13.33	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002547	0.001775	0.05	No	17	0.002969	0.001325	23.53	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	18	0.0041	0.001294	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.005033	0.002974	0.05	No	17	0.004098	0.001795	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04086	0.03255	0.05	No	17	0.03671	0.006628	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	17	0.001886	0.0004691	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	18	0.0004961	0.0006923	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.00019	0.002	No	17	0.0007606	0.0008266	29.41	None	No	0.01	NP (normality)

FIGURE G.

FIGURE H.

Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.009374	0.007986	0.004	Yes	18	0.00868	0.001148	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05266	0.03803	0.006	Yes	18	0.04534	0.01209	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2539	0.2042	0.006	Yes	17	0.2291	0.03971	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	17	0.002876	0.0005093	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	17	0.002473	0.00101	76.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	17	0.002706	0.000831	88.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	17	0.002741	0.0007315	88.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	17	0.00413	0.001717	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	18	0.004377	0.00149	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	17	0.004202	0.001777	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	17	0.004244	0.001686	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.00078	0.01	No	17	0.004212	0.001757	82.35	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003693	0.001937	0.01	No	17	0.002815	0.001401	11.76	None	No	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04399	0.039	2	No	17	0.04149	0.00398	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.023	0.02	2	No	18	0.02246	0.004934	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.03293	0.02469	2	No	17	0.02925	0.007023	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0518	0.034	2	No	17	0.04765	0.01902	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.0415	0.03	2	No	17	0.03781	0.01045	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-37S	0.02521	0.02321	2	No	17	0.02421	0.001601	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.0141	2	No	17	0.02122	0.009821	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-33S	0.001987	0.001506	0.004	No	18	0.001698	0.0004897	5.556	None	x^2	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0002	0.00012	0.004	No	17	0.0001571	0.00005047	17.65	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.0001748	0.0001173	0.004	No	17	0.0001488	0.00004897	11.76	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	BRGWC-36S	0.00025	0.000084	0.004	No	18	0.0001367	0.00007288	27.78	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009374	0.007986	0.004	Yes	18	0.00868	0.001148	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0005007	0.0003031	0.005	No	18	0.0004116	0.0001832	5.556	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0005515	0.0002222	0.005	No	17	0.0004234	0.0003035	11.76	None	x^(1/3)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	18	0.0008989	0.0002943	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0006571	0.0004921	0.005	No	17	0.0005788	0.0001407	5.882	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-17S	0.01278	0.01004	0.1	No	17	0.01147	0.002307	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	18	0.009472	0.002242	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.007139	0.004557	0.1	No	17	0.005848	0.00206	5.882	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008297	0.007177	0.1	No	17	0.007737	0.0008931	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	17	0.003506	0.003718	23.53	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.004136	0.00349	0.1	No	17	0.003722	0.0007425	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05266	0.03803	0.006	Yes	18	0.04534	0.01209	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.00438	0.0029	0.006	No	17	0.003811	0.001305	5.882	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	17	0.001	0.0004047	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2539	0.2042	0.006	Yes	17	0.2291	0.03971	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.7634	0.3342	5	No	17	0.5488	0.3425	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.276	0.6673	5	No	17	0.9716	0.4857	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.176	0.7451	5	No	17	0.9605	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.178	0.4487	5	No	17	0.8735	0.6993	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.267	0.7139	5	No	17	0.9905	0.4415	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9215	0.3675	5	No	17	0.6882	0.5156	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.563	1.94	5	No	17	2.837	1.466	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1403	0.08203	4	No	18	0.1183	0.05866	5.556	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2244	0.1072	4	No	19	0.1753	0.1115	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1433	0.07674	4	No	18	0.1214	0.08229	5.556	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1134	0.05857	4	No	18	0.1026	0.07216	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.054	4	No	18	0.1194	0.1078	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	18	0.08083	0.02744	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9342	0.7224	4	No	18	0.8405	0.2015	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	17	0.001774	0.0006387	88.24	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.00007	0.015	No	18	0.0007376	0.0009194	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	17	0.001676	0.0007229	82.35	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	17	0.00156	0.0008179	76.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	17	0.001885	0.0004737	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	17	0.001776	0.000631	88.24	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00034	0.015	No	17	0.0006765	0.000634	17.65	None	No	0.01	NP (normality)

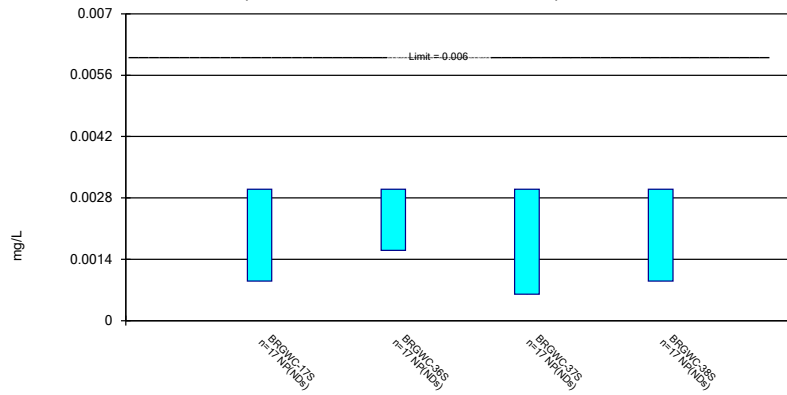
Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 1:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	17	0.006285	0.004577	58.82	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.01028	0.009171	0.089	No	18	0.009728	0.0009209	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	17	0.006776	0.004499	64.71	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.002	0.089	No	17	0.0026	0.001909	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0023	0.089	No	17	0.003341	0.00251	11.76	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02235	0.02036	0.089	No	17	0.02135	0.001591	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	15	0.0001763	0.00004972	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	16	0.0001769	0.00005186	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00012	0.002	No	15	0.000172	0.00005321	73.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	15	0.0001807	0.00004166	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	15	0.00018	0.00004293	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	15	0.0001807	0.00004284	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.000176	0.0001096	0.002	No	15	0.0001428	0.00004902	13.33	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002547	0.001775	0.05	No	17	0.002969	0.001325	23.53	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	18	0.0041	0.001294	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.005033	0.002974	0.05	No	17	0.004098	0.001795	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04086	0.03255	0.05	No	17	0.03671	0.006628	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	17	0.001886	0.0004691	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	18	0.0004961	0.0006923	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.00019	0.002	No	17	0.0007606	0.0008266	29.41	None	No	0.01	NP (normality)

Non-Parametric Confidence Interval

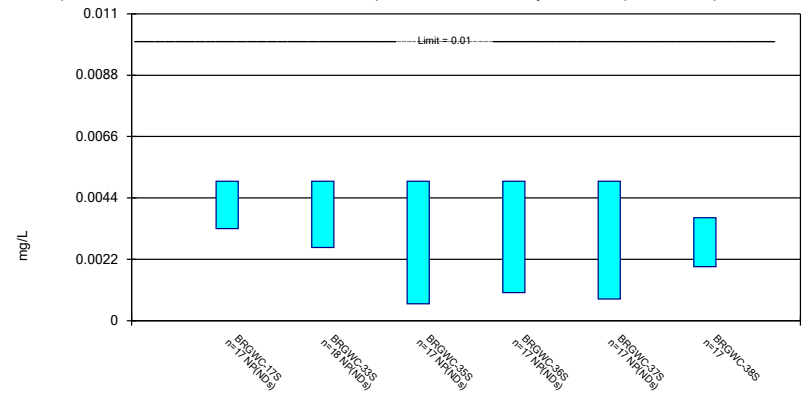
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

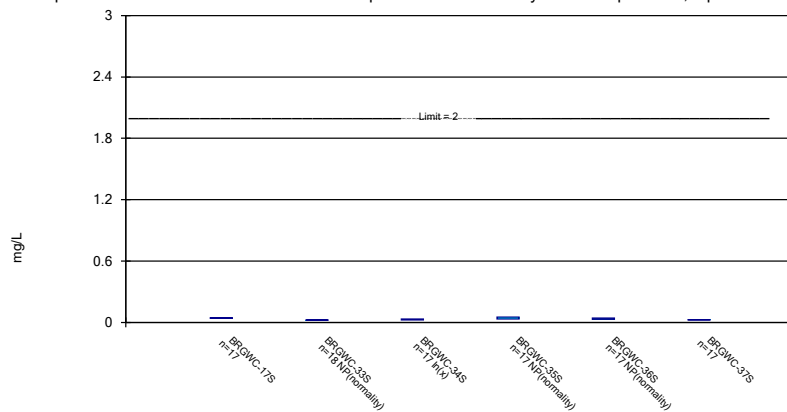
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

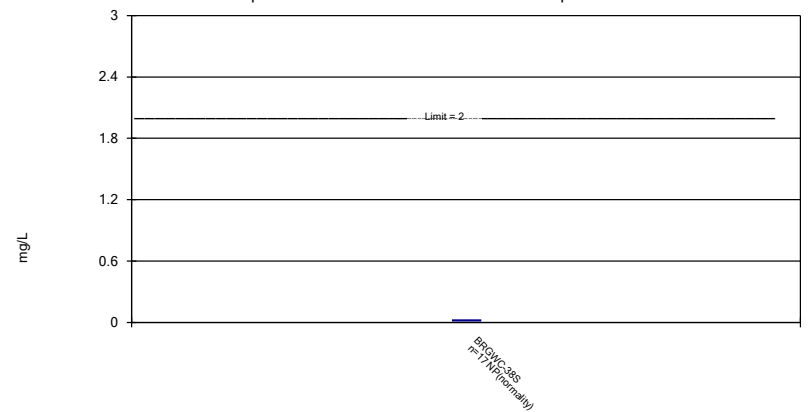
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

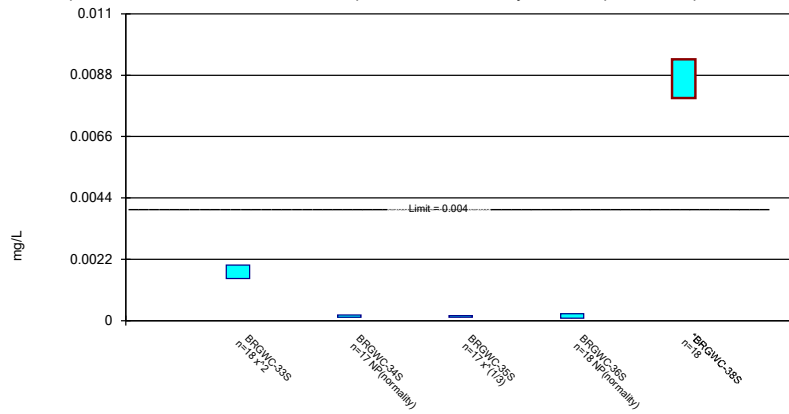
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Barium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

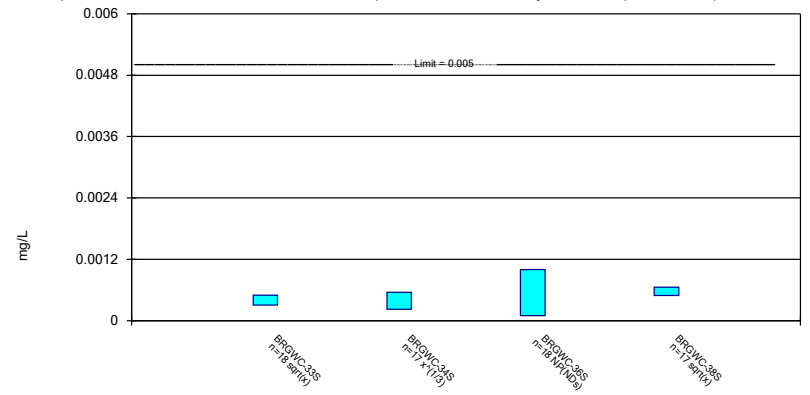
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

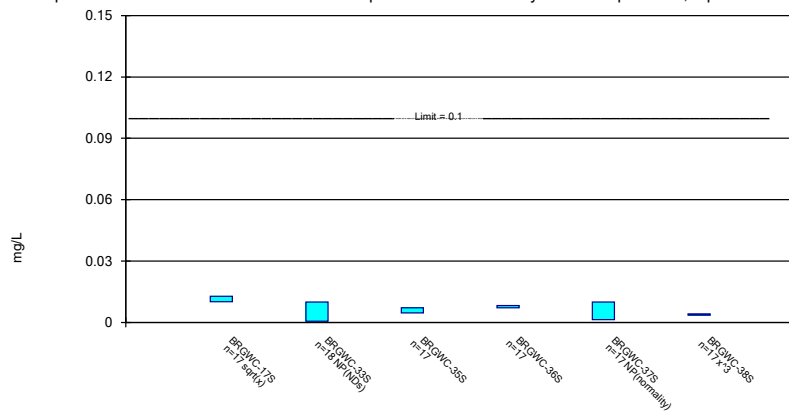
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

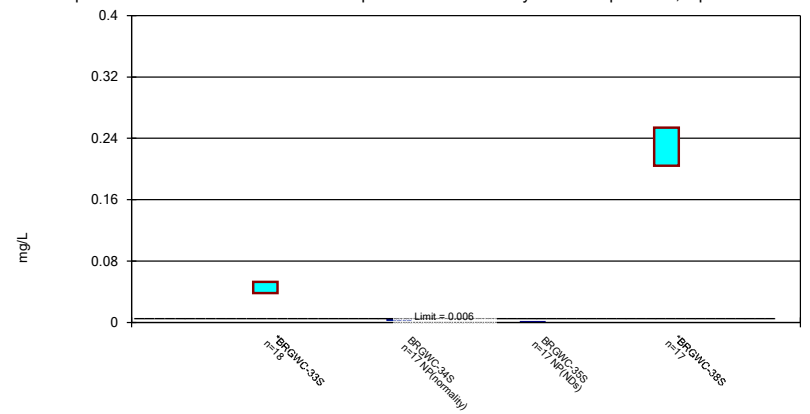
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

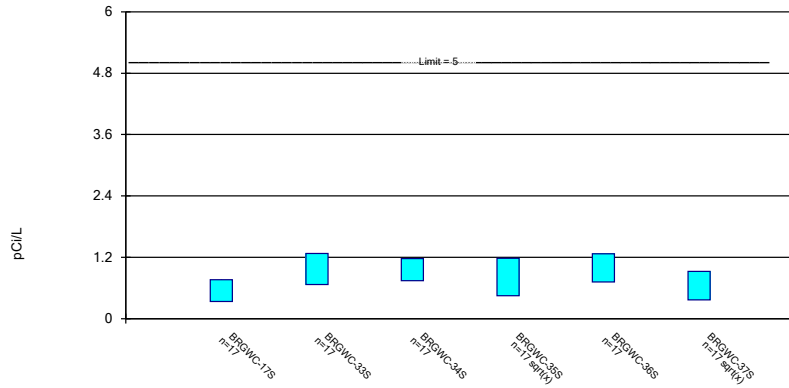
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

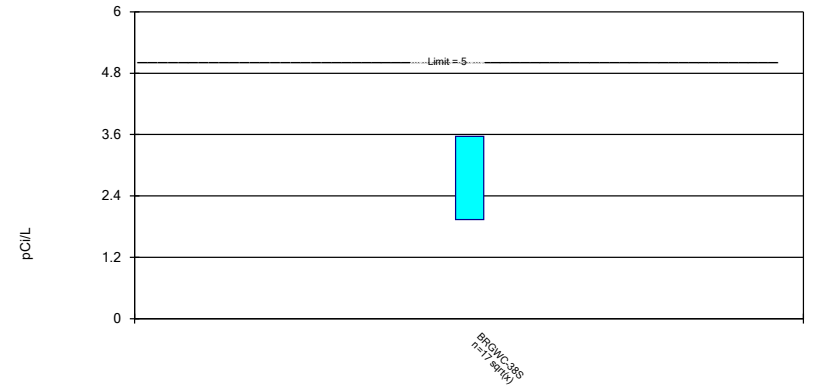
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence In Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

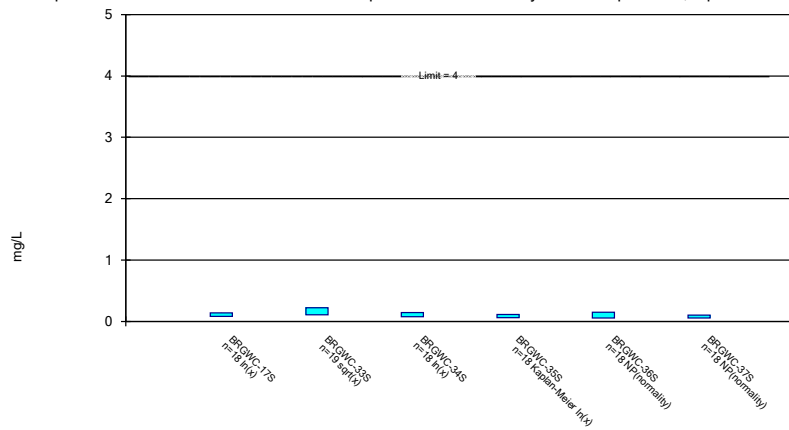
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence In Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

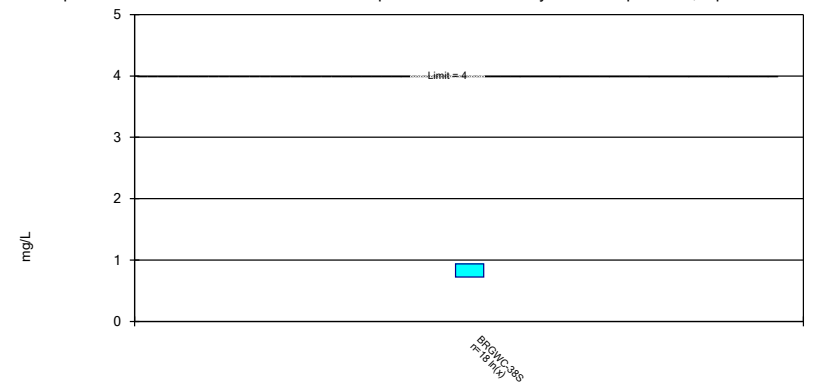
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

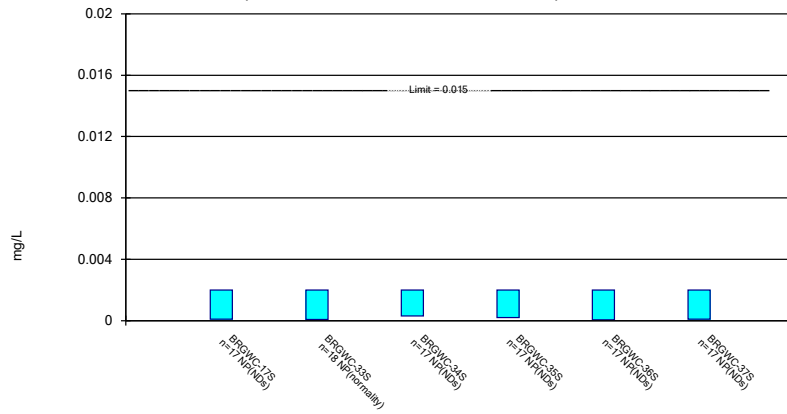
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

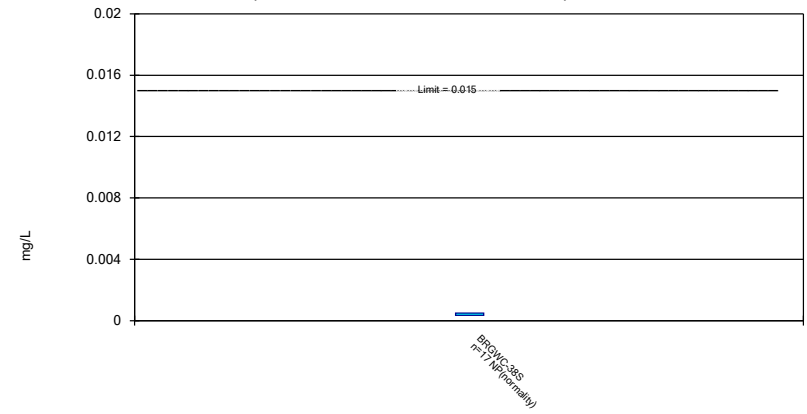
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

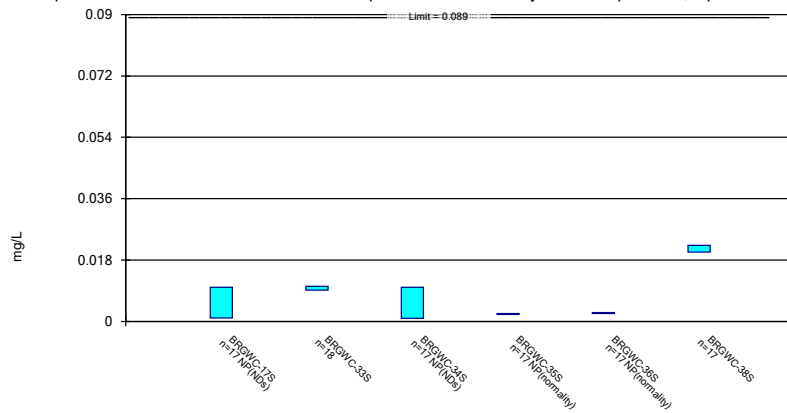
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

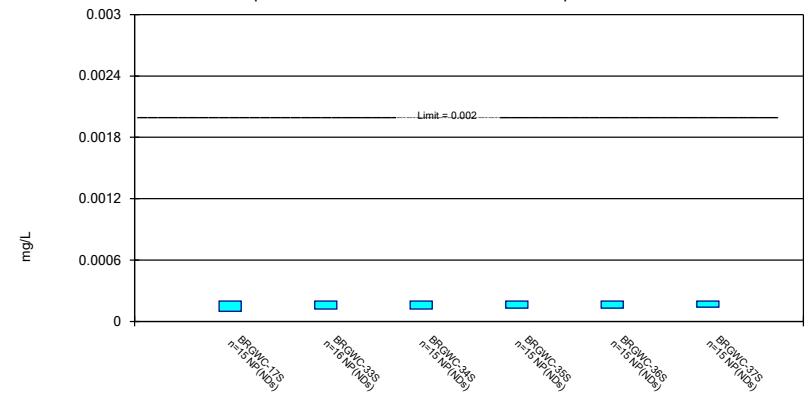
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

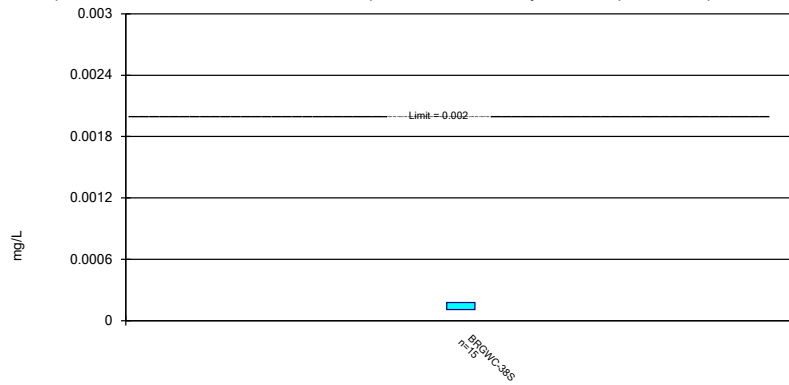
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

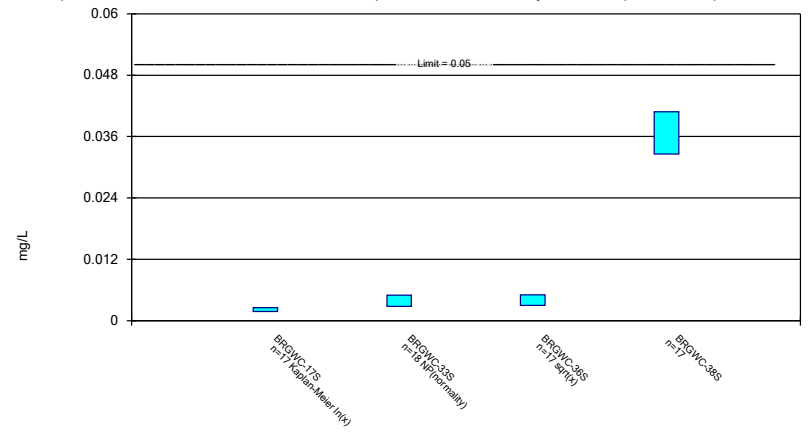
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
 Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

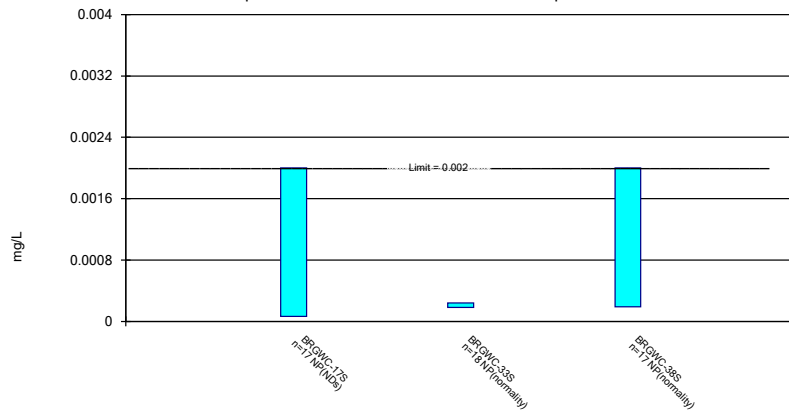
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
 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 11/4/2022 1:24 PM View: Pond E - Confidence Intervals
 Plant Branch Client: Southern Company Data: Plant Branch AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

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		
Mean	0.002876	0.002473	0.002706	0.002741
Std. Dev.	0.0005093	0.00101	0.000831	0.0007315
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 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
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)
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)
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)
8/24/2022	<0.005		<0.005	<0.005		
Mean	0.00413	0.004377	0.004202	0.004244	0.004212	0.002815
Std. Dev.	0.001717	0.00149	0.001777	0.001686	0.001757	0.001401
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.003693
Lower Lim.	0.0033	0.00262	0.0006	0.001	0.00078	0.001937

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S
9/7/2016	0.0377	0.0214		0.101	0.0674	
9/8/2016			0.0415			
11/17/2016	0.0405	0.0211	0.04	0.0808		
11/18/2016					0.0546	
2/22/2017	0.0392	0.0243	0.0415	0.0701		
2/23/2017					0.0489	0.0229
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
9/27/2017		0.0219	0.0347			
9/28/2017	0.0408			0.047	0.0397	0.0222
2/15/2018	0.0396	0.0248	0.0346	0.0485	0.038	0.0243
6/27/2018	0.041	0.023	0.028	0.046		
6/28/2018					0.035	0.023
12/18/2018		0.023	0.029			
12/19/2018	0.038			0.04	0.035	0.024
8/27/2019		0.02				
8/28/2019	0.044	0.02	0.026	0.039	0.034	0.027
10/16/2019		0.019	0.022	0.037		0.024
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
8/19/2020	0.047	0.02	0.024	0.04	0.037	0.026
9/16/2020	0.044	0.019	0.023	0.033	0.03	0.024
3/3/2021		0.02	0.024		0.031	0.024
3/4/2021	0.039			0.034		
9/22/2021	0.043	0.019	0.021		0.028	
9/23/2021				0.036		0.027
2/1/2022	0.045	0.023	0.024	0.033	0.029	
2/2/2022						0.025
8/23/2022		0.0409				0.026
8/24/2022	0.0512		0.0249	0.0339	0.0296	
Mean	0.04149	0.02246	0.02925	0.04765	0.03781	0.02421
Std. Dev.	0.00398	0.004934	0.007023	0.01902	0.01045	0.001601
Upper Lim.	0.04399	0.023	0.03293	0.0518	0.0415	0.02521
Lower Lim.	0.039	0.02	0.02469	0.034	0.03	0.02321

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-38S
9/7/2016	0.044
11/21/2016	0.0428 (J)
2/23/2017	0.0338
6/15/2017	0.0239
9/28/2017	0.0247
2/15/2018	0.0215
6/28/2018	0.018
12/20/2018	0.017
8/29/2019	0.016
10/16/2019	0.015
3/5/2020	0.016
8/19/2020	0.016
9/17/2020	0.014
3/4/2021	0.015
9/23/2021	0.014
2/1/2022	0.015
8/23/2022	0.0141
Mean	0.02122
Std. Dev.	0.009821
Upper Lim.	0.0247
Lower Lim.	0.0141

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-38S
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	<0.0005	<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
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	
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
8/24/2022		<0.0005	0.00021 (J)	<0.0005	
Mean	0.001698	0.0001571	0.0001488	0.0001367	0.00868
Std. Dev.	0.0004897	5.047E-05	4.897E-05	7.288E-05	0.001148
Upper Lim.	0.001987	0.0002	0.0001748	0.00025	0.009374
Lower Lim.	0.001506	0.00012	0.0001173	8.4E-05	0.007986

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-36S	BRGWC-38S
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)
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	
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)
8/24/2022		0.000517 (J)	<0.001	
Mean	0.0004116	0.0004234	0.0008989	0.0005788
Std. Dev.	0.0001832	0.0003035	0.0002943	0.0001407
Upper Lim.	0.0005007	0.0005515	0.001	0.0006571
Lower Lim.	0.0003031	0.0002222	0.0001	0.0004921

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
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)
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)
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)
8/24/2022	0.0127		0.00752 (J)	0.00713 (J)		
Mean	0.01147	0.009472	0.005848	0.007737	0.003506	0.003722
Std. Dev.	0.002307	0.002242	0.00206	0.0008931	0.003718	0.0007425
Upper Lim.	0.01278	0.01	0.007139	0.008297	0.01	0.004136
Lower Lim.	0.01004	0.00049	0.004557	0.007177	0.0014	0.00349

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-38S
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	<0.001	<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
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
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
8/24/2022		0.00438	<0.001	
Mean	0.04534	0.003811	0.001	0.2291
Std. Dev.	0.01209	0.001305	0.0004047	0.03971
Upper Lim.	0.05266	0.00438	0.0012	0.2539
Lower Lim.	0.03803	0.0029	0.0008	0.2042

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S
9/7/2016	1.18	0.541 (U)		0.189 (U)	0.638 (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)	
2/22/2017	0.0213 (U)	0.482 (U)	1.01 (U)	0.293 (U)		
2/23/2017					0.554 (U)	0.567 (U)
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)
9/27/2017		1.5	1.44			
9/28/2017	0.496 (U)			1.02 (U)	1.07 (U)	0.627 (U)
2/15/2018	0.672 (U)	1.14 (U)	0.668 (U)	0.742 (U)	0.751 (U)	0.869 (U)
6/27/2018	0.692 (U)	1.3 (U)	1.06 (U)	0.739 (U)		
6/28/2018					0.392 (U)	0.336 (U)
12/18/2018		1.64 (UX)	1.22			
12/19/2018	0.325 (U)			0.465 (U)	0.693 (U)	0.454 (U)
8/27/2019		1.38				
8/28/2019	0.24 (U)		0.811 (U)	0.995 (U)	0.866 (U)	0.809 (U)
10/16/2019		1.16 (U)	0.561 (U)	1.69		0.815 (U)
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)
8/19/2020	0.985 (U)	1.14 (U)	1.21 (U)	0.162 (U)	1.4	0.582 (U)
9/16/2020	0.478 (U)	0.195 (U)	0.72 (U)	1.25 (U)	1.17 (U)	0.844 (U)
3/3/2021		0.708 (U)	1.12		0.307 (U)	1.12
3/4/2021	0.38 (U)			0.461 (U)		
9/22/2021	0.734 (U)	0.382 (U)	0.91 (U)		0.808 (U)	
9/23/2021				0.394 (U)		0.078 (U)
2/1/2022	0.503 (U)	0.583 (U)	0.535 (U)	0.672 (U)	1.61 (U)	
2/2/2022						0.654 (U)
8/23/2022		1.94				2.37
8/24/2022	0.152		1.86	3.1	1.38	
Mean	0.5488	0.9716	0.9605	0.8735	0.9905	0.6882
Std. Dev.	0.3425	0.4857	0.3438	0.6993	0.4415	0.5156
Upper Lim.	0.7634	1.276	1.176	1.178	1.267	0.9215
Lower Lim.	0.3342	0.6673	0.7451	0.4487	0.7139	0.3675

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-38S
9/7/2016	0.816 (U)
11/21/2016	2.94
2/23/2017	1.92
6/15/2017	3.6
9/28/2017	3.3
2/15/2018	2.31 (J+X)
6/28/2018	1.75 (UX)
12/20/2018	2.8 (J+X)
8/29/2019	3.68
10/16/2019	2.66
3/5/2020	2.21
8/19/2020	3.17
9/17/2020	2.92
3/4/2021	1.99
9/23/2021	1.4
2/1/2022	7.64
8/23/2022	3.12
Mean	2.837
Std. Dev.	1.466
Upper Lim.	3.563
Lower Lim.	1.94

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S
9/7/2016	0.22 (J)	0.19 (J)		0.34	0.18 (J)	
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)	
2/22/2017	0.11 (J)	0.21 (J)	0.17 (J)	0.09 (J)		
2/23/2017					0.07 (J)	0.1 (J)
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)
9/27/2017		0.42	0.4			
9/28/2017	0.05 (J)			<0.1	<0.1	<0.1
2/15/2018	<0.1	0.42	<0.1	<0.1	<0.1	<0.1
6/27/2018	0.093 (J)	0.32	0.21 (J)	0.22 (J)		
6/28/2018					0.51 (J+X)	<0.1
12/18/2018		0.28 (J)	0.12 (J)			
12/19/2018	0.16 (J)			0.11 (J)	<0.1	0.094 (J)
3/19/2019	0.1 (J)				<0.1	
3/20/2019		0.14 (J)	0.074 (J)	0.088 (J)		0.062 (J)
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
10/16/2019		0.17 (J)	0.13 (J)	0.08 (J)		0.059 (J)
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)
8/19/2020	0.1	0.11	0.074 (J)	0.06 (J)	0.051 (J)	0.055 (J)
9/16/2020	0.1	0.085 (J)	0.077 (J)	0.062 (J)	<0.1	<0.1
3/3/2021		0.069 (J)	0.071 (J)		<0.1	<0.1
3/4/2021	0.096 (J)			0.076 (J)		
9/22/2021	0.1	0.068 (J)	0.1		0.054 (J)	
9/23/2021				0.073 (J)		<0.1
2/1/2022	0.079 (J)	0.053 (J)	0.06 (J)	0.055 (J)	<0.1	
2/2/2022						<0.1
8/23/2022		0.187				0.105
8/24/2022	0.274		0.14	<0.1	0.194	
Mean	0.1183	0.1753	0.1214	0.1026	0.1194	0.08083
Std. Dev.	0.05866	0.1115	0.08229	0.07216	0.1078	0.02744
Upper Lim.	0.1403	0.2244	0.1433	0.1134	0.15	0.1
Lower Lim.	0.08203	0.1072	0.07674	0.05857	0.054	0.055

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-38S
9/7/2016	0.66
11/21/2016	0.9 (D)
2/23/2017	0.75
6/15/2017	0.77
9/28/2017	0.8
2/15/2018	0.82
6/28/2018	1.5 (J+X)
12/20/2018	0.68
3/20/2019	0.95
8/29/2019	0.9
10/16/2019	0.61
3/5/2020	0.92
8/19/2020	0.95
9/17/2020	0.68
3/4/2021	0.83
9/23/2021	0.85
2/1/2022	0.95
8/23/2022	0.609
Mean	0.8405
Std. Dev.	0.2015
Upper Lim.	0.9342
Lower Lim.	0.7224

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S
9/7/2016	<0.002	0.0002 (J)		0.0001 (J)	<0.002	
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	
2/22/2017	<0.002	0.0001 (J)	0.0003 (J)	0.0001 (J)		
2/23/2017					<0.002	<0.002
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
9/27/2017		7E-05 (J)	9E-05 (J)			
9/28/2017	<0.002			<0.002	<0.002	0.0001 (J)
2/15/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/27/2018	<0.002	<0.002	<0.002	<0.002		
6/28/2018					<0.002	<0.002
12/18/2018		<0.002	<0.002			
12/19/2018	<0.002			<0.002	<0.002	<0.002
8/27/2019		0.00013 (J)				
8/28/2019	<0.002	0.00013 (J)	<0.002	<0.002	<0.002	<0.002
10/16/2019		8.8E-05 (J)	<0.002	<0.002		<0.002
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
8/19/2020	<0.002	6E-05 (J)	<0.002	<0.002	4.7E-05 (J)	<0.002
9/16/2020	5.4E-05 (J)	6.3E-05 (J)	<0.002	0.00012 (J)	<0.002	<0.002
3/3/2021		5.8E-05 (J)	<0.002		<0.002	<0.002
3/4/2021	<0.002			<0.002		
9/22/2021	<0.002	<0.002	<0.002		<0.002	
9/23/2021				<0.002		<0.002
2/1/2022	<0.002	<0.002	<0.002	<0.002	<0.002	
2/2/2022						<0.002
8/23/2022		<0.002				<0.002
8/24/2022	<0.002		<0.002	<0.002	<0.002	
Mean	0.001774	0.0007376	0.001676	0.00156	0.001885	0.001776
Std. Dev.	0.0006387	0.0009194	0.0007229	0.0008179	0.0004737	0.000631
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002
Lower Lim.	0.0001	7E-05	0.0003	0.0002	4.7E-05	0.0001

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-38S
9/7/2016	0.0004 (J)
11/21/2016	0.0005 (J)
2/23/2017	0.0005 (J)
6/15/2017	0.0004 (J)
9/28/2017	0.0004 (J)
2/15/2018	0.00047 (J)
6/28/2018	0.00036 (J)
12/20/2018	0.00039 (J)
8/29/2019	0.00035 (J)
10/16/2019	0.00035 (J)
3/5/2020	0.00041 (J)
8/19/2020	0.00031 (J)
9/17/2020	0.00032 (J)
3/4/2021	0.00034 (J)
9/23/2021	<0.002
2/1/2022	<0.002
8/23/2022	<0.002
Mean	0.0006765
Std. Dev.	0.000634
Upper Lim.	0.0005
Lower Lim.	0.00034

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-38S
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)
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)
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
8/24/2022	<0.01		<0.01	<0.01	<0.01	
Mean	0.006285	0.009728	0.006776	0.0026	0.003341	0.02135
Std. Dev.	0.004577	0.0009209	0.004499	0.001909	0.00251	0.001591
Upper Lim.	0.01	0.01028	0.01	0.0023	0.0026	0.02235
Lower Lim.	0.00097	0.009171	0.00089	0.002	0.0023	0.02036

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S
9/7/2016	<0.0002	<0.0002		<0.0002	<0.0002	
9/8/2016			<0.0002			
11/17/2016	<0.0002	<0.0002	<0.0002	<0.0002		
11/18/2016					<0.0002	
2/22/2017	<0.0002	<0.0002	<0.0002	<0.0002		
2/23/2017					<0.0002	<0.0002
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)
9/27/2017		4E-05 (J)	4E-05 (J)			
9/28/2017	<0.0002			<0.0002	<0.0002	<0.0002
2/15/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
6/27/2018	<0.0002	<0.0002	<0.0002	<0.0002		
6/28/2018					<0.0002	<0.0002
12/18/2018		<0.0002	<0.0002			
12/19/2018	<0.0002			<0.0002	<0.0002	<0.0002
8/27/2019		<0.0002				
8/28/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/19/2020	8.4E-05 (J)	<0.0002	0.00012 (J)	0.00013 (J)	0.00013 (J)	0.00014 (J)
9/16/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/3/2021		<0.0002	<0.0002		<0.0002	<0.0002
3/4/2021	<0.0002			<0.0002		
9/22/2021	0.0001 (J)	0.00012 (J)	0.00015 (J)		0.0001 (J)	
9/23/2021				0.00011 (J)		0.00011 (J)
2/1/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
2/2/2022						<0.0002
8/23/2022		<0.0002				<0.0002
8/24/2022	<0.0002		<0.0002	<0.0002	<0.0002	
Mean	0.0001763	0.0001769	0.000172	0.0001807	0.00018	0.0001807
Std. Dev.	4.972E-05	5.186E-05	5.321E-05	4.166E-05	4.293E-05	4.284E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.0001	0.00012	0.00012	0.00013	0.00013	0.00014

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-38S
9/7/2016	7E-05 (J)
11/21/2016	0.00012 (J)
2/23/2017	7E-05 (J)
6/15/2017	0.00016 (J)
9/28/2017	0.00011 (J)
2/15/2018	0.00015 (J)
6/28/2018	<0.0002 (X)
12/20/2018	0.00017 (J)
8/29/2019	0.00018 (J)
8/19/2020	0.00018 (J)
9/17/2020	0.00011 (J)
3/4/2021	8.5E-05 (J)
9/23/2021	0.00022
2/1/2022	<0.0002
8/23/2022	0.000117 (J)
Mean	0.0001428
Std. Dev.	4.902E-05
Upper Lim.	0.000176
Lower Lim.	0.0001096

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-33S	BRGWC-36S	BRGWC-38S
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
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
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
8/24/2022	0.00208 (J)		0.00246 (J)	
Mean	0.002969	0.0041	0.004098	0.03671
Std. Dev.	0.001325	0.001294	0.001795	0.006628
Upper Lim.	0.002547	0.005	0.005033	0.04086
Lower Lim.	0.001775	0.0028	0.002974	0.03255

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 1:25 PM View: Pond E - Confidence Intervals

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		
Mean	0.001886	0.0004961	0.0007606
Std. Dev.	0.0004691	0.0006923	0.0008266
Upper Lim.	0.002	0.00024	0.002
Lower Lim.	6.6E-05	0.00018	0.00019

FIGURE I.

Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 3:21 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	-0.0004476	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004021	-70	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.006188	-105	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.01947	-98	-63	Yes	17	0	n/a	n/a	0.01	NP

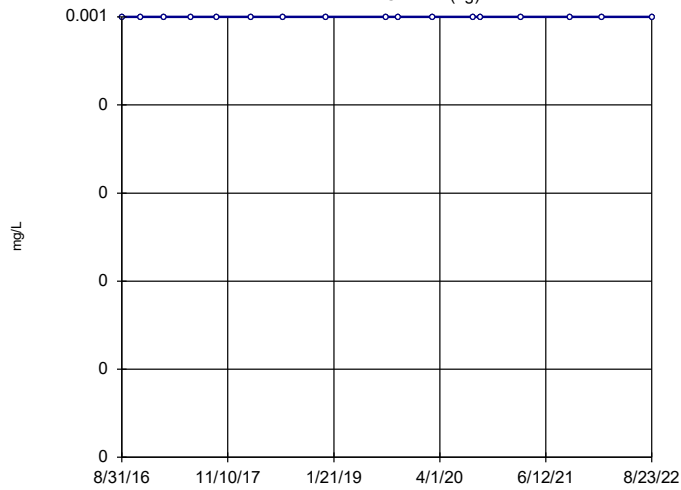
Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 3:21 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWC-38S	-0.0004476	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-16	-63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004021	-70	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001378	-49	-53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	26	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	9	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.006188	-105	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.01947	-98	-63	Yes	17	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

BRGWA-2I (bg)

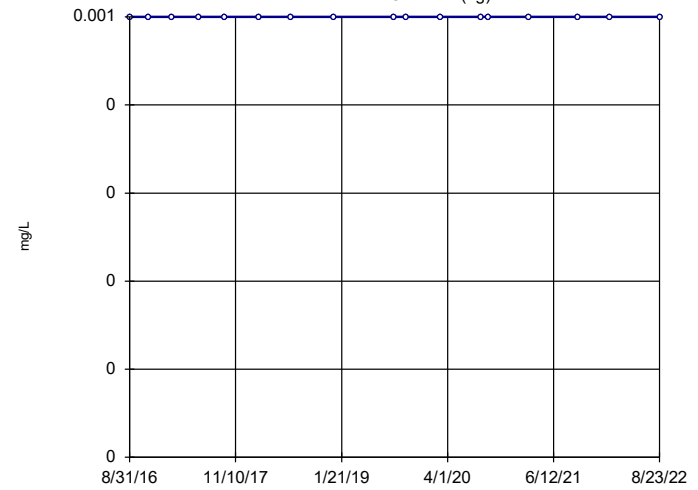


n = 17
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 63
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

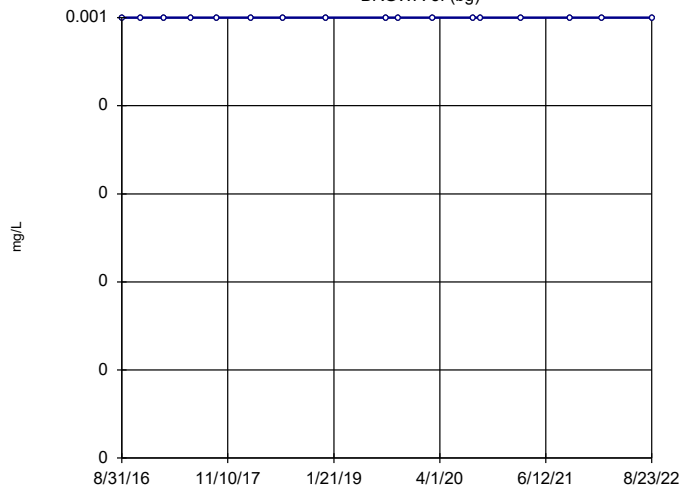


n = 17
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 63
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

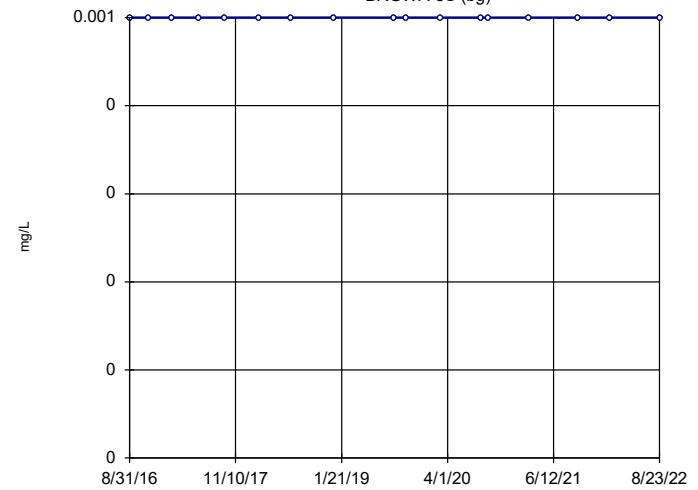


n = 17
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 63
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

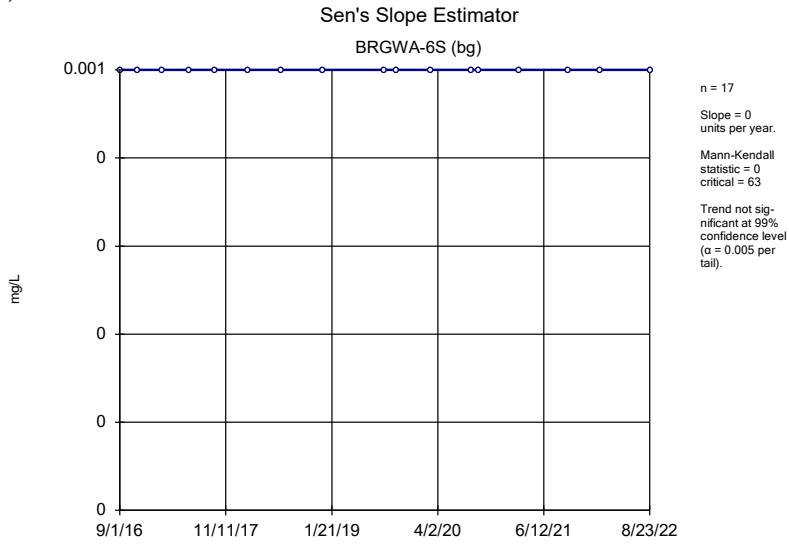
Sen's Slope Estimator

BRGWA-5S (bg)

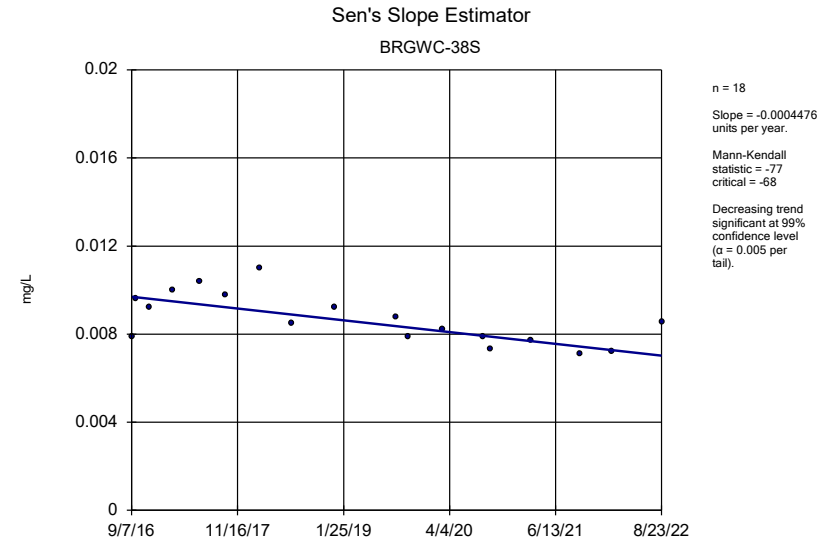


n = 17
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 63
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

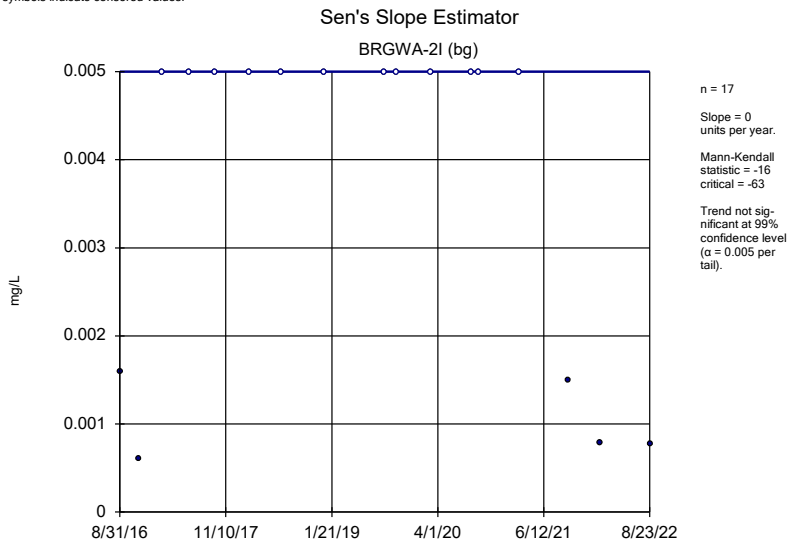
Constituent: Beryllium Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP



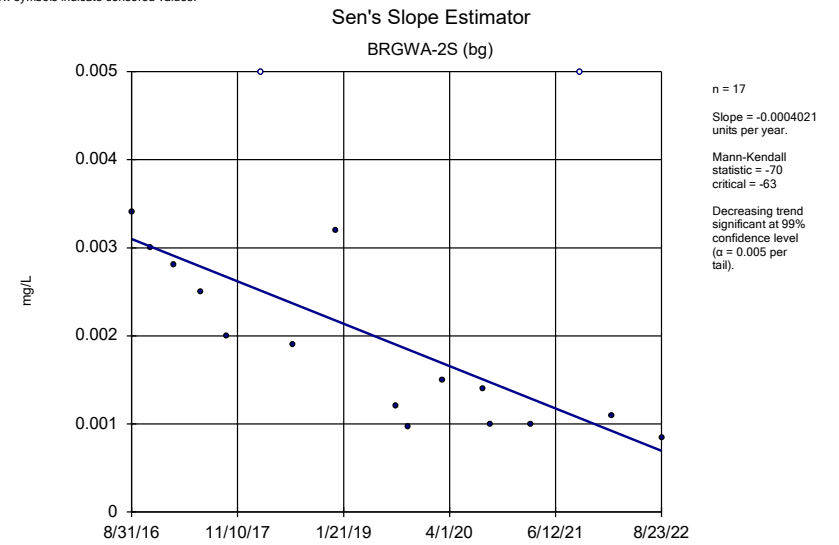
Constituent: Beryllium Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Beryllium Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP



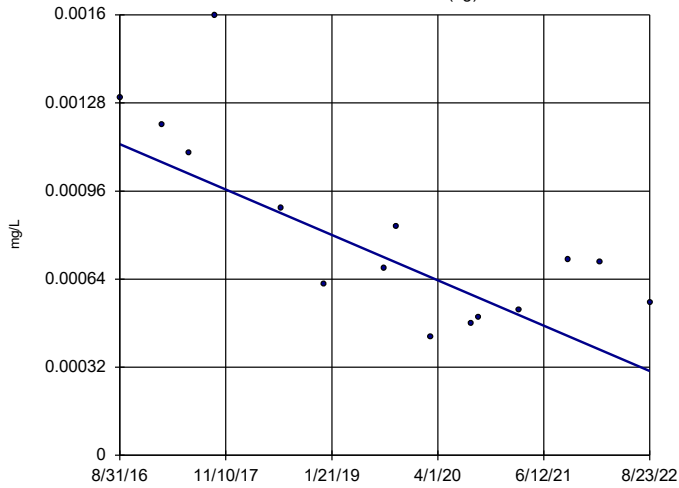
Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

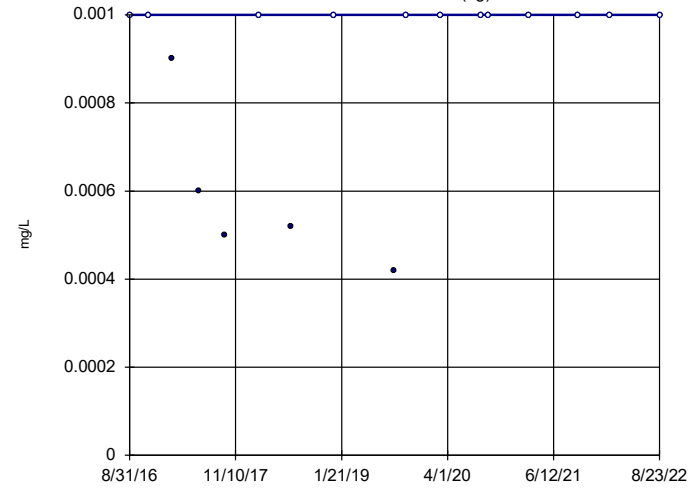


n = 15
 Slope = -0.0001378
 units per year.
 Mann-Kendall
 statistic = -49
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

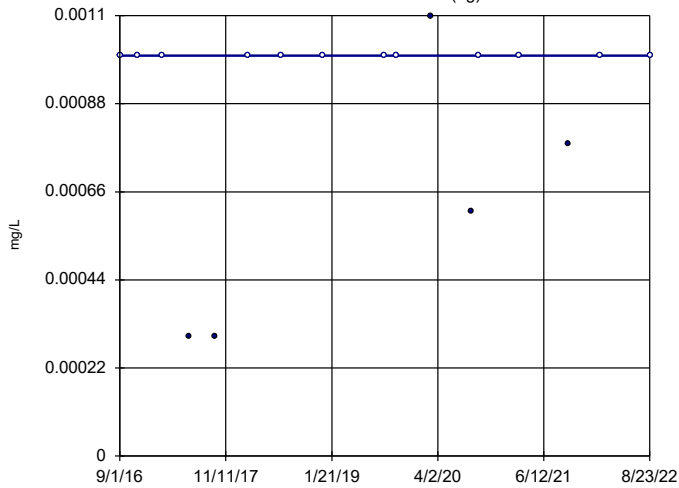


n = 17
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 26
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

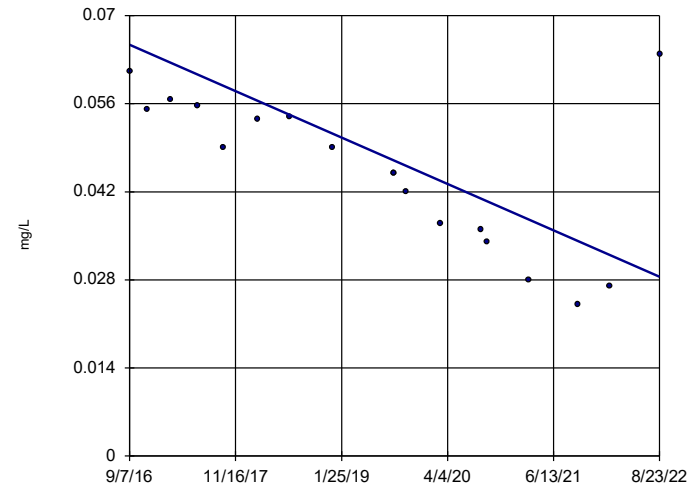


n = 17
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 9
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

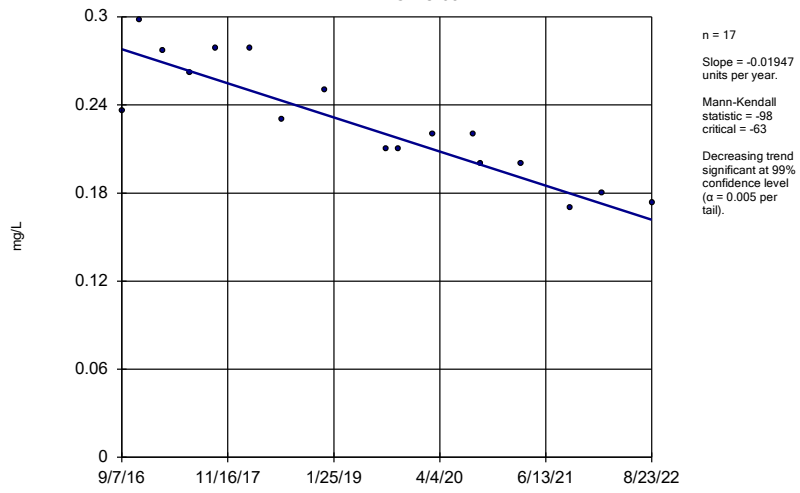
BRGWC-33S



n = 18
 Slope = -0.006188
 units per year.
 Mann-Kendall
 statistic = -105
 critical = -68
 Decreasing trend
 significant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-38S



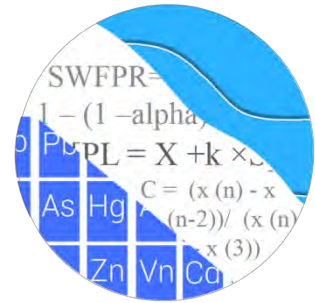
Constituent: Cobalt Analysis Run 11/4/2022 3:20 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

January/February 2023

GROUNDWATER STATS CONSULTING

July 31, 2023

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374



Re: Plant Branch Pond E – January/February 2023 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the January/February 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). The site is in Assessment Monitoring.

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 Kristina Rayner, Founder and Senior Statistician to 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. 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 – January/February 2023

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through January 2023 (Figure D). Background

(upgradient) well data were re-assessed for potential outliers during this analysis and no new values were flagged. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The January 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-33S, BRGWC-35S, 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) and BRGWC-17S
- Chloride: BRGWC-17S and BRGWC-36S

Decreasing:

- Calcium: BRGWC-34S and BRGWC-38S
- Chloride: BRGWA-5I (upgradient) and BRGWC-34S
- Fluoride: BRGWC-33S
- 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 – January/February 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 new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through January 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). 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 highest and lowest values in background 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.

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 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing:

- None

Decreasing:

- Beryllium: BRGWC-38S
- Cobalt: BRGWA-2S (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,



Andrew T. Collins
Project Manager



Kristina L. Rayner
Senior Statistician

100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 3/20/2023 11:04 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Antimony (mg/L)

BRGWC-33S, BRGWC-34S, BRGWC-35S, PZ-13S, PZ-53D, PZ-52D, PZ-70I

Arsenic (mg/L)

BRGWC-34S, PZ-53D

Beryllium (mg/L)

BRGWC-17S, BRGWC-37S, PZ-53D, PZ-52D

Cadmium (mg/L)

BRGWC-17S, BRGWC-35S, BRGWC-37S, PZ-53D, PZ-52D, PZ-70I

Chromium (mg/L)

BRGWC-34S, PZ-53D, PZ-52D, PZ-70I

Cobalt (mg/L)

BRGWC-17S, BRGWC-36S, BRGWC-37S, PZ-53D

Lead (mg/L)

PZ-53D, PZ-52D, PZ-70I

Lithium (mg/L)

BRGWC-37S

Mercury (mg/L)

PZ-13S, PZ-53D, PZ-52D, PZ-70I

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, PZ-53D, PZ-52D

Thallium (mg/L)

BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, PZ-13S, PZ-53D, PZ-52D, PZ-70I

Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	1/24/2023	0.0326	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	1/24/2023	1.19	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	1/24/2023	2.21	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	1/24/2023	2.23	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	1/25/2023	1.18	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	1/25/2023	1.63	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	1/24/2023	41.3	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	1/24/2023	116	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	1/24/2023	80	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	1/24/2023	67.5	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	1/25/2023	48.2	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	1/25/2023	32.8	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	1/24/2023	6.31	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	1/24/2023	29	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	1/24/2023	7.5	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	1/24/2023	6.46	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	1/25/2023	7.93	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	1/25/2023	6.53	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	1/24/2023	0.216	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	1/24/2023	0.193	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	1/24/2023	0.239	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	1/25/2023	0.708	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	1/24/2023	4.79	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	1/25/2023	4.75	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	1/24/2023	153	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	1/24/2023	375	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	1/24/2023	267	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	1/24/2023	334	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	1/25/2023	237	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	1/25/2023	291	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	1/24/2023	344	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	1/24/2023	615	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	1/24/2023	433	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	1/24/2023	507	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	1/25/2023	418	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	1/25/2023	484	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	1/24/2023	0.0326	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	1/24/2023	1.19	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	1/24/2023	2.21	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	1/24/2023	2.23	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	1/25/2023	1.18	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.0187	n/a	1/25/2023	0.015ND	No	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	1/25/2023	1.63	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	1/24/2023	41.3	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	1/24/2023	116	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	1/24/2023	80	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	1/24/2023	67.5	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	1/25/2023	48.2	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	1/25/2023	3.65	No	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	1/25/2023	32.8	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	1/24/2023	6.31	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	1/24/2023	29	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	1/24/2023	7.5	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	1/24/2023	6.46	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	1/25/2023	7.93	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	1/25/2023	1.92	No	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	1/25/2023	6.53	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	1/24/2023	0.216	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	1/24/2023	0.193	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.19	n/a	1/24/2023	0.122	No	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	1/24/2023	0.239	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	1/25/2023	0.183	No	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.19	n/a	1/25/2023	0.114	No	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	1/25/2023	0.708	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.44	5.26	1/24/2023	6.37	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	1/24/2023	4.79	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.44	5.26	1/24/2023	5.93	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.44	5.26	1/24/2023	6.08	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.44	5.26	1/25/2023	5.64	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.44	5.26	1/25/2023	5.84	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	1/25/2023	4.75	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	1/24/2023	153	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	1/24/2023	375	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	1/24/2023	267	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	1/24/2023	334	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	1/25/2023	237	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	1/25/2023	0.325J	No	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	1/25/2023	291	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	1/24/2023	344	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	1/24/2023	615	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	1/24/2023	433	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	1/24/2023	507	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	1/25/2023	418	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	299	n/a	1/25/2023	28	No	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	1/25/2023	484	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-35S	0.1697	113	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03668	75	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.14	75	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.91	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.023	-90	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.805	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.16	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2181	69	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.23	-68	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.7848	90	63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-33S	-0.02655	-84	-81	Yes	20	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.08596	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.04386	-89	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05239	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1079	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-30.64	-115	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13.29	-79	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-32.45	-99	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.706	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-44.75	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.84	-107	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.71	-112	-63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.0003815	30	63	No	17	29.41	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-1	-63	No	17	88.24	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-4	-63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-1	-63	No	17	58.82	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	4	63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-17S	-0.0009889	4	-68	No	18	38.89	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	-0.004253	-12	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0.00246	17	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1697	113	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03668	75	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.03581	-38	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.4268	41	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.111	46	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.1199	19	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.4249	-40	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.14	75	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.91	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-1.413	-24	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.023	-90	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	1.917	63	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.4778	-39	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.805	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.03727	-34	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	0	-9	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.16	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07107	-60	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.01018	-24	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2181	69	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-33S	0.4692	22	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.23	-68	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.06042	36	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.7848	90	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1365	24	63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-16	-74	No	19	52.63	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	56	74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	72	74	No	19	68.42	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	-4	-74	No	19	36.84	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0.006099	73	74	No	19	57.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-17S	0	7	74	No	19	5.263	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-33S	-0.02655	-84	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-35S	-0.007584	-42	-74	No	19	15.79	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0.004963	8	74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.08596	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.04386	-89	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02414	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05239	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	0.002505	5	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-33S	-0.01054	-49	-81	No	20	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1079	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.2241	-48	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	5	63	No	17	35.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.2579	-48	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.009734	-26	-63	No	17	35.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	0	4	63	No	17	23.53	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	5.176	59	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-16.3	-37	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-30.64	-115	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-0.09626	-1	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13.29	-79	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-32.45	-99	-63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limits Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-7.505	-40	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.6809	10	63	No	17	5.882	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-3.081	-32	-63	No	17	5.882	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.706	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.032	-19	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-17S	3.177	27	63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-33S	-26.14	-31	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-44.75	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	2.399	17	63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.84	-107	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.71	-112	-63	Yes	17	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a 90	n/a	n/a	92.22	n/a	n/a	0.009888	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 90	n/a	n/a	76.67	n/a	n/a	0.009888	NP Inter(NDs)
Barium (mg/L)	n/a	0.063	n/a	n/a	n/a	n/a 90	n/a	n/a	0	n/a	n/a	0.009888	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a 90	n/a	n/a	15.56	n/a	n/a	0.009888	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0034	n/a	n/a	n/a	n/a 88	n/a	n/a	45.45	n/a	n/a	0.01096	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	1.736	n/a	n/a	n/a	n/a 90	0.7922	0.2703	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a 95	n/a	n/a	55.79	n/a	n/a	0.007651	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 90	n/a	n/a	81.11	n/a	n/a	0.009888	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a 90	n/a	n/a	44.44	n/a	n/a	0.009888	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a 80	n/a	n/a	87.5	n/a	n/a	0.01652	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a 90	n/a	n/a	67.78	n/a	n/a	0.009888	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	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		1.74	5
Fluoride, Total (mg/L)	4		0.19	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 - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.009297	0.00797	0.004	Yes	19	0.008634	0.001134	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05312	0.03893	0.006	Yes	19	0.04602	0.01212	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2505	0.1997	0.006	Yes	18	0.2251	0.04201	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	18	0.002883	0.000495	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	18	0.002502	0.0009876	77.78	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	18	0.002722	0.0008092	88.89	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	18	0.002756	0.0007123	88.89	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	18	0.004178	0.001678	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	19	0.004252	0.001547	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	18	0.004247	0.001734	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	18	0.004286	0.001645	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.003	0.01	No	18	0.004144	0.001728	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003395	0.001906	0.01	No	18	0.002651	0.001231	11.11	None	No	0.01	Param.
Arsenic (mg/L)	PZ-13S	0.005	0.00388	0.01	No	4	0.00472	0.00056	75	None	No	0.0625	NP (NDs)
Barium (mg/L)	BRGWC-17S	0.04387	0.0392	2	No	18	0.04153	0.003865	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.0243	0.02	2	No	19	0.02321	0.005815	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.0347	0.0232	2	No	18	0.02892	0.006961	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-35S	0.0518	0.0339	2	No	18	0.04662	0.01897	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.0415	0.0296	2	No	18	0.03725	0.01041	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-37S	0.02518	0.0233	2	No	18	0.02424	0.001557	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.015	2	No	18	0.02104	0.009558	0	None	No	0.01	NP (normality)
Barium (mg/L)	PZ-13S	0.1734	-0.01055	2	No	4	0.08143	0.04051	0	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-33S	0.002005	0.001591	0.004	No	19	0.001798	0.0003539	5.263	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0002	0.00012	0.004	No	18	0.0002178	0.000157	22.22	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.00021	0.0001	0.004	No	18	0.0001961	0.000143	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.0005	0.000084	0.004	No	19	0.0002216	0.0001945	31.58	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009297	0.00797	0.004	Yes	19	0.008634	0.001134	0	None	No	0.01	Param.
Beryllium (mg/L)	PZ-13S	0.0005713	0.0002552	0.004	No	4	0.0004133	0.00006962	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0004548	0.0003232	0.005	No	19	0.000389	0.0001124	5.263	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0003893	0.0001816	0.005	No	18	0.0004554	0.0003243	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	19	0.0009042	0.0002869	89.47	Kaplan-Meier	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0005984	0.000487	0.005	No	18	0.0005427	0.00009208	5.556	None	No	0.01	Param.
Cadmium (mg/L)	PZ-13S	0.001	0.00011	0.005	No	4	0.0007775	0.000445	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	BRGWC-17S	0.01259	0.009933	0.1	No	18	0.01133	0.002321	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	19	0.009499	0.002182	94.74	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006574	0.004499	0.1	No	18	0.005537	0.001715	5.556	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008226	0.007146	0.1	No	18	0.007686	0.000893	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	18	0.003867	0.003919	27.78	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.00411	0.003499	0.1	No	18	0.003717	0.0007207	0	None	x^3	0.01	Param.
Chromium (mg/L)	PZ-13S	0.0305	0.006047	0.1	No	4	0.01828	0.005386	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05312	0.03893	0.006	Yes	19	0.04602	0.01212	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.004512	0.003371	0.006	No	18	0.004016	0.001087	5.556	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	18	0.001	0.0003926	72.22	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2505	0.1997	0.006	Yes	18	0.2251	0.04201	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-13S	0.001	0.00037	0.006	No	4	0.0008425	0.000315	75	None	No	0.0625	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.7614	0.3561	5	No	18	0.5587	0.335	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.433	0.6495	5	No	18	1.102	0.7251	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.244	0.7613	5	No	18	1.026	0.4342	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.363	0.4806	5	No	18	1.011	0.8935	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.43	0.6703	5	No	18	1.206	1.008	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9846	0.3975	5	No	18	0.7428	0.5511	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.583	2.021	5	No	18	2.89	1.44	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-13S	5.806	-1.875	5	No	4	2.053	1.88	25	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1553	0.08879	4	No	19	0.1261	0.06127	5.263	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2225	0.1111	4	No	20	0.1762	0.1086	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1454	0.08016	4	No	19	0.1241	0.08005	5.263	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.125	0.06256	4	No	19	0.1098	0.07679	15.79	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.18	0.054	4	No	19	0.1227	0.1058	47.37	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	19	0.08258	0.02773	42.11	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9214	0.7211	4	No	19	0.8335	0.1982	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	PZ-13S	0.1439	0.01015	4	No	4	0.097	0.02798	50	Kaplan-Meier	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	18	0.001786	0.0006219	88.89	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.00007	0.015	No	19	0.000804	0.0009393	36.84	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	18	0.001694	0.0007055	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	18	0.001584	0.0008002	77.78	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	18	0.001892	0.0004603	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	18	0.001789	0.0006144	88.89	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00035	0.015	No	18	0.00075	0.0006896	22.22	None	No	0.01	NP (normality)
Lead (mg/L)	PZ-13S	0.002	0.00035	0.015	No	4	0.001588	0.000825	75	None	No	0.0625	NP (NDs)
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	18	0.006492	0.004526	61.11	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.0104	0.009245	0.089	No	19	0.009821	0.000983	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	18	0.006956	0.00443	66.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.0021	0.089	No	18	0.002456	0.0009288	11.11	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0023	0.089	No	18	0.003711	0.002897	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.0227	0.02048	0.089	No	18	0.02159	0.001839	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-13S	0.002281	0.0006748	0.089	No	4	0.005675	0.005002	50	Kaplan-Meier	x^(1/3)	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	16	0.0001777	0.0000484	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	17	0.0001782	0.00005053	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00012	0.002	No	16	0.0001737	0.00005188	75	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	16	0.0001819	0.00004053	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	16	0.0001812	0.00004177	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	16	0.0001819	0.00004167	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.000154	0.0000953	0.002	No	16	0.0001464	0.00004947	18.75	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002487	0.00177	0.05	No	18	0.002903	0.001315	22.22	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	19	0.004142	0.001271	47.37	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.004886	0.002917	0.05	No	18	0.004002	0.001788	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.0403	0.03213	0.05	No	18	0.03622	0.006757	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-13S	0.004543	0.0006174	0.05	No	4	0.00258	0.0008644	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	18	0.001893	0.0004558	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	19	0.0005753	0.0007561	21.05	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.0002	0.002	No	18	0.0008294	0.0008535	33.33	None	No	0.01	NP (normality)

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	-0.0004273	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003527	-101	-68	Yes	18	11.11	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.005794	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02005	-115	-68	Yes	18	0	n/a	n/a	0.01	NP

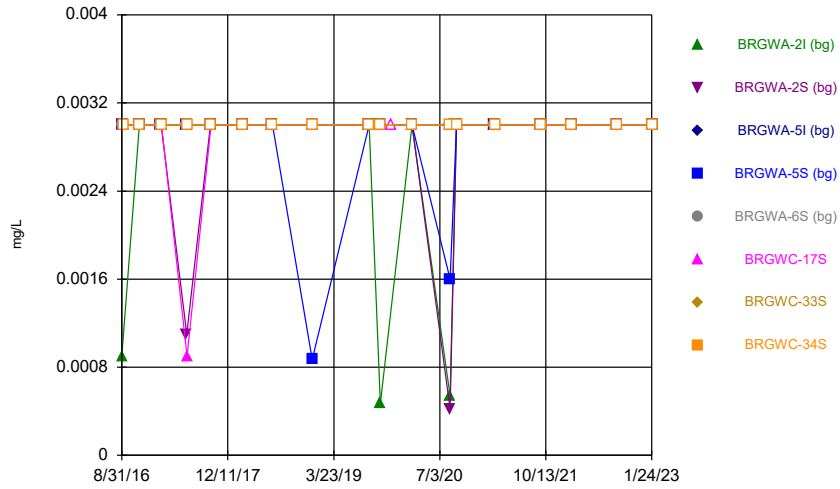
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWC-38S	-0.0004273	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-25	-68	No	18	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003527	-101	-68	Yes	18	11.11	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.000106	-52	-58	No	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	31	68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	12	68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.005794	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02005	-115	-68	Yes	18	0	n/a	n/a	0.01	NP

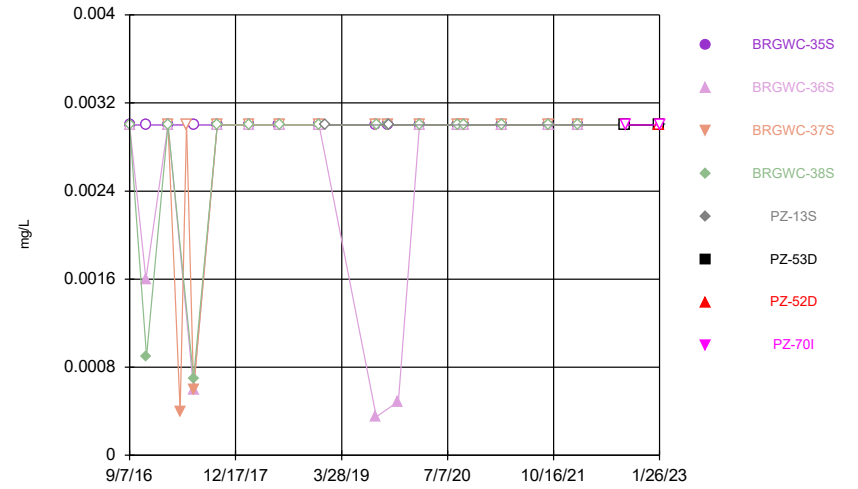
FIGURE A.

Time Series



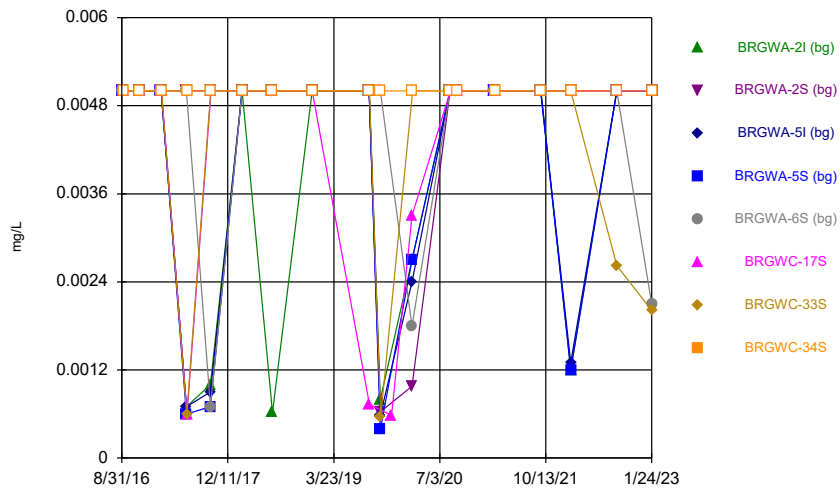
Constituent: Antimony Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



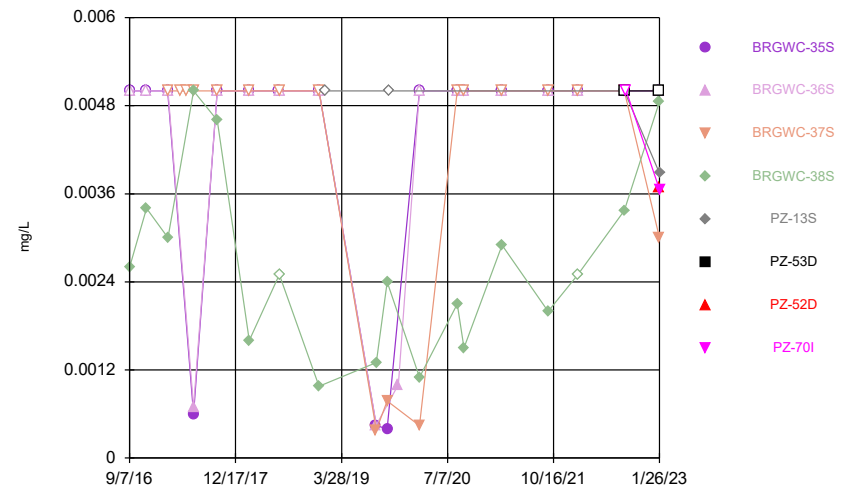
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



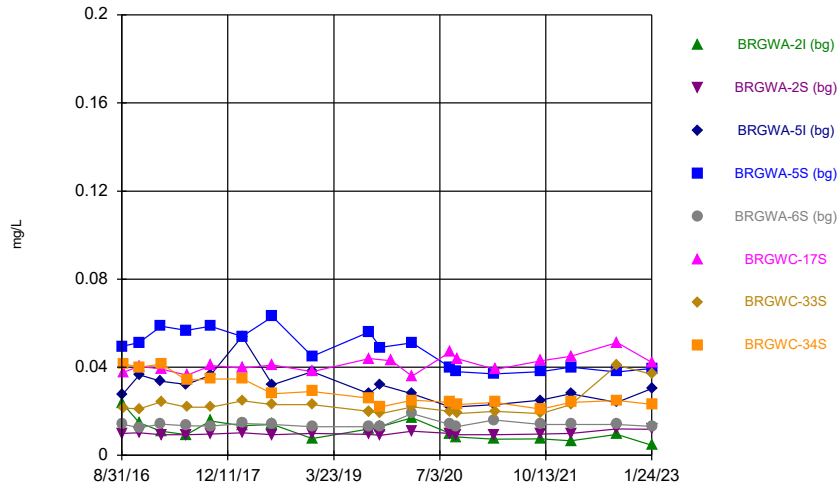
Constituent: Arsenic Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



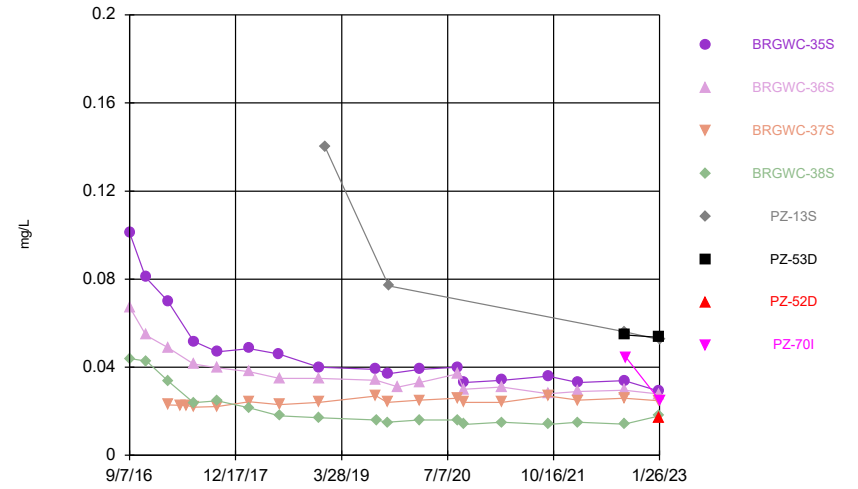
Constituent: Arsenic Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



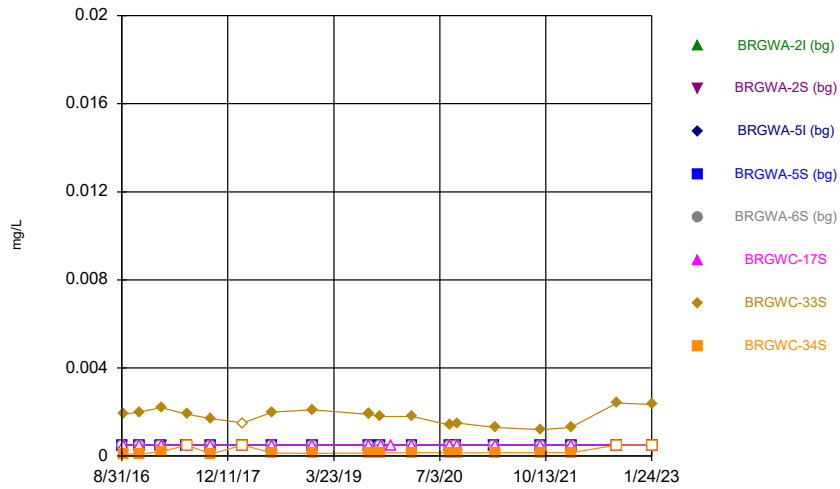
Constituent: Barium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



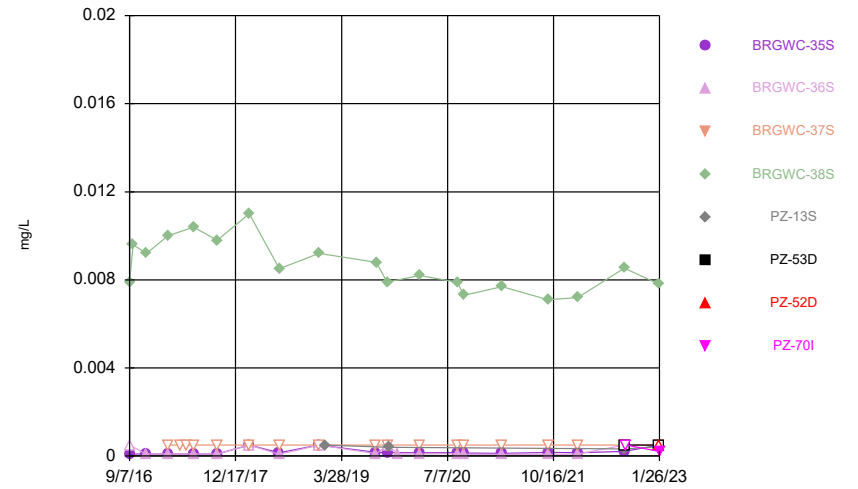
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



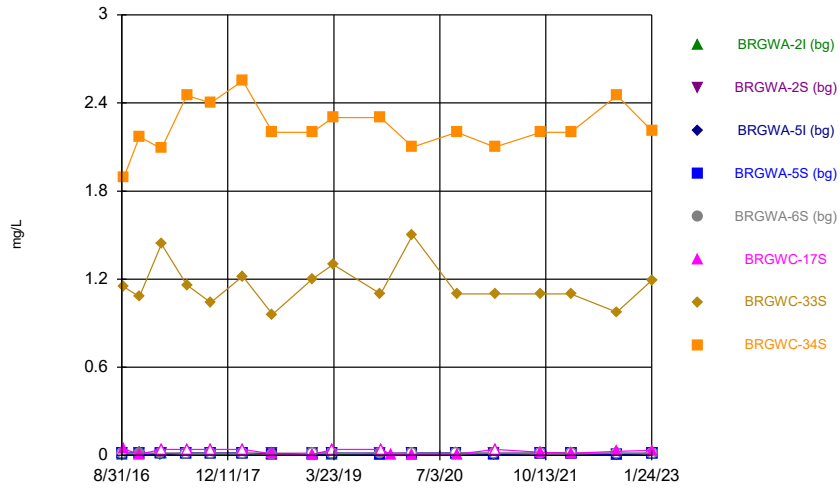
Constituent: Beryllium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



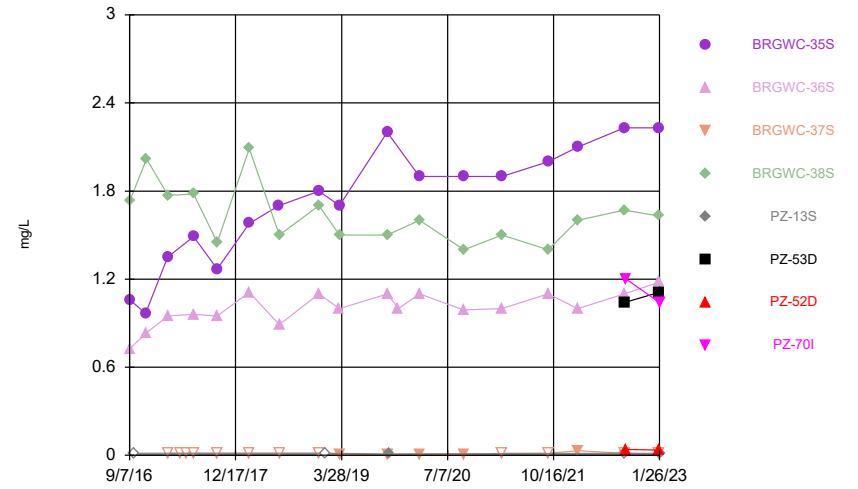
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



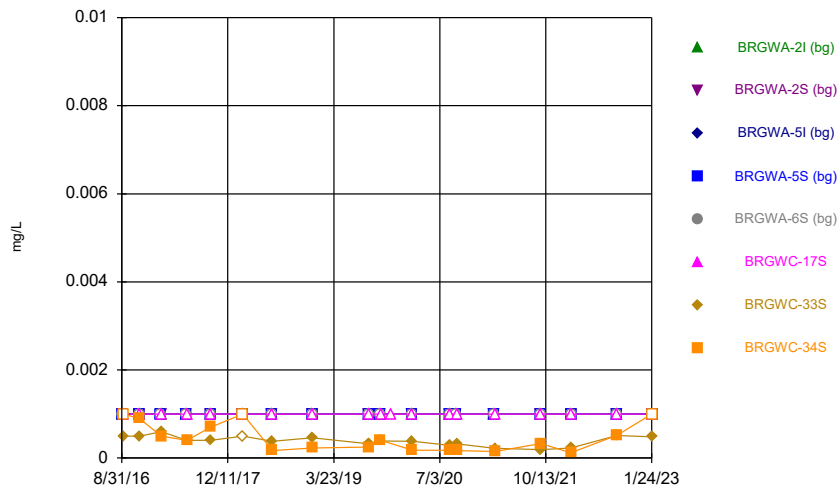
Constituent: Boron Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



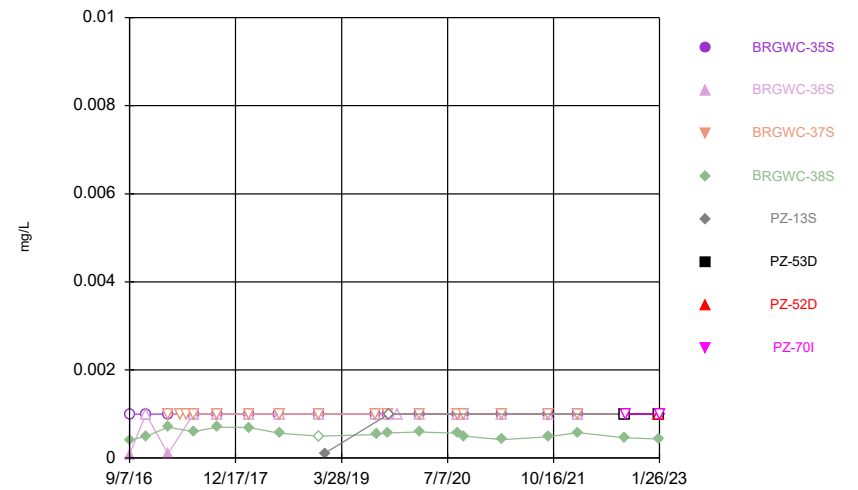
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



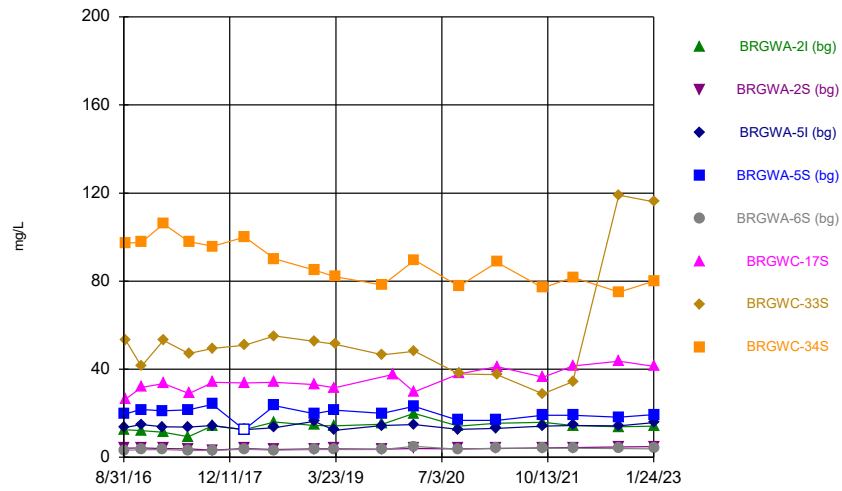
Constituent: Cadmium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



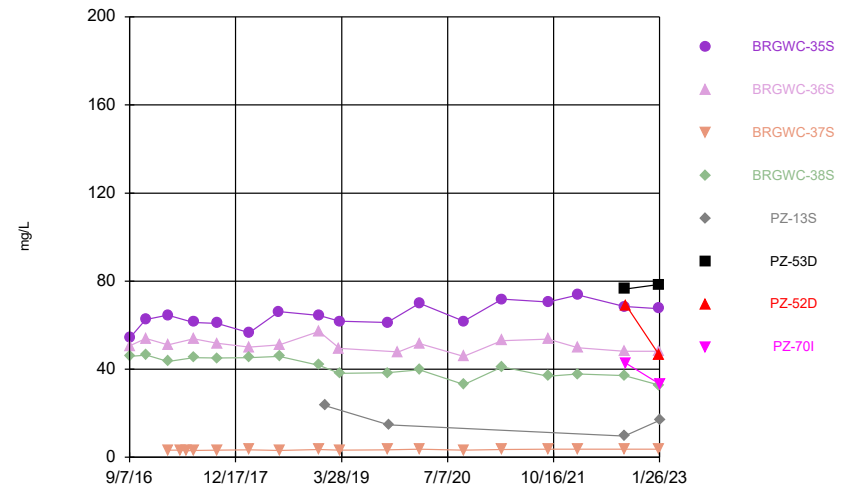
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



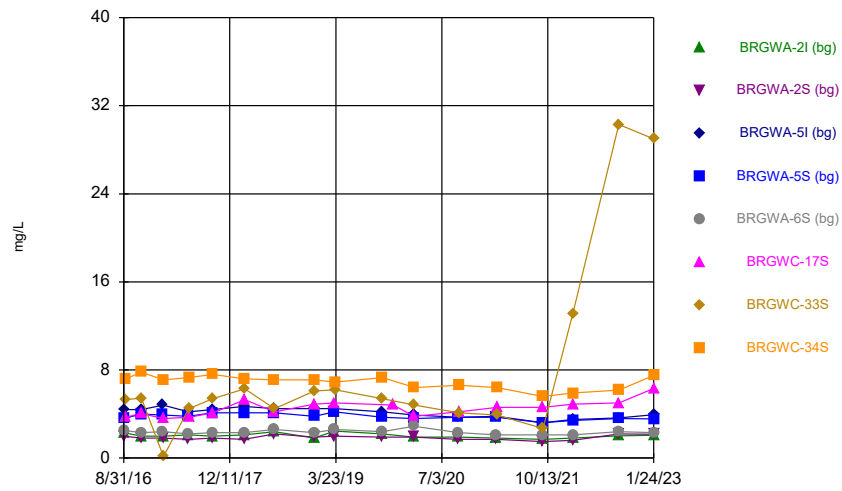
Constituent: Calcium Analysis Run 3/20/2023 10:48 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



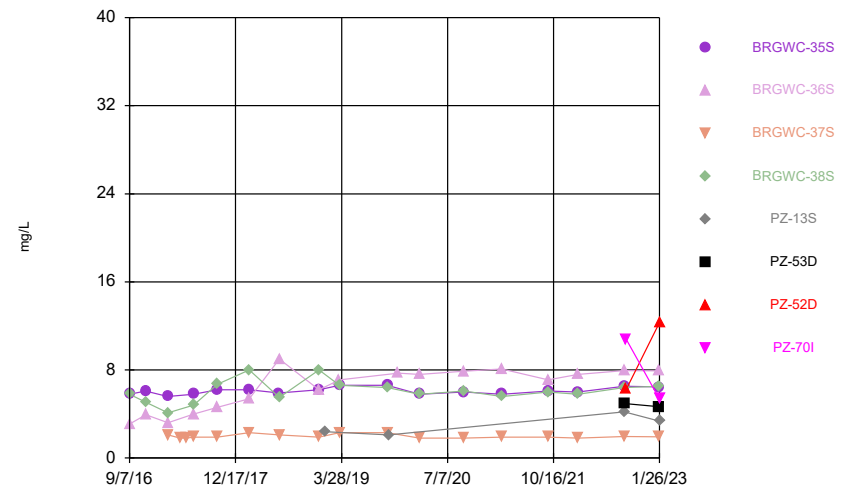
Constituent: Calcium Analysis Run 3/20/2023 10:48 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



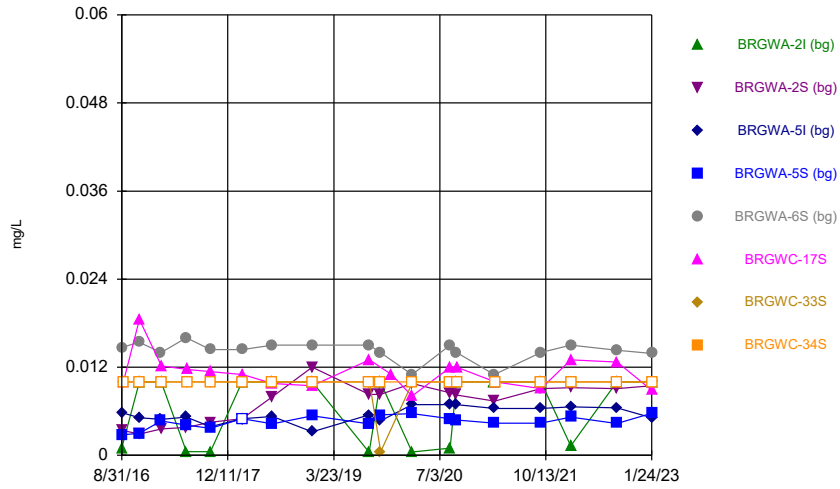
Constituent: Chloride Analysis Run 3/20/2023 10:48 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



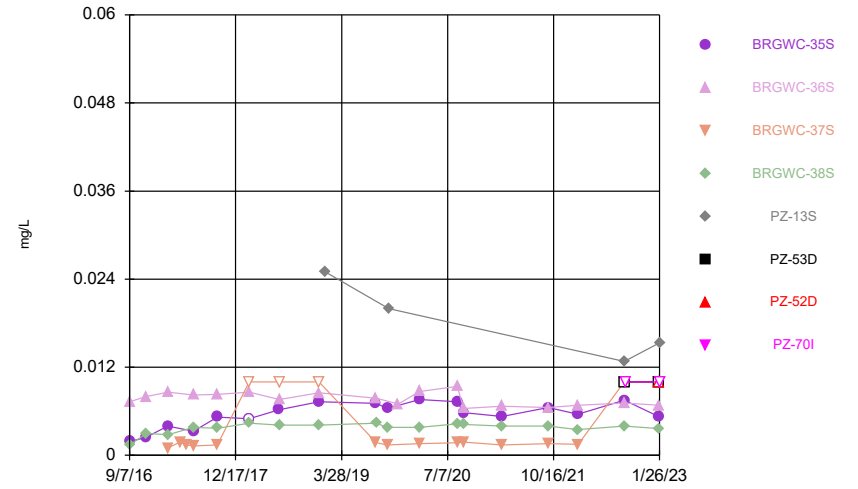
Constituent: Chloride Analysis Run 3/20/2023 10:48 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



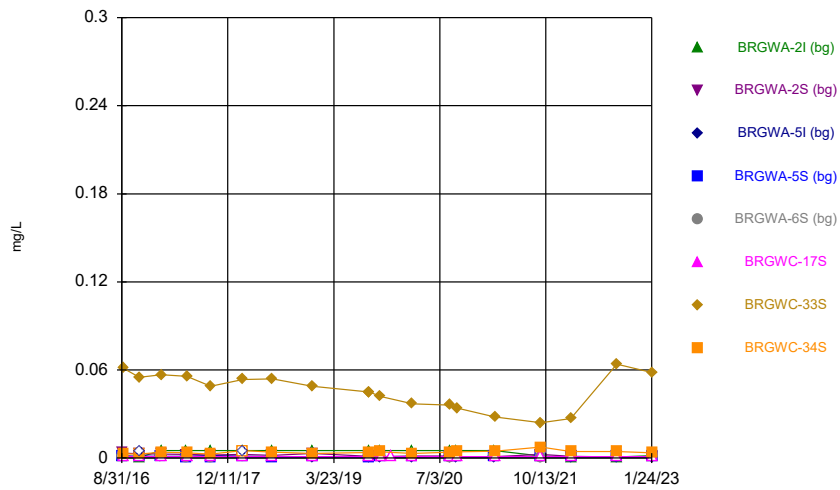
Constituent: Chromium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



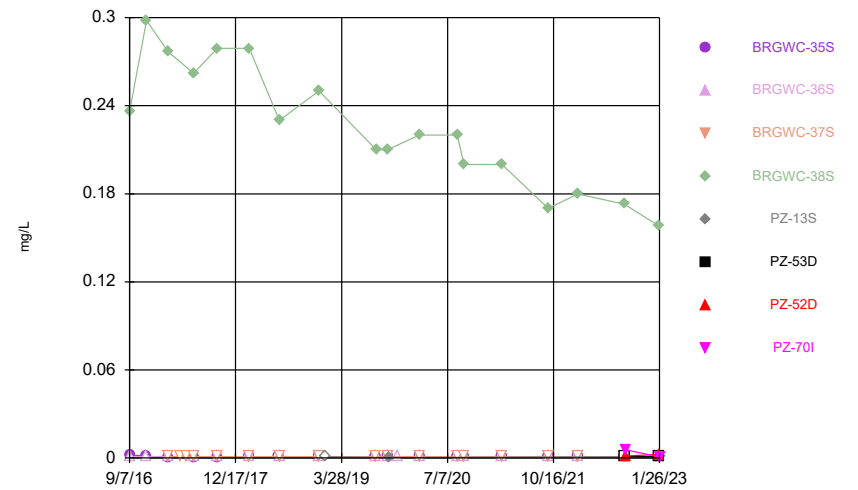
Constituent: Chromium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



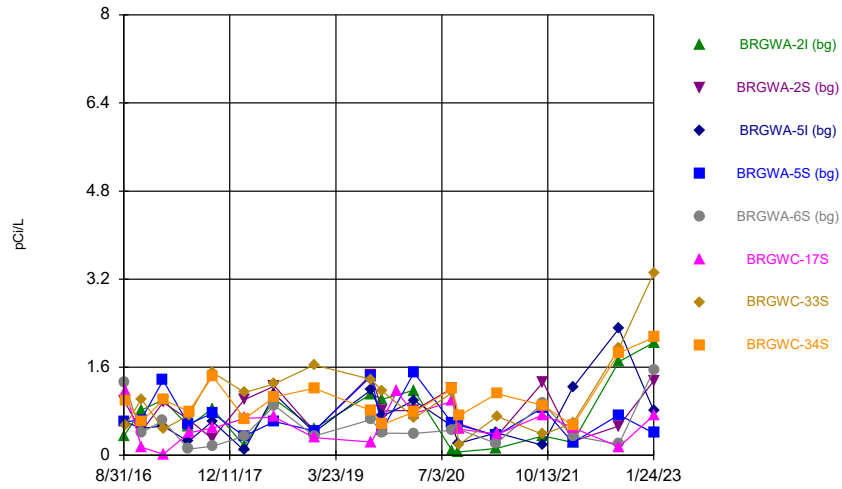
Constituent: Cobalt Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



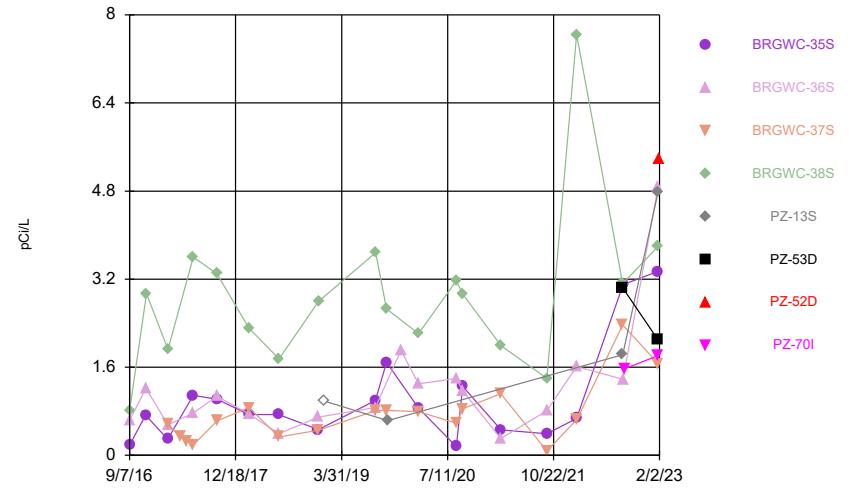
Constituent: Cobalt Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



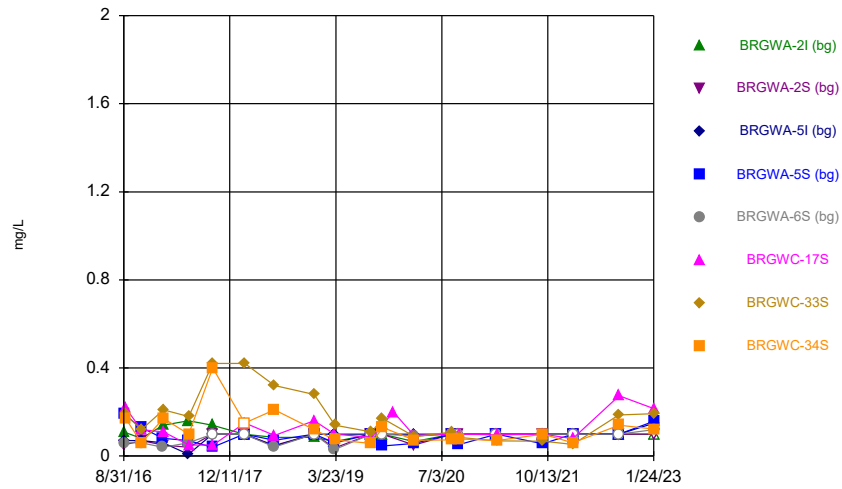
Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



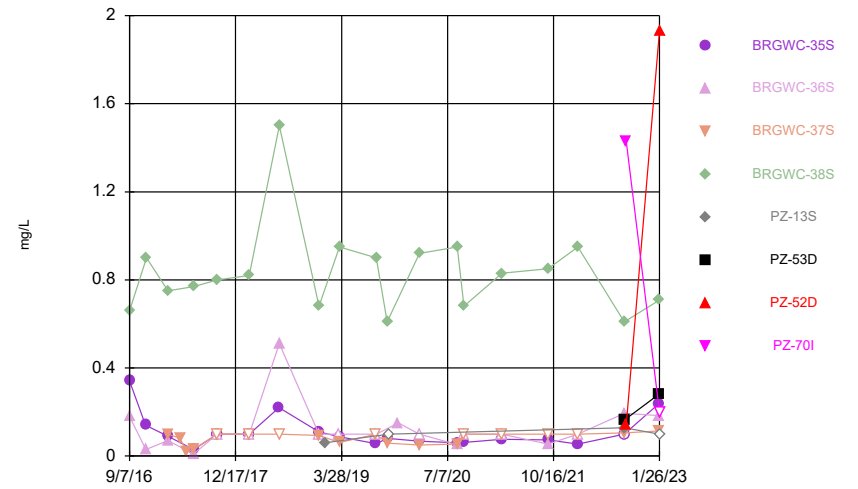
Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



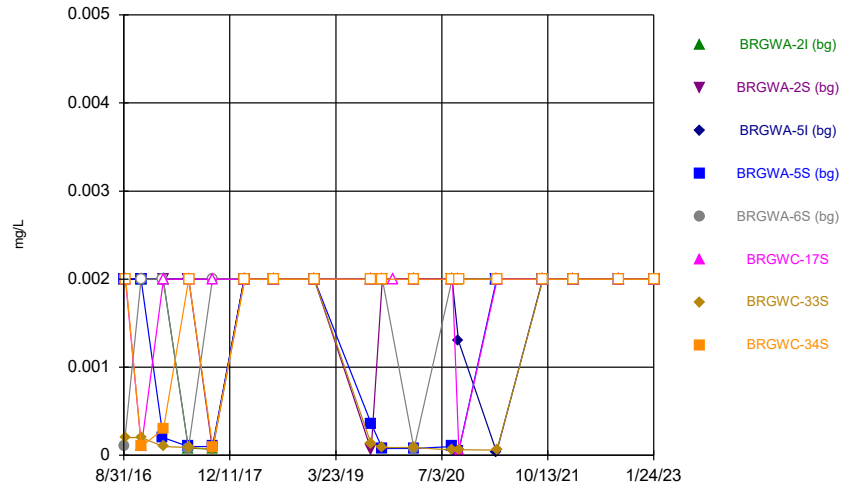
Constituent: Fluoride Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



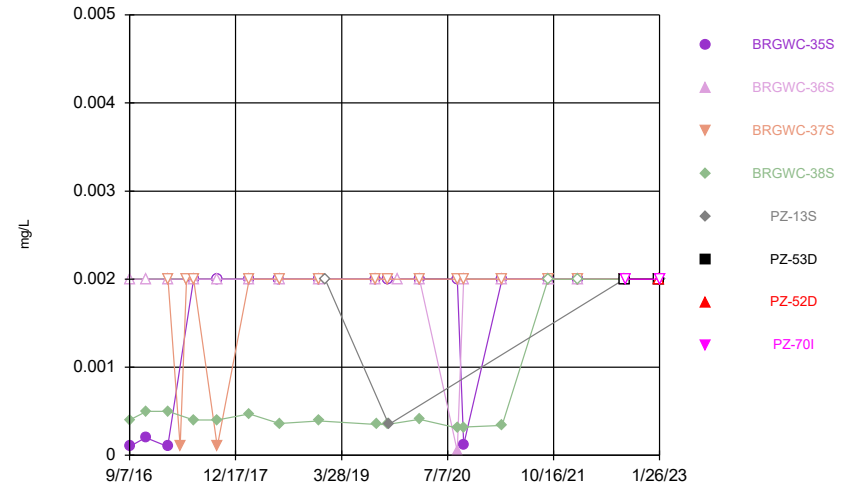
Constituent: Fluoride Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



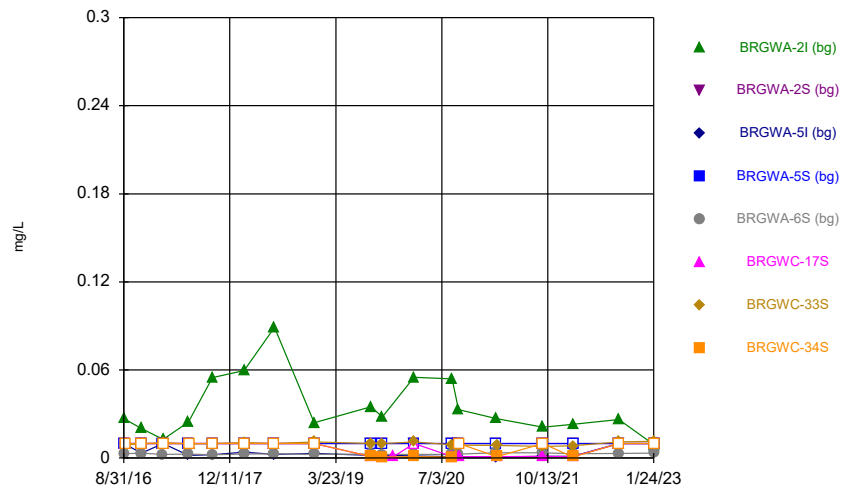
Constituent: Lead Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



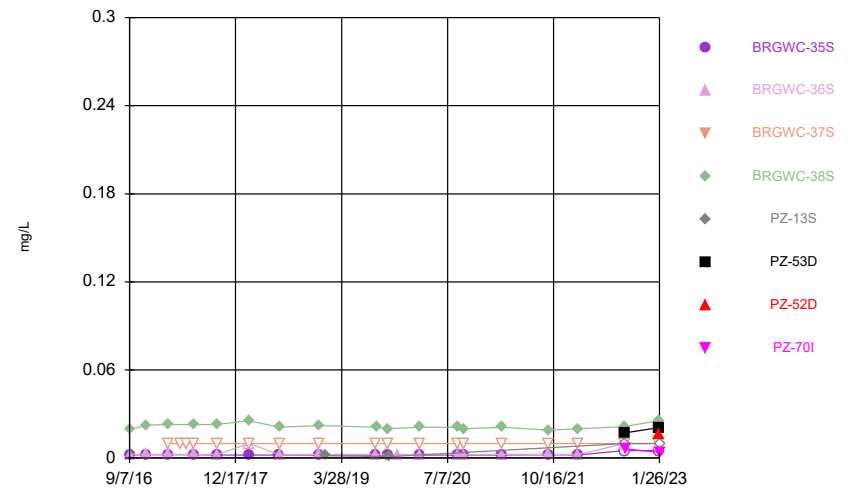
Constituent: Lead Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



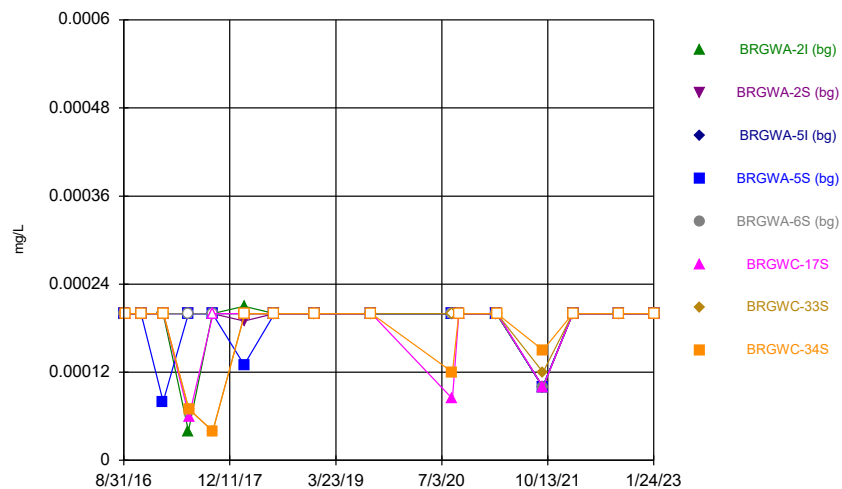
Constituent: Lithium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



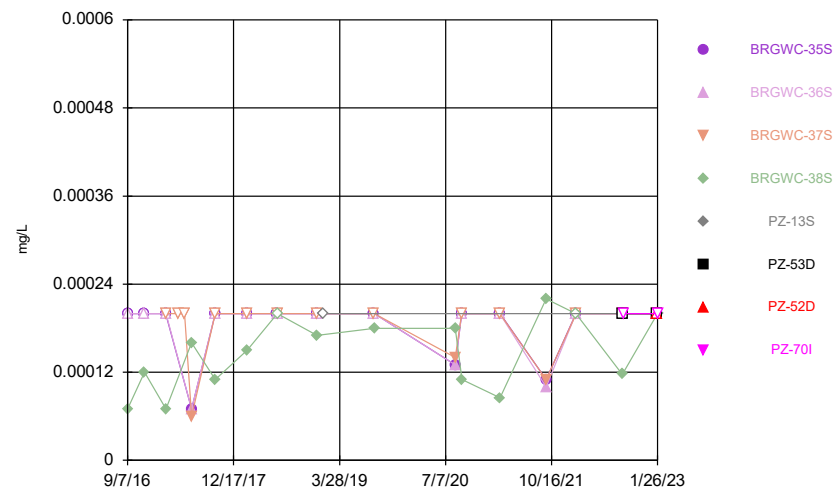
Constituent: Lithium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



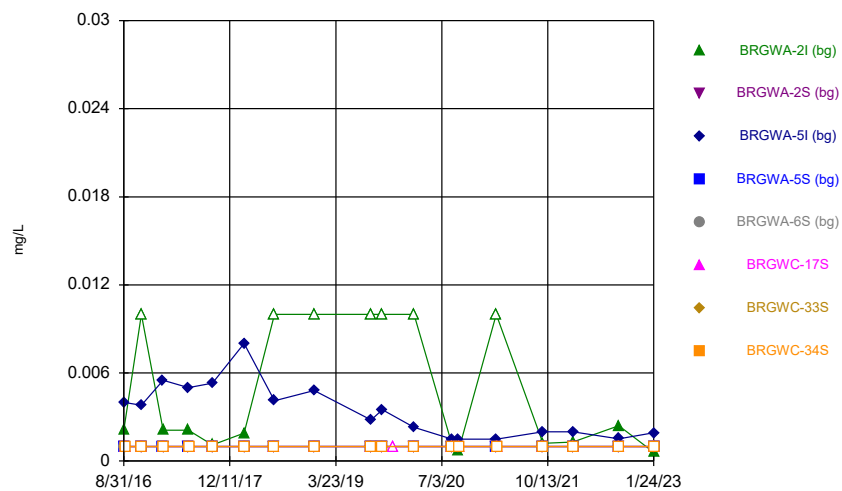
Constituent: Mercury Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



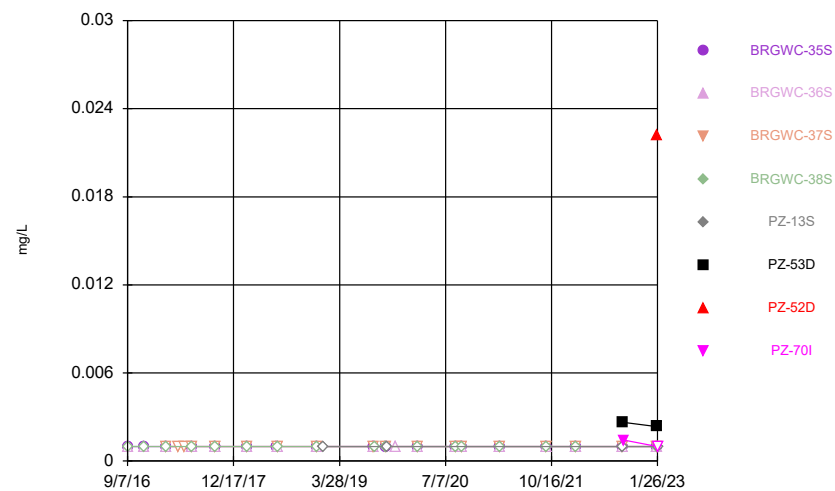
Constituent: Mercury Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



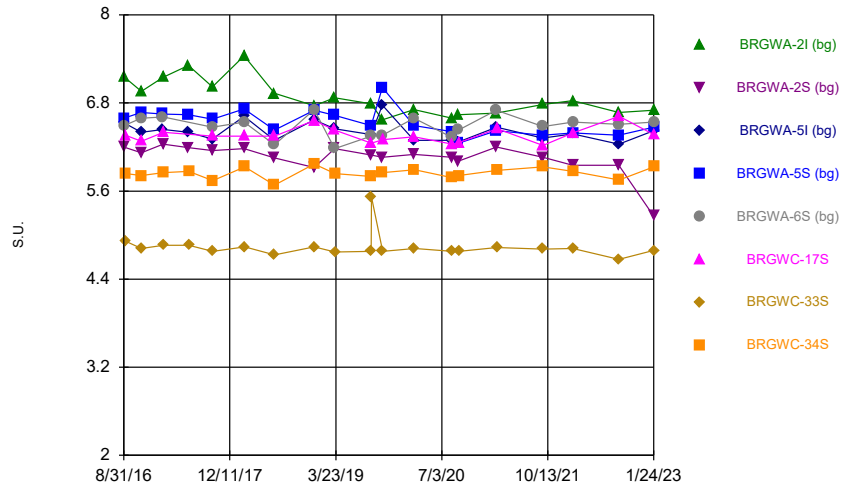
Constituent: Molybdenum Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



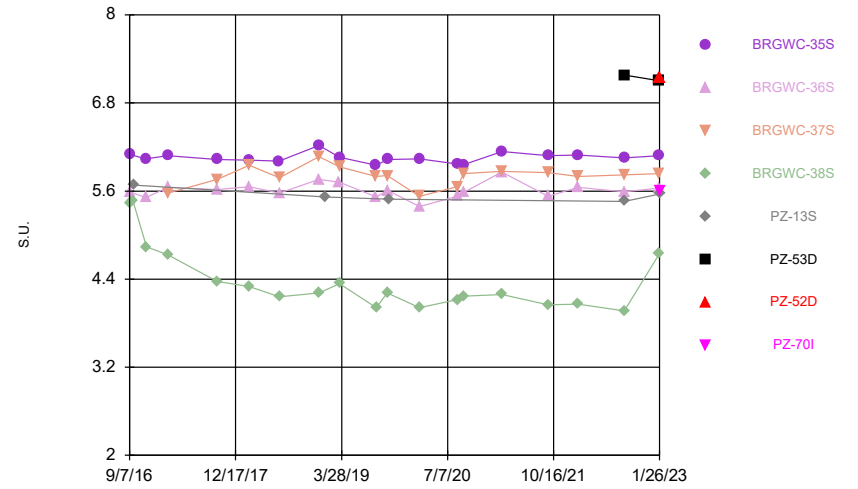
Constituent: Molybdenum Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



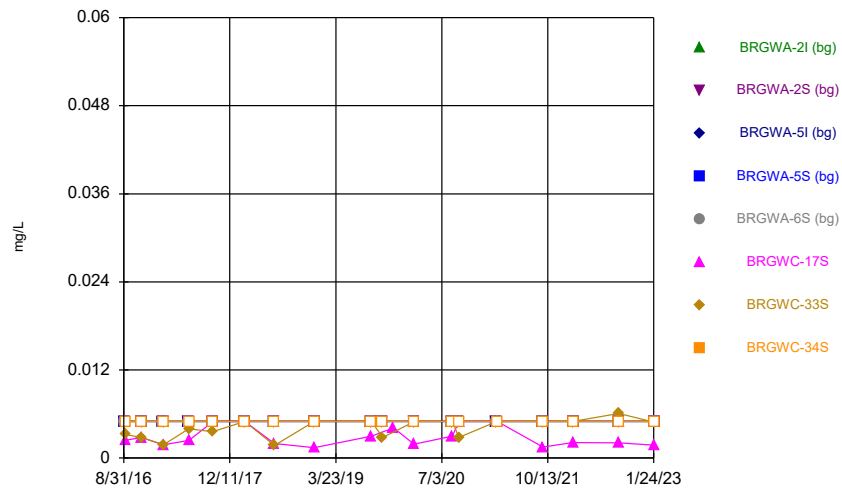
Constituent: pH, Field Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



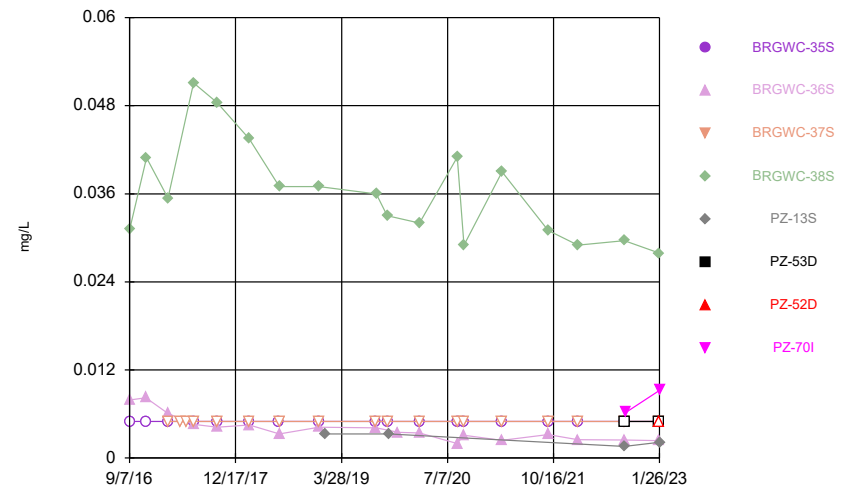
Constituent: pH, Field Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



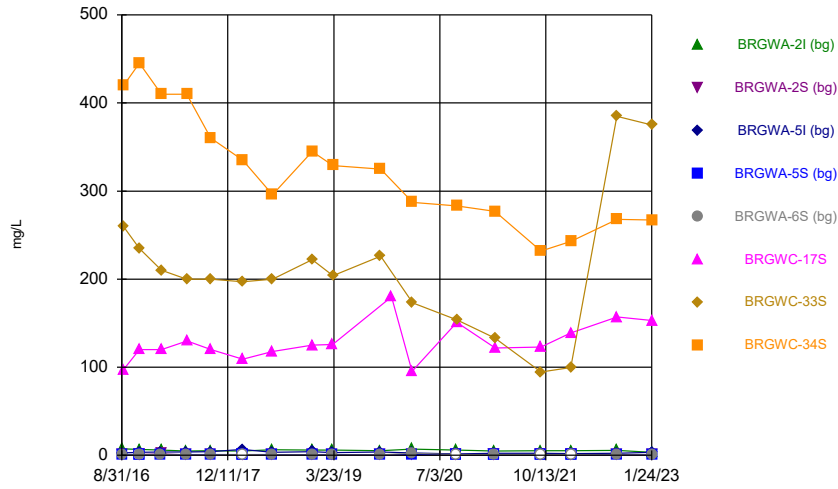
Constituent: Selenium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



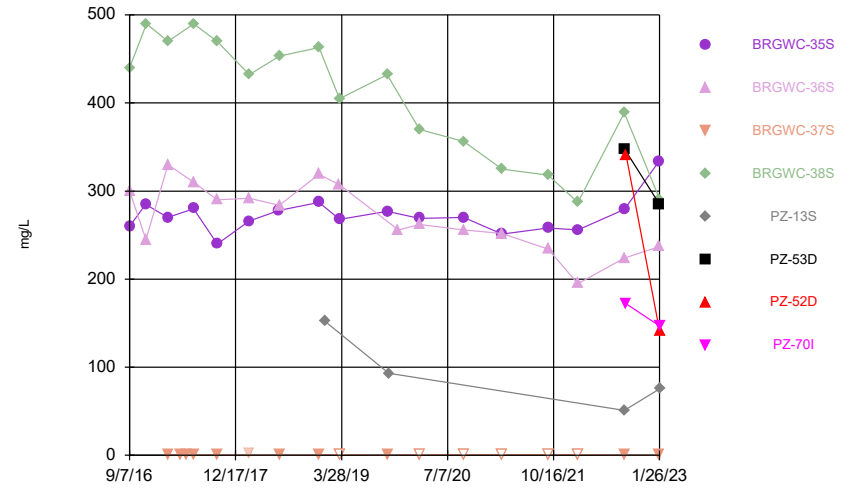
Constituent: Selenium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



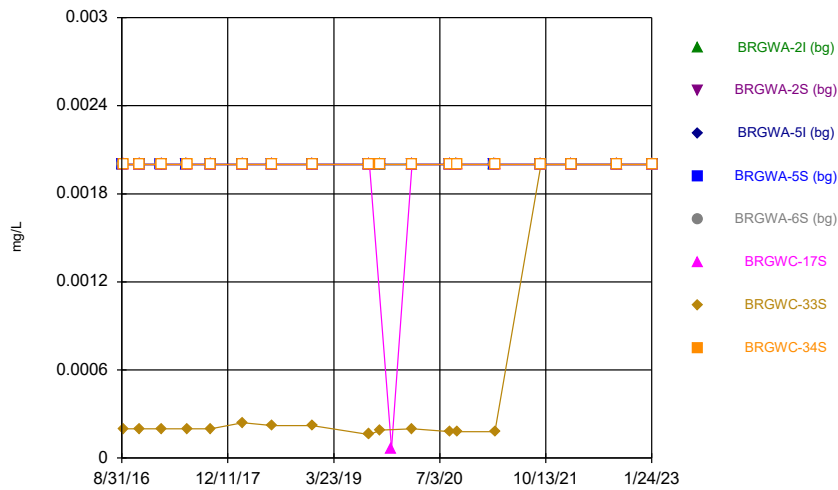
Constituent: Sulfate Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



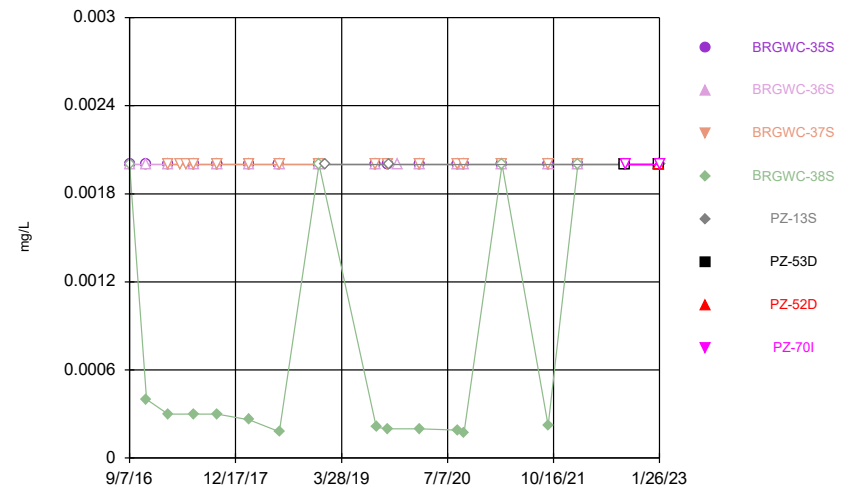
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



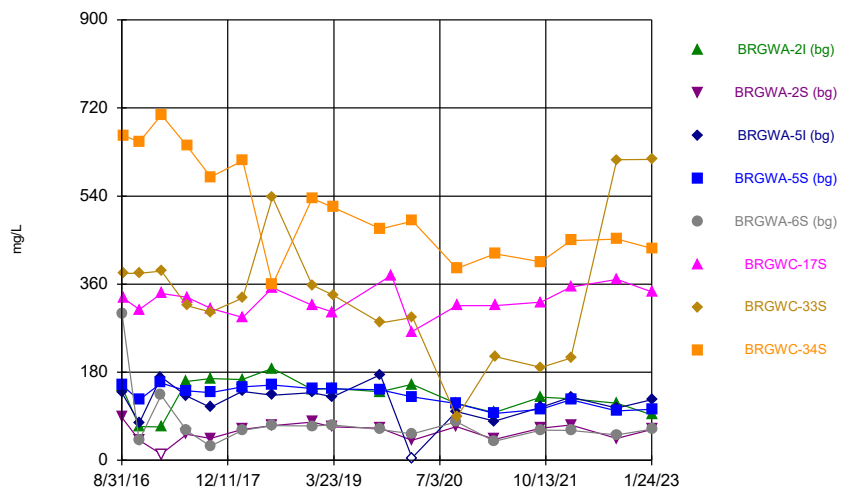
Constituent: Thallium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



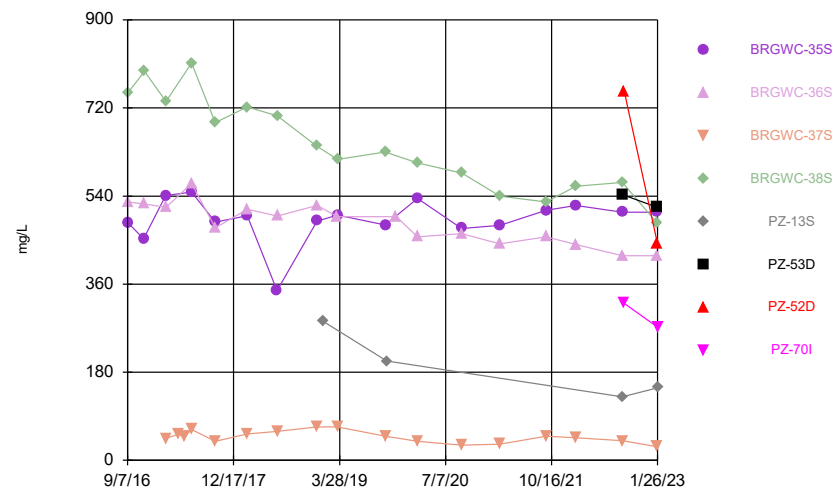
Constituent: Thallium Analysis Run 3/20/2023 10:48 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 10:48 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 10:48 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 10:52 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)

Time Series

Constituent: Barium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Barium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 10:52 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)

Time Series

Constituent: Boron (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Boron (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Calcium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Calcium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Chloride (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Chloride (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 10:52 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)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 10:52 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)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 10:52 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	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 10:52 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)

Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: pH, Field (S.U.) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: pH, Field (S.U.) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 10:52 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

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 3/20/2023 10:52 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			
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

Time Series

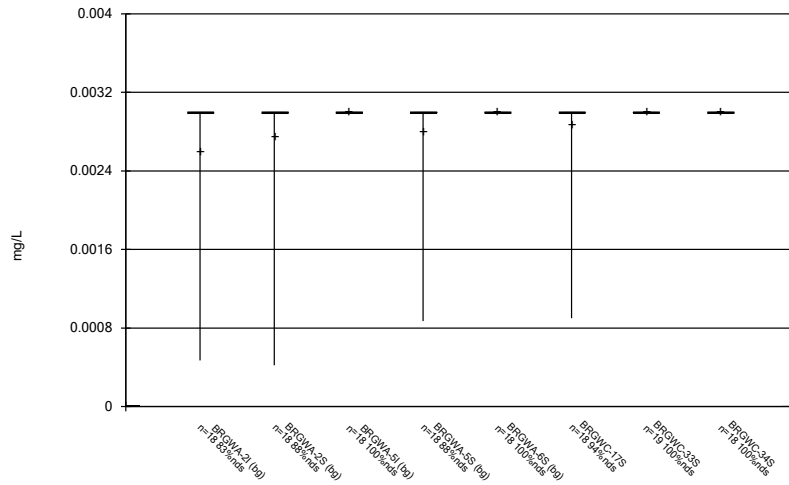
Constituent: Total Dissolved Solids (mg/L) Analysis Run 3/20/2023 10:52 AM View: Pond E

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

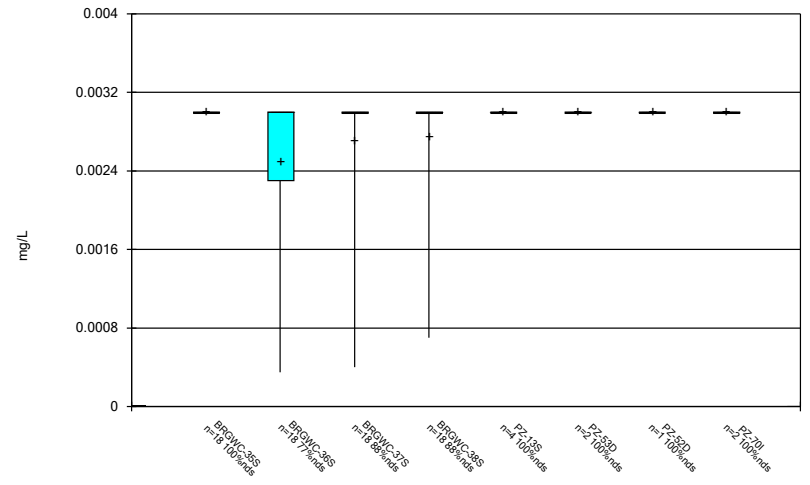
FIGURE B.

Box & Whiskers Plot



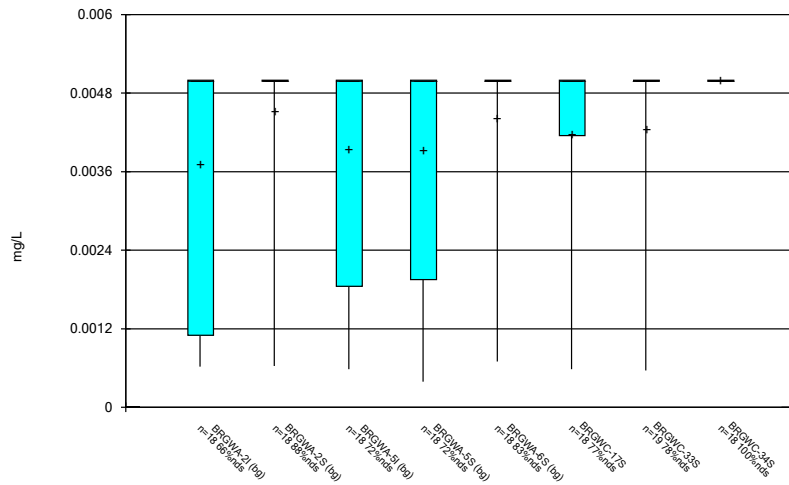
Constituent: Antimony Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



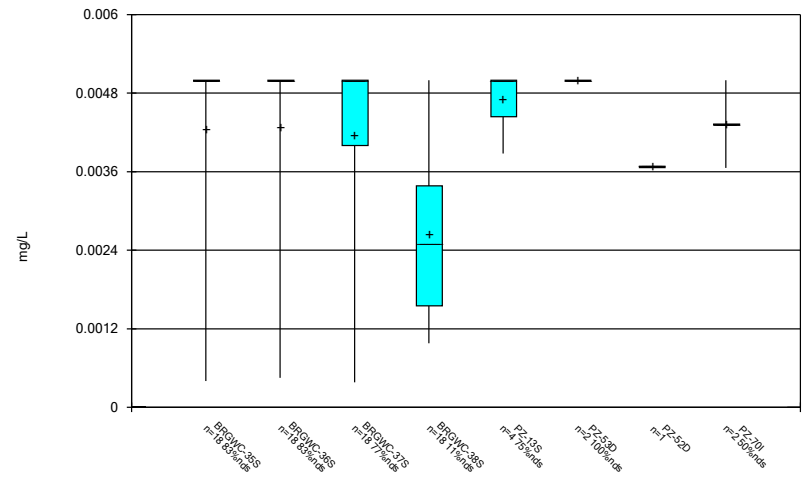
Constituent: Antimony Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



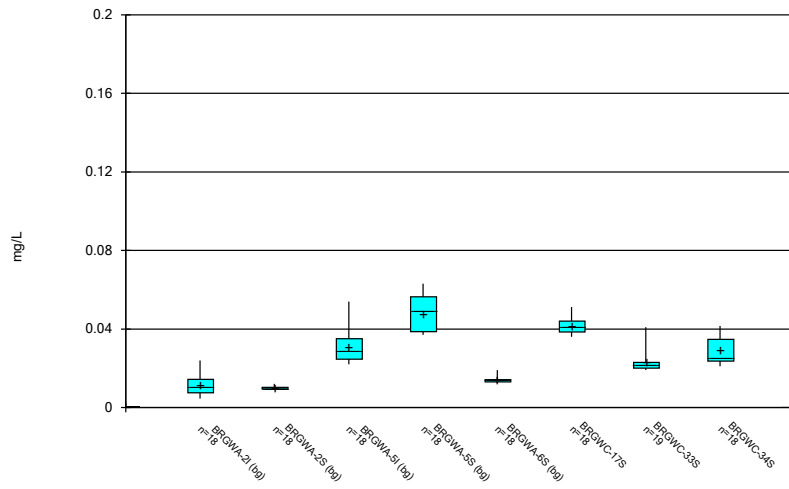
Constituent: Arsenic Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



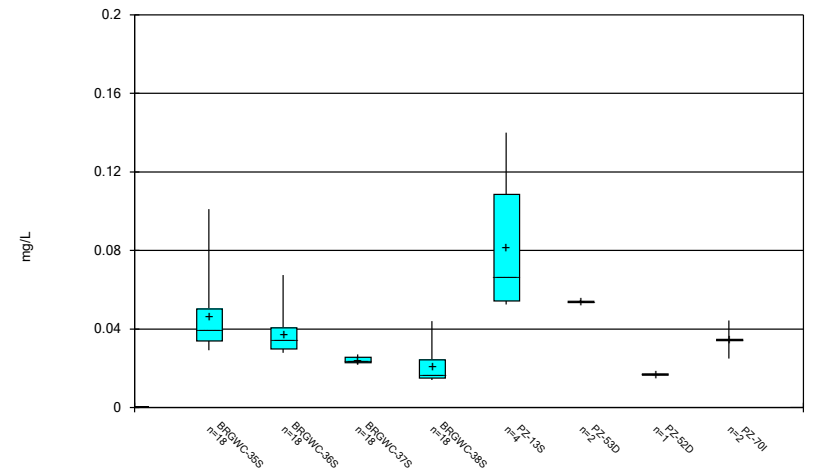
Constituent: Arsenic Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



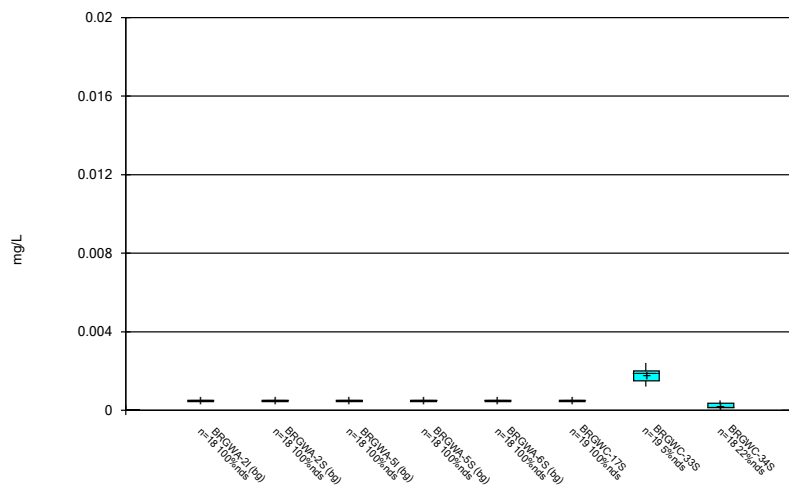
Constituent: Barium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



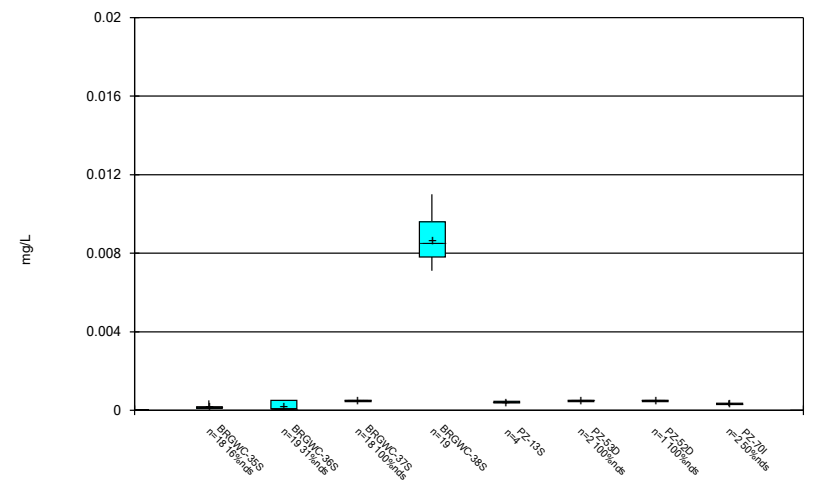
Constituent: Barium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



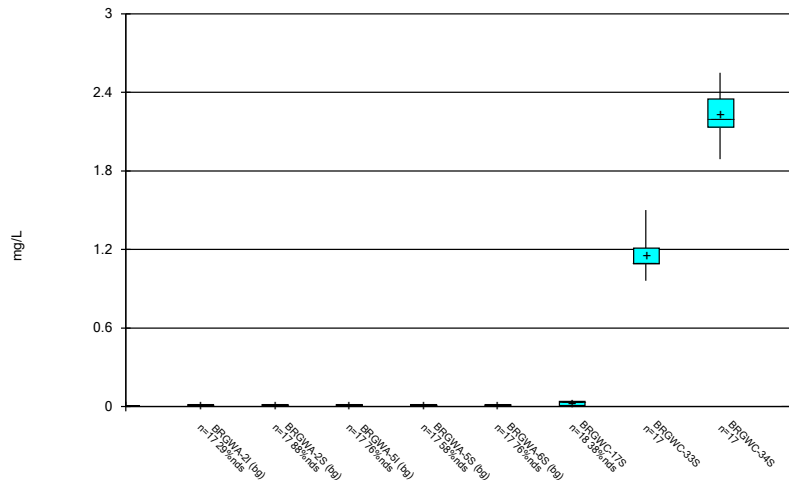
Constituent: Beryllium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



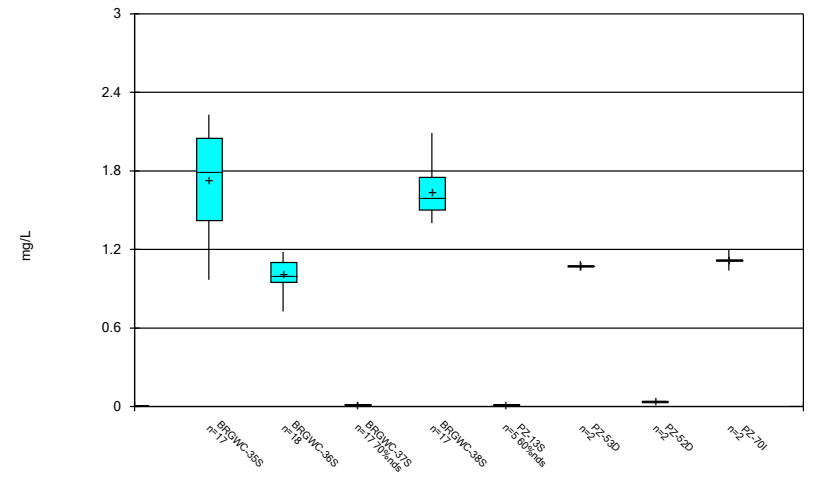
Constituent: Beryllium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



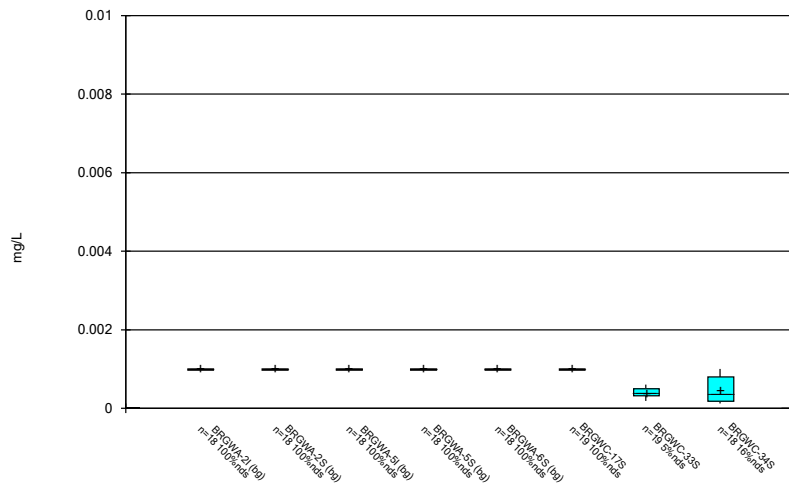
Constituent: Boron Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



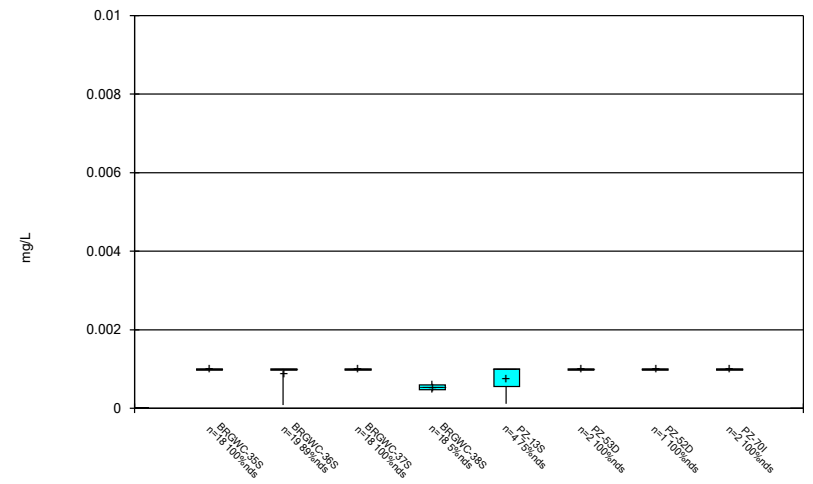
Constituent: Boron Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



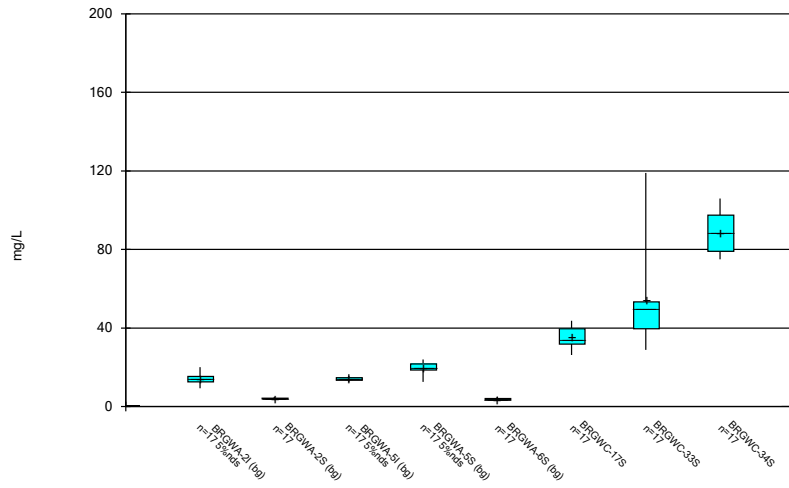
Constituent: Cadmium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



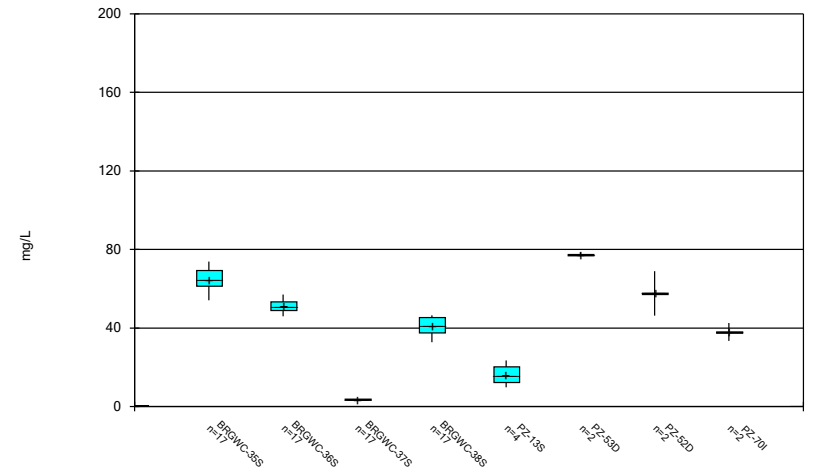
Constituent: Cadmium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



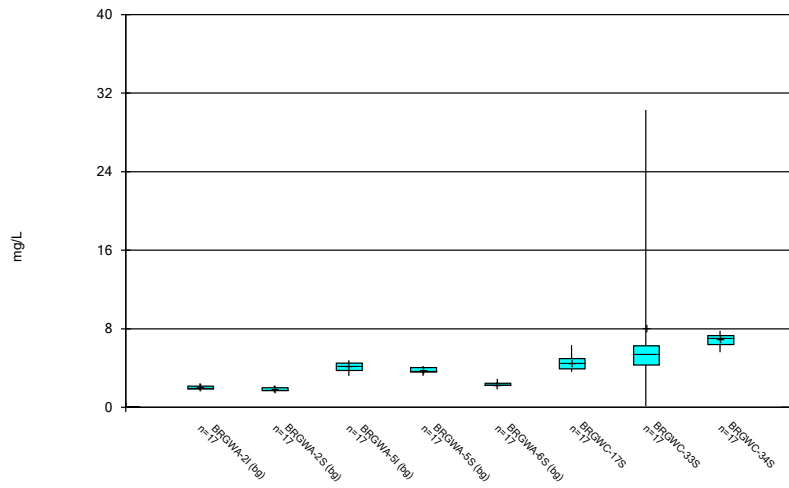
Constituent: Calcium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



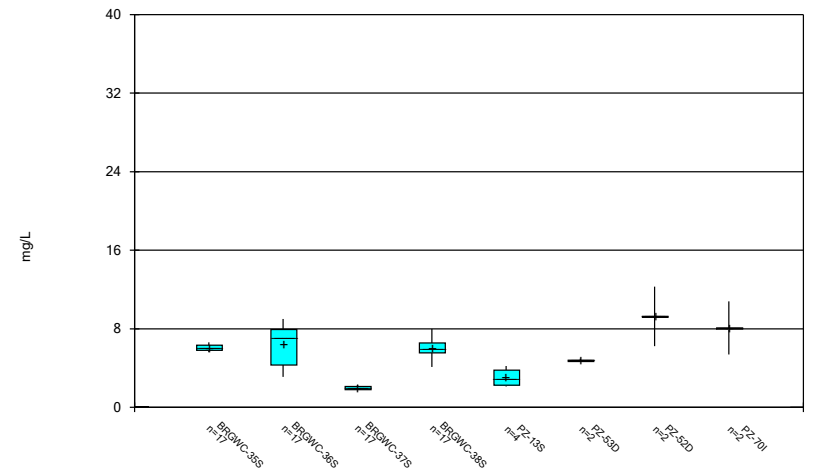
Constituent: Calcium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



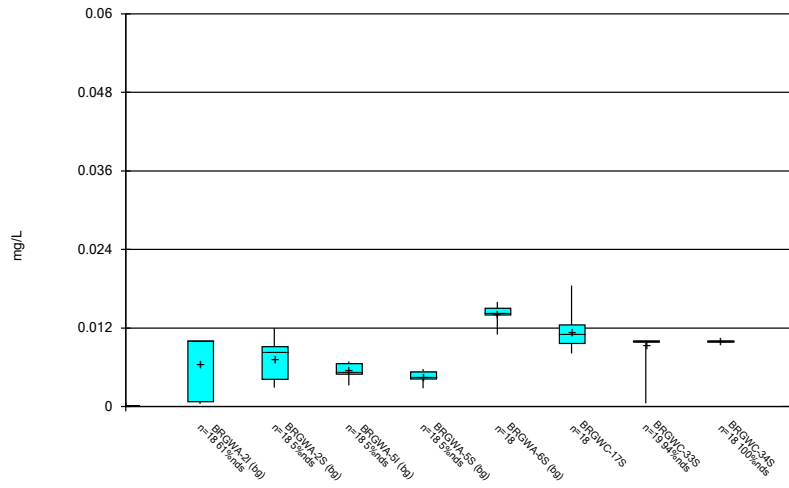
Constituent: Chloride Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



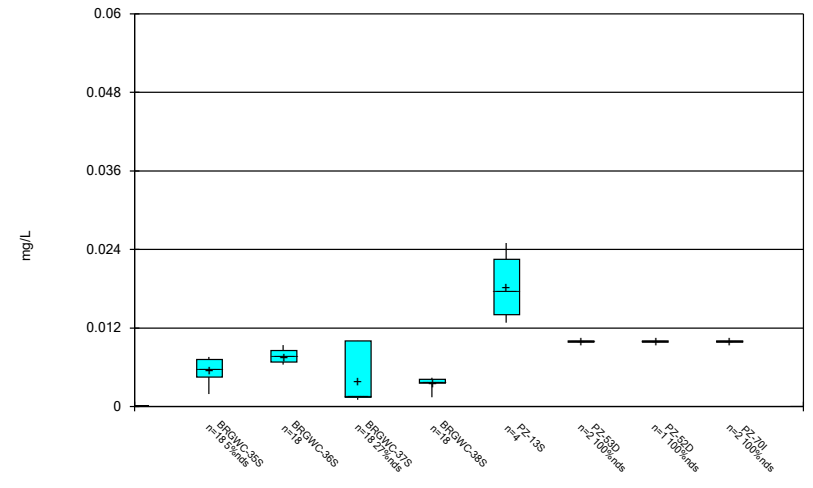
Constituent: Chloride Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



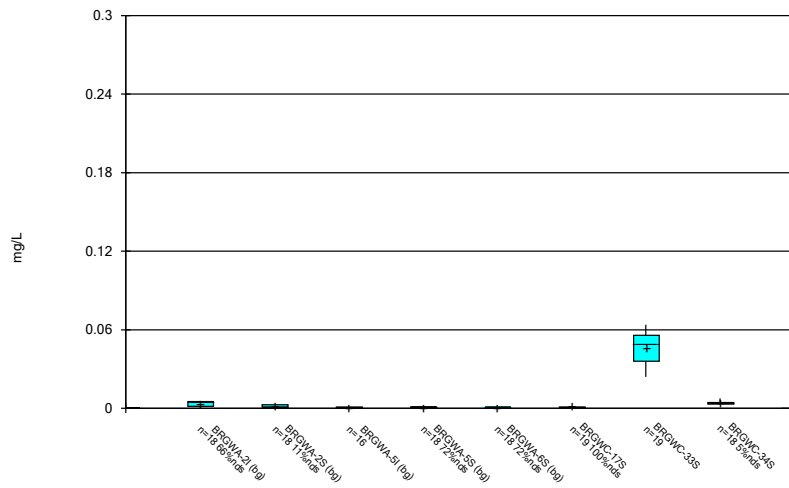
Constituent: Chromium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



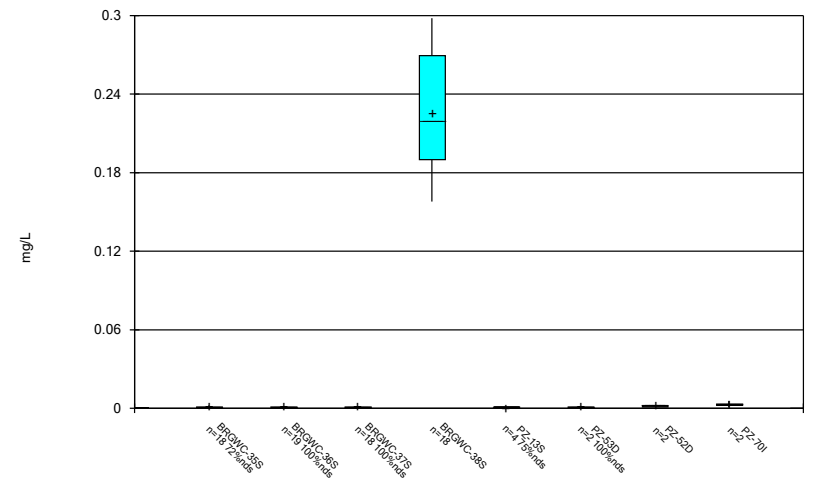
Constituent: Chromium Analysis Run 3/20/2023 10:52 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



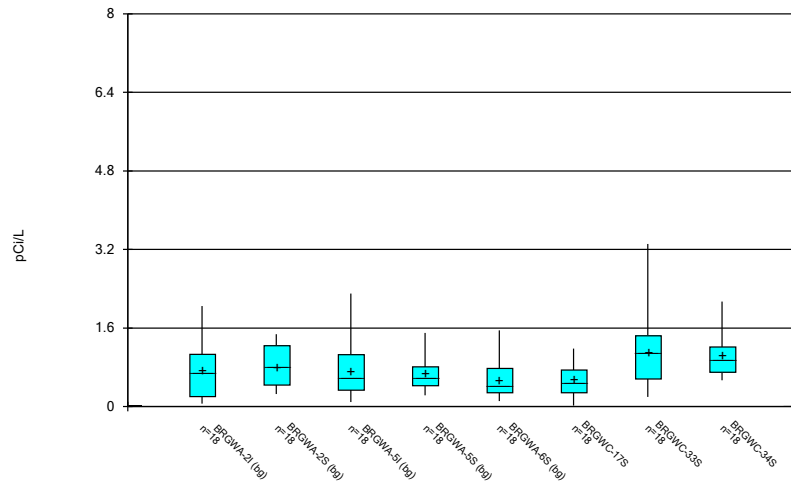
Constituent: Cobalt Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



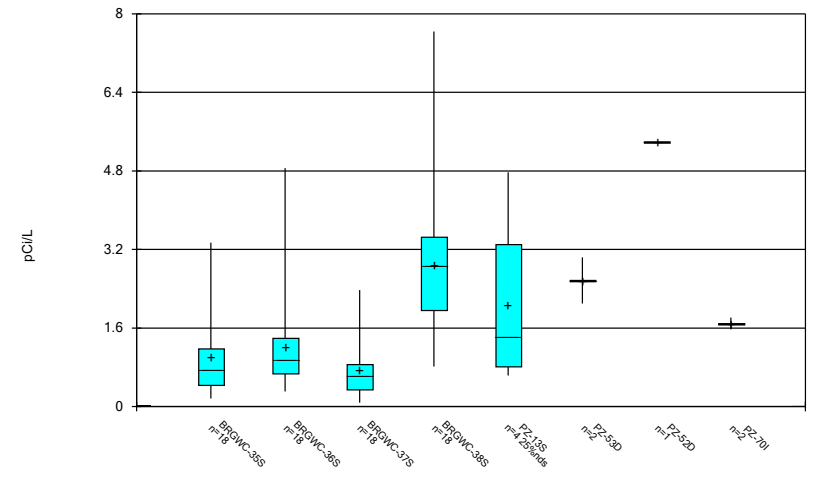
Constituent: Cobalt Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



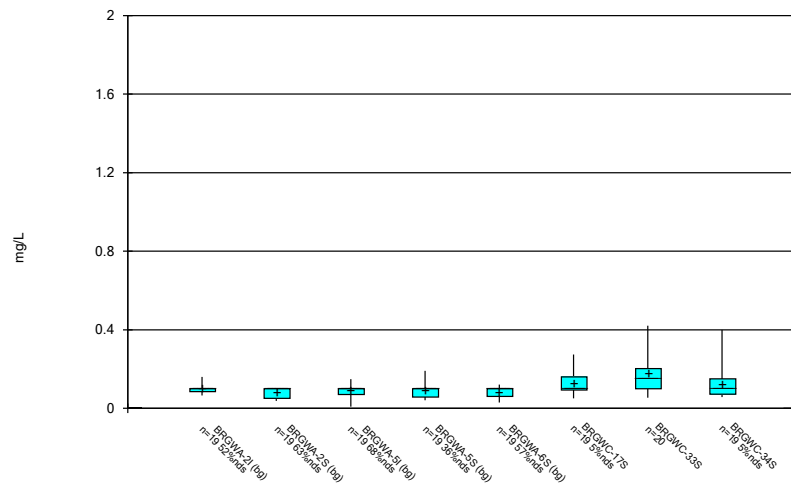
Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 10:53 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



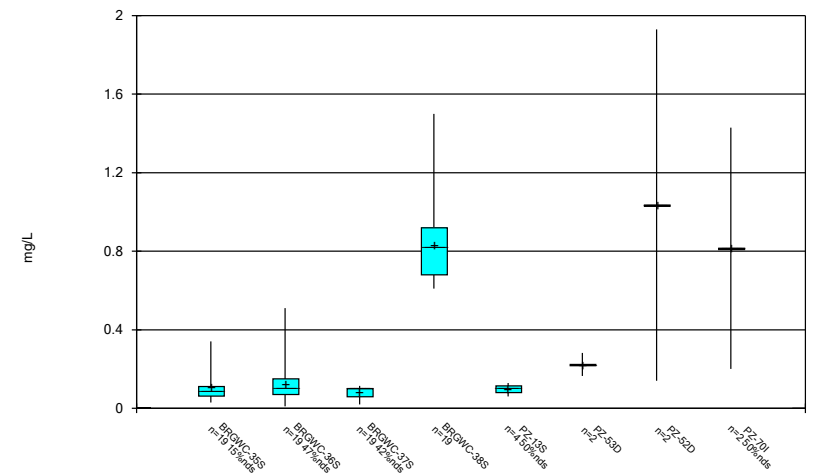
Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 10:53 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



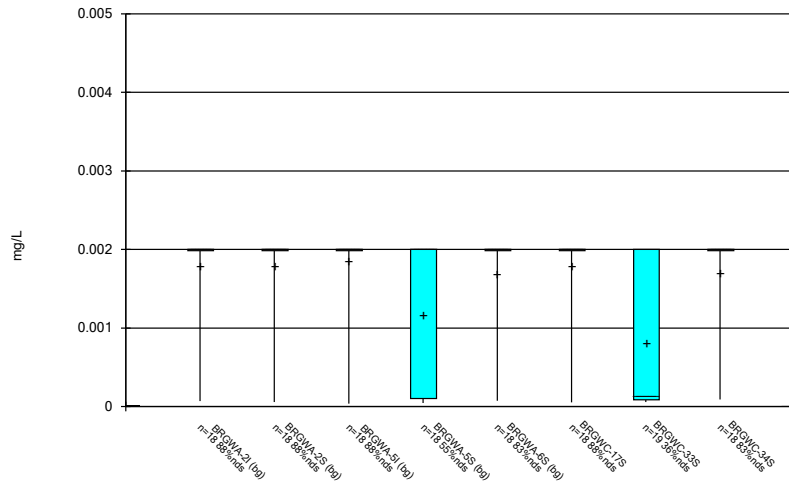
Constituent: Fluoride Analysis Run 3/20/2023 10:53 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



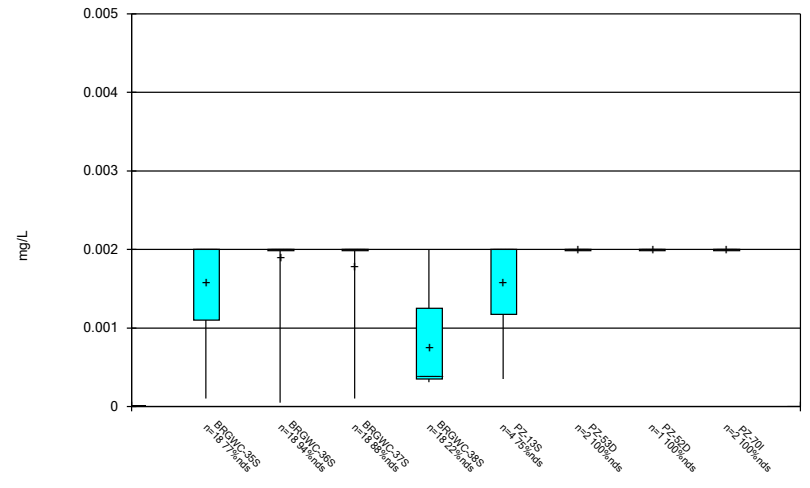
Constituent: Fluoride Analysis Run 3/20/2023 10:53 AM View: Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



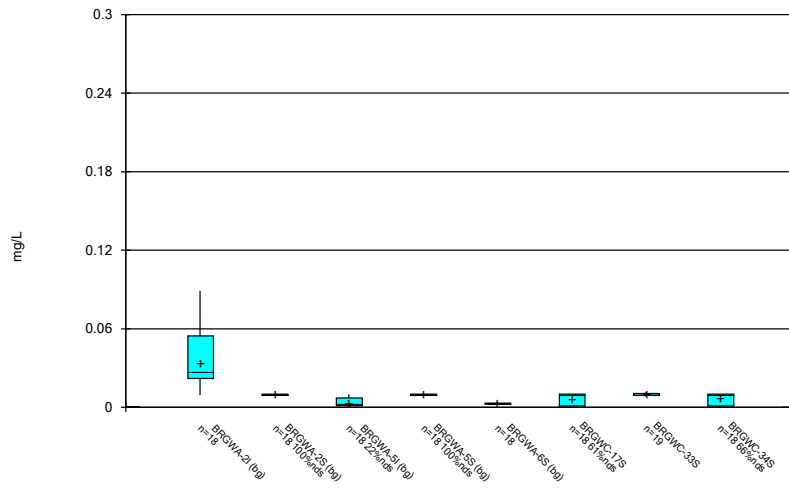
Constituent: Lead Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



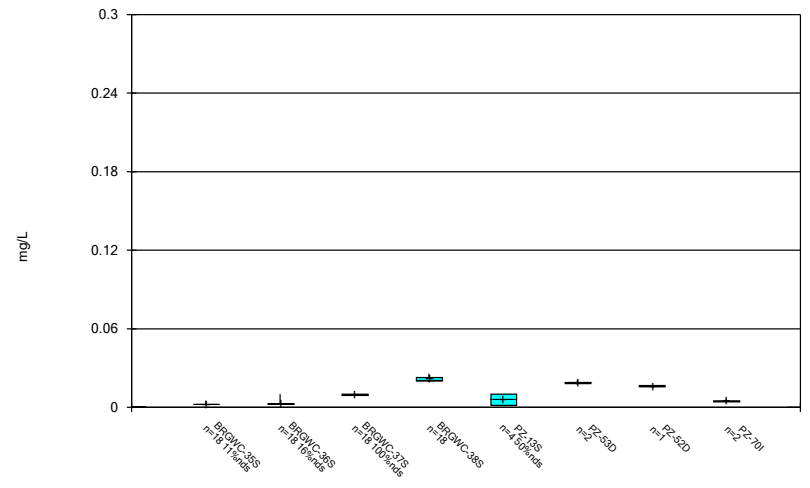
Constituent: Lead Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



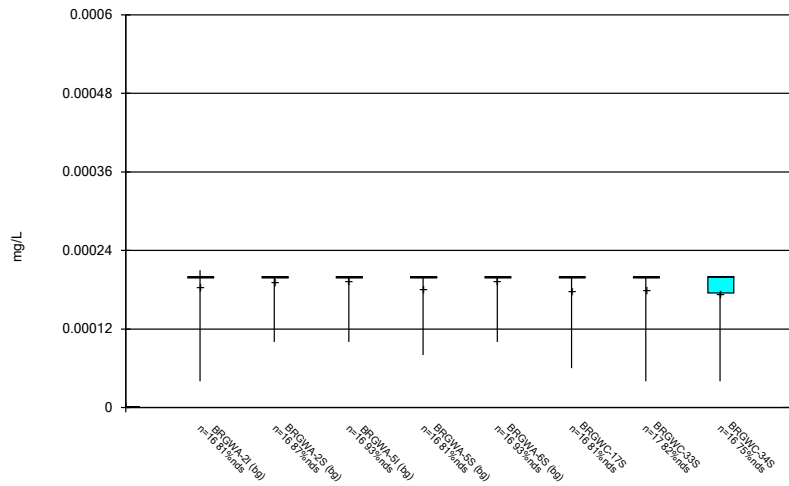
Constituent: Lithium Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



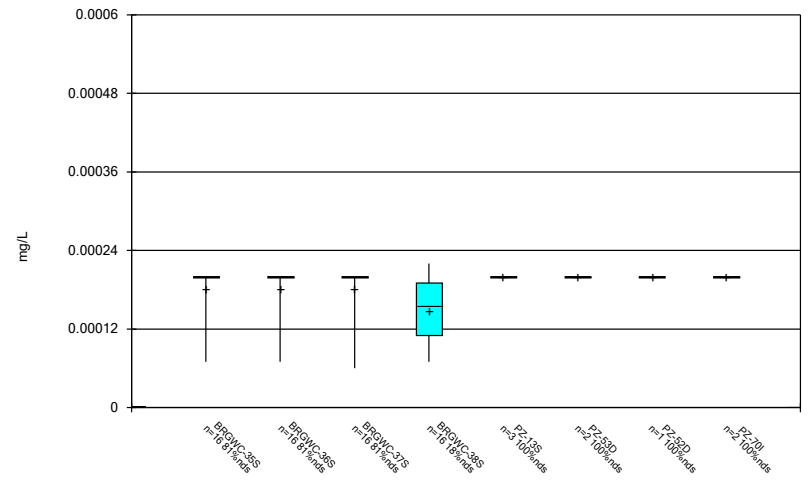
Constituent: Lithium Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



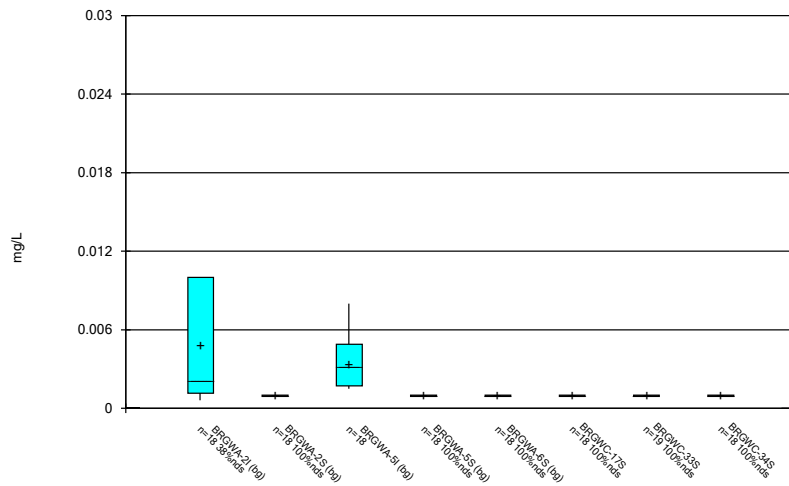
Constituent: Mercury Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



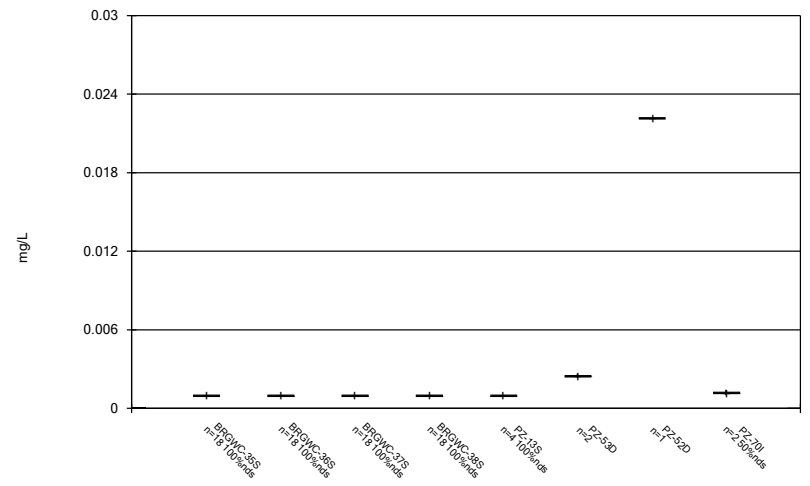
Constituent: Mercury Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



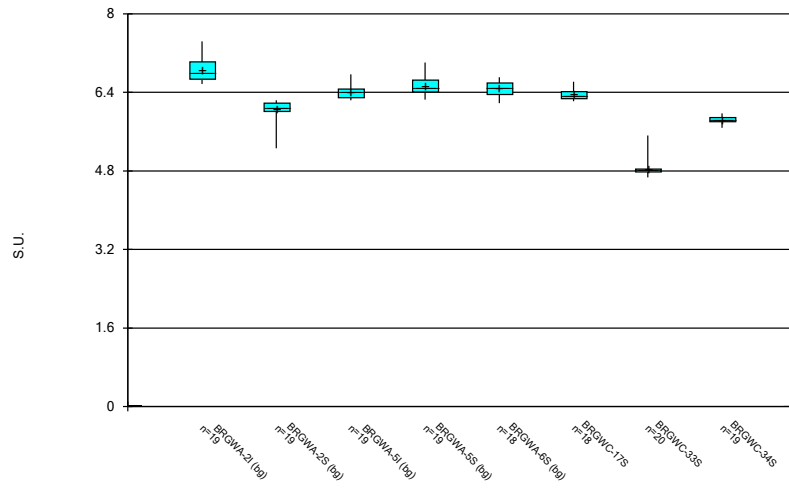
Constituent: Molybdenum Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



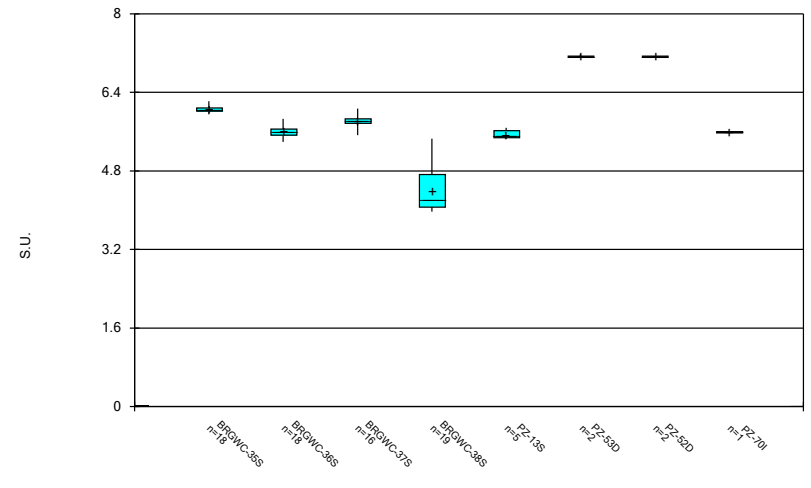
Constituent: Molybdenum Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



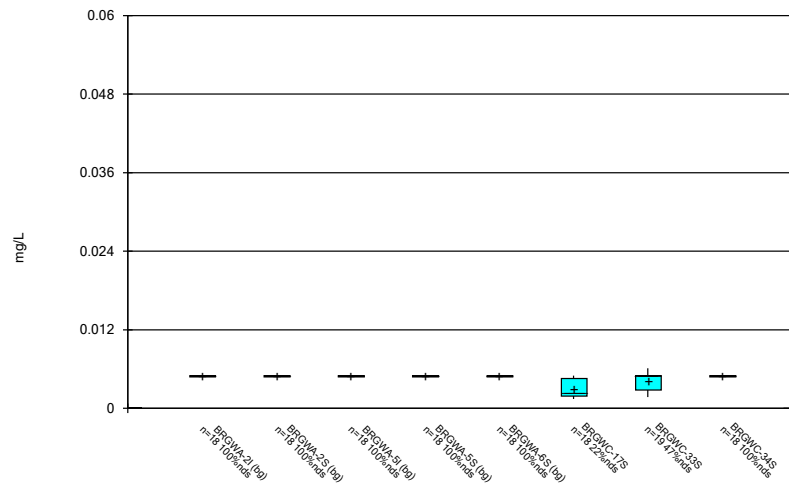
Constituent: pH, Field Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



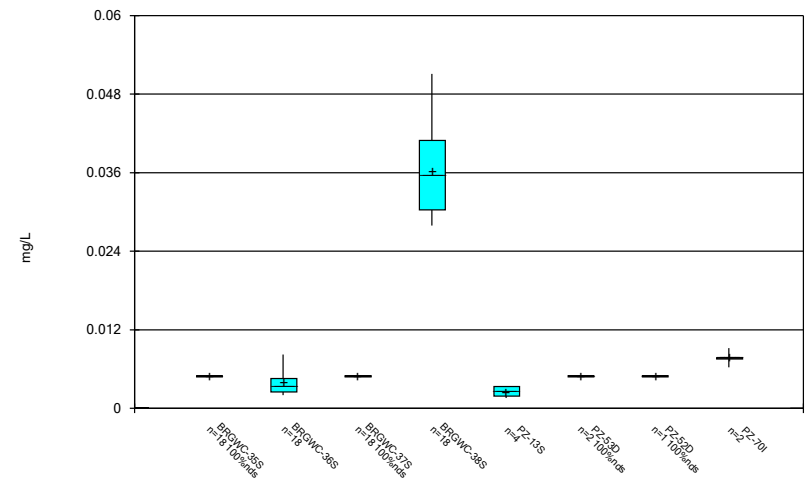
Constituent: pH, Field Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



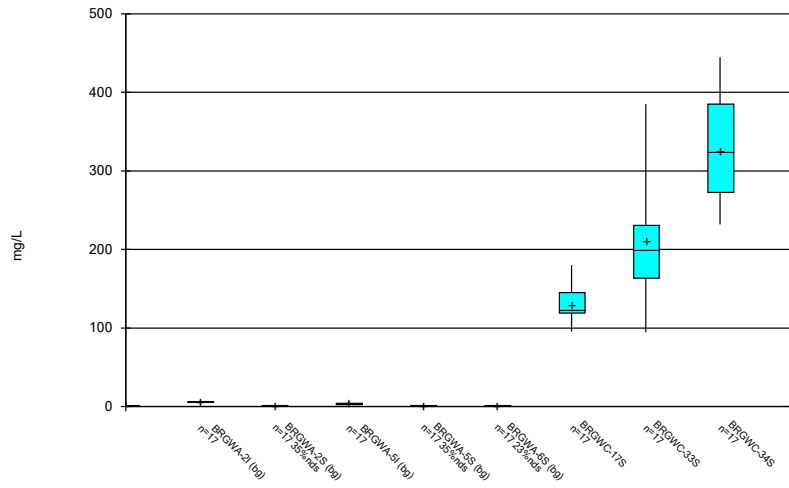
Constituent: Selenium Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



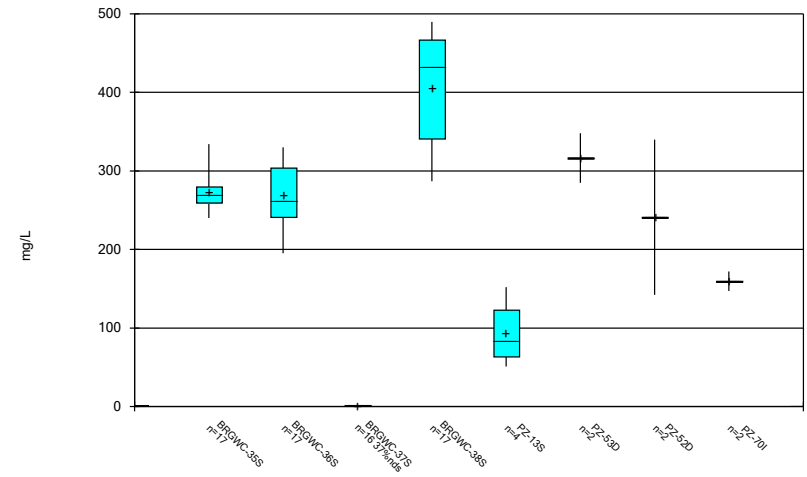
Constituent: Selenium Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



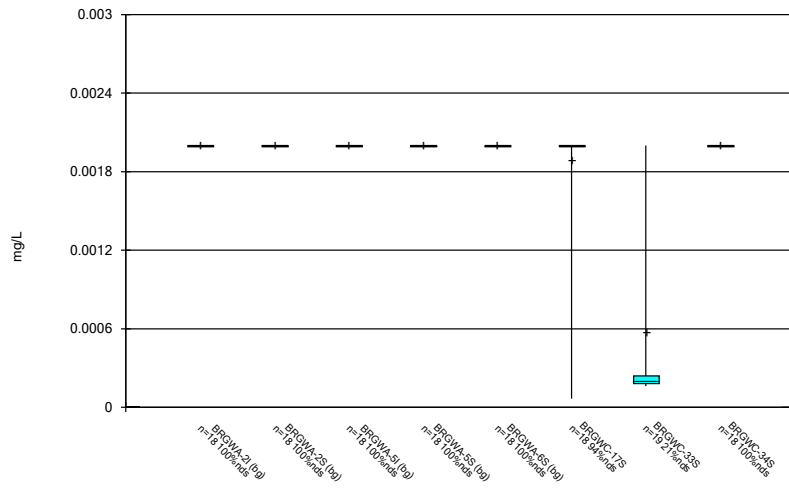
Constituent: Sulfate Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



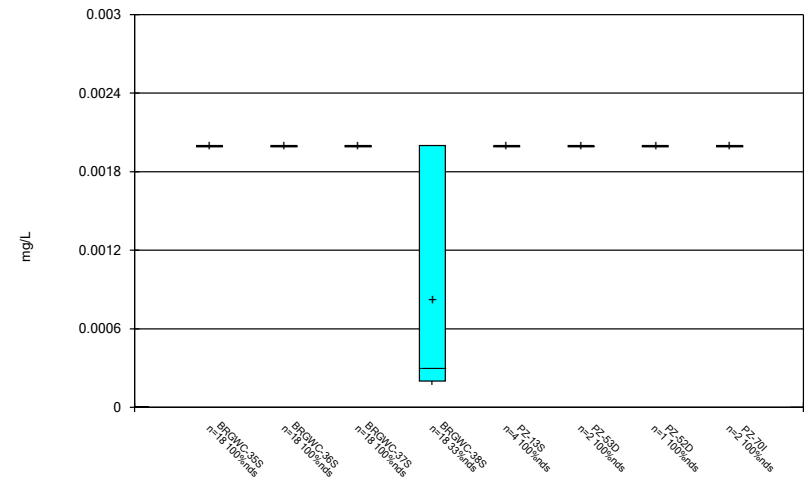
Constituent: Sulfate Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



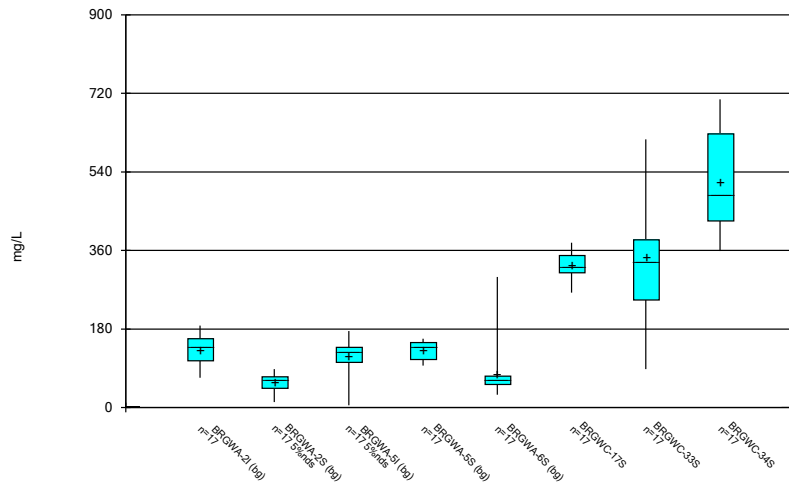
Constituent: Thallium Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



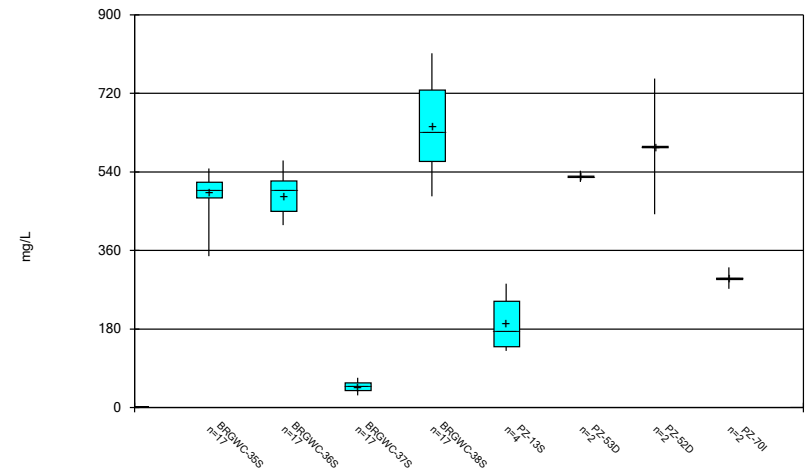
Constituent: Thallium Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 10:53 AM View: Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 10:53 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 3/20/2023, 10:56 AM

	BRGWA-5I Cobalt (mg/L)	BRGWC-37S Sulfate (mg/L)
11/16/2016	<0.01 (o)	
2/13/2018	<0.01 (o)	
2/15/2018		1.9 (o)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	1/24/2023	0.0326	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	1/24/2023	1.19	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	1/24/2023	2.21	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	1/24/2023	2.23	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	1/25/2023	1.18	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	1/25/2023	1.63	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	1/24/2023	41.3	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	1/24/2023	116	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	1/24/2023	80	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	1/24/2023	67.5	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	1/25/2023	48.2	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	1/25/2023	32.8	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	1/24/2023	6.31	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	1/24/2023	29	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	1/24/2023	7.5	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	1/24/2023	6.46	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	1/25/2023	7.93	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	1/25/2023	6.53	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	1/24/2023	0.216	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	1/24/2023	0.193	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	1/24/2023	0.239	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	1/25/2023	0.708	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	1/24/2023	4.79	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	1/25/2023	4.75	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	1/24/2023	153	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	1/24/2023	375	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	1/24/2023	267	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	1/24/2023	334	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	1/25/2023	237	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	1/25/2023	291	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	1/24/2023	344	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	1/24/2023	615	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	1/24/2023	433	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	1/24/2023	507	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	1/25/2023	418	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	1/25/2023	484	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

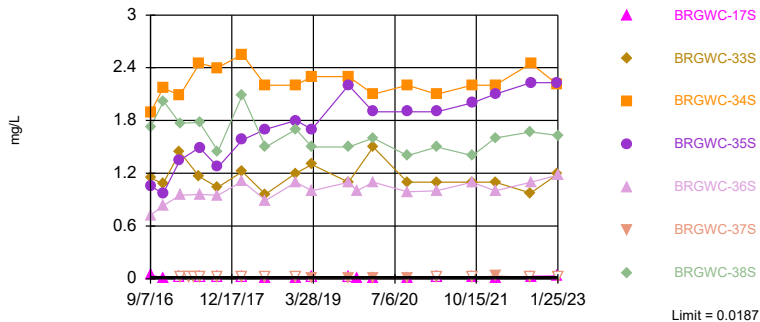
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.0187	n/a	1/24/2023	0.0326	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.0187	n/a	1/24/2023	1.19	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.0187	n/a	1/24/2023	2.21	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.0187	n/a	1/24/2023	2.23	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.0187	n/a	1/25/2023	1.18	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.0187	n/a	1/25/2023	0.015ND	No	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.0187	n/a	1/25/2023	1.63	Yes	85	n/a	n/a	65.88	n/a	n/a	0.0002677	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	1/24/2023	41.3	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	1/24/2023	116	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	1/24/2023	80	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	1/24/2023	67.5	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	1/25/2023	48.2	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	1/25/2023	3.65	No	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	1/25/2023	32.8	Yes	85	n/a	n/a	3.529	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	1/24/2023	6.31	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	1/24/2023	29	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	1/24/2023	7.5	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	1/24/2023	6.46	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	1/25/2023	7.93	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	1/25/2023	1.92	No	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	1/25/2023	6.53	Yes	85	n/a	n/a	0	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	1/24/2023	0.216	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	1/24/2023	0.193	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.19	n/a	1/24/2023	0.122	No	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	1/24/2023	0.239	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	1/25/2023	0.183	No	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.19	n/a	1/25/2023	0.114	No	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	1/25/2023	0.708	Yes	95	n/a	n/a	55.79	n/a	n/a	0.000215	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.44	5.26	1/24/2023	6.37	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.44	5.26	1/24/2023	4.79	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.44	5.26	1/24/2023	5.93	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.44	5.26	1/24/2023	6.08	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.44	5.26	1/25/2023	5.64	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.44	5.26	1/25/2023	5.84	No	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.44	5.26	1/25/2023	4.75	Yes	94	n/a	n/a	0	n/a	n/a	0.0004389	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	1/24/2023	153	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	1/24/2023	375	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	1/24/2023	267	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	1/24/2023	334	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	1/25/2023	237	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	1/25/2023	0.325J	No	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	1/25/2023	291	Yes	85	n/a	n/a	18.82	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	1/24/2023	344	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	1/24/2023	615	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	1/24/2023	433	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	1/24/2023	507	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	1/25/2023	418	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	299	n/a	1/25/2023	28	No	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	1/25/2023	484	Yes	85	n/a	n/a	2.353	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit

Interwell Non-parametric



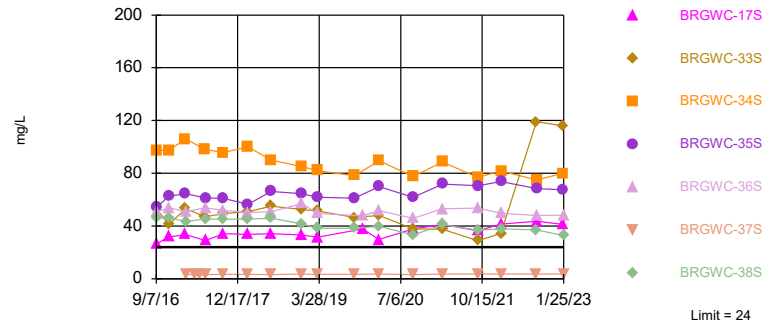
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 65.88% NDs. Annual per-constituent alpha = 0.003742. Individual comparison alpha = 0.0002677 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 2/27/2023 2:27 PM 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



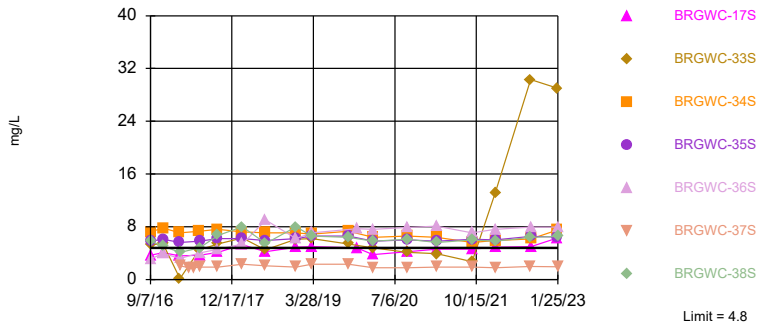
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. 3.529% NDs. Annual per-constituent alpha = 0.003742. Individual comparison alpha = 0.0002677 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 2/27/2023 2:27 PM 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



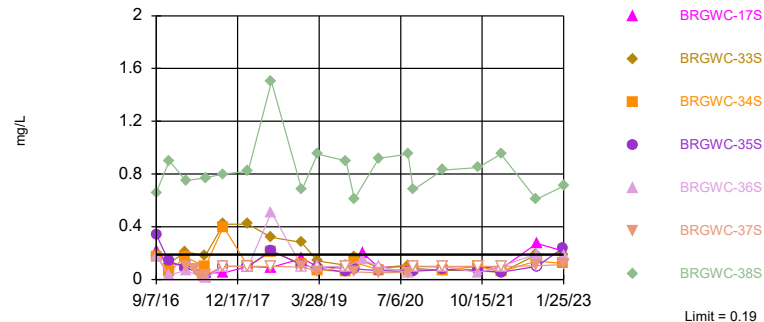
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. Annual per-constituent alpha = 0.003742. Individual comparison alpha = 0.0002677 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 2/27/2023 2:27 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-35S, BRGWC-38S

Prediction Limit

Interwell Non-parametric

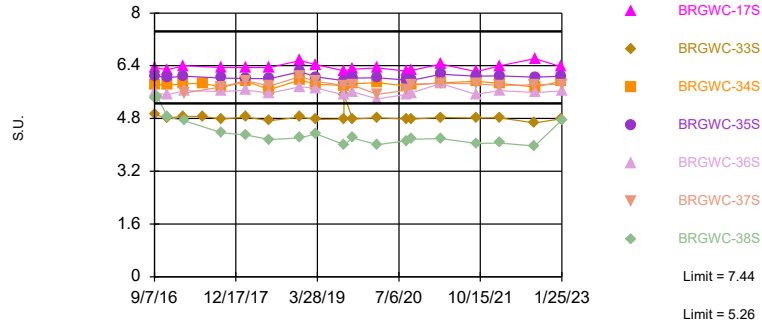


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 95 background values. 55.79% NDs. Annual per-constituent alpha = 0.003006. Individual comparison alpha = 0.000215 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 2/27/2023 2:27 PM 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

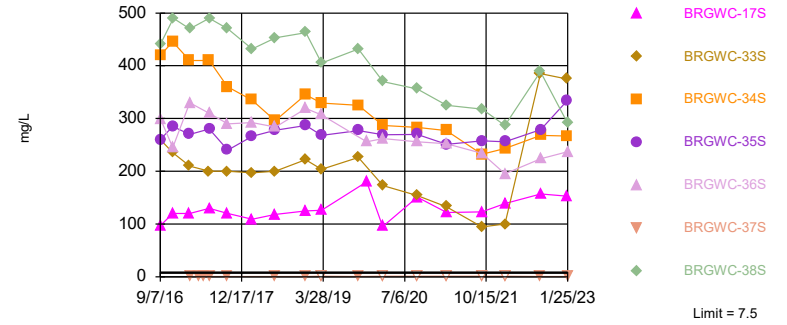


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 94 background values. Annual per-constituent alpha = 0.006135. Individual comparison alpha = 0.0004389 (1 of 2). Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 2/27/2023 2:27 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.
Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

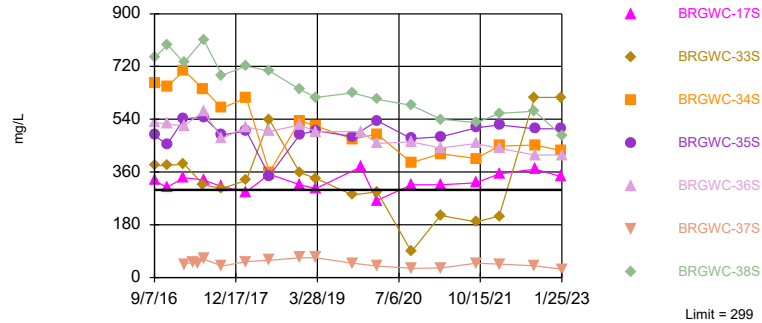


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. 18.82% NDs. Annual per-constituent alpha = 0.003742. Individual comparison alpha = 0.0002677 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 2/27/2023 2:27 PM 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 85 background values. 2.353% NDs. Annual per-constituent alpha = 0.003742. Individual comparison alpha = 0.0002677 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:27 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 2:33 PM 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-35S	BRGWC-17S	BRGWC-36S
8/31/2016	0.0072 (J)	<0.015	<0.015	<0.015					
9/1/2016					<0.015				
9/7/2016						1.73	1.06	0.0449 (J)	0.725
9/8/2016									
11/15/2016		0.0085 (J)			0.0123 (J)				
11/16/2016	0.0117 (J)		0.0187 (J)	0.0109 (J)					
11/17/2016							0.967	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							1.35	<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									
6/15/2017						1.78	1.49	<0.015	0.961
9/26/2017	0.0093 (J)	<0.015	<0.015	<0.015	<0.015				
9/27/2017									
9/28/2017						1.45	1.27	<0.015	0.948
2/13/2018	0.0141 (J)	<0.015	<0.015	<0.015	<0.015				
2/15/2018						2.09	1.58	<0.015	1.11
6/26/2018	0.012 (J)	0.0056 (J)	0.0042 (J)	<0.015	0.0041 (J)				
6/27/2018							1.7 (J+X)	0.0088 (J+X)	
6/28/2018						1.5			0.89
12/18/2018	0.0086 (J)	0.0062 (J)	<0.015	<0.015	<0.015				
12/19/2018							1.8	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						1.5	1.7		
10/15/2019	0.0067 (J)	0.006 (J)	<0.015	<0.015	0.01 (J)				
10/16/2019						1.5	2.2		
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						1.6	1.9		1.1
9/15/2020	<0.015	<0.015	<0.015	<0.015	<0.015				
9/16/2020							1.9	0.0066 (J)	0.99
9/17/2020						1.4			
3/1/2021	<0.015				<0.015				
3/2/2021		0.0071 (J)	0.0053 (J)	<0.015					
3/3/2021									1
3/4/2021						1.5	1.9	<0.015	
9/21/2021		<0.015	<0.015						
9/22/2021	<0.015			<0.015	<0.015			0.02 (J)	1.1
9/23/2021						1.4	2		
2/1/2022	<0.015	<0.015	<0.015	<0.015	<0.015	1.6	2.1	0.013 (J)	1
2/2/2022									
8/23/2022	0.00592 (J)	0.00538 (J)	<0.015	0.00532 (J)	<0.015	1.67			
8/24/2022							2.23	0.0273	1.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 2:33 PM 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-35S	BRGWC-17S	BRGWC-36S
1/24/2023	<0.015	<0.015	<0.015	<0.015	<0.015		2.23	0.0326	
1/25/2023						1.63			1.18

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 2:33 PM 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	1.15		
9/8/2016		1.89	
11/15/2016			
11/16/2016			
11/17/2016	1.08	2.17	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	1.44	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	1.16	2.45	
6/15/2017			<0.015
9/26/2017			
9/27/2017	1.04	2.4	
9/28/2017			<0.015
2/13/2018			
2/15/2018	1.22	2.55	<0.015
6/26/2018			
6/27/2018	0.96 (J+X)	2.2 (J+X)	
6/28/2018			<0.015 (X)
12/18/2018	1.2	2.2	
12/19/2018			<0.015
12/20/2018			
3/19/2019			
3/20/2019	1.3	2.3	0.004 (J)
10/15/2019			
10/16/2019	1.1	2.3	0.0055 (J)
10/17/2019			
12/3/2019			
3/3/2020			
3/5/2020	1.5	2.1	0.0076 (J)
9/15/2020			
9/16/2020	1.1	2.2	0.0062 (J)
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	1.1	2.1	<0.015
3/4/2021			
9/21/2021			
9/22/2021	1.1	2.2	
9/23/2021			<0.015
2/1/2022	1.1	2.2	
2/2/2022			0.032 (J)
8/23/2022	0.975		<0.015
8/24/2022		2.45	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
1/24/2023	1.19	2.21	
1/25/2023			<0.015

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/27/2023 2:33 PM 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-35S	BRGWC-17S	BRGWC-36S
8/31/2016	12.6	19.6	13.5	4.09					
9/1/2016					3.3				
9/7/2016						45.9	54.1	26.3	50.6
9/8/2016									
11/15/2016		21.7			3.44				
11/16/2016	12.1		14.9	4.25					
11/17/2016							62.6	31.8	
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							64.6	33.5	
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						45.3	61.3	29	53.8
9/26/2017	14.3	24	14.4	3.31	3.15				
9/27/2017									
9/28/2017						45.1	60.8	34.1	51.8
2/13/2018	<25	<25	<25	3.94	3.65				
2/15/2018						45.3	56.6	33.8	50.1
6/26/2018	16 (J)	23.5 (J)	13.5 (J)	3.6	3.3				
6/27/2018							66.2	34.1	
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							64.4	33.1	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						38.2	61.8		
10/15/2019	15.1	20	14.4	3.7	3.5				
10/16/2019						38.4	61.2		
12/3/2019								37.7	47.8
3/3/2020	20	23.2	14.9	4	5			29.7	
3/5/2020						39.8	69.9		51.7
9/15/2020	14.1	16.8	12.7	3.9	3.7				
9/16/2020							61.8	37.9	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	71.8	41.2	
9/21/2021		19.1	14.1						
9/22/2021	15.9			4.3	4.1			36.4	53.7
9/23/2021						36.8	70.5		
2/1/2022	14.4	19.1	14.5	4.4	4.2	37.8	73.8	41.5	49.7
2/2/2022									
8/23/2022	13.9	18.2	14.3	4.65	3.97	37.1			
8/24/2022							68.5	43.6	48.1
1/24/2023	14.2	19.4	15.8	4.86	3.9		67.5	41.3	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-35S	BRGWC-17S	BRGWC-36S
						32.8			48.2

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/27/2023 2:33 PM 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 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWC-33S	BRGWC-34S	BRGWC-37S
			3.65

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 2:33 PM 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-35S	BRGWC-17S	BRGWC-36S
8/31/2016	2.3	3.6	4.4	2					
9/1/2016					2.5				
9/7/2016						5.8	5.8	3.7	3.1
9/8/2016									
11/15/2016		4			2.3				
11/16/2016	2		4.4	1.8					
11/17/2016							6.1 (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							5.6	3.6	
2/23/2017						4.1			3.2
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									
6/15/2017						4.8	5.8	3.7	4
9/26/2017	2	4.1	4.4	1.8	2.3				
9/27/2017									
9/28/2017						6.7	6.2	4.1	4.6
2/13/2018	2.1	4.1	4.7	1.7	2.3				
2/15/2018						8	6.2	5.3	5.4
6/26/2018	2.4	4.1	4.5	2.2	2.6				
6/27/2018							5.9	4.2	
6/28/2018						5.5 (J-X)			9 (J-X)
12/18/2018	1.8	3.8	4.5	1.9	2.3				
12/19/2018							6.2 (J-X)	4.9 (J-X)	6.2 (J-X)
12/20/2018						8 (J-X)			
3/19/2019	2.45 (D)	4.2	4.5	2	2.6			5	7.1
3/20/2019						6.6	6.6		
10/15/2019	2.2	3.7	4.2	1.9	2.4				
10/16/2019						6.4	6.6		
12/3/2019								4.8	7.7
3/3/2020	1.9	3.6	3.9	1.9	2.9			3.8	
3/5/2020						5.8	5.8		7.6
9/15/2020	1.9	3.7	3.7	1.7	2.3				
9/16/2020							6	4.2	7.9
9/17/2020						6.1			
3/1/2021	1.8				2.1				
3/2/2021		3.7	3.8	1.7					
3/3/2021									8.1
3/4/2021						5.6	5.8	4.6	
9/21/2021		3.2	3.2						
9/22/2021	1.7			1.5	2.1			4.6	7.1
9/23/2021						6	6.1		
2/1/2022	1.8	3.4	3.5	1.6	2.1	5.8	6	4.9	7.6
2/2/2022									
8/23/2022	2.02	3.59	3.64	2.18	2.39	6.42			
8/24/2022							6.53	5	7.96
1/24/2023	2.09	3.56	3.93	2.16	2.3		6.46	6.31	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-35S	BRGWC-17S	BRGWC-36S
						6.53			7.93

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 2:33 PM 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	5.3		
9/8/2016		7.2	
11/15/2016			
11/16/2016			
11/17/2016	5.45 (D)	7.8 (D)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	0.12 (J)	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	4.5	7.3	
6/15/2017			1.9
9/26/2017			
9/27/2017	5.4	7.6	
9/28/2017			1.9
2/13/2018			
2/15/2018	6.3	7.2	2.3
6/26/2018			
6/27/2018	4.5	7.1	
6/28/2018			2.1 (J-X)
12/18/2018	6.1	7.1	
12/19/2018			1.9 (J-X)
12/20/2018			
3/19/2019			
3/20/2019	6.2	6.9	2.3
10/15/2019			
10/16/2019	5.4	7.3	2.3
12/3/2019			
3/3/2020			
3/5/2020	4.8	6.4	1.8
9/15/2020			
9/16/2020	4.1	6.6	1.8
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	3.9	6.4	1.9
3/4/2021			
9/21/2021			
9/22/2021	2.7	5.6	
9/23/2021			1.9
2/1/2022	13.1	5.9	
2/2/2022			1.8
8/23/2022	30.3		1.97
8/24/2022		6.17	
1/24/2023	29	7.5	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWC-33S	BRGWC-34S	BRGWC-37S
			1.92

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/27/2023 2:33 PM 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 2/27/2023 2:33 PM 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		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/27/2023 2:33 PM 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 2/27/2023 2:33 PM 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

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 2/27/2023 2:33 PM 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-36S	BRGWC-38S	BRGWC-17S	BRGWC-33S
8/23/2022	6.67	5.95	6.36	6.24	6.51		3.97		4.67
8/24/2022						5.59		6.62	
1/24/2023	6.7	5.26	6.47	6.42	6.54			6.37	4.79
1/25/2023						5.64	4.75		

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 2/27/2023 2:33 PM 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 2/27/2023 2:33 PM 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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 2:33 PM 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-35S	BRGWC-17S	BRGWC-36S
8/31/2016	7.5	0.81 (J)	2.7	0.38 (J)					
9/1/2016					0.6 (J)				
9/7/2016						440	260	97	300
9/8/2016									
11/15/2016		<1 (J)			0.68 (J)				
11/16/2016	6.6		3.4	<1 (J)					
11/17/2016							285 (D)	120 (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							270	120	
2/23/2017						470			330
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						490	280	130	310
9/26/2017	5.4	0.92 (J)	4.1	0.62 (J)	0.53 (J)				
9/27/2017									
9/28/2017						470	240	120	290
2/13/2018	4.7 (J)	<1	6.6	<1	<1				
2/15/2018						432	266	109	292
6/26/2018	6.2	0.91 (J)	3.5	0.69 (J)	0.54 (J)				
6/27/2018							278	118	
6/28/2018						453			284
12/18/2018	5.9	0.68 (J)	4.3	0.72 (J)	0.39 (J)				
12/19/2018							287	125	319
12/20/2018						463			
3/19/2019	6 (D)	0.74 (J)	3	0.78 (J)	0.68 (J)			126	307
3/20/2019						405	268		
10/15/2019	5.2	0.68 (J)	3.8	0.47 (J)	0.48 (J)				
10/16/2019						432	277		
12/3/2019								180	256
3/3/2020	7.1	0.71 (J)	2.8	0.93 (J)	2.5			95.4	
3/5/2020						370	269		262
9/15/2020	5.9	<1	1.7	<1	<1				
9/16/2020							270	151	256
9/17/2020						356			
3/1/2021	4.7				0.74 (J)				
3/2/2021		<1	2.2	<1					
3/3/2021									252
3/4/2021						325	251	122	
9/21/2021		<1	2.3						
9/22/2021	5.2			<1	<1			123	234
9/23/2021						318	258		
2/1/2022	5.4	<1	2	<1	<1	287	256	139	195
2/2/2022									
8/23/2022	5.66	0.521	2.21	0.452	0.479	389			
8/24/2022							279	157	224
1/24/2023	3.58	0.66	3.34	0.465	0.484		334	153	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-35S	BRGWC-17S	BRGWC-36S
						291			237

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 2:33 PM 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 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWC-33S	BRGWC-34S	BRGWC-37S
			0.325 (J)

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 2:33 PM 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-35S	BRGWC-17S	BRGWC-36S
8/31/2016	151	154	138	88					
9/1/2016					299				
9/7/2016						750	486	331	528
9/8/2016									
11/15/2016		123			41				
11/16/2016	69		77	41					
11/17/2016							453	308	
11/18/2016									524
11/21/2016						795			
2/20/2017		158	170		133				
2/21/2017	68			<10					
2/22/2017							541	341	
2/23/2017						733			517
4/17/2017									
5/15/2017									
6/12/2017	161	142	132		61				
6/13/2017				53					
6/14/2017									
6/15/2017						812	548	333	566
9/26/2017	167	138	108	45	29				
9/27/2017									
9/28/2017						690	487	310	475
2/13/2018	165	150	141	63	61				
2/15/2018						722	500	292	513
6/26/2018	188	154	133	71	71				
6/27/2018							347 (X)	353 (X)	
6/28/2018						704			499
12/18/2018	145 (X)	147	138 (X)	78 (X)	70 (X)				
12/19/2018							489	317	521
12/20/2018						642			
3/19/2019	146.5 (D)	146	130	68	72			303	498
3/20/2019						615	501		
10/15/2019	140	144	175	66	63				
10/16/2019						630	481		
12/3/2019								378	498
3/3/2020	155	130	<10	41	54			263	
3/5/2020						608	535		457
9/15/2020	116	116	100	69	79				
9/16/2020							474	316	463
9/17/2020						587			
3/1/2021	98				39				
3/2/2021		96	80	43					
3/3/2021									442
3/4/2021						540	480	316	
9/21/2021		104	108						
9/22/2021	129			66	62			323	457
9/23/2021						528	511		
2/1/2022	126	124	129	72	61	560	521	354	441
2/2/2022									
8/23/2022	117	101	107	45	52	568			
8/24/2022							507	370	418
1/24/2023	93	104	124	63	64		507	344	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-35S	BRGWC-17S	BRGWC-36S
						484			418

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 2:33 PM 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	382		
9/8/2016		663	
11/15/2016			
11/16/2016			
11/17/2016	382	651	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	387	706	
2/23/2017			45
4/17/2017			53
5/15/2017			48
6/12/2017			
6/13/2017			
6/14/2017	316	643	
6/15/2017			63
9/26/2017			
9/27/2017	303	579	
9/28/2017			39
2/13/2018			
2/15/2018	332	612	54
6/26/2018			
6/27/2018	538 (X)	359 (X)	
6/28/2018			59 (X)
12/18/2018	358	535	
12/19/2018			68
12/20/2018			
3/19/2019			
3/20/2019	338	517	68 (X)
10/15/2019			
10/16/2019	281	473	49
12/3/2019			
3/3/2020			
3/5/2020	292	489	39
9/15/2020			
9/16/2020	88	392	31
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	212	422	33
3/4/2021			
9/21/2021			
9/22/2021	190	406	
9/23/2021			49
2/1/2022	209	449	
2/2/2022			46
8/23/2022	614		40
8/24/2022		452	
1/24/2023	615	433	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 2:33 PM View: Pond E - Appendix III
Plant Branch Client: Southern Company Data: Plant Branch AP

1/25/2023	BRGWC-33S	BRGWC-34S	BRGWC-37S
			28

FIGURE E.

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-35S	0.1697	113	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03668	75	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.14	75	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.91	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.023	-90	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.805	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.16	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2181	69	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.23	-68	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.7848	90	63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-33S	-0.02655	-84	-81	Yes	20	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.08596	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.04386	-89	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05239	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1079	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-30.64	-115	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13.29	-79	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-32.45	-99	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.706	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-44.75	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.84	-107	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.71	-112	-63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.0003815	30	63	No	17	29.41	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-1	-63	No	17	88.24	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-4	-63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-1	-63	No	17	58.82	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	4	63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-17S	-0.0009889	4	-68	No	18	38.89	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	-0.004253	-12	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0.00246	17	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1697	113	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03668	75	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.03581	-38	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.4268	41	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.111	46	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.1199	19	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.4249	-40	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.14	75	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.91	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-1.413	-24	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.023	-90	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	1.917	63	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.4778	-39	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.805	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.03727	-34	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	0	-9	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.16	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.07107	-60	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.01018	-24	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-17S	0.2181	69	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-33S	0.4692	22	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.23	-68	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.06042	36	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	0.7848	90	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1365	24	63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-16	-74	No	19	52.63	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	56	74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	72	74	No	19	68.42	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	-4	-74	No	19	36.84	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0.006099	73	74	No	19	57.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-17S	0	7	74	No	19	5.263	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-33S	-0.02655	-84	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-35S	-0.007584	-42	-74	No	19	15.79	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0.004963	8	74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.08596	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.04386	-89	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02414	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05239	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	0.002505	5	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-33S	-0.01054	-49	-81	No	20	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1079	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.2241	-48	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	5	63	No	17	35.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.2579	-48	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.009734	-26	-63	No	17	35.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	0	4	63	No	17	23.53	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-17S	5.176	59	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-16.3	-37	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-30.64	-115	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-0.09626	-1	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-13.29	-79	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-32.45	-99	-63	Yes	17	0	n/a	n/a	0.01	NP

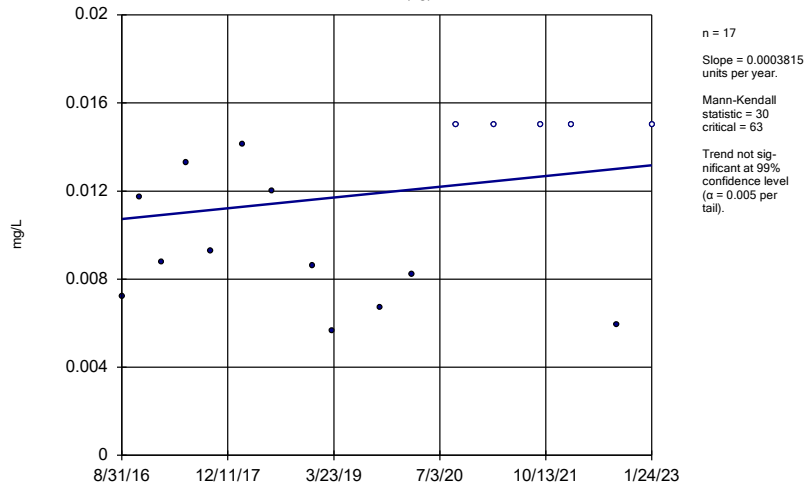
Appendix III Trend Tests - Prediction Limits Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 2:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-7.505	-40	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.6809	10	63	No	17	5.882	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-3.081	-32	-63	No	17	5.882	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.706	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.032	-19	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-17S	3.177	27	63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-33S	-26.14	-31	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-44.75	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	2.399	17	63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-17.84	-107	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-43.71	-112	-63	Yes	17	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

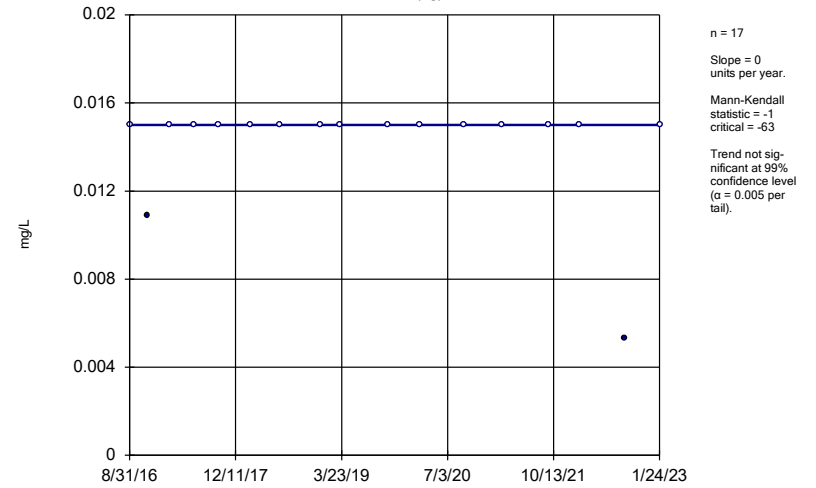
BRGWA-2I (bg)



Constituent: Boron Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

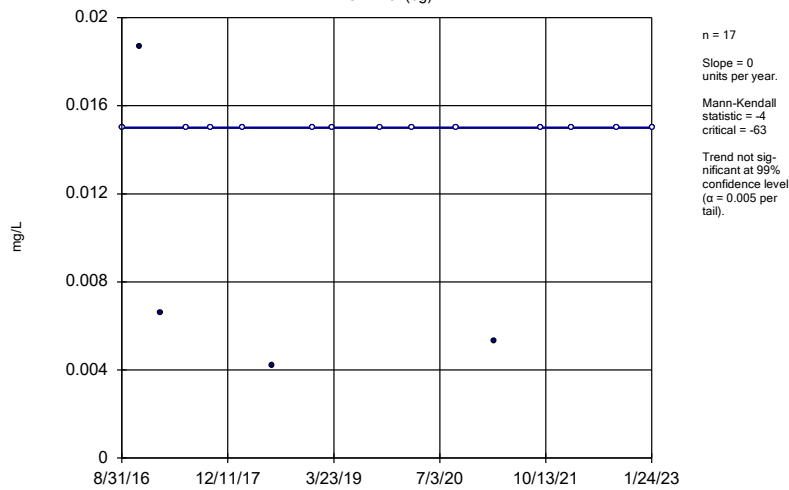
BRGWA-2S (bg)



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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

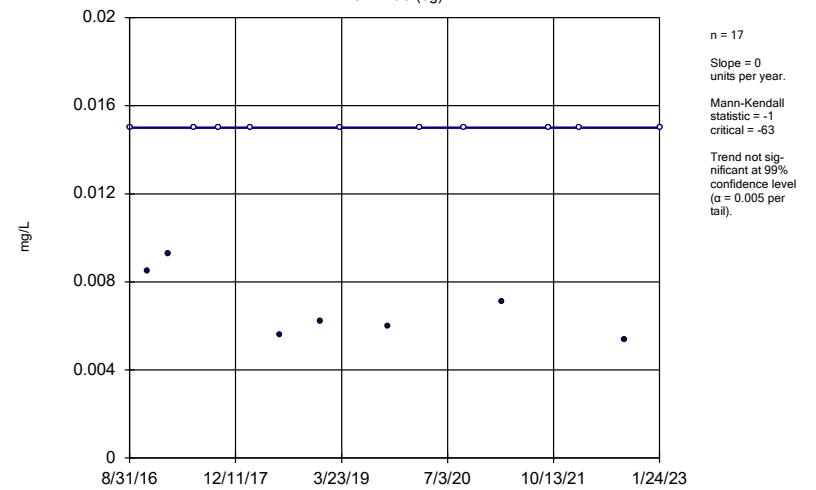
BRGWA-5I (bg)



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Plant Branch Client: Southern Company Data: Plant Branch AP

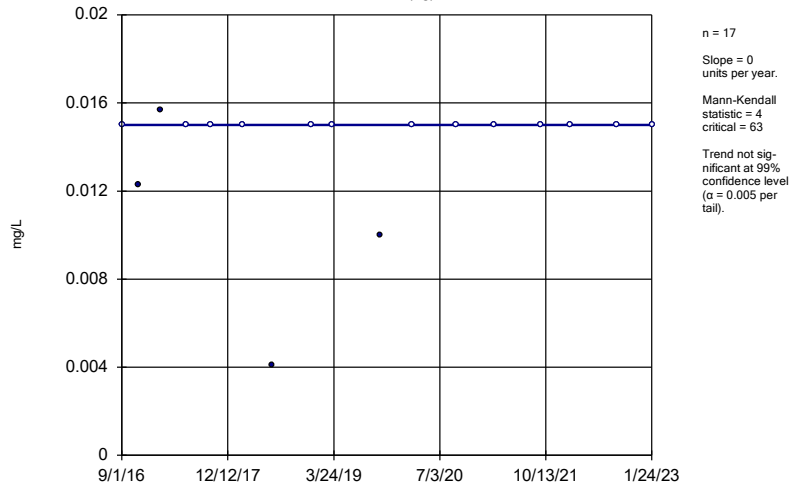
Sen's Slope Estimator

BRGWA-5S (bg)



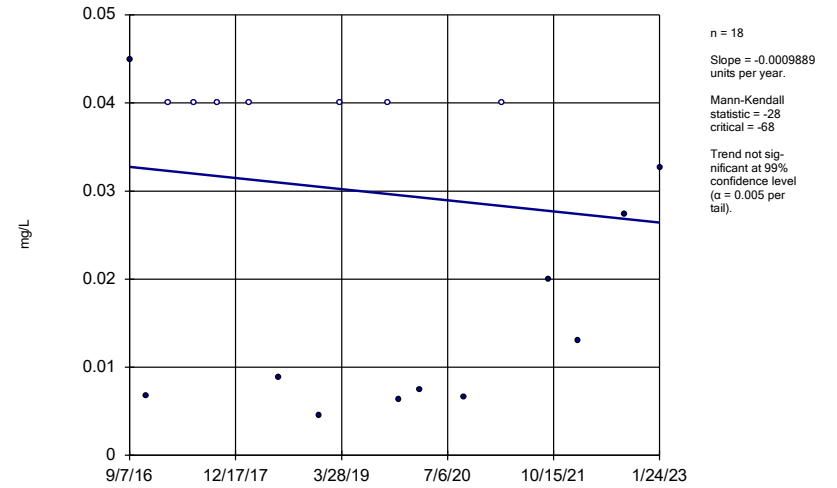
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-6S (bg)



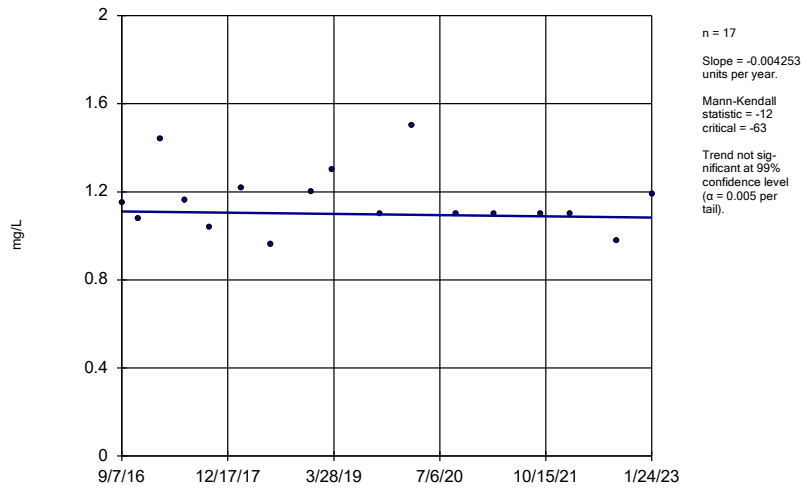
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-17S



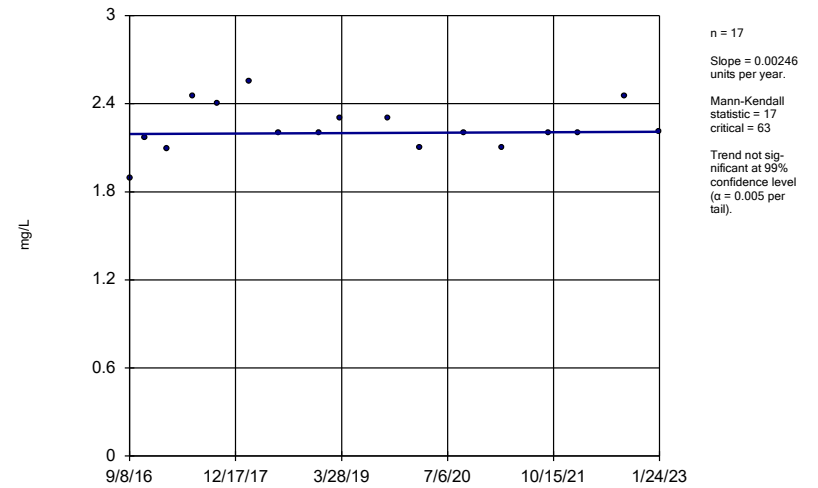
Constituent: Boron Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-33S



Constituent: Boron Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

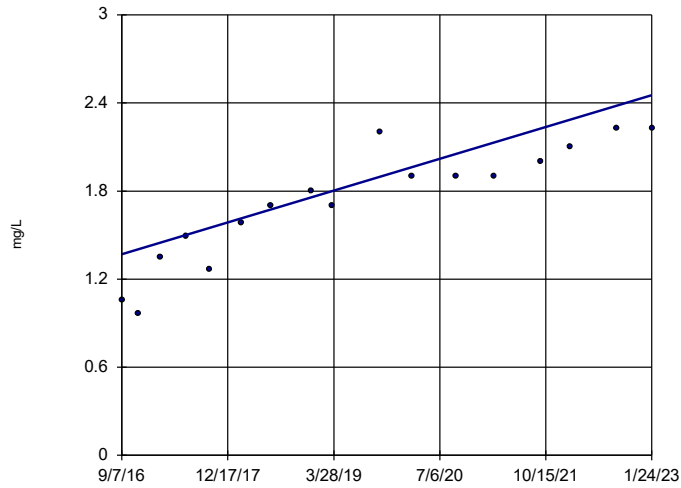
Sen's Slope Estimator
BRGWC-34S



Constituent: Boron Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

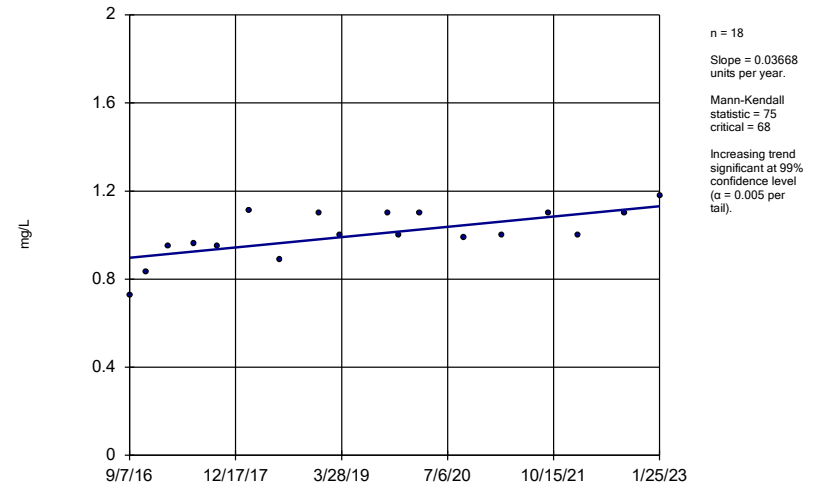
BRGWC-35S



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 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

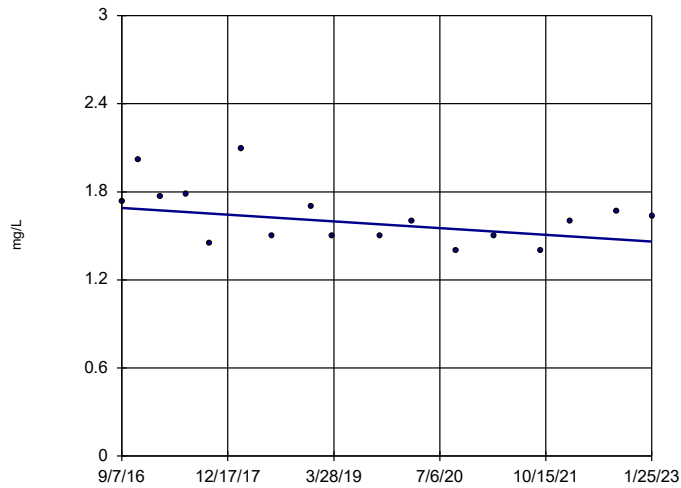
BRGWC-36S



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 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

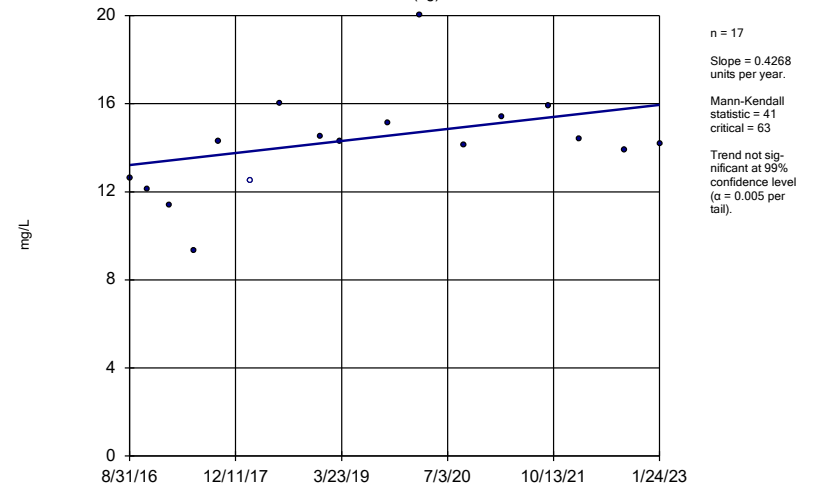
BRGWC-38S



Constituent: Boron Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

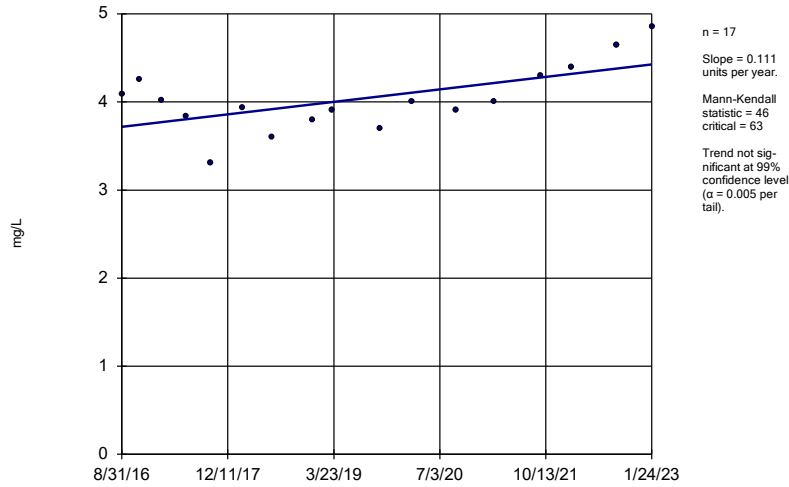
BRGWA-2I (bg)



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

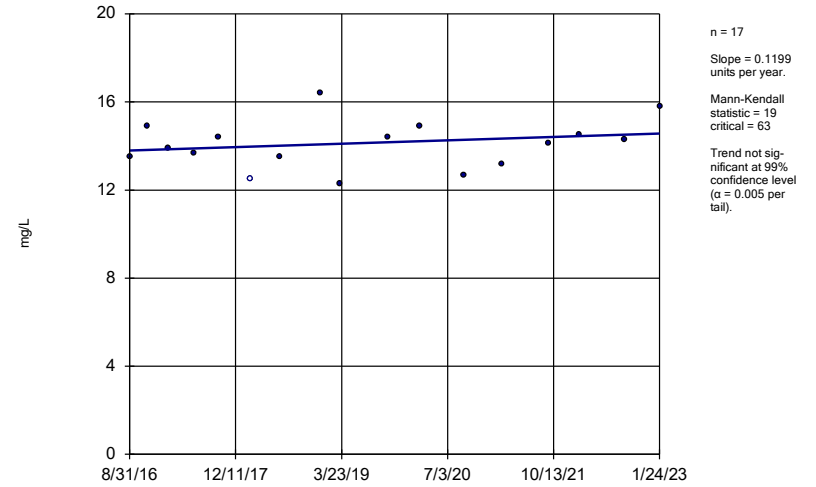


Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-5I (bg)

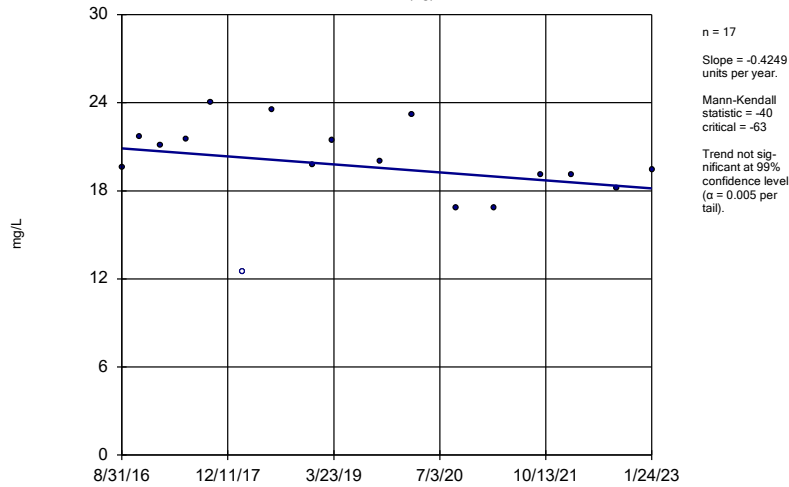


Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

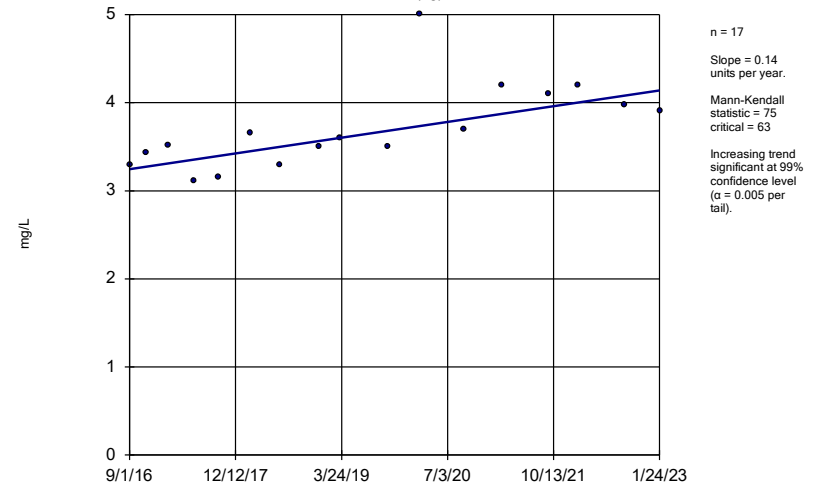
BRGWA-5S (bg)



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

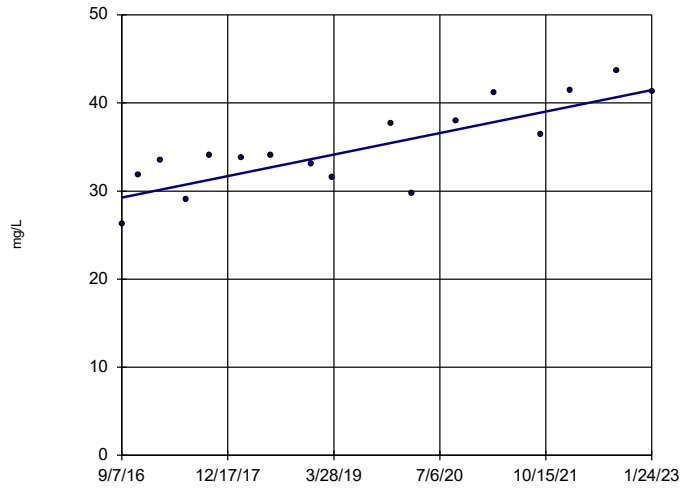
BRGWA-6S (bg)



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

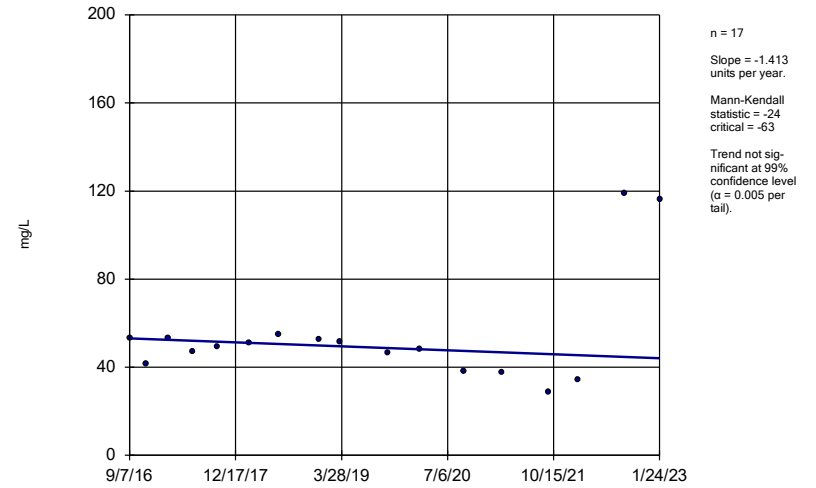
BRGWC-17S



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

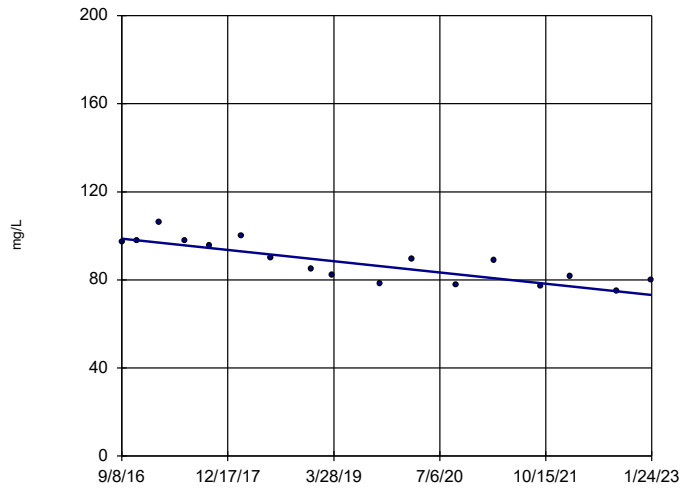
BRGWC-33S



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

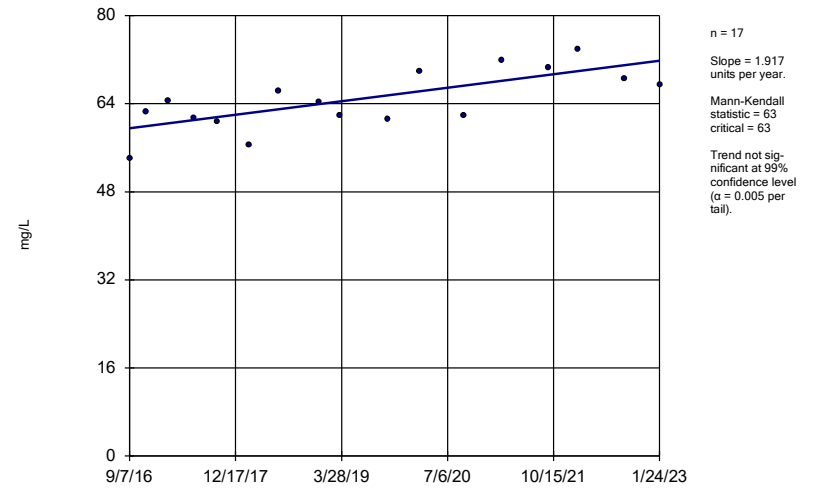
BRGWC-34S



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

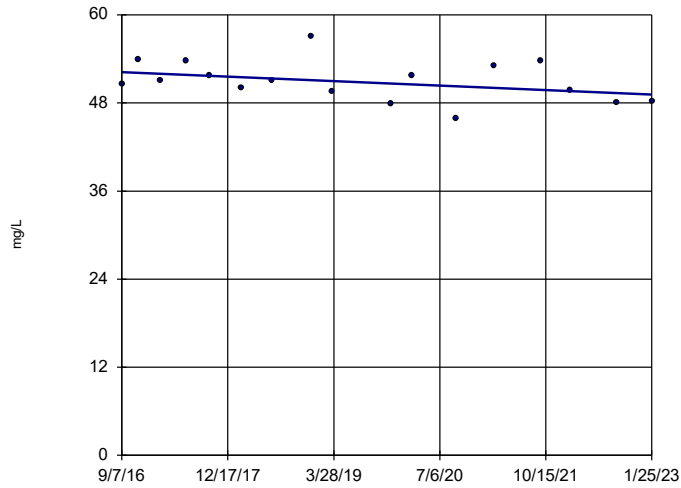
BRGWC-35S



Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

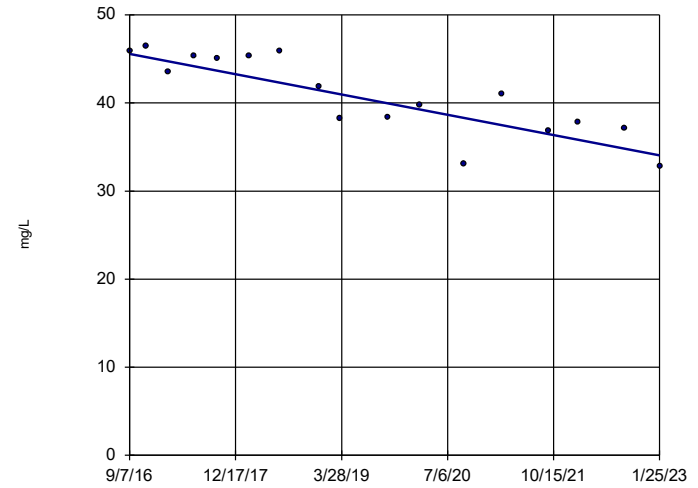


n = 17
 Slope = -0.4778 units per year.
 Mann-Kendall statistic = -39
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

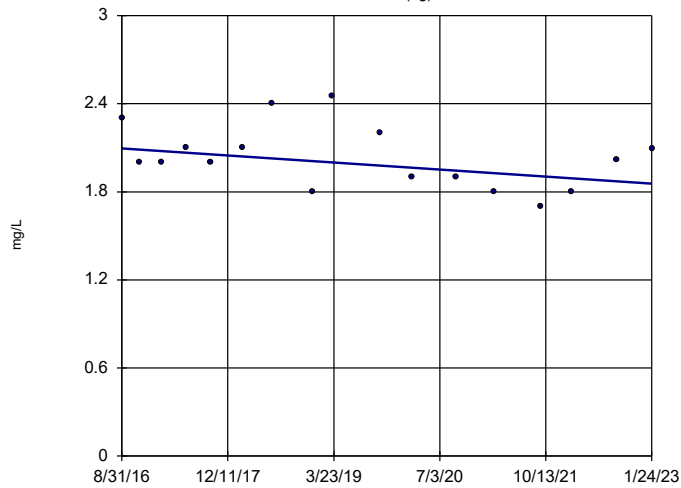


n = 17
 Slope = -1.805 units per year.
 Mann-Kendall statistic = -92
 critical = -63
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

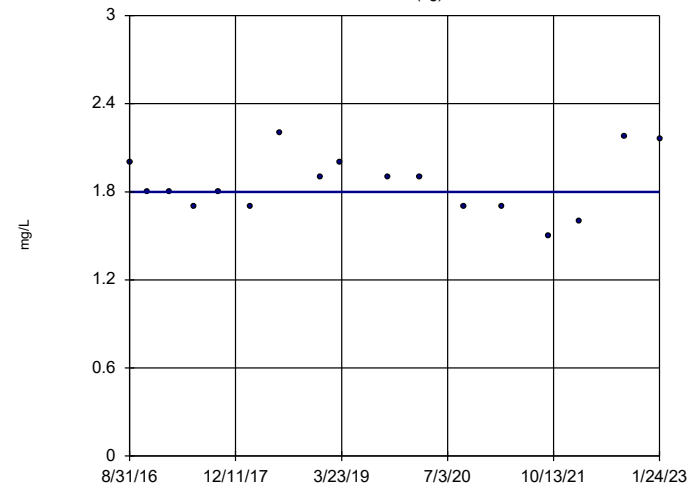


n = 17
 Slope = -0.03727 units per year.
 Mann-Kendall statistic = -34
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

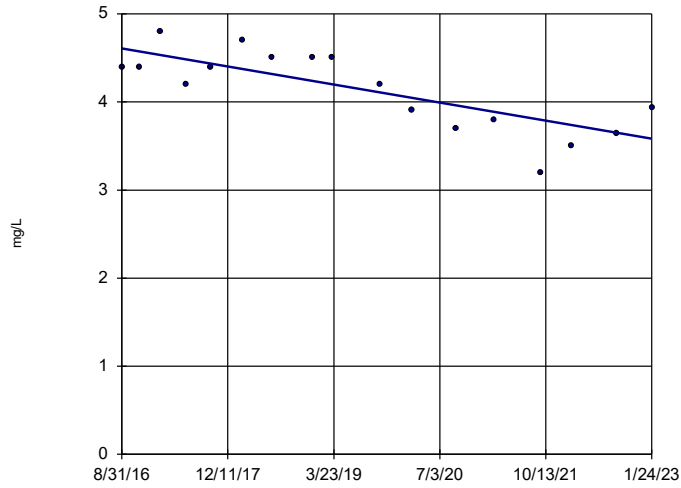


n = 17
 Slope = 0 units per year.
 Mann-Kendall statistic = -9
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

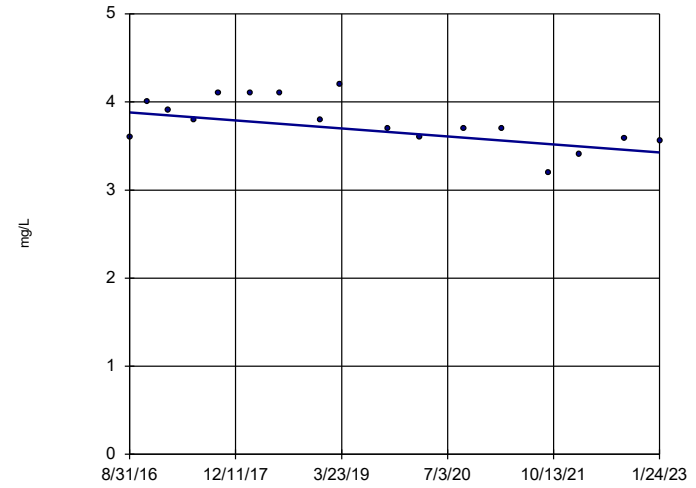


n = 17
 Slope = -0.16
 units per year.
 Mann-Kendall
 statistic = -71
 critical = -63
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

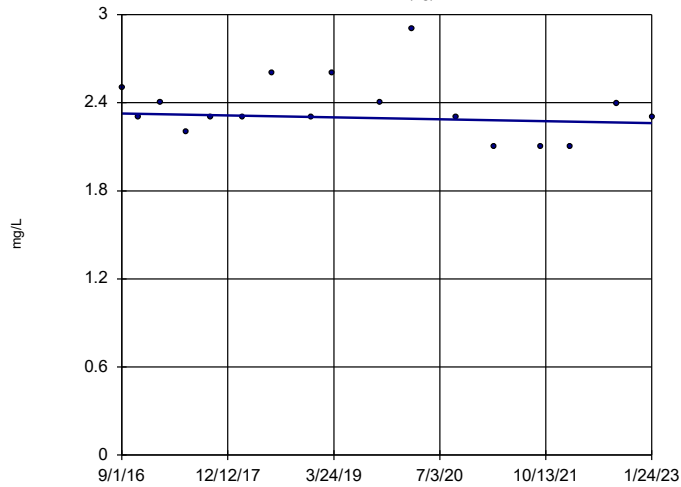


n = 17
 Slope = -0.07107
 units per year.
 Mann-Kendall
 statistic = -60
 critical = -63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

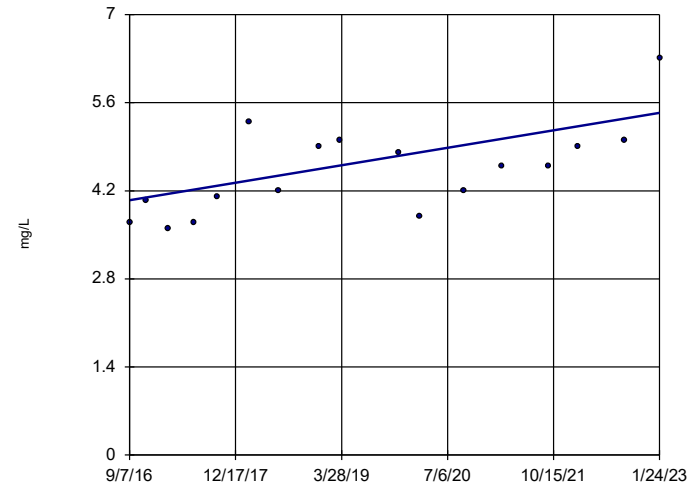


n = 17
 Slope = -0.01018
 units per year.
 Mann-Kendall
 statistic = -24
 critical = -63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

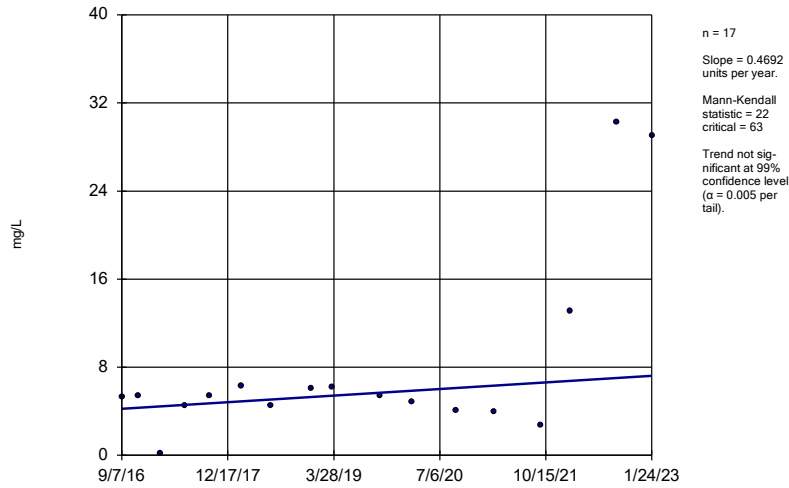


n = 17
 Slope = 0.2181
 units per year.
 Mann-Kendall
 statistic = 69
 critical = 63
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

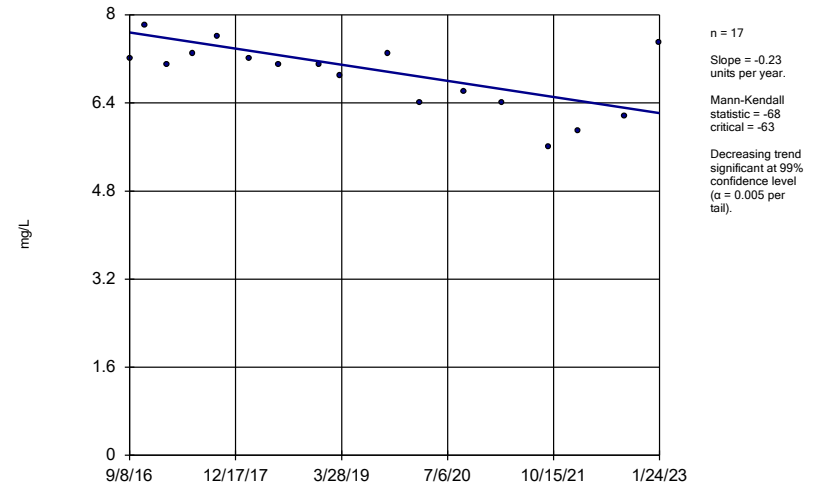
BRGWC-33S



Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

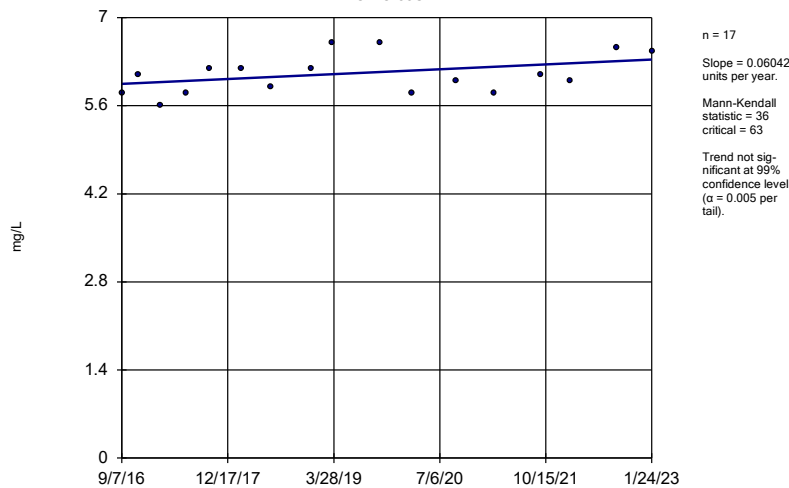
BRGWC-34S



Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

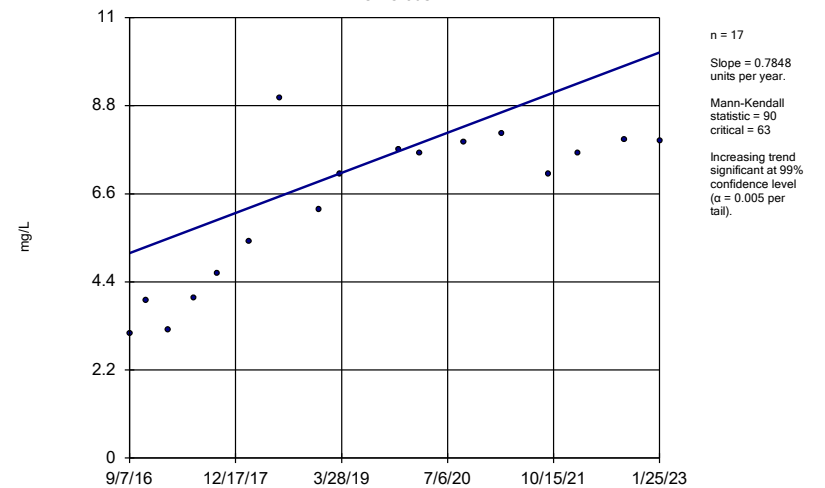
BRGWC-35S



Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

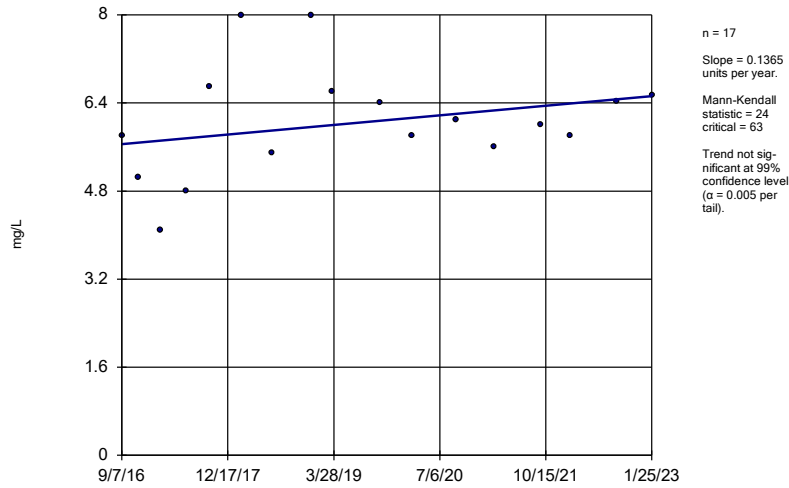
BRGWC-36S



Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

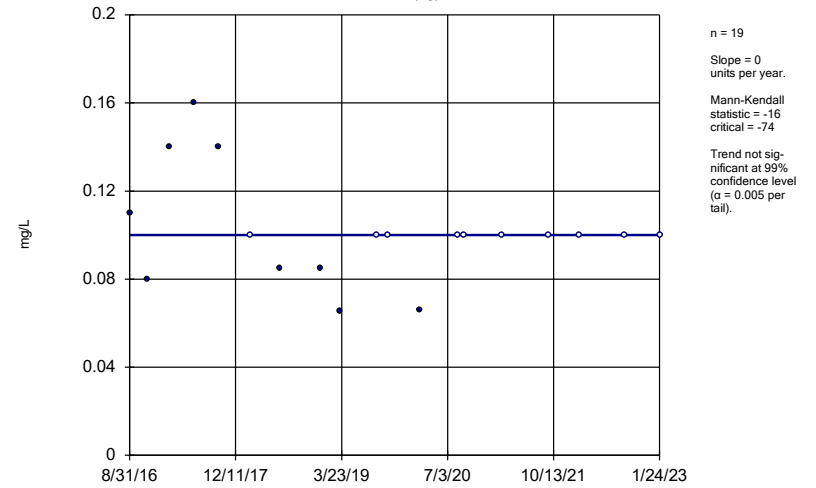


Constituent: Chloride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-2I (bg)

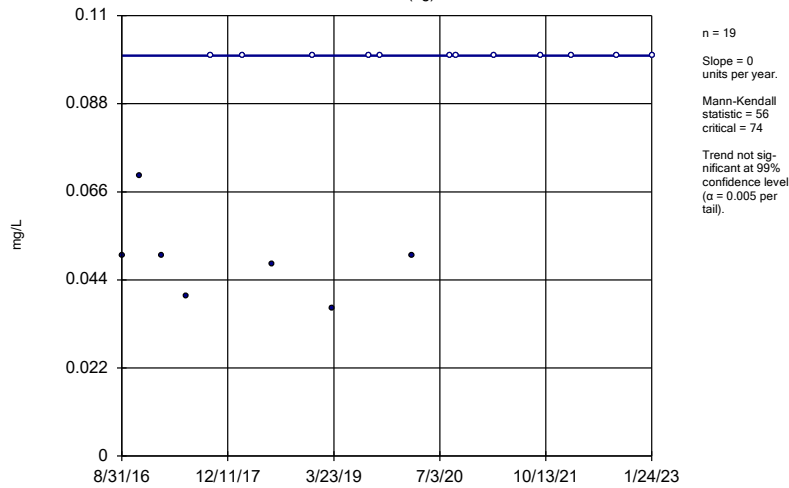


Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-2S (bg)

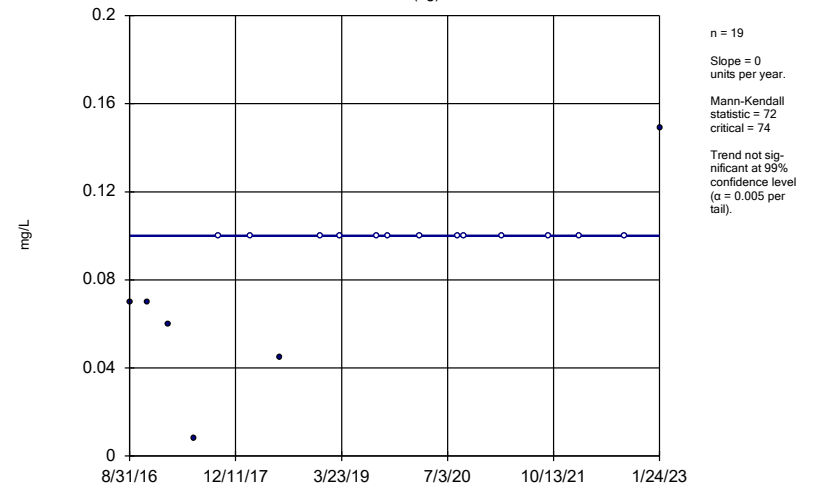


Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

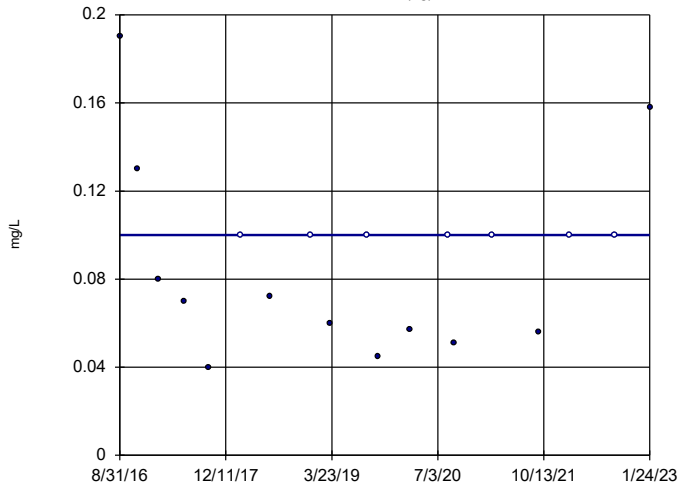
BRGWA-5I (bg)



Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

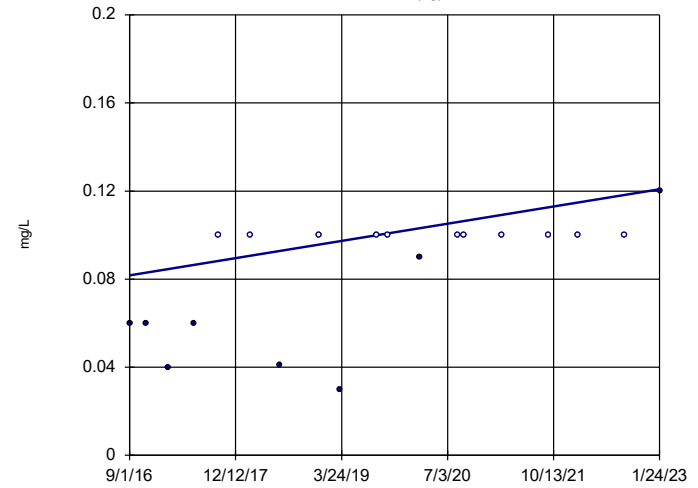


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = -4
critical = -74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

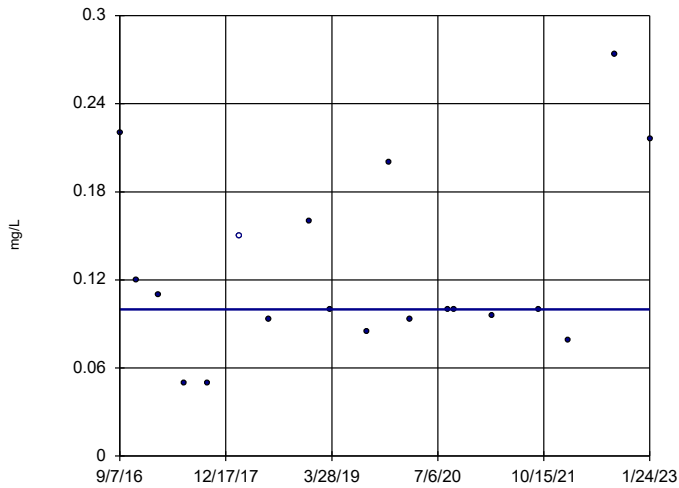


n = 19
Slope = 0.006099
units per year.
Mann-Kendall
statistic = 73
critical = 74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

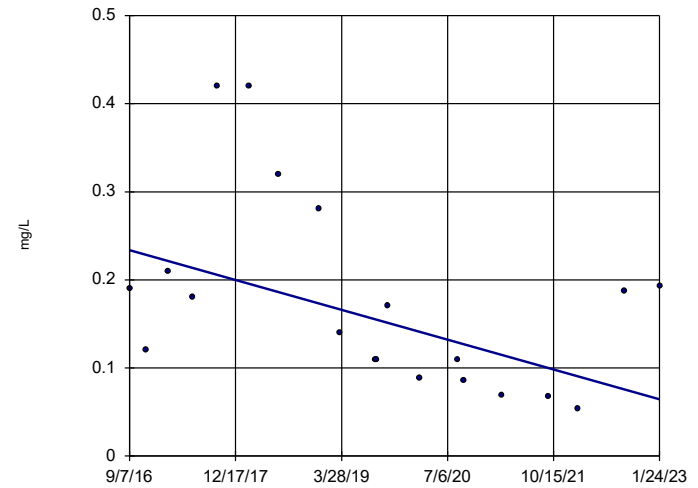


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = 7
critical = 74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

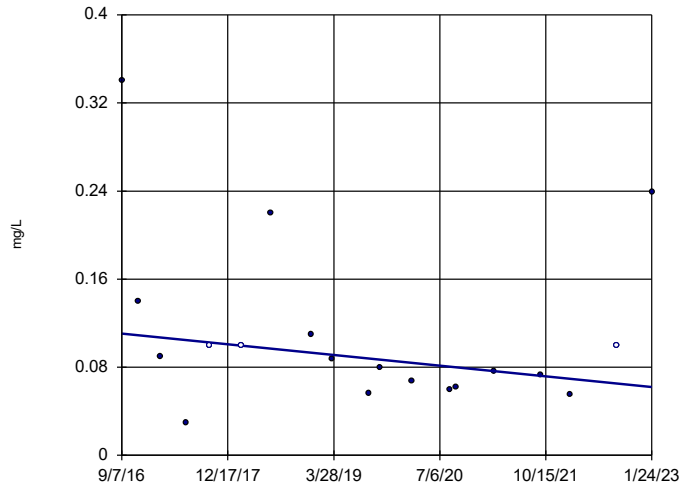


n = 20
Slope = -0.02655
units per year.
Mann-Kendall
statistic = -84
critical = -81
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-35S

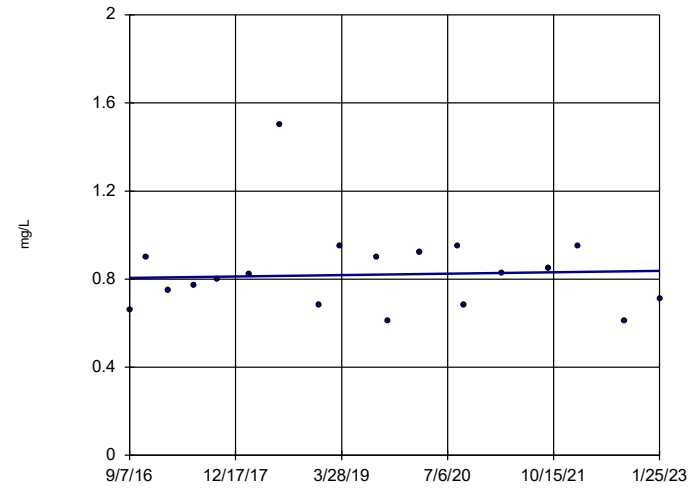


n = 19
 Slope = -0.007584
 units per year.
 Mann-Kendall
 statistic = -42
 critical = -74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

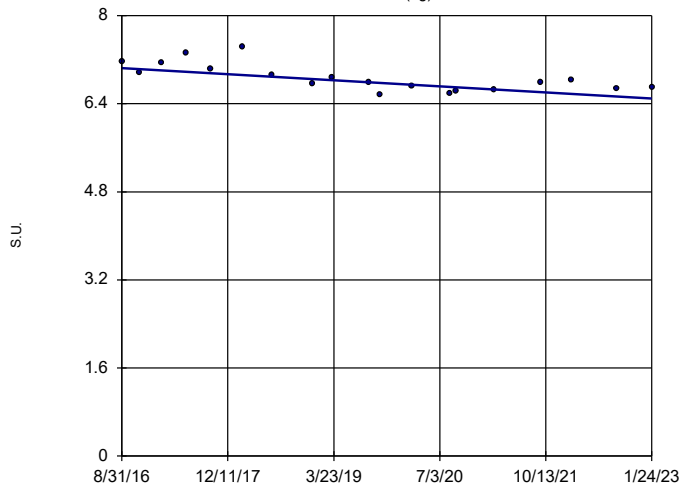


n = 19
 Slope = 0.004963
 units per year.
 Mann-Kendall
 statistic = 8
 critical = 74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

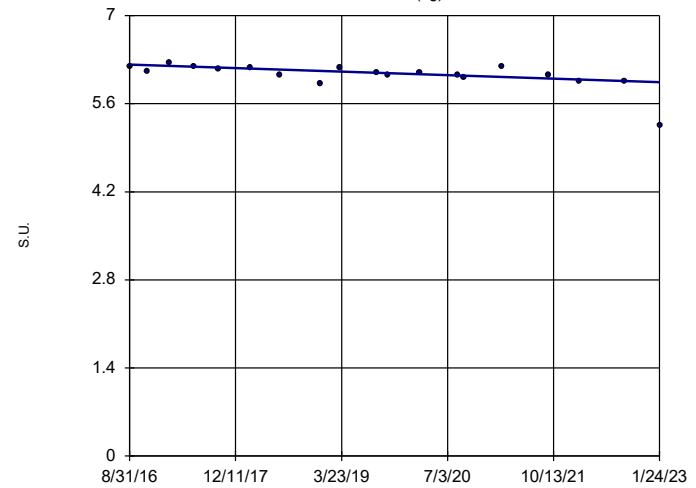


n = 19
 Slope = -0.08596
 units per year.
 Mann-Kendall
 statistic = -87
 critical = -74
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

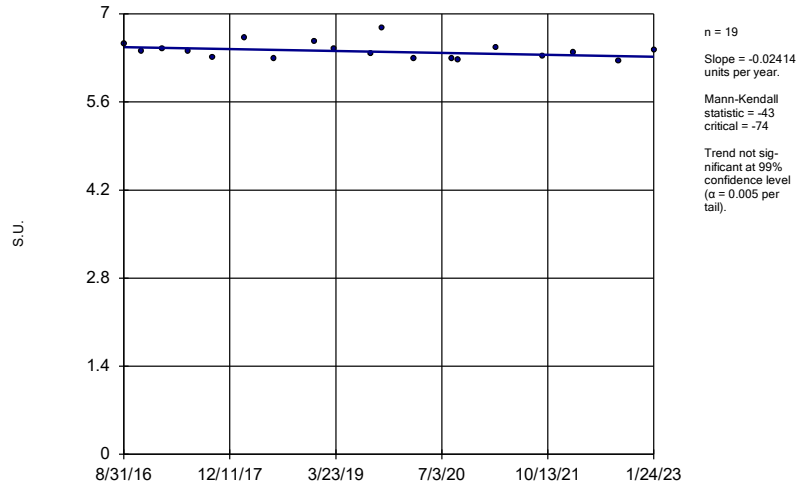


n = 19
 Slope = -0.04386
 units per year.
 Mann-Kendall
 statistic = -89
 critical = -74
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

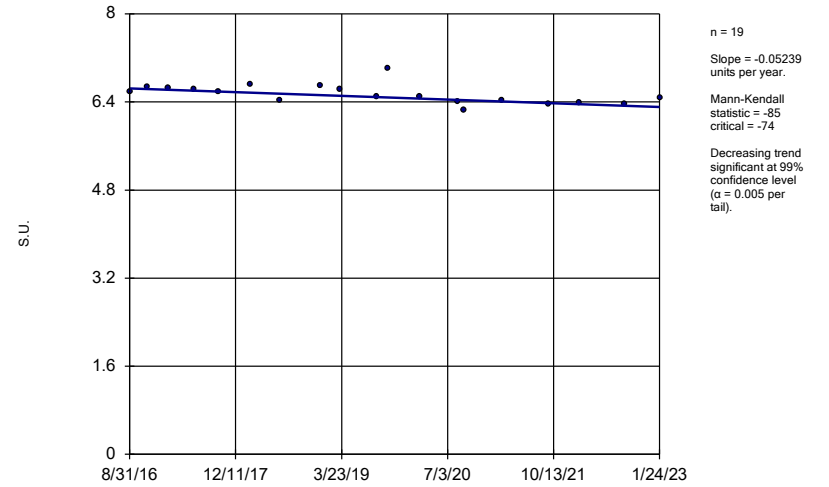
BRGWA-5I (bg)



Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

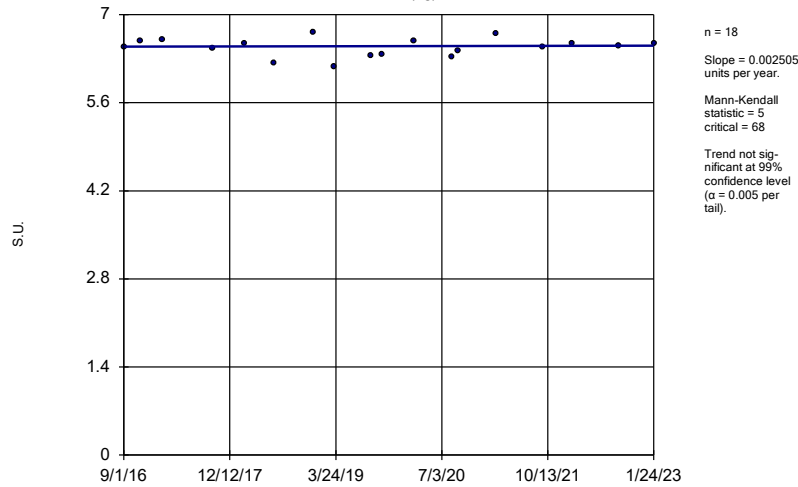
BRGWA-5S (bg)



Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

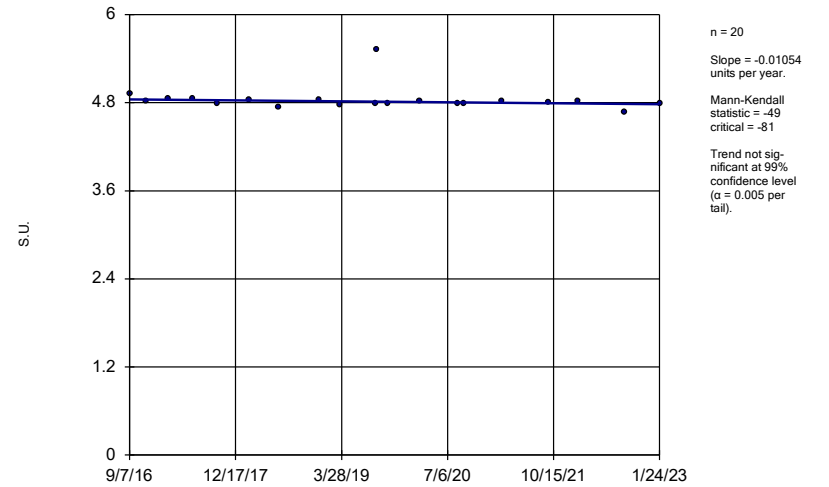
BRGWA-6S (bg)



Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

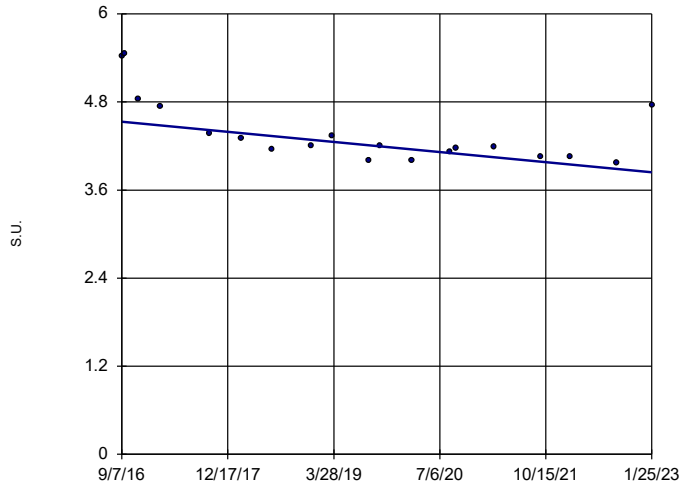
BRGWC-33S



Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

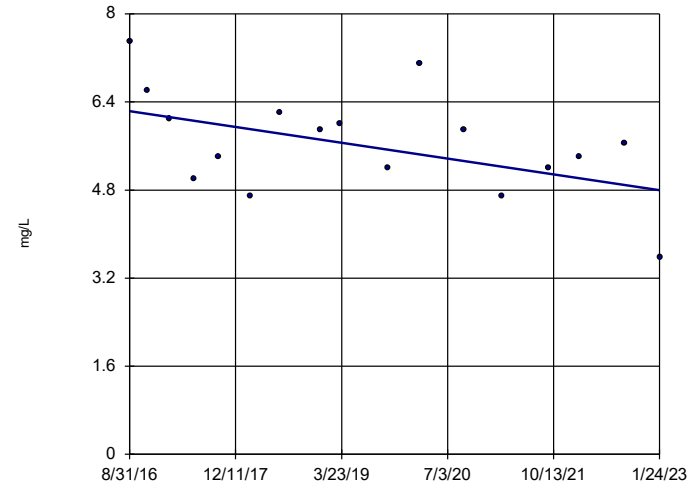


n = 19
 Slope = -0.1079 units per year.
 Mann-Kendall statistic = -93
 critical = -74
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

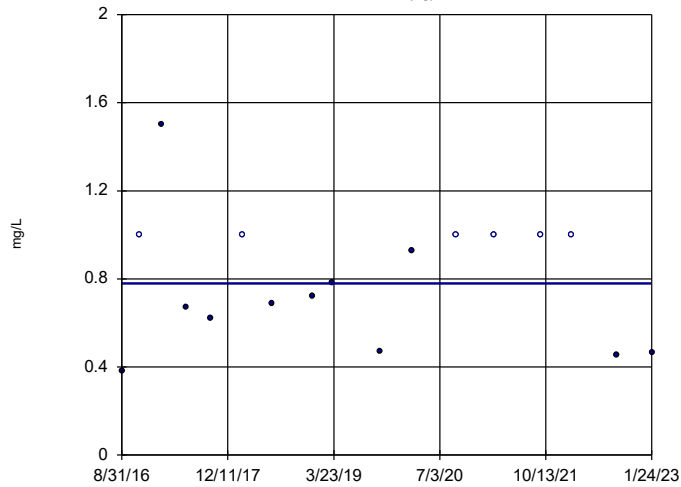


n = 17
 Slope = -0.2241 units per year.
 Mann-Kendall statistic = -48
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

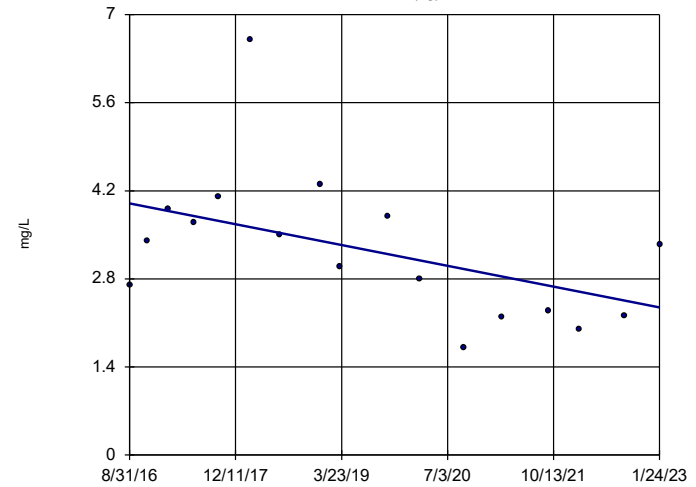


n = 17
 Slope = 0 units per year.
 Mann-Kendall statistic = 5
 critical = 63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

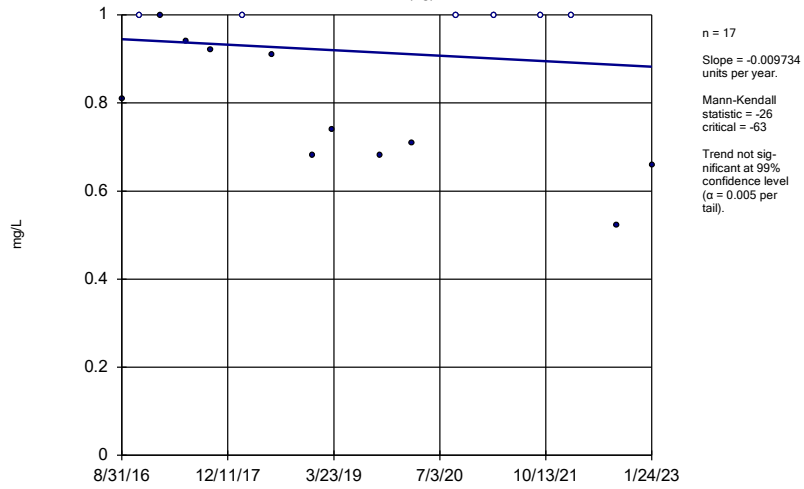


n = 17
 Slope = -0.2579 units per year.
 Mann-Kendall statistic = -48
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

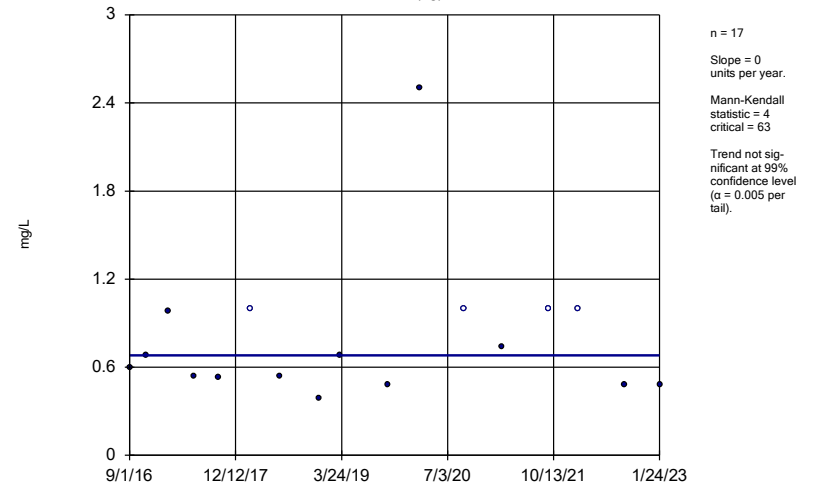
BRGWA-5S (bg)



Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

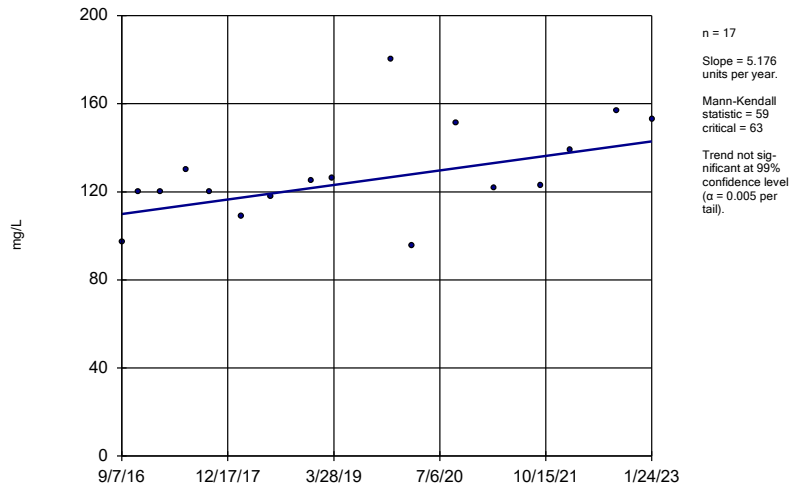
BRGWA-6S (bg)



Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

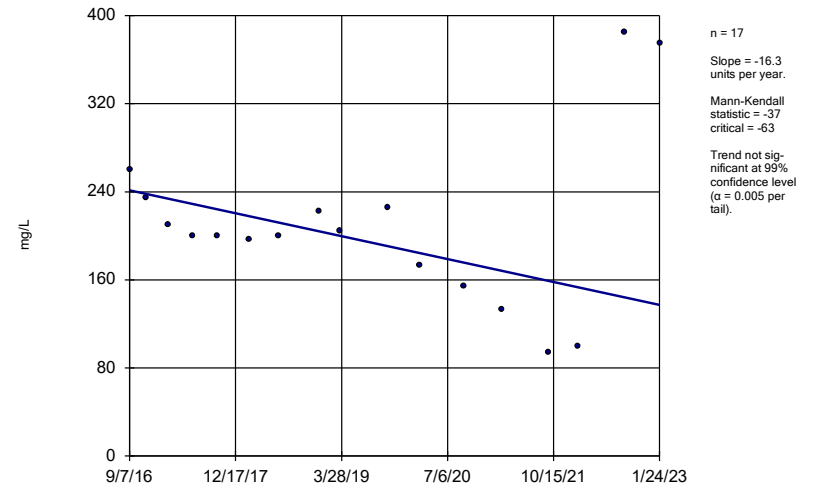
BRGWC-17S



Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

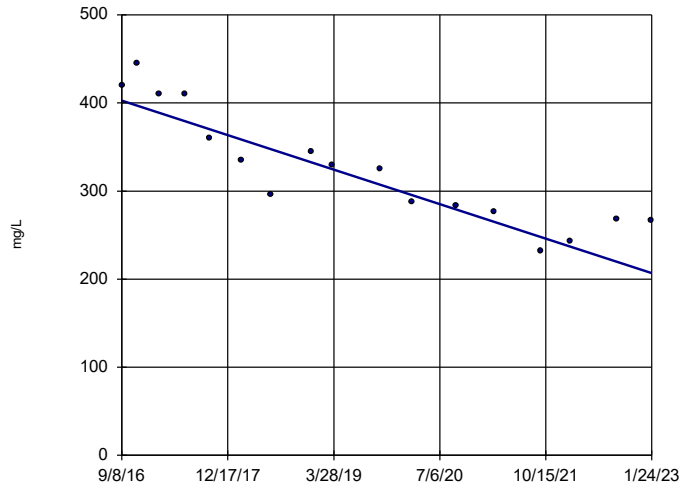
BRGWC-33S



Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

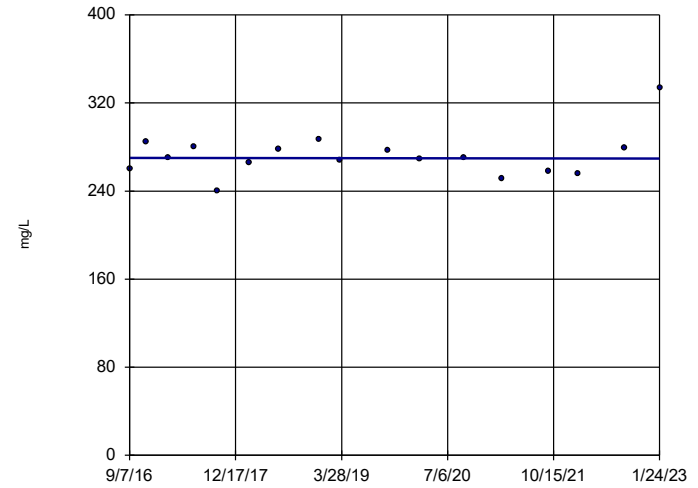


n = 17
 Slope = -30.64
 units per year.
 Mann-Kendall
 statistic = -115
 critical = -63
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-35S

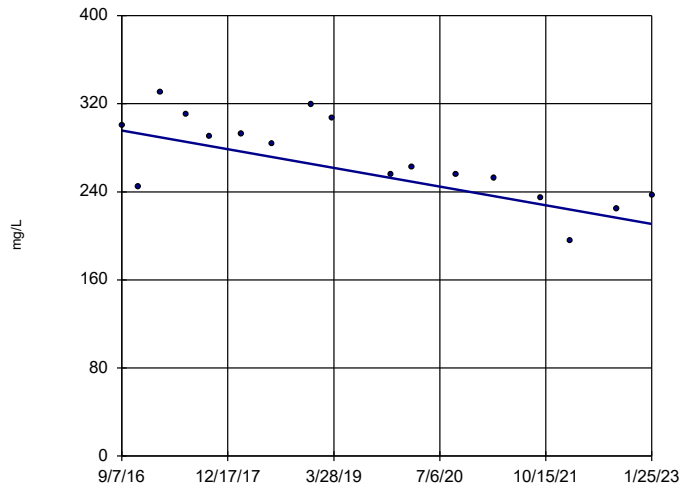


n = 17
 Slope = -0.09626
 units per year.
 Mann-Kendall
 statistic = -1
 critical = -63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

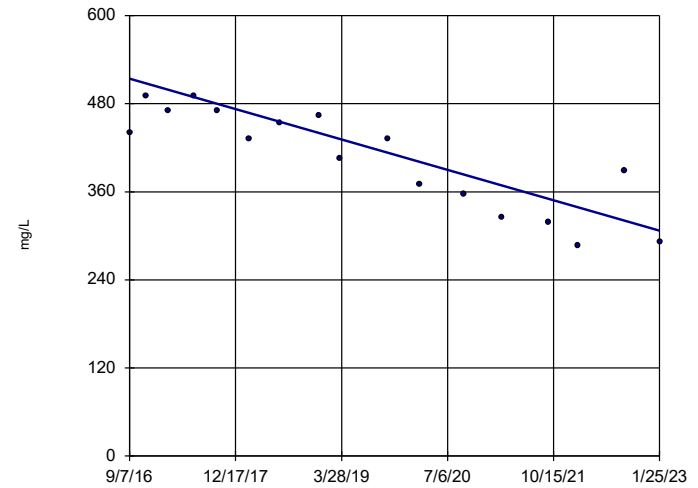


n = 17
 Slope = -13.29
 units per year.
 Mann-Kendall
 statistic = -79
 critical = -63
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:36 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

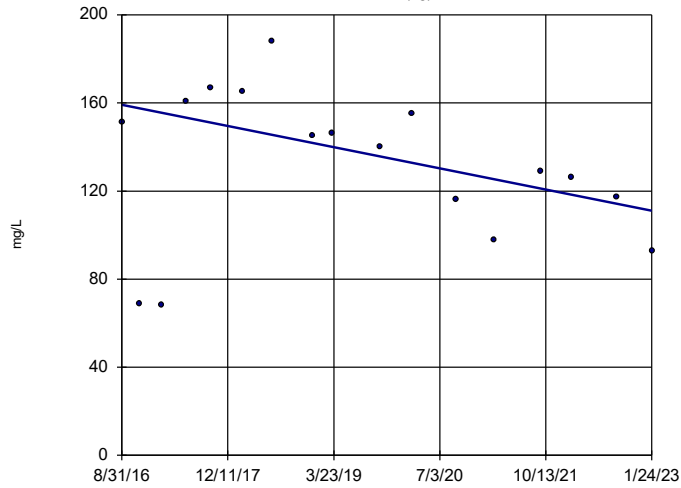


n = 17
 Slope = -32.45
 units per year.
 Mann-Kendall
 statistic = -99
 critical = -63
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

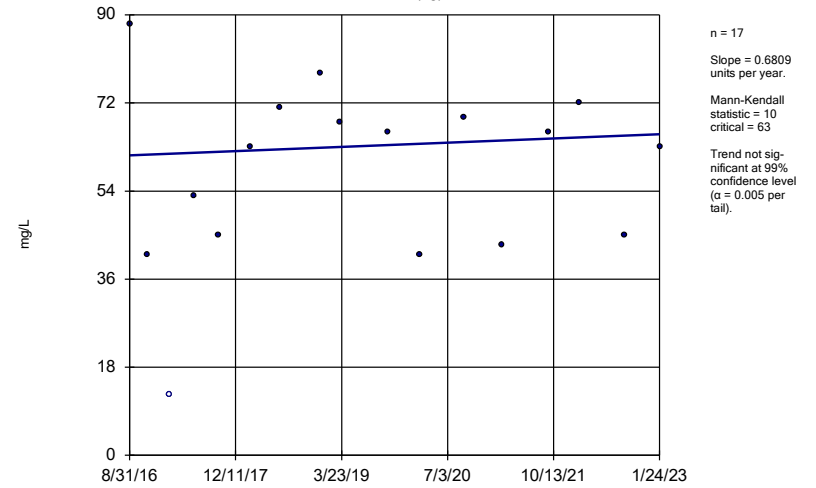
BRGWA-2I (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

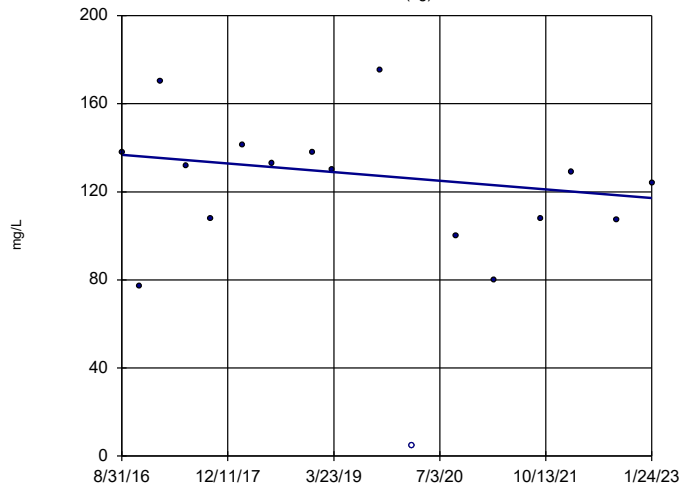
BRGWA-2S (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

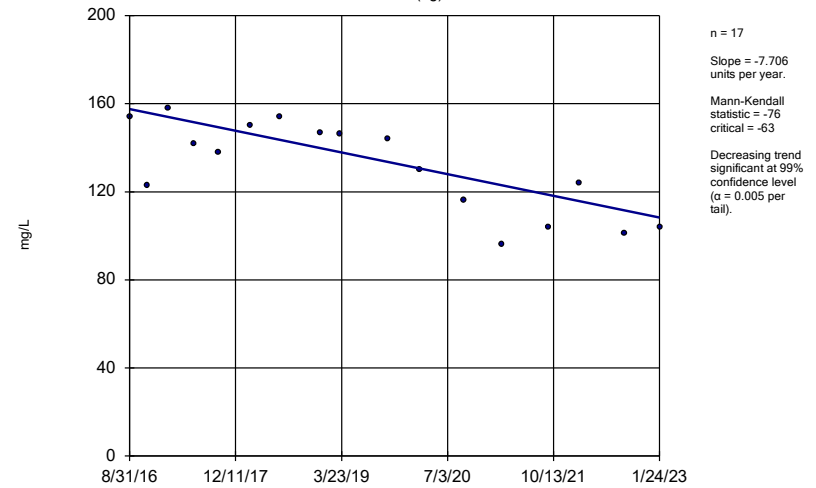
BRGWA-5I (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

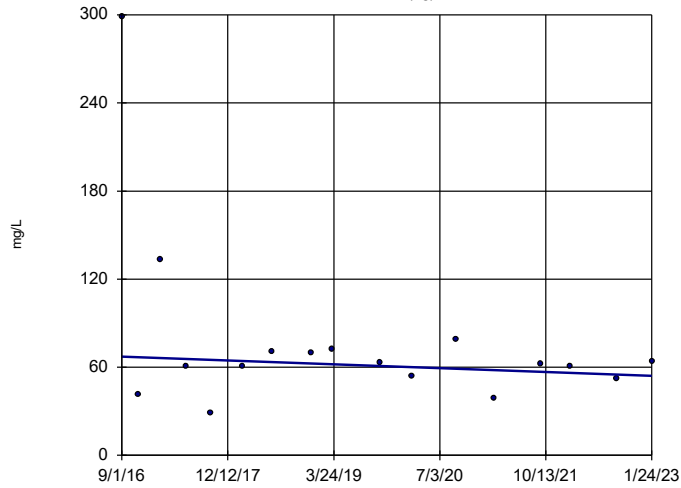
BRGWA-5S (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

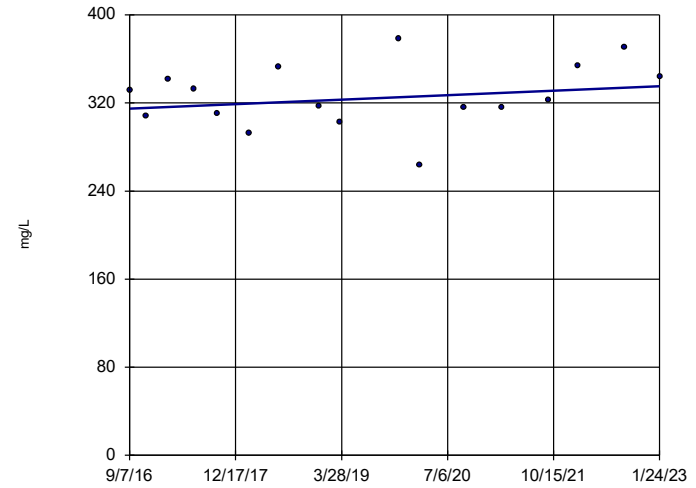


n = 17
 Slope = -2.032
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -63
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

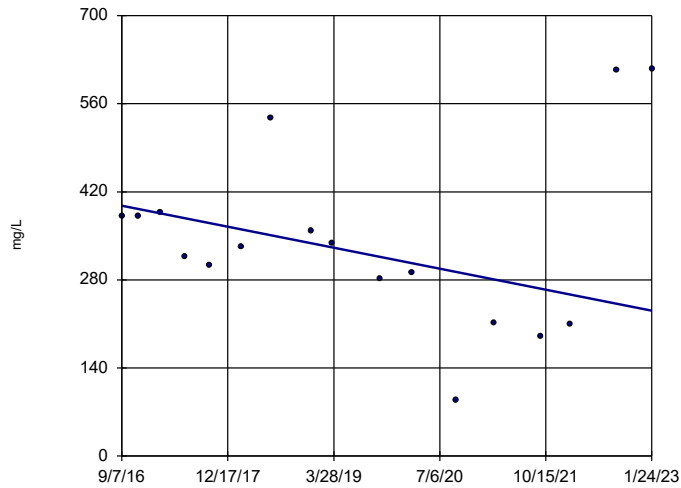


n = 17
 Slope = 3.177
 units per year.
 Mann-Kendall
 statistic = 27
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

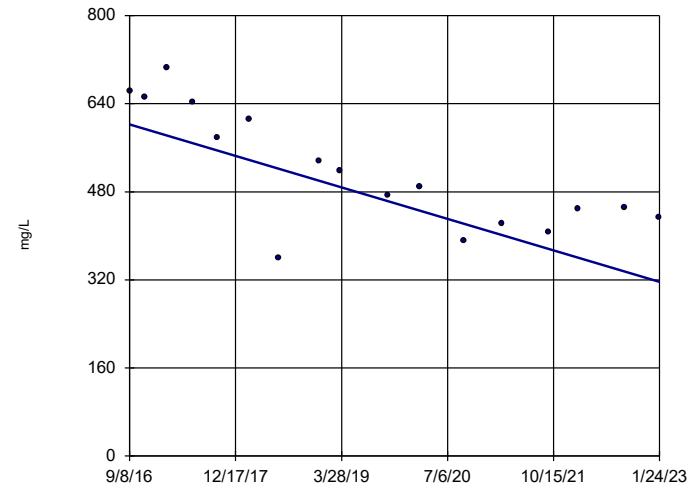


n = 17
 Slope = -26.14
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -63
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

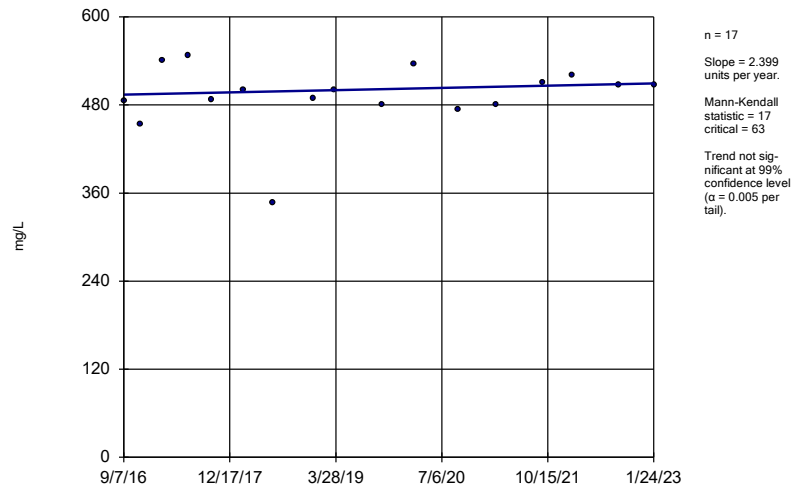


n = 17
 Slope = -44.75
 units per year.
 Mann-Kendall
 statistic = -84
 critical = -63
 Decreasing trend
 significant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

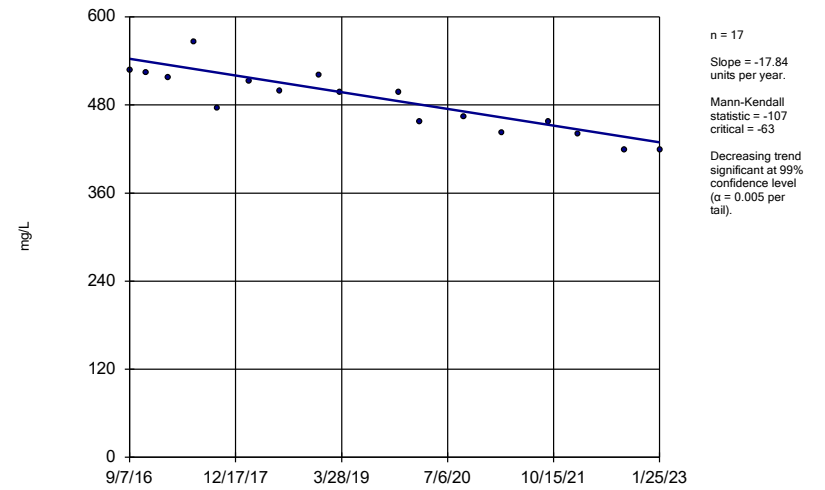
BRGWC-35S



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM View: Pond E - Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

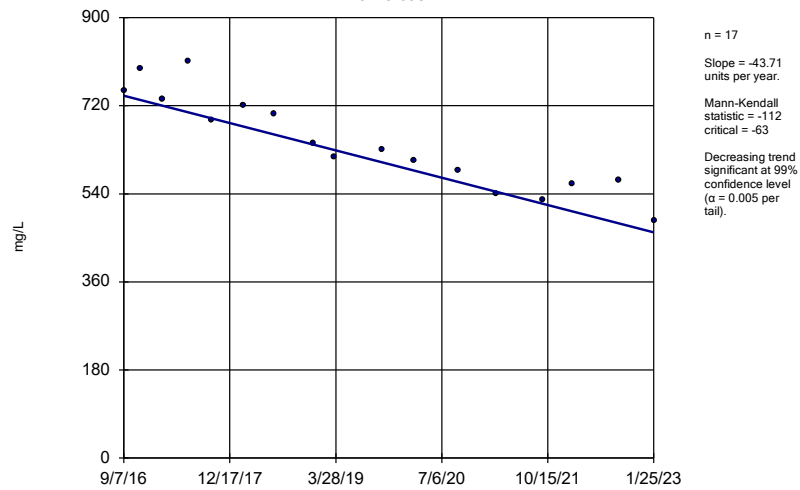
BRGWC-36S



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 2:37 PM 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 2/27/2023 2:37 PM 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 3/20/2023, 11:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a 90	n/a	n/a	92.22	n/a	n/a	0.009888	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 90	n/a	n/a	76.67	n/a	n/a	0.009888	NP Inter(NDs)
Barium (mg/L)	n/a	0.063	n/a	n/a	n/a	n/a 90	n/a	n/a	0	n/a	n/a	0.009888	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a 90	n/a	n/a	15.56	n/a	n/a	0.009888	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0034	n/a	n/a	n/a	n/a 88	n/a	n/a	45.45	n/a	n/a	0.01096	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	1.736	n/a	n/a	n/a	n/a 90	0.7922	0.2703	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a 95	n/a	n/a	55.79	n/a	n/a	0.007651	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 90	n/a	n/a	81.11	n/a	n/a	0.009888	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a 90	n/a	n/a	44.44	n/a	n/a	0.009888	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a 80	n/a	n/a	87.5	n/a	n/a	0.01652	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a 90	n/a	n/a	67.78	n/a	n/a	0.009888	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 90	n/a	n/a	100	n/a	n/a	0.009888	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		1.74	5
Fluoride, Total (mg/L)	4		0.19	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 - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	0.009297	0.00797	0.004	Yes	19	0.008634	0.001134	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05312	0.03893	0.006	Yes	19	0.04602	0.01212	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2505	0.1997	0.006	Yes	18	0.2251	0.04201	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	18	0.002883	0.000495	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0016	0.006	No	18	0.002502	0.0009876	77.78	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	18	0.002722	0.0008092	88.89	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	18	0.002756	0.0007123	88.89	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0033	0.01	No	18	0.004178	0.001678	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.00262	0.01	No	19	0.004252	0.001547	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	18	0.004247	0.001734	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	18	0.004286	0.001645	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.003	0.01	No	18	0.004144	0.001728	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003395	0.001906	0.01	No	18	0.002651	0.001231	11.11	None	No	0.01	Param.
Arsenic (mg/L)	PZ-13S	0.005	0.00388	0.01	No	4	0.00472	0.00056	75	None	No	0.0625	NP (NDs)
Barium (mg/L)	BRGWC-17S	0.04387	0.0392	2	No	18	0.04153	0.003865	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.0243	0.02	2	No	19	0.02321	0.005815	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-34S	0.0347	0.0232	2	No	18	0.02892	0.006961	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-35S	0.0518	0.0339	2	No	18	0.04662	0.01897	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.0415	0.0296	2	No	18	0.03725	0.01041	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-37S	0.02518	0.0233	2	No	18	0.02424	0.001557	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0247	0.015	2	No	18	0.02104	0.009558	0	None	No	0.01	NP (normality)
Barium (mg/L)	PZ-13S	0.1734	-0.01055	2	No	4	0.08143	0.04051	0	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-33S	0.002005	0.001591	0.004	No	19	0.001798	0.0003539	5.263	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-34S	0.0002	0.00012	0.004	No	18	0.0002178	0.000157	22.22	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.00021	0.0001	0.004	No	18	0.0001961	0.000143	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.0005	0.000084	0.004	No	19	0.0002216	0.0001945	31.58	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009297	0.00797	0.004	Yes	19	0.008634	0.001134	0	None	No	0.01	Param.
Beryllium (mg/L)	PZ-13S	0.0005713	0.0002552	0.004	No	4	0.0004133	0.00006962	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0004548	0.0003232	0.005	No	19	0.000389	0.0001124	5.263	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0003893	0.0001816	0.005	No	18	0.0004554	0.0003243	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.001	0.0001	0.005	No	19	0.0009042	0.0002869	89.47	Kaplan-Meier	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0005984	0.000487	0.005	No	18	0.0005427	0.00009208	5.556	None	No	0.01	Param.
Cadmium (mg/L)	PZ-13S	0.001	0.00011	0.005	No	4	0.0007775	0.000445	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	BRGWC-17S	0.01259	0.009933	0.1	No	18	0.01133	0.002321	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	19	0.009499	0.002182	94.74	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006574	0.004499	0.1	No	18	0.005537	0.001715	5.556	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008226	0.007146	0.1	No	18	0.007686	0.000893	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.01	0.0014	0.1	No	18	0.003867	0.003919	27.78	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.00411	0.003499	0.1	No	18	0.003717	0.0007207	0	None	x^3	0.01	Param.
Chromium (mg/L)	PZ-13S	0.0305	0.006047	0.1	No	4	0.01828	0.005386	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05312	0.03893	0.006	Yes	19	0.04602	0.01212	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.004512	0.003371	0.006	No	18	0.004016	0.001087	5.556	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-35S	0.0012	0.0008	0.006	No	18	0.001	0.0003926	72.22	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-38S	0.2505	0.1997	0.006	Yes	18	0.2251	0.04201	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-13S	0.001	0.00037	0.006	No	4	0.0008425	0.000315	75	None	No	0.0625	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.7614	0.3561	5	No	18	0.5587	0.335	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.433	0.6495	5	No	18	1.102	0.7251	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.244	0.7613	5	No	18	1.026	0.4342	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.363	0.4806	5	No	18	1.011	0.8935	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.43	0.6703	5	No	18	1.206	1.008	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.9846	0.3975	5	No	18	0.7428	0.5511	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.583	2.021	5	No	18	2.89	1.44	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-13S	5.806	-1.875	5	No	4	2.053	1.88	25	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1553	0.08879	4	No	19	0.1261	0.06127	5.263	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-33S	0.2225	0.1111	4	No	20	0.1762	0.1086	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1454	0.08016	4	No	19	0.1241	0.08005	5.263	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.125	0.06256	4	No	19	0.1098	0.07679	15.79	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.18	0.054	4	No	19	0.1227	0.1058	47.37	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.055	4	No	19	0.08258	0.02773	42.11	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9214	0.7211	4	No	19	0.8335	0.1982	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	PZ-13S	0.1439	0.01015	4	No	4	0.097	0.02798	50	Kaplan-Meier	No	0.01	Param.

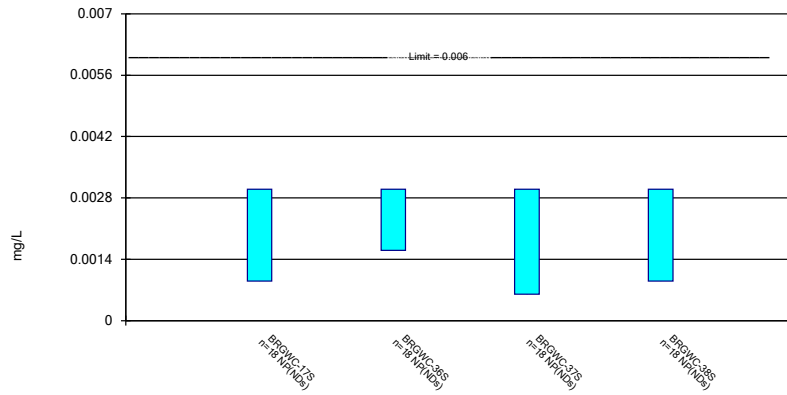
Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 11:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	BRGWC-17S	0.002	0.0001	0.015	No	18	0.001786	0.0006219	88.89	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.002	0.00007	0.015	No	19	0.000804	0.0009393	36.84	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.002	0.0003	0.015	No	18	0.001694	0.0007055	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.002	0.0002	0.015	No	18	0.001584	0.0008002	77.78	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.002	0.000047	0.015	No	18	0.001892	0.0004603	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-37S	0.002	0.0001	0.015	No	18	0.001789	0.0006144	88.89	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00035	0.015	No	18	0.00075	0.0006896	22.22	None	No	0.01	NP (normality)
Lead (mg/L)	PZ-13S	0.002	0.00035	0.015	No	4	0.001588	0.000825	75	None	No	0.0625	NP (NDs)
Lithium (mg/L)	BRGWC-17S	0.01	0.00097	0.089	No	18	0.006492	0.004526	61.11	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-33S	0.0104	0.009245	0.089	No	19	0.009821	0.000983	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.01	0.00089	0.089	No	18	0.006956	0.00443	66.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	BRGWC-35S	0.0023	0.0021	0.089	No	18	0.002456	0.0009288	11.11	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0023	0.089	No	18	0.003711	0.002897	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.0227	0.02048	0.089	No	18	0.02159	0.001839	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-13S	0.002281	0.0006748	0.089	No	4	0.005675	0.005002	50	Kaplan-Meier	x^(1/3)	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.0001	0.002	No	16	0.0001777	0.0000484	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	17	0.0001782	0.00005053	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00012	0.002	No	16	0.0001737	0.00005188	75	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00013	0.002	No	16	0.0001819	0.00004053	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.00013	0.002	No	16	0.0001812	0.00004177	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00014	0.002	No	16	0.0001819	0.00004167	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.000154	0.0000953	0.002	No	16	0.0001464	0.00004947	18.75	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.002487	0.00177	0.05	No	18	0.002903	0.001315	22.22	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	19	0.004142	0.001271	47.37	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.004886	0.002917	0.05	No	18	0.004002	0.001788	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.0403	0.03213	0.05	No	18	0.03622	0.006757	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-13S	0.004543	0.0006174	0.05	No	4	0.00258	0.0008644	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.002	0.000066	0.002	No	18	0.001893	0.0004558	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	19	0.0005753	0.0007561	21.05	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.002	0.0002	0.002	No	18	0.0008294	0.0008535	33.33	None	No	0.01	NP (normality)

Non-Parametric Confidence Interval

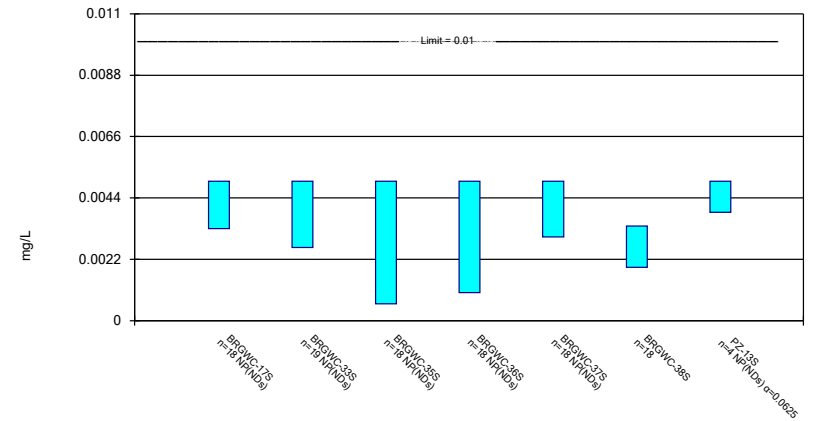
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

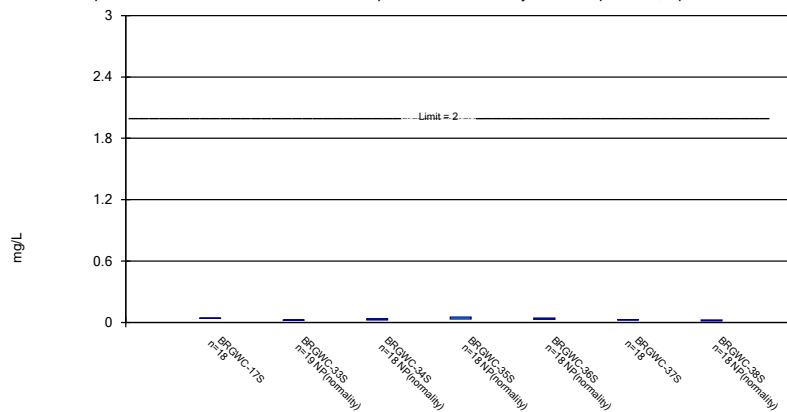
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

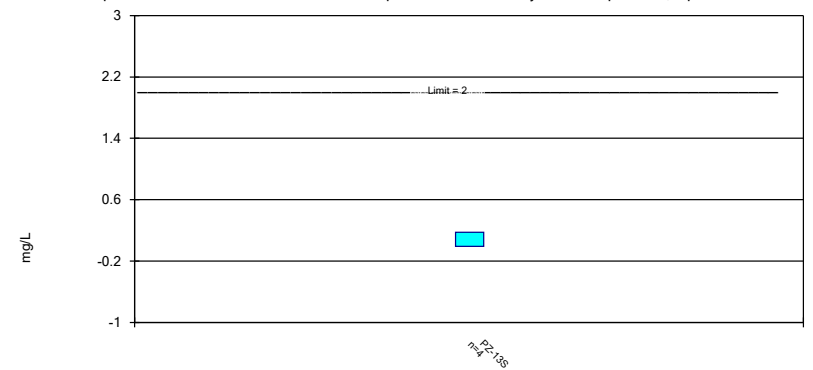
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

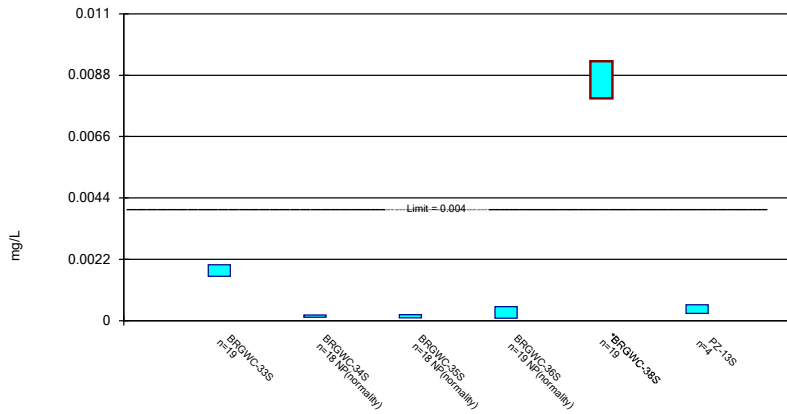
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

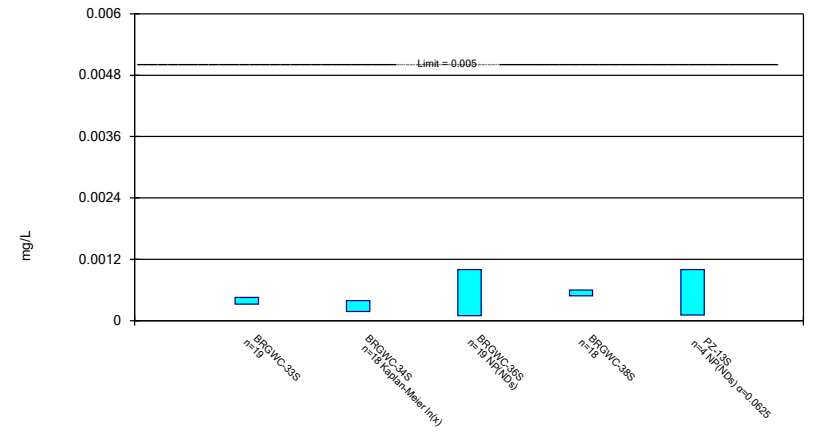
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

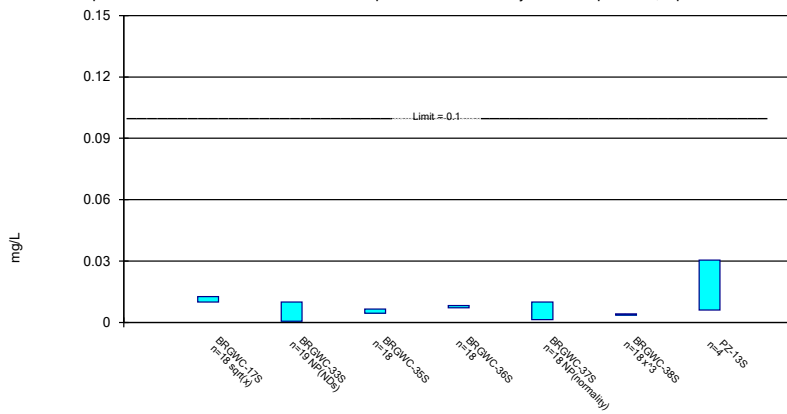
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

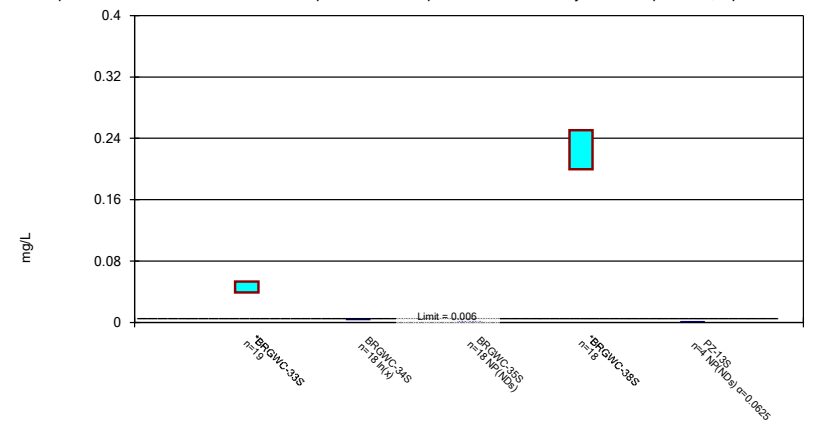
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

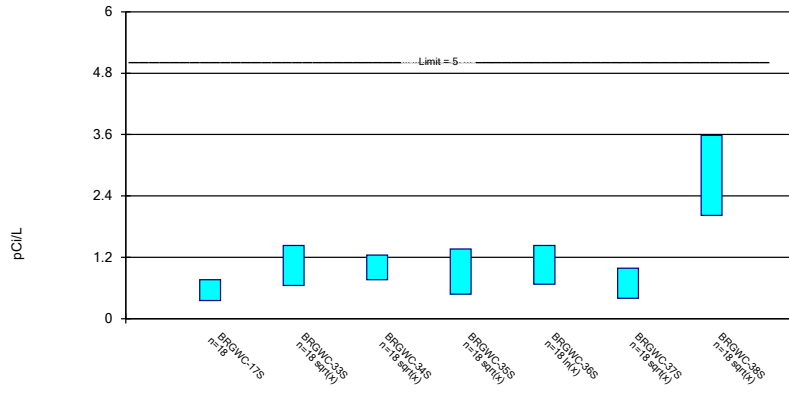
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

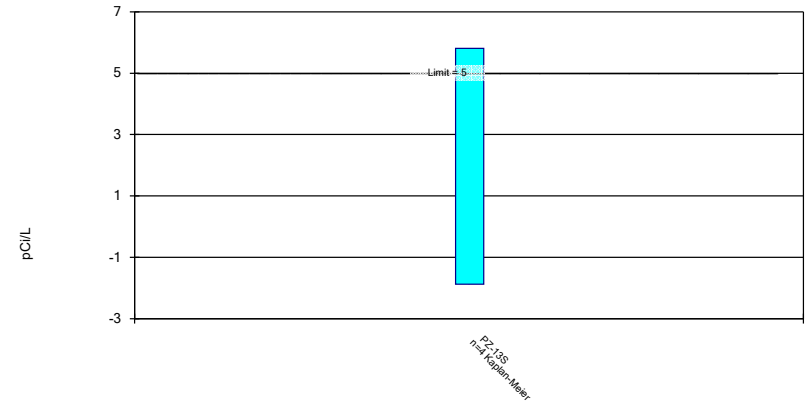
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence I
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

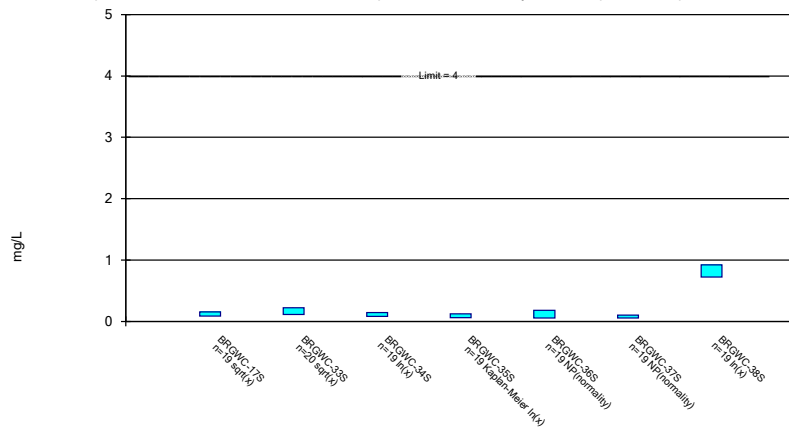
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence I
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

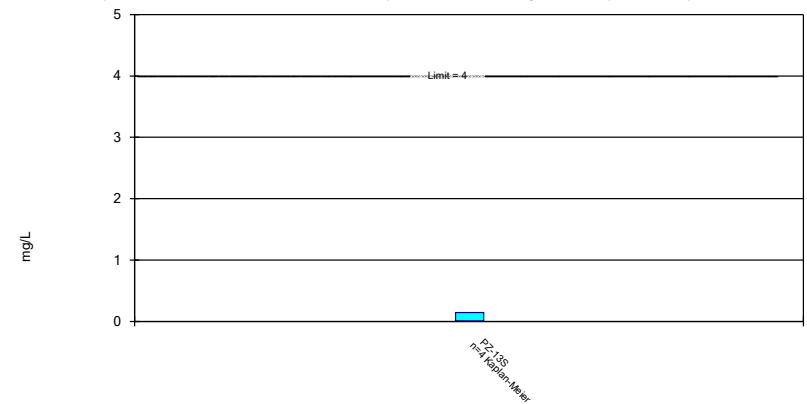
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

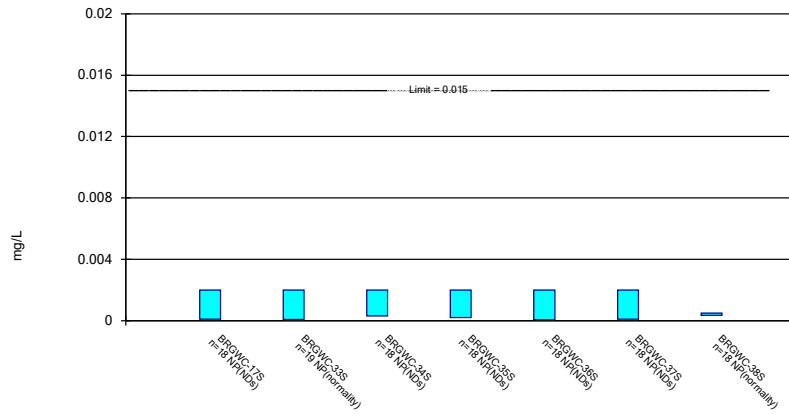
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

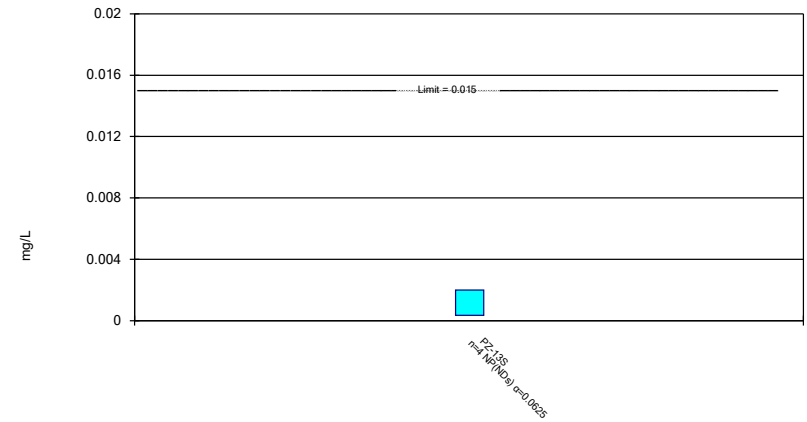
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

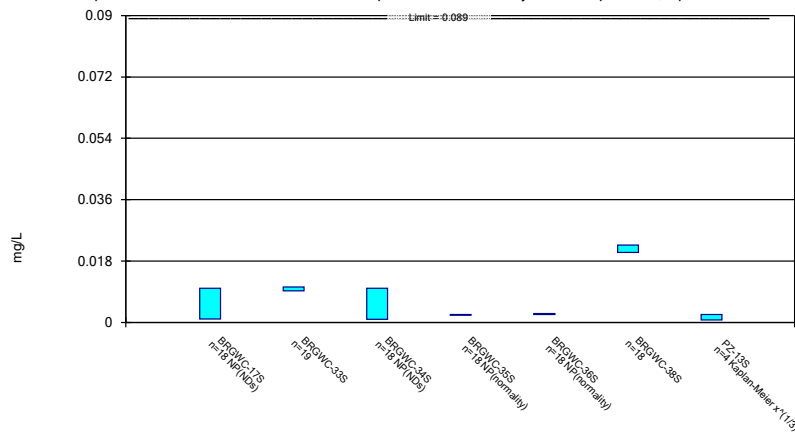
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

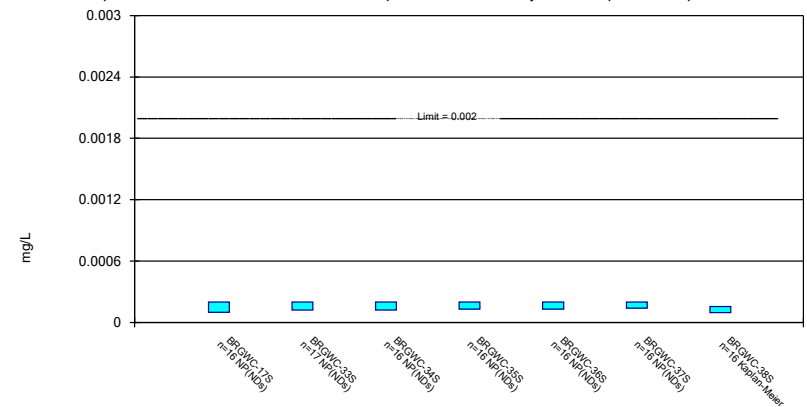
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

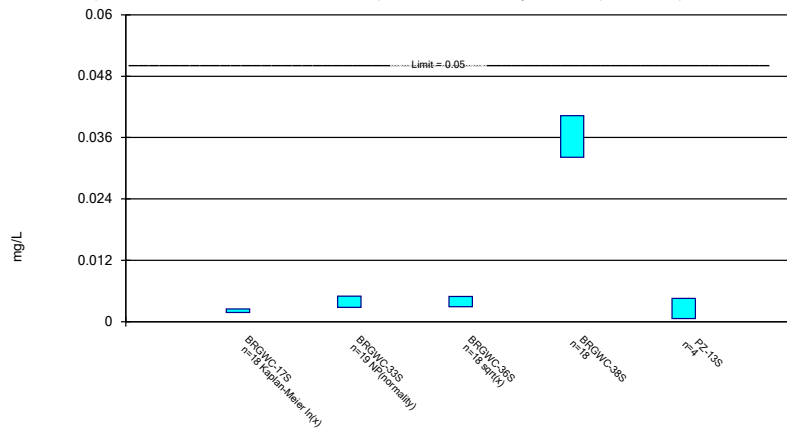
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

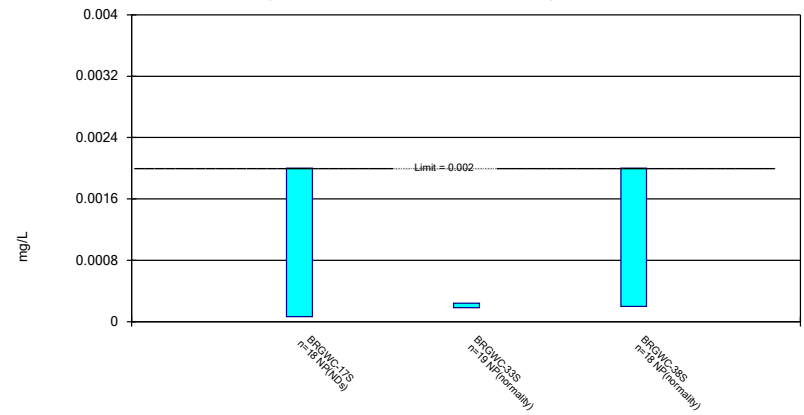
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
 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 3/20/2023 11:10 AM View: Pond E - Confidence Intervals
 Plant Branch Client: Southern Company Data: Plant Branch AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.002883	0.002502	0.002722	0.002756
Std. Dev.	0.000495	0.0009876	0.0008092	0.0007123
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 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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)
Mean	0.004178	0.004252	0.004247	0.004286	0.004144	0.002651	0.00472
Std. Dev.	0.001678	0.001547	0.001734	0.001645	0.001728	0.001231	0.00056
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.003395	0.005
Lower Lim.	0.0033	0.00262	0.0006	0.001	0.003	0.001906	0.00388

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.04153	0.02321	0.02892	0.04662	0.03725	0.02424	0.02104
Std. Dev.	0.003865	0.005815	0.006961	0.01897	0.01041	0.001557	0.009558
Upper Lim.	0.04387	0.0243	0.0347	0.0518	0.0415	0.02518	0.0247
Lower Lim.	0.0392	0.02	0.0232	0.0339	0.0296	0.0233	0.015

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals
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
Mean	0.08143
Std. Dev.	0.04051
Upper Lim.	0.1734
Lower Lim.	-0.01055

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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)
Mean	0.001798	0.0002178	0.0001961	0.0002216	0.008634	0.0004133
Std. Dev.	0.0003539	0.000157	0.000143	0.0001945	0.001134	6.962E-05
Upper Lim.	0.002005	0.0002	0.00021	0.0005	0.009297	0.0005713
Lower Lim.	0.001591	0.00012	0.0001	8.4E-05	0.00797	0.0002552

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.000389	0.0004554	0.0009042	0.0005427	0.0007775
Std. Dev.	0.0001124	0.0003243	0.0002869	9.208E-05	0.000445
Upper Lim.	0.0004548	0.0003893	0.001	0.0005984	0.001
Lower Lim.	0.0003232	0.0001816	0.0001	0.000487	0.00011

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.01133	0.009499	0.005537	0.007686	0.003867	0.003717	0.01828
Std. Dev.	0.002321	0.002182	0.001715	0.000893	0.003919	0.0007207	0.005386
Upper Lim.	0.01259	0.01	0.006574	0.008226	0.01	0.00411	0.0305
Lower Lim.	0.009933	0.00049	0.004499	0.007146	0.0014	0.003499	0.006047

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.04602	0.004016	0.001	0.2251	0.0008425
Std. Dev.	0.01212	0.001087	0.0003926	0.04201	0.000315
Upper Lim.	0.05312	0.004512	0.0012	0.2505	0.001
Lower Lim.	0.03893	0.003371	0.0008	0.1997	0.00037

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.5587	1.102	1.026	1.011	1.206	0.7428	2.89
Std. Dev.	0.335	0.7251	0.4342	0.8935	1.008	0.5511	1.44
Upper Lim.	0.7614	1.433	1.244	1.363	1.43	0.9846	3.583
Lower Lim.	0.3561	0.6495	0.7613	0.4806	0.6703	0.3975	2.021

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	2.053
Std. Dev.	1.88
Upper Lim.	5.806
Lower Lim.	-1.875

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.1261	0.1762	0.1241	0.1098	0.1227	0.08258	0.8335
Std. Dev.	0.06127	0.1086	0.08005	0.07679	0.1058	0.02773	0.1982
Upper Lim.	0.1553	0.2225	0.1454	0.125	0.18	0.1	0.9214
Lower Lim.	0.08879	0.1111	0.08016	0.06256	0.054	0.055	0.7211

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals
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
Mean	0.097
Std. Dev.	0.02798
Upper Lim.	0.1439
Lower Lim.	0.01015

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.001786	0.000804	0.001694	0.001584	0.001892	0.001789	0.00075
Std. Dev.	0.0006219	0.0009393	0.0007055	0.0008002	0.0004603	0.0006144	0.0006896
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002	0.0005
Lower Lim.	0.0001	7E-05	0.0003	0.0002	4.7E-05	0.0001	0.00035

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals
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
Mean	0.001588
Std. Dev.	0.000825
Upper Lim.	0.002
Lower Lim.	0.00035

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.006492	0.009821	0.006956	0.002456	0.003711	0.02159	0.005675
Std. Dev.	0.004526	0.000983	0.00443	0.0009288	0.002897	0.001839	0.005002
Upper Lim.	0.01	0.0104	0.01	0.0023	0.0026	0.0227	0.002281
Lower Lim.	0.00097	0.009245	0.00089	0.0021	0.0023	0.02048	0.0006748

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.0001777	0.0001782	0.0001737	0.0001819	0.0001812	0.0001819	0.0001464
Std. Dev.	4.84E-05	5.053E-05	5.188E-05	4.053E-05	4.177E-05	4.167E-05	4.947E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.000154
Lower Lim.	0.0001	0.00012	0.00012	0.00013	0.00013	0.00014	9.53E-05

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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)
Mean	0.002903	0.004142	0.004002	0.03622	0.00258
Std. Dev.	0.001315	0.001271	0.001788	0.006757	0.0008644
Upper Lim.	0.002487	0.005	0.004886	0.0403	0.004543
Lower Lim.	0.00177	0.0028	0.002917	0.03213	0.0006174

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 11:11 AM View: Pond E - Confidence Intervals

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
Mean	0.001893	0.0005753	0.0008294
Std. Dev.	0.0004558	0.0007561	0.0008535
Upper Lim.	0.002	0.00024	0.002
Lower Lim.	6.6E-05	0.00018	0.0002

FIGURE I.

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

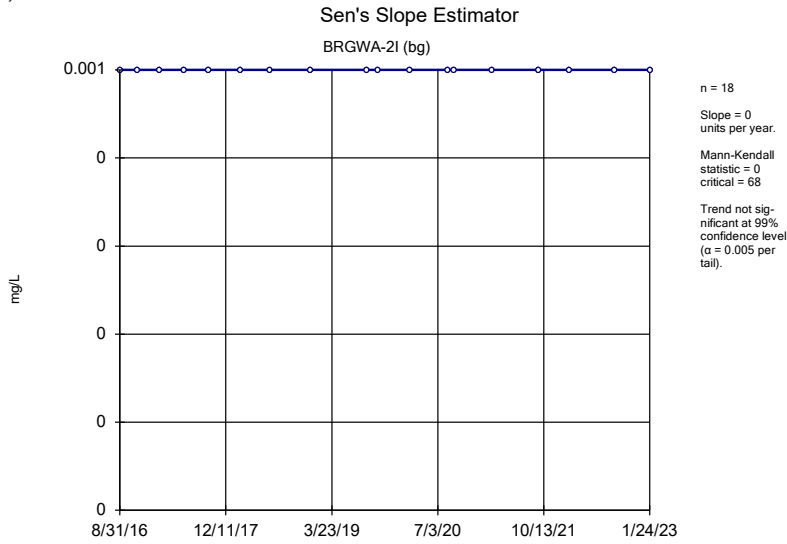
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	-0.0004273	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003527	-101	-68	Yes	18	11.11	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.005794	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02005	-115	-68	Yes	18	0	n/a	n/a	0.01	NP

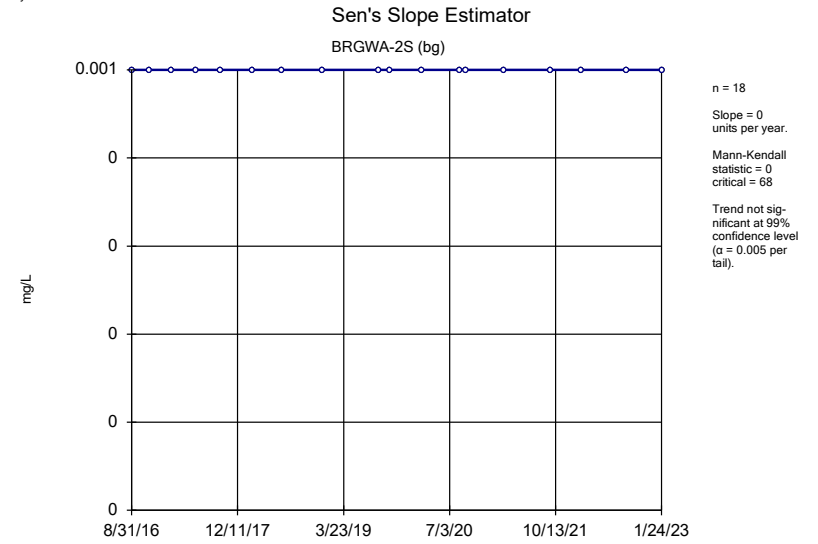
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:39 PM

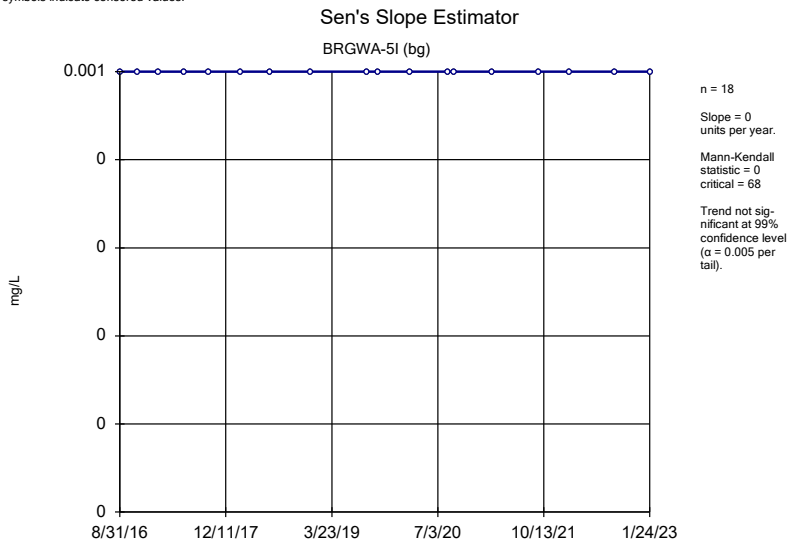
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWC-38S	-0.0004273	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-25	-68	No	18	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003527	-101	-68	Yes	18	11.11	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.000106	-52	-58	No	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	31	68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	12	68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.005794	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02005	-115	-68	Yes	18	0	n/a	n/a	0.01	NP



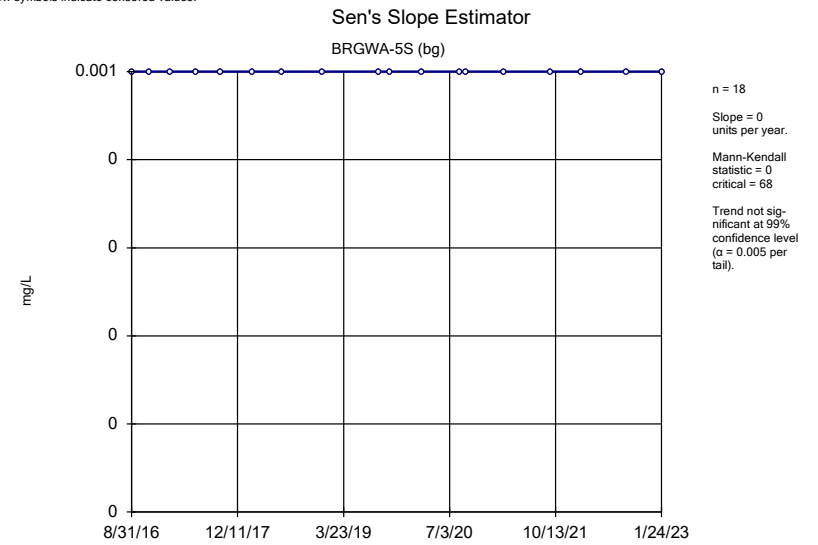
Constituent: Beryllium Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP



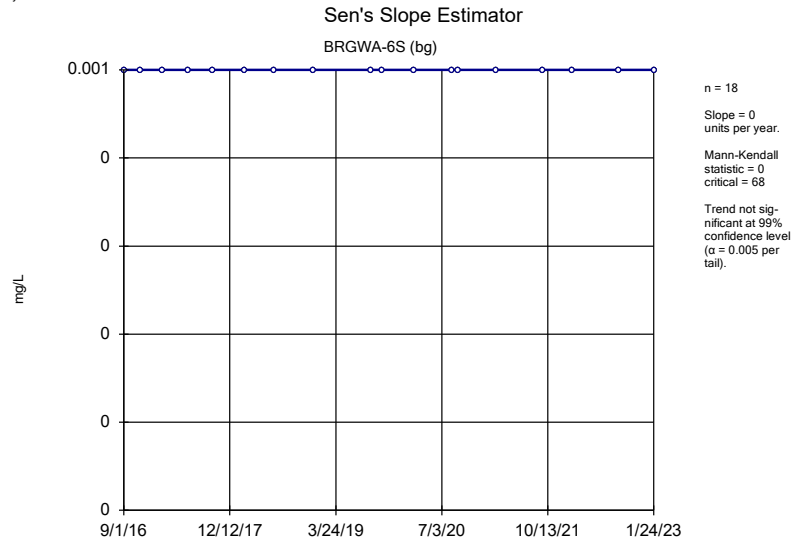
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Plant Branch Client: Southern Company Data: Plant Branch AP



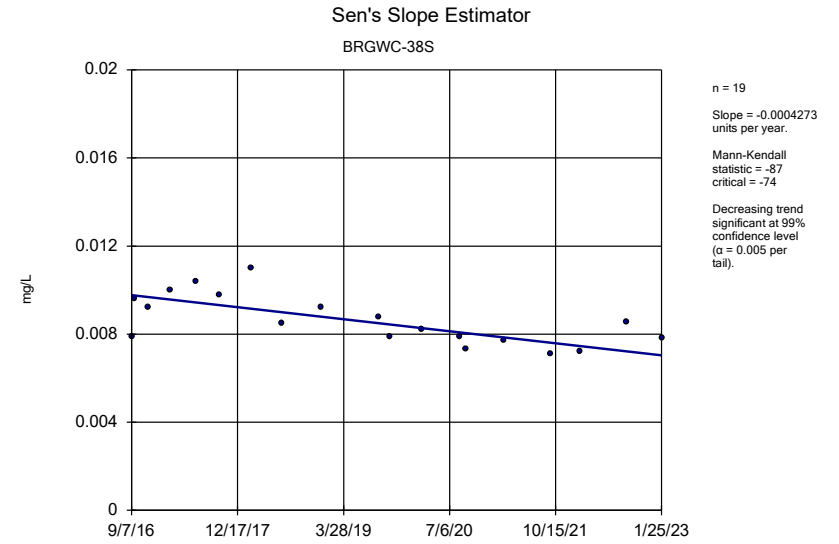
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Plant Branch Client: Southern Company Data: Plant Branch AP



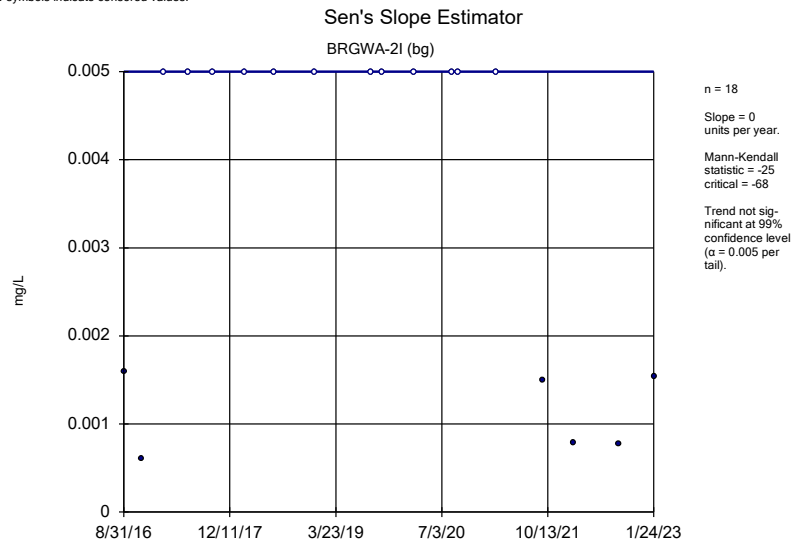
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Plant Branch Client: Southern Company Data: Plant Branch AP



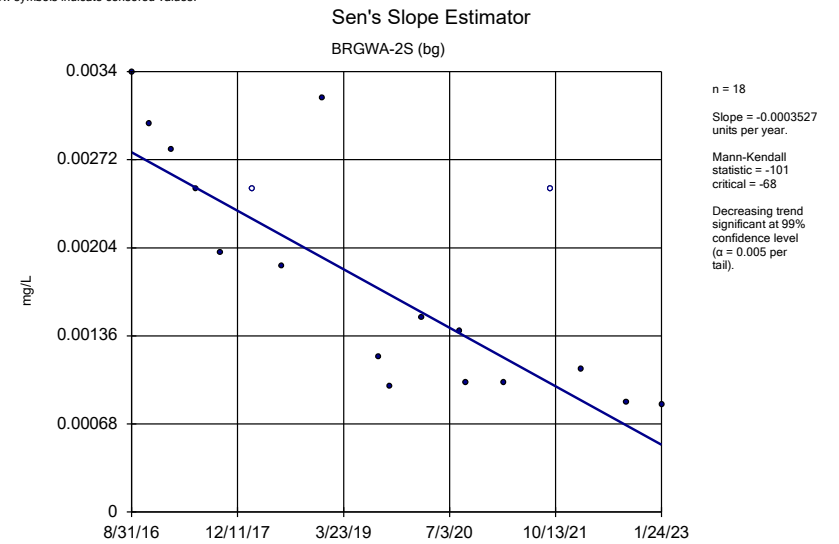
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Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Beryllium Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP



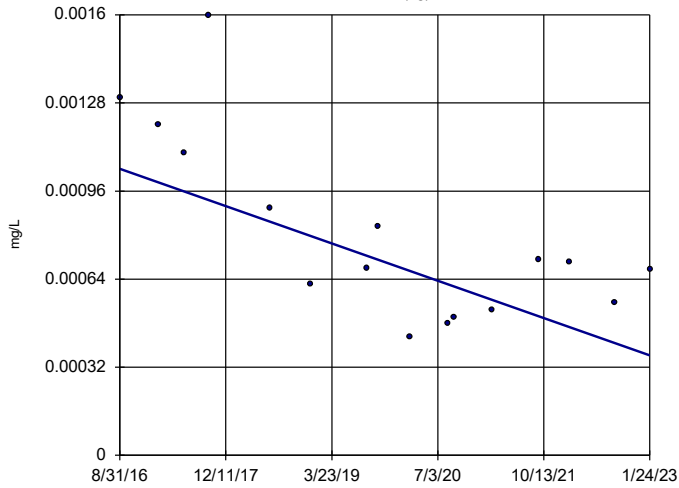
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Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)



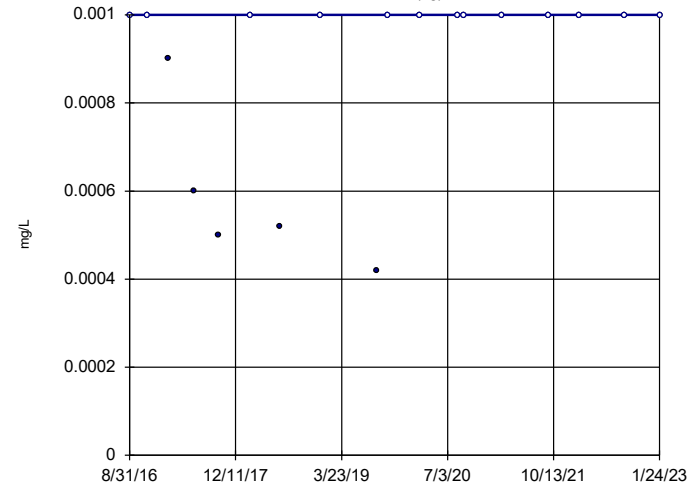
n = 16
 Slope = -0.000106 units per year.
 Mann-Kendall statistic = -52
 critical = -58
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-5S (bg)

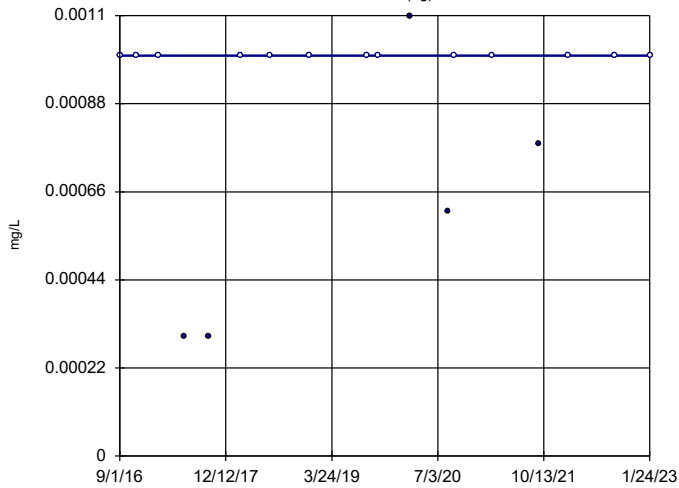


n = 18
 Slope = 0 units per year.
 Mann-Kendall statistic = 31
 critical = 68
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

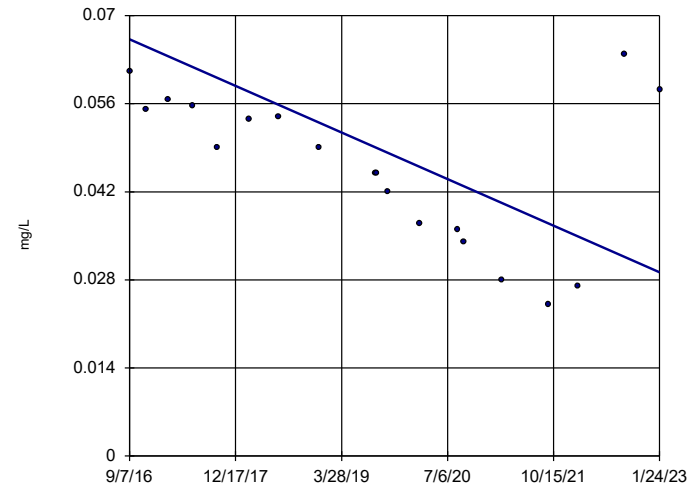


n = 18
 Slope = 0 units per year.
 Mann-Kendall statistic = 12
 critical = 68
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

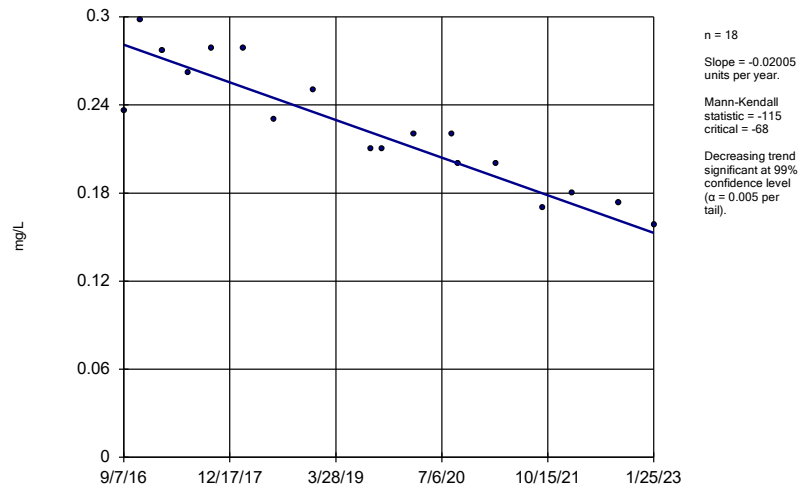


n = 19
 Slope = -0.005794 units per year.
 Mann-Kendall statistic = -91
 critical = -74
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S



Constituent: Cobalt Analysis Run 2/27/2023 3:38 PM View: Pond E - Appendix IV Trend Tests
Plant Branch Client: Southern Company Data: Plant Branch AP

APPENDIX E

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

July 2023

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

July 31, 2023
Date

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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 is the first progress report since the issuance of the *Assessment of Corrective Measures Report – Plant Branch Ash Pond E (AP-E)* (Geosyntec, 2022) (ACM Report) and describes the progress made since then in selecting and designing a remedy.

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 will be regularly submitted to document the efforts of evaluating and progressing toward selecting a groundwater corrective measure.

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 January 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 Annual Groundwater Monitoring and Corrective Action Report* (2023 Annual Groundwater Report) to which this semiannual progress report is appended.

The groundwater data collected between January and February 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 Annual 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.

Based on GA EPD guidance, 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 Annual 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, 2023).

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 Manipulation (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

PRB and subsurface vertical barrier wall corrective measures have been removed from consideration based on the ash pond closure plan of closure by removal, limited extent of SSL impacts, and initial geochemical investigations.

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.

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 ACM in December 2022 (Geosyntec, 2022). The routine monitoring events associated with the assessment monitoring program are discussed in the 2023 Annual Groundwater Report, to which this semiannual progress report is appended.

2.1 Field Activities

Additional field investigation activities since the issuance of the ACM report include aquifer testing and soil boring installation. These activities are detailed below.

2.1.1 Aquifer Testing

In October 2022, slug testing was conducted at PZ-70I in order to collect additional hydraulic conductivity data in the study area. The pneumatic slug method was used since the appropriate screened zone was fully submerged and the well riser was not vented at the top. For the pneumatic method, the well casing was pressurized using compressed nitrogen gas to displace the water within the piezometer. After the pressure was released using a manual valve, the groundwater recovery was measured using a downhole pressure transducer and data logger (Level Troll 700) until the water level reached 95% of the static pre-test conditions.

Following collection of the displacement and recovery data, the processing and analysis was completed using the AQTESOLV curve-matching software to estimate horizontal hydraulic conductivity (K_h). Both the Bouwer-Rice (1971) and Kentucky Geological Society or Hvorslev methods (as appropriate) were used to estimate K_h for each piezometer and the results for each method are presented for comparative purposes in **Table 3**.

2.1.2 Soil Boring Installation

In September 2022, soil borings SB-1 and SB-2 were installed for the collection of soil samples in the vicinity of detection wells exhibiting SSLs. Soil sample locations are shown on **Figure 5**. SB-1 was collocated with BRGWC-33S, and SB-2 was collocated with BRGWC-38S. Soil samples were collected from SB-1 and SB-2 at the corresponding elevation of the screen interval for BRGWC-33S and BGWC-38S, respectively. These aquifer solids were collected for characterization purposes and to evaluate the sorption capacity for SSL constituents cobalt and beryllium.

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

Total metals, sulfur, sulfide, cation exchange capacity (CEC) and mineralogical characterization data using x-ray diffraction (XRD) and whole rock analysis were reported for aquifer solids collected from the installation of SB-1 and SB-2. CEC is a measure of the capacity of the aquifer matrix to sorb exchangeable metal cations. 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 B**.

In addition, aquifer solids from SB-1 and SB-2 were analyzed by sequential extraction procedure (SEP) to assess the geochemical fractionation of trace elements within the aquifer solids. SEP is chemical extractions used to remove metals from specific solid-associated phases. SEP uses progressively stronger reagents to solubilize metals from increasingly recalcitrant phases. Although these procedures do not identify the specific metal phases in a soil/aquifer matrix, they do provide a means to evaluate the class of solids and relative stability in relation to oxidation/reduction (redox) potential and pH fluctuations (Tessier et al, 1979; Kuo et al., 1983; Sposito et al., 1984; Hickey and Kittrick, 1984; Gruebel et al., 1988).

SEP data can be used to interpret the mechanism and potential reversibility of attenuation processes, consistent with Phases II and III of the MNA guidance. These data also supplement information collected during the baseline characterization, such as CEC, as well as the presence of certain minerals and/or metal oxyhydroxides. SGS Environmental Services in Lakefield, Ontario uses a 6-step extraction procedure for SEP as described below.

- Step 1 (Water Soluble Phase): This extraction includes trace elements that are water soluble. Therefore, deionized water is utilized for this extraction step as the trace elements will solubilize into the solution.
- Step 2 (Exchangeable Phase): This extraction includes trace elements that are reversibly sorbed to soil minerals, amorphous solids, and/or organic material by electrostatic forces. These forces may be overcome by exposing the soil to a

concentrated electrolyte solution, such as 1 molar (M) magnesium sulfate that displaces the trace elements from solid surfaces.

- Step 3 (Carbonate Phase): This extraction targets trace elements that are sorbed or otherwise bound to carbonate minerals. This phase is soluble in a mild acid solution (e.g., 1M sodium acetate solution in 25% acetic acid at pH 4.5 – 5 or acetic acid (buffered to pH 3–3.5 or 5) and the complexing agent disodium ethylenediaminetetraacetic acid at pH 4.6).
- Step 4 (Metal Oxide Phase or reducible fraction): Trace elements bound to crystalline hydroxides of iron or manganese are extracted by establishment of reducing conditions. This can be achieved using a solution of 1M hydroxylamine hydrochloride in acetic acid, a sodium citrate/sodium dithionite buffer, or an ascorbic acid/ammonium oxalate mixture. This phase often provides significant attenuation capacity.
- Step 5 (Organic Phase or oxidizable fraction): This extraction targets trace elements strongly bound via chemisorption to organic material. Oxidation of soil organic matter (e.g., hydrogen peroxide [H₂O₂] in an acidic medium, sodium hypochlorite at pH 9.5, tetrasodium pyrophosphate at pH 9.5, or a hydrogen peroxide/ammonium acetate mixture), will bring into solution metals bound to organic functional groups.
- Step 6 (Residual Fraction): Trace elements remaining in the soil after the previous extractions will be distributed between silicates, phosphates, and refractory oxides. These residual metals can be removed from the soil through total dissolution with concentrated acid (e.g., hydrofluoric acid, nitric acid, hydrochloric acid, and boric acid). These are mostly stable, and naturally occurring fraction, which are not easily leached nor provides notable attenuating capacity for trace elements in groundwater.

2.2.2 Groundwater Analytical Analysis

The analytical groundwater data reported for the assessment monitoring event conducted in January 2023 sampling event were evaluated in support of characterizing the nature and extent of cobalt and beryllium impacts. This data was used to assess if any correlations exist between the cobalt and beryllium SSLs and other groundwater constituents including pH.

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

3.1.1 Aquifer Testing

PZ-70I was installed as an assessment monitoring well in August 2022 and is screened within the lower portion of the saprolite and partially weathered rock (PWR), at or near the top of the underlying bedrock. The associated boring log for PZ-70I is provided in the well installation report included in the 2022 Semiannual Groundwater Report (Geosyntec, 2023). The resulting K_h for PZ-70I was 4.9×10^{-4} centimeters per second (cm/sec) (1.40 feet per day [ft/day]), consistent with previous observations for the saprolite/PWR unit at the Site, which ranged from 1.5×10^{-4} to 6.7×10^{-3} cm/sec (0.43 to 18.84 ft/day). These K_h values are also consistent with reference values for fractured crystalline rock (10^{-2} to 10^{-6} cm/sec) and saprolite (10^{-3} to 10^{-7} cm/sec) (Freeze and Cherry, 1979). A summary of the input parameters and results of the data analysis is included in **Table 3** and the curve-matching data plots generated in AQTESOLV are included in **Appendix B**.

3.2 Summary of Data Analysis Activities

3.2.1 Soil Characterization

Total metals were completed on solids collected from the two soil borings (SB-1 and SB-2) for inorganic characterization of the soil downgradient of AP-E. The quantitative total metals analysis on samples collected from SB-1 and SB-2 (see **Table 4**) indicated the presence of SSL constituents beryllium and cobalt up to 2 and 17 milligrams per kilogram (mg/kg), respectively, in the solid phase. Based on previous total metals results for samples collected in 2020 (see **Table 4**), these concentrations of beryllium and cobalt in the solid phase downgradient of AP-E are on the same order or lower relative to background locations (BRGWA-2S, BRGWA-5S, and BRGWA-6S). Beryllium in background 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. Background and downgradient soil sample locations are shown on **Figure 5**.

In addition to inorganic characterization, the aquifer solids were analyzed for the sulfur and sulfide content along with CEC (see **Table 5**) for a further understanding of the geochemical conditions in the solid matrix. Sulfide was non-detect for both samples and low concentrations of sulfur (0.009 %) were observed in SB-1, while SB-2 was non-detect. Observations below the detection limit do not indicate that sulfides are not present at sufficient quantities to impact the geochemistry of the system. The results of CEC analysis indicated a slightly lower CEC for SB-1 at 5.43 milliequivalents per 100 grams (meq/100g) relative to SB-2 at 12.98 meq/100g. Soil observed at SB-2 would provide some sorption capacity through clay minerals like kaolinite. While the CEC data provide a measure of exchangeable cations and the data suggest relatively low sorption capacity, the mineralogical and SEP data provide additional sources for sorption such as iron and aluminum oxides.

Mineralogic characterization of the aquifer matrix was accomplished by whole rock analysis and XRD. Overall, the mineralogy by whole rock analysis in SB-1 and SB-2 (see **Table 6**) is characterized by an abundance of silicates (e.g., SiO₂) and aluminum oxides (e.g., Al₂O₃) downgradient of AP-E. Whole rock analysis indicates aluminum oxides representing about 17 wt. % in SB-1 and SB-2 soils. This observation was confirmed by XRD where quartz and mica were the dominant mineral fractions (see **Table 7**). The presence of iron oxides (e.g., Fe₂O₃) was noted in the whole rock analysis up to approximately 6 wt. % and could potentially provide surface sites for adsorption of beryllium and cobalt onto the solid phase. In addition, a significant fraction of clay (kaolinite) was identified in XRD and could provide potential sorption capacity. Iron and aluminum oxides are expected to provide sorption capacity for attenuation of metals in groundwater at AP-E.

Finally, aquifer solids were evaluated for the fractionation of beryllium and cobalt using a 6-step SEP analysis method. The results are summarized in **Table 8**. The sum of steps 1 through 6 in Table 8 represents the total concentrations of beryllium and cobalt and these concentrations match closely to the total concentrations reported in Table 4, which suggests the results of SEP analysis as acceptable for data evaluation. Beryllium was not recovered in the first two steps (water soluble and exchangeable). The bulk of beryllium concentrations were associated with the residual phase (about 70%) and iron/manganese (Fe/Mn) oxides phase (about 20%). This indicates that beryllium is mostly in the resistant phase and is unavailable for sorption/desorption reactions, except for a smaller portion that is associated with the Fe/Mn oxides, which can be potentially released to groundwater. The SEP results for cobalt are comparable to that of beryllium but there are some differences, including the availability of cobalt in water soluble and exchangeable fractions in low concentrations. Cobalt in the residual fraction represents 30 to 60% of

the total cobalt concentration, whereas cobalt in the Fe/Mn oxides and carbonate fractions represent 37% (SB-1) to 54% (SB-2). Thus, there are significant amounts of cobalt present in the Fe/Mn oxides of the aquifer solids available for mobilization to groundwater.

3.2.2 Groundwater Geochemical Analysis

Review of the groundwater analytical data (**Table 9**) collected during the January 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 6**.

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 7**).
- A statistically significant decreasing trend was observed for cobalt in BRGWC-33S and BRGWC-38S (**Figure 7**).
- The downgradient lateral extent of beryllium and cobalt are delineated by sampling of PZ-13S and PZ-70I (**Figures 3 and 4**).
- The characterization of aquifer solids downgradient of AP-E indicate iron/manganese oxides provide surface sites and ion exchange capacities to attenuate beryllium and cobalt.
- The SEP data indicates a source of cobalt in the aquifer solids (residual phase in **Table 8**) and the potential mobilization of cobalt to groundwater (Fe/Mn phase in **Table 8**), which can occur at slightly acidic conditions, similar to the groundwater pH noted at these locations (**Table 9**). The SEP data strongly supports that cobalt naturally occurs in Site solids (**Tables 4 and 8**) and the phase association of cobalt in the aquifer solids and groundwater pH (**Table 9**) provides the mobilization for the occurrence of cobalt in groundwater at AP-E.
- 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 6**). Wells BRGWC-33S and BRGWC-38S have consistently shown a pH less than 5 (over the monitoring period); 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 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.

- Phytoremediation
 - Phytoremediation is the use of plants to degrade, immobilize, or contain constituents in soil, groundwater, surface water, and sediments. Based on the current understanding of groundwater flow velocities downgradient of AP-E (approximately 62 feet/year) and the screen intervals where the beryllium and cobalt SSLs are observed (between 16 and 38 feet below ground surface), an engineered phytoremediation approach (TreeWell[®] system) would appear to be viable and will be retained for further evaluation.

Continued groundwater monitoring and updates to the statistical analyses will further refine the CSM 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 a laboratory scale evaluation of sorption and desorption capacity of aquifer solids downgradient of AP-E.
- Progress geochemical investigations to identify 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 remedial alternatives.
- Assess the application of geochemical modeling to support remedy selection.

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)
<i>AP-BCD Detection Monitoring Well Network</i>										
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-12S*	Upgradient BCD	3/4/2014	2557142.89	1164286.80	431.6	434.64	383.7	373.7	58.3	10
BRGWA-12I*	Upgradient BCD	2/20/2014	2557138.79	1164301.32	431.5	434.39	364.3	354.3	77.6	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
<i>AP-E Detection Monitoring Well Network</i>										
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

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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	10/8/2020	2562380.34	1161589.51	378.3	380.86	282.3	272.3	106.0	10
PZ-51S	Downgradient B	8/1/2018	2562433.07	1161613.24	377.9	380.27	337.9	332.9	45.4	5
PZ-51I	Downgradient	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-57I	Downgradient B	3/24/2021	2562170.21	1161582.31	379.4	382.50	313.8	303.8	75.9	10
PZ-58I	Downgradient B	3/27/2021	2562297.82	1161579.00	379.3	382.27	325.7	315.7	63.9	10
PZ-59I	Downgradient B	3/31/2021	2562329.80	1161654.90	379.9	383.49	323.5	313.5	66.0	10
PZ-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-62I	Downgradient B	1/6/2022	2562336.00	1161478.90	378.1	380.95	318.1	308.1	70.0	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-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-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	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	4/4/2014	2551598.09	1171999.19	462.9	463.41	397.4	302.9	160.0	94.5
PZ-1I	Upgradient	3/10/2014	2551577.63	1171995.75	461.9	464.71	392.8	382.8	79.5	10
PZ-1S	Upgradient	3/20/2014	2551588.02	1171996.20	462.4	465.07	407.8	397.8	65.0	10
PZ-3D	Upgradient	3/27/2014	2550275.05	1165474.25	486.7	487.50	438.7	358.6	130.0	82
PZ-3I	Upgradient	3/11/2014	2550273.05	1165494.61	486.5	489.49	442.3	432.3	54.6	10
PZ-3S	Upgradient	3/11/2014	2550274.66	1165484.43	487.0	490.53	457.5	447.5	39.9	10
PZ-4I	Upgradient	3/11/2014	2551282.08	1163246.61	479.9	482.98	443.5	433.5	46.8	10
PZ-4S	Upgradient	3/10/2014	2551270.14	1163247.97	479.9	482.87	460.3	450.3	30.0	10
PZ-7S	Downgradient	4/1/2014	2553055.64	1169419.33	449.0	451.57	414.9	404.9	44.5	10
PZ-8S	Upgradient	4/1/2014	2551188.94	1167801.20	450.5	453.08	411.4	401.4	49.5	10
PZ-9S	Upgradient	3/5/2014	2553089.53	1162633.36	466.1	469.28	428.5	418.5	48.0	10
PZ-10S	Downgradient	3/5/2014	2554990.43	1164021.55	431.0	433.85	402.4	392.4	39.0	10
PZ-11S*	Downgradient	2/20/2014	2557002.59	1162467.37	390.9	393.99	376.8	366.8	24.5	10
PZ-12D*	Downgradient	4/14/2014	2557136.26	1164311.85	431.4	434.09	350.1	290.1	141.7	60
PZ-14I	Downgradient	3/20/2014	2554365.65	1168398.28	419.9	422.71	376.5	366.5	53.8	10
PZ-14S	Downgradient	3/20/2014	2554359.23	1168398.59	420.2	423.31	393.0	383.0	37.6	10
PZ-15I	Downgradient	3/25/2014	2554399.25	1167721.02	400.2	403.06	321.9	311.9	88.7	10
PZ-15S	Downgradient	3/27/2014	2554394.06	1167720.25	400.1	402.90	370.2	360.2	39.9	10
PZ-16I	Downgradient	3/14/2014	2554587.53	1166980.59	379.5	382.45	351.3	341.3	38.6	10
PZ-16S	Downgradient	3/18/2014	2554581.44	1166977.63	379.3	382.52	370.6	360.6	19.1	10
PZ-17I	Downgradient	3/17/2014	2554702.42	1166313.81	362.3	365.33	329.2	319.2	43.5	10
PZ-18I	Downgradient	2/26/2014	2557745.51	1160766.13	359.6	362.55	331.3	321.3	38.4	10
PZ-18S	Downgradient	3/26/2014	2557747.42	1160757.41	359.7	362.82	345.0	335.0	24.2	10
PZ-19I	Downgradient	3/4/2014	2558899.87	1159797.10	368.9	371.74	335.6	325.6	43.7	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-19S	Downgradient	3/4/2014	2558894.60	1159805.43	368.4	371.42	350.8	340.8	28.0	10
PZ-20I	Downgradient	3/5/2014	2560160.17	1159495.25	362.2	365.34	343.1	333.1	29.5	10
PZ-20S	Downgradient	3/5/2014	2560157.16	1159490.13	362.2	365.41	357.3	347.3	15.3	10
PZ-21I	Downgradient	3/10/2014	2561328.17	1160591.42	355.8	358.92	341.8	331.8	24.4	10
PZ-21S	Downgradient	3/11/2014	2561321.43	1160592.45	355.5	358.52	351.1	346.1	9.8	5
PZ-23I	Downgradient	7/29/2016	2557877.71	1162975.56	425.1	427.74	368.6	358.6	66.5	10
BRGWC-24S	Downgradient A	7/27/2016	2562862.19	1162400.95	351.4	354.10	319.9	309.9	42.0	10
PZ-26I	Downgradient	7/26/2016	2561626.45	1160669.20	368.0	370.63	347.5	337.5	30.5	10
PZ-28I	Downgradient	7/24/2016	2560151.53	1159505.00	362.5	364.81	348.5	338.5	24.0	10
PZ-31S	Downgradient	7/26/2016	2557971.75	1160936.81	374.3	376.77	344.8	334.8	39.5	10
PZ-39*	Downgradient	7/30/2016	2557460.52	1163675.53	432.0	434.78	397.3	387.3	44.7	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	Downgradient A	2/9/2017	2562734.89	1162845.64	359.0	361.66	337.2	327.2	32.2	10
PZ-43	Downgradient A	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-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 B	5/20/2020	2554086.36	1162965.21	416.2	418.84	396.9	386.9	29.3	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
PB-1S*	Downgradient	1/22/2019	2556355.89	1164910.63	400.4	403.16	372.4	362.4	38.0	10
PB-2D*	Downgradient	12/4/2018	2556914.34	1164853.67	414.9	416.71	367.9	357.9	57.0	10
PB-4S*	Downgradient	1/16/2019	2556069.32	1164335.20	409.3	411.15	371.3	361.3	48.0	10
PB-4D*	Downgradient	1/16/2019	2556060.72	1164339.50	409.0	412.12	304.5	294.5	114.5	10
PB-7S*	Downgradient	1/14/2019	2556186.30	1163831.09	399.7	402.88	376.7	366.7	33.0	10
PB-8S*	Downgradient	1/8/2018	2556792.21	1163018.39	398.6	401.82	373.6	363.6	35.0	10
PB-8D*	Downgradient	1/8/2018	2556786.65	1163024.53	398.2	401.74	304.2	294.2	106.0	10
PB-10S*	Downgradient	1/16/2019	2558551.25	1163589.10	397.6	400.91	374.6	364.6	33.0	10
PB-10D*	Downgradient	1/16/2019	2558546.62	1163593.43	397.5	400.31	322.5	312.5	85.0	10
PB-13S*	Downgradient	12/10/2018	2556626.03	1162084.43	370.8	373.31	330.8	320.8	50.0	10
PB-13D	Downgradient	12/10/2018	2556638.88	1162084.53	371.1	373.77	284.1	274.1	97.0	10

Notes:

ft = feet

ft BGS = feet below ground surface

* = piezometers that were abandoned between May and June 2023

(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: Corrective Measure	Description	40 CFR 257.96(C)(1)		40 CFR 257.96(C)(1)	40 CFR 257.96(C)(1)
		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. Either zero valent iron (ZVI)-Carbon matrix or solid carbon (bio-barrier) are currently proposed for the removal of Co. The carbon could be composed of peat moss, mulch or another carbon source. The effectiveness of a PRB on the removal of Be is relatively unknown. Further research and testing is required to see if Be could be attenuated by a PRB. Exact placement of the PRB is contingent on finalization of the nature and extent characterization. PRBs can also be constructed as "funnel and gate" systems, where a barrier wall directs groundwater to a smaller "treatment gate" filled with reactive media.	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 is expected to achieve GWPS for Co as impacted groundwater passes through the reactive barrier. Additional testing is required to select the appropriate sorptive media mix (e.g., to address Be).	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

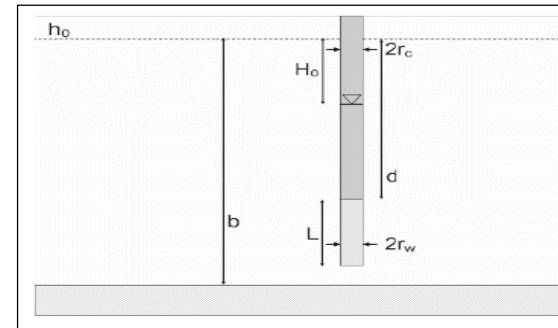
Regulatory Citation for Criteria: Corrective Measure	40 CFR 257.96(C)(2)		40 CFR 257.96(C)(3)		Relative Costs	Evaluation of Retainage
	Time Requirement to Begin/Complete	Institutional Requirements	Other Env or Public Health Requirements			
Geochemical Approaches (In-Situ Injection)	Installation of the 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 AP-E closure by removal, the limited extent of impacts, and initial geochemical investigation, Permeable Reactive Barriers have not been 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 and will 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
Summary of Estimated Horizontal Hydraulic Conductivity Values
Plant Branch AP-E, Putnam County, Georgia

Well ID/Test No.	Screen Zone Material	Slug Test Type	Well Information						Horizontal Hydraulic Conductivity (Kh)					
			Depth to Sensor [ft bTOC]	Static DTW [ft bTOC]	DTW after Pressure Release [ft bTOC]	Top Screen Depth [ft TOC]	Bottom Screen Depth [ft bTOC]	Total Depth [ft bTOC]	Bouwer-Rice Kh [ft/day]	KGS or Hvorslev Kh [ft/day]	Geomean Kh [ft/day]	Bouwer-Rice Kh [cm/sec]	KGS or Hvorslev Kh [cm/sec]	Geomean Kh [cm/sec]
PZ-70I Test 1	Saprolite/PWR	Pneumatic	48.0	28.9	36.3	39.6	49.6	50.0	1.222	1.535	1.40	4.3E-04	5.4E-04	4.9E-04
PZ-70I Test 2		Pneumatic	48.0	28.9	35.3	39.6	49.6	50.0	1.309	1.566		4.6E-04	5.5E-04	

Notes:

- H_o** Observed initial displacement (change in water level from static)
- H** Static water column height
- b** Saturated thickness of aquifer. If bottom of aquifer is unknown set b=bottom of well.
- K_v/K_h** Ratio of vertical to horizontal hydraulic conductivity
- d** Depth to top of well screen - this is the length from the water level (or top confining unit) to the top of the screen.
- L** Length of well screen
- T** Transducer Depth below the water table
- r(c)** Inside radius of well casing
- r(eq)** Radius of downhole equipment
- r(w)** Radius of well open or perforated interval
- r(sk)** Outside radius of well skin disturbed zone enveloping filter pack
- bTOC** Below Top Of Casing
- DTW** Depth To Water



1. For tests in which pumping was performed in lieu of applying pressurized gas, depth to water after pressure release refers to the depth after pumping is stopped.

Table 4
Summary of Soil Total Metals
Plant Branch AP-E, Putnam County, Georgia

Location ID	BRGWA-2S	BRGWA-2S	BRGWA-5S	BRGWA-5S	BRGWA-6S	BRGWA-6S	SB-1	SB-2
Sample Depth	39 ft BGS	43 ft BGS	32 ft BGS	38 ft BGS	42 ft BGS	48 ft BGS	16.4 to 26.4 ft BGS	28.2 to 38.2 ft BGS
Sample Date	6/5/2020	6/5/2020	6/5/2020	6/5/2020	6/5/2020	6/5/2020	9/11/2022	9/14/2022
Analysis^(1,2)								
Beryllium	0.66	0.46	0.67	0.60	0.66 J	0.31 J	2	2
Cobalt	72	54 J	36	43	58	64	17	10
Iron	97000	98000	58000	56000	61000	91000	46000	21000
Manganese	1700	840	770	750	1100	1000	650	460

Notes:

SB-1 is collocated with BRGWC-33S with well screen interval 16.0 to 26.0 ft BGS and SB-2 is collocated with BRGWC-38S with well screen interval 27.8 to 37.8 ft BGS.
 BRGWA-2S, BRGWA-5S, and BRGWA-6S are upgradient of AP-E and SB-1 and SB-2 are downgradient of AP-E.

-- = 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 6010B (samples collected 6/5/2020) or EPA Method 6010D, 6020B.

(3) Analysis for all BRGWA wells was completed by Eurofins analytical laboratory and analysis of SB-1 and SB-2 was completed by SGS analytical laboratory.

Table 5
 Summary of Cation Exchange Capacity, Sulfur, and Sulfide
 Plant Branch AP-E, Putnam County, Georgia

Location ID	SB-1	SB-2	Units
Sample Depth	16.4 to 26.4 ft BGS	28.2 to 38.2 ft BGS	
Sample Date	9/11/2022	9/14/2022	
Analysis			
CEC Actual	5.43	12.98	meq/100g
Sulfur	0.009	< 0.005	%
Sulfide	< 0.04	< 0.04	%

Notes:

SB-1 is collocated with BRGWC-33S with well screen interval 16.0 to 26.0 ft BGS and SB-2 is collocated with BRGWC-38S with well screen interval 27.8 to 37.8 ft BGS.

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

CEC = Cation Exchange Capacity

ft BGS = feet below ground surface

Table 6
 Summay of Whole Rock Analysis
 Plant Branch AP-E, Putnam County, Georgia

Location ID	SB-1	SB-2	Units
Sample Depth	16.4 to 26.4 ft BGS	28.2 to 38.2 ft BGS	
Sample Date	9/11/2022	9/14/2022	
Mineral/Compound			
Al ₂ O ₃	17.6	16.5	%
CaO	0.23	0.34	%
Cr ₂ O ₃	0.04	0.03	%
Fe ₂ O ₃	6.32	2.32	%
K ₂ O	2.61	4.98	%
Loss on Ignition (LOI)	7.14	5.12	%
MgO	1.38	0.76	%
MnO	0.07	0.03	%
Na ₂ O	0.37	0.52	%
P ₂ O ₅	0.08	0.02	%
SiO ₂	62.7	68.1	%
TiO ₂	0.76	0.26	%
V ₂ O ₅	0.02	< 0.01	%
Sum	99.3	99	%

Notes:

SB-1 is collocated with BRGWC-33S with well screen interval 16.0 to 26.0 ft BGS and SB-2 is collocated with BRGWC-38S with well screen interval 27.8 to 37.8 ft BGS.
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).
 ft BGS = feet below ground surface

Table 7
 Summary of X-ray Diffraction Analysis
 Plant Branch AP-E, Putnam County, Georgia

Location ID		SB-1	SB-2	Units
Sample Depth		16.4 to 26.4 ft BGS	28.2 to 38.2 ft BGS	
Sample Date		9/11/2022	9/14/2022	
Mineral/Compound				
Quartz	SiO ₂	36.7	36	wt. %
Plagioclase	(NaSi,CaAl)AlSi ₂ O ₈	4.6	9.6	wt. %
Potassium-feldspar	KAlSi ₃ O ₈	14.1	16	wt. %
Mica⁽¹⁾	K(Mg,Fe)Al ₂ Si ₃ AlO ₁₀ (OH) ₂	20.5	22.9	wt. %
Kaolinite	Al ₂ Si ₂ O ₅ (OH) ₄	23.3	15	wt. %
Gypsum	CaSO ₄ ·2H ₂ O	--	--	wt. %
Magnetite	Fe ₃ O ₄	0	0.1	wt. %
Diopside	CaMgSi ₂ O ₆	0.6	0.5	wt. %
Actinolite	Ca ₂ (Mg,Fe) ₅ Si ₈ O ₂₂ (OH) ₂	--	--	wt. %
Chlorite	(Fe,(Mg,Mn) ₅ ,Al)(Si ₃ Al)O ₁₀ (OH) ₈	--	--	wt. %
Grossular	Ca ₃ Al ₂ Si ₃ O ₁₂	0.1	--	wt. %
Ilmenite	FeTiO ₃	0.1	--	wt. %
Sum		100	100	wt. %

Notes:

SB-1 is collocated with BRGWC-33S with well screen interval 16.0 to 26.0 ft BGS and SB-2 is collocated with BRGWC-38S with well screen interval 27.8 to 37.8 ft BGS.

-- = Indicates the mineral was not identified.

ft BGS = feet below ground surface

wt. % = weight percent

(1) Sum of muscovite and biotite mica.

Table 8
 Summary of Sequential Extraction Procedure
 Plant Branch AP-E, Putnam County, Georgia

Location ID	SEP Fraction	SB-1	SB-2
Sample Depth		16.4 to 26.4 ft BGS	28.2 to 38.2 ft BGS
Sample Date		9/11/2022	9/14/2022
Analyte			
Beryllium	Water Soluble	< 0.02	< 0.02
	Exchangeable	< 0.02	< 0.02
	Carbonate	0.1	0.14
	Fe/Mn Oxides	0.44	0.3
	Organic-Bound	0.12	0.09
	Residual	1.5	1.10
Cobalt	Water Soluble	< 0.01	0.01
	Exchangeable	0.08	0.10
	Carbonate	1.1	1.4
	Fe/Mn Oxides	4.40	4
	Organic-Bound	0.45	0.70
	Residual	9.10	3.70

Notes:

SB-1 is collocated with BRGWC-33S with well screen interval 16.0 to 26.0 ft BGS and SB-2 is collocated with BRGWC-38S with well screen interval 27.8 to 37.8 ft BGS.

All results are reported in mg of constituent/kg of total sample mass.

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

SEP = sequential extraction procedure

ft BGS = feet below ground surface

Fe = Iron

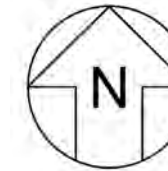
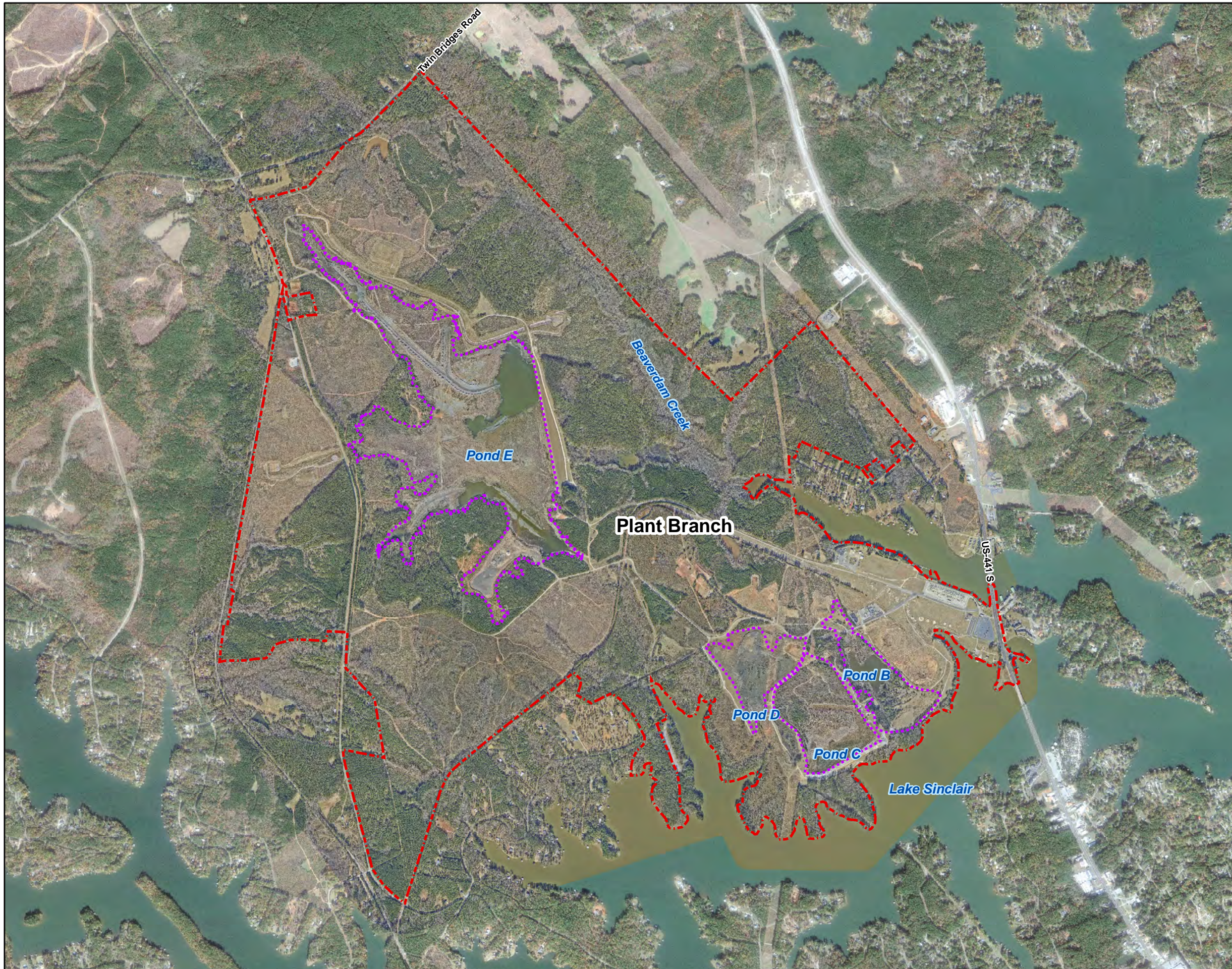
Mn = Manganese

Table 9
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-52D	PZ-52D	PZ-53D	PZ-70I	
Sample Date:	1/24/2023	1/24/2023	1/24/2023	1/24/2023	1/24/2023	1/24/2023	1/24/2023	1/24/2023	1/24/2023	1/25/2023	1/25/2023	1/25/2023	1/26/2023	1/25/2023	1/26/2023	2/2/2023	1/25/2023	1/26/2023	
Parameter ^(1,2,3)																			
APPENDIX III	Boron	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	0.0326	1.19	2.21	2.23	1.18	< 0.0052	1.63	0.0104 J	0.0362	--	--	1.11	1.04
	Calcium	4.86	14.2	19.4	15.8	3.9	41.3	116	80	67.5	48.2	3.65	32.8	16.8	46.3	--	--	78.5	33.4
	Chloride	2.16	2.09	3.56	3.93	2.3	6.31	29	7.5	6.46	7.93	1.92	6.53	3.36	--	12.3	--	4.66	5.37
	Fluoride	< 0.033	< 0.033	0.158	0.149	0.12	0.216	0.193	0.122	0.239	0.183	0.114	0.708	< 0.033	--	1.93	--	0.282	< 0.066
	pH (field)	5.26	6.7	6.47	6.42	6.54	6.37	4.79	5.93	6.08	5.64	5.84	4.75	5.56	7.14	--	--	7.1	5.6
	Sulfate	0.465	3.58	0.66	3.34	0.484	153	375	267	334	237	0.325 J	291	75.3	--	142	--	285	147
	TDS	63	93	104	124	64	344	615	433	507	418	28	484	148	443	--	--	517	272
APP. IV	Beryllium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00235	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0078	0.000422 J	< 0.0002	--	--	< 0.0002	0.000217 J
	Cobalt	0.000829 J	0.00154	< 0.0003	0.000677 J	< 0.0003	< 0.0003	0.0582	0.00351	< 0.0003	< 0.0003	< 0.0003	0.158	< 0.0003	0.00249	--	--	< 0.0003	0.000682 J
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	35	65.2	78.4	79.4	25.6	81.4	3.8 J	30	51.6	22	21.2	3 J	20.6	--	179	--	49	14.4
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	--	< 1.45	--	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	35	65.2	78.4	79.4	25.6	81.4	3.8 J	30	51.6	22	21.2	3 J	20.6	--	179	--	49	14.4
	Ferrous Iron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Iron	0.0824 J	0.134	0.071 J	< 0.033	0.0593 J	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.22	--	--	0.204	0.0364 J
	Magnesium	5.34	8.28	9.02	10.9	4.14	26.1	15	18.6	36.5	20.1	1.35	36.9	9.68	9.93	--	--	19.4	11.9
	Manganese	0.0348	0.028	0.00658	0.00165 J	0.00159 J	< 0.001	2.68	3.29	0.0113	0.00205 J	< 0.001	1.65	0.00207 J	0.0315	--	--	0.628	0.271
	Nitrogen Nitrate	0.327	1.41	0.173	0.371	0.638	0.119	0.0607	0.0165	0.149	0.131	0.318	0.145	0.0655	0.00825	--	--	0.033	0.275
	Potassium	0.432	2.85	0.522	1.35	0.706	1.08	14.5	3.54	4.05	3.84	1.94	6.12	4.41	8.93	--	--	6.66	4.27
	Sodium	3.63	5.29	4.78	5.22	2.54	25.5	37.2	21.7	20.1	40.4	4.85	42.3	11.7	94.4	--	--	48.6	23
Sulfide	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.0354	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	--	--	< 0.033	< 0.033
FIELD	Dissolved Oxygen (DO)	4.39	0.79	1.9	3.33	6.98	1.59	-0.04	1.65	0.17	2	7.14	1.71	3.59	7.16	--	--	2.16	1.56
	Oxidation-reduction potential (ORP) (mV)	105.1	42.8	65	135.3	27.6	26.8	176.9	32.3	36.6	93	156.2	124.2	121.8	146.5	--	--	0.6	79.8
	Temperature (°C)	15.58	15.89	17.59	17.02	17.51	14.75	20.53	18.39	17.86	15.8	18.88	18.53	15.52	18.47	--	--	18.79	16.95
	Conductivity (µS/cm)	65.34	102.25	157.2	135.71	53.27	434.81	676.33	561.59	590.15	598.9	47.92	675.19	147.8	651.81	--	--	675.06	396.73
	pH (S.U.)	5.26	6.7	6.47	6.42	6.54	6.37	4.79	5.93	6.08	5.64	5.84	4.75	5.56	7.14	--	--	7.1	5.6
Turbidity (NTU)	0.64	1.69	3.61	1.13	0.96	0.57	0.31	0.65	0.22	3.34	0.19	0.88	0.36	3.79	--	--	2.83	0.55	

Notes:
 -- = Parameter was not analyzed
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).
 J = Indicates the parameter was estimated a detected between the MDL a the reporting limit (RL).
 TDS = total dissolved solids; mV = millivolts; µS/cm = microsiemens per centimeter; S.U. = standard units; NTU is nephelometric turbidity units
 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) unless otherwise noted.
 (2) Metals were analyzed by EPA Method 6010D, 6020B, 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, a 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.

FIGURES

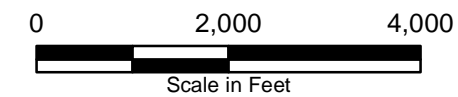


LEGEND

- - - 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, January 2023.



SITE LOCATION MAP

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

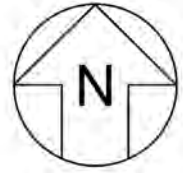
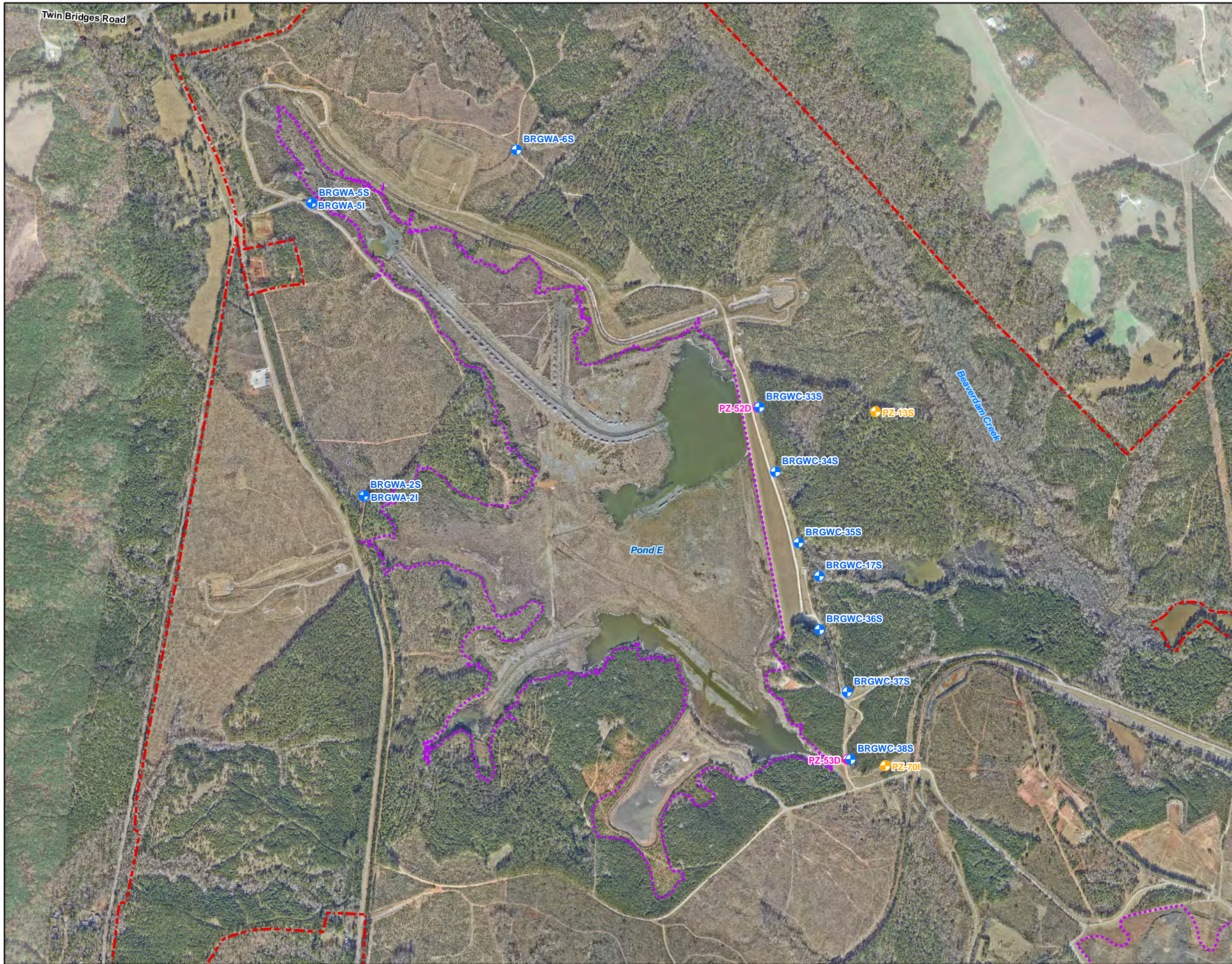
Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

KENNESAW, GA

JULY 2023

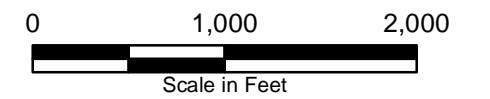
FIGURE
1



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, January 2023.



MONITORING WELL NETWORK MAP

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

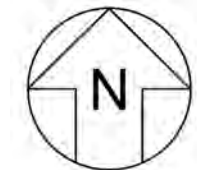
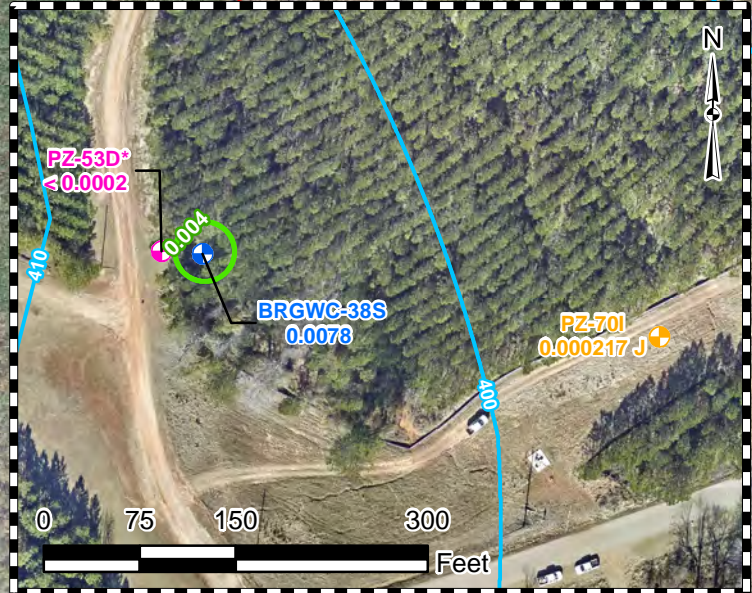
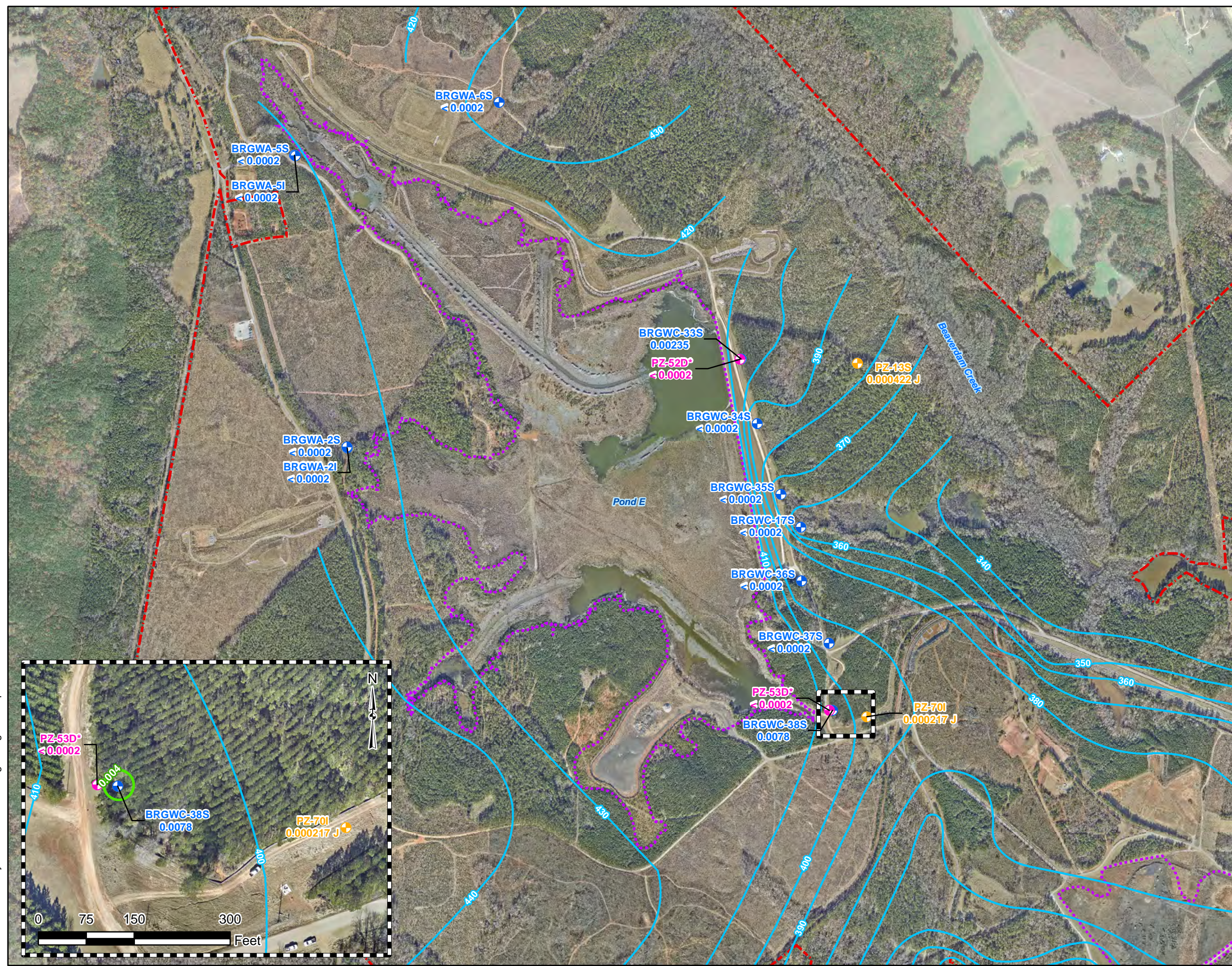
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Prepared By: Geosyntec consultants

KENNESAW, GA

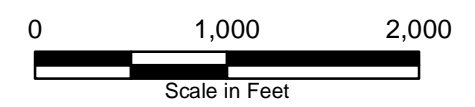
JULY 2023

FIGURE 2



- LEGEND**
- ⊕ Detection Monitoring Well
 - ⊕ Horizontal Assessment Monitoring Well
 - ⊕ Vertical Assessment Monitoring Well
 - Groundwater Elevation Iso-Contour (January 2023)
 - Beryllium GWPS Iso-Concentration Contour (mg/L)
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

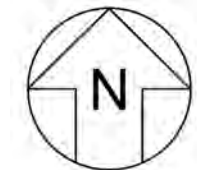
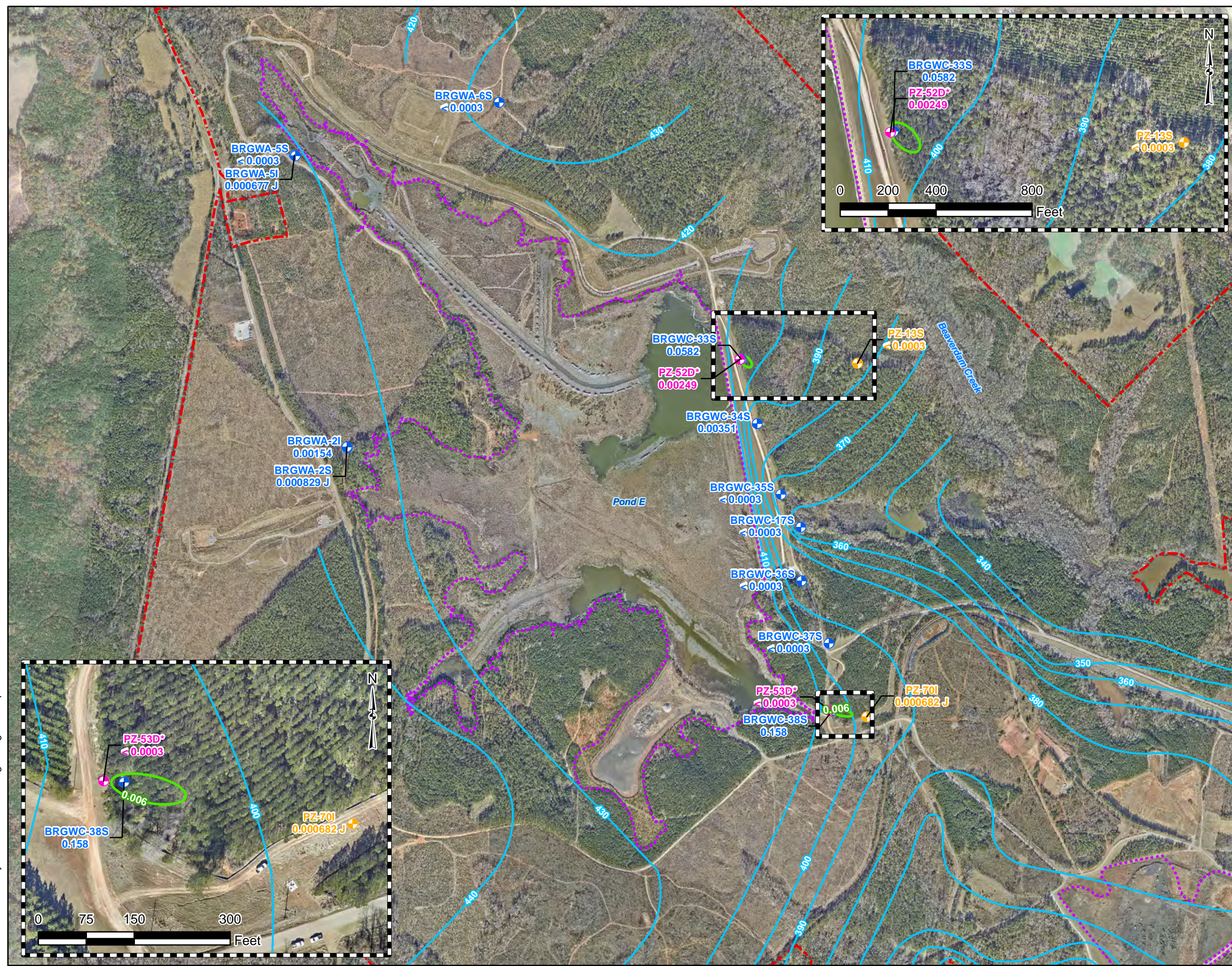
- Notes:**
1. Concentration data from groundwater samples collected during the January/February 2023 semi-annual monitoring event.
 2. Concentrations are reported in milligrams per liter (mg/L).
 3. Water level elevation recorded on January 23, 2023.
 4. Elevation provided in feet (ft) referenced to 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, January 2023.



**ISO-CONCENTRATION MAP,
BERYLLIUM -
JANUARY 2023**

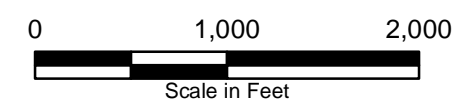
GEORGIA POWER COMPANY
PLANT BRANCH AP-E
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power	FIGURE 3
Prepared By: Geosyntec consultants	
KENNESAW, GA	JULY 2023



- LEGEND**
- ⊕ Detection Monitoring Well
 - ⊕ Horizontal Assessment Monitoring Well
 - ⊕ Vertical Assessment Monitoring Well
 - Groundwater Elevation Iso-Contour (January 2023)
 - Cobalt GWPS Iso-Concentration Contour (mg/L)
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the January/February 2023 semi-annual monitoring event.
 2. Concentrations are reported in milligrams per liter (mg/L).
 3. Water level elevation recorded on January 23, 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, January 2023.



**ISO-CONCENTRATION MAP,
COBALT -
JANUARY 2023**

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

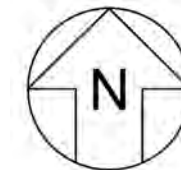
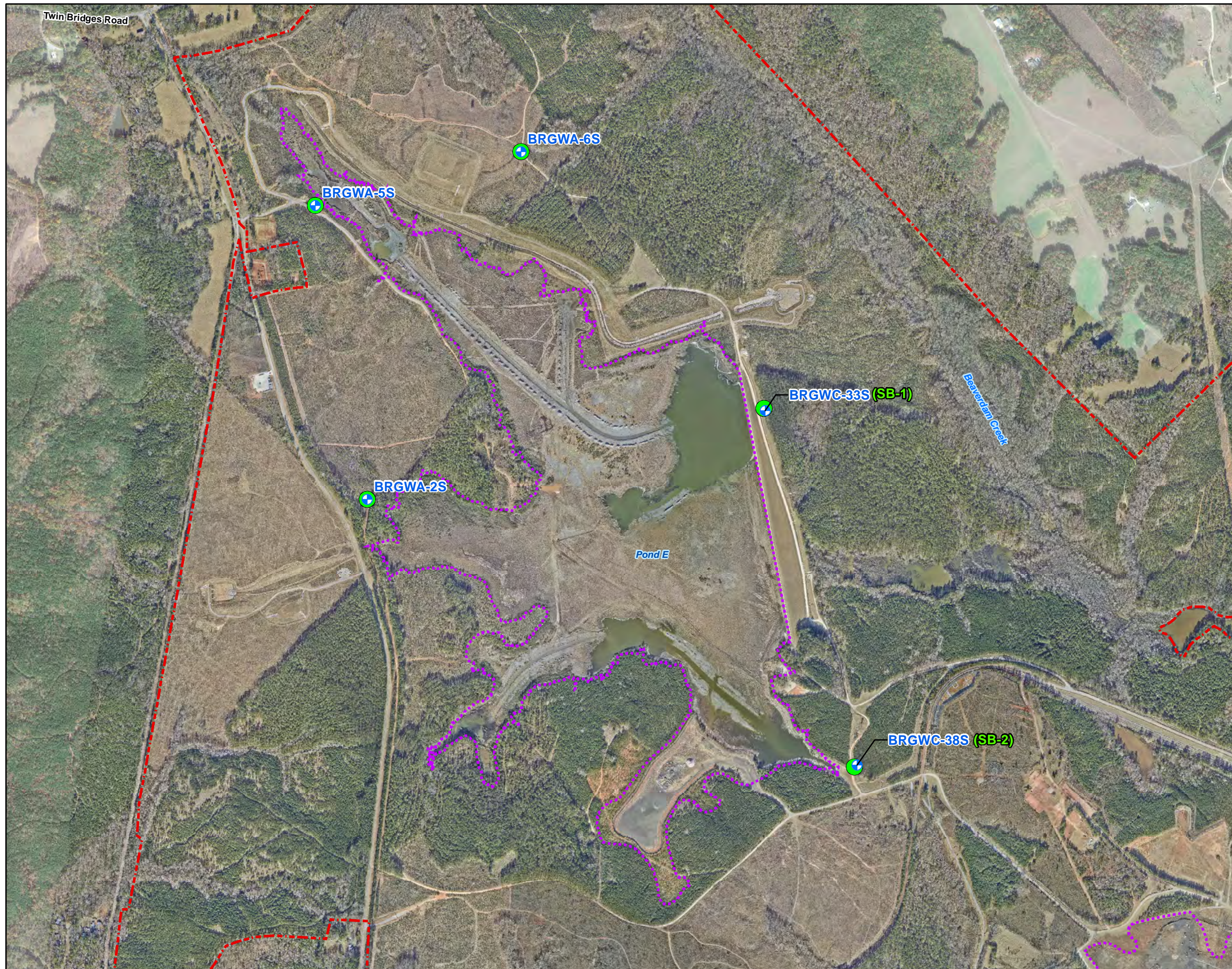
Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

KENNESAW, GA

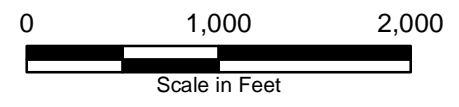
JULY 2023

**FIGURE
4**



- LEGEND**
- + Detection Monitoring Well
 - Soil Sample Location
 - - - Plant Branch Property Boundary
 - ⋯ Approximate Ash Pond Boundary

- Notes:**
1. SB-1 was collected from the screen interval of corresponding well BRGWC-33S.
 2. SB-2 was collected from the screen interval of corresponding well BRGWC-38S.
 3. BRGWA-2S, BRGWA-5S, and BRGWA-6S are upgradient/background locations.
 4. Property Boundary Provided by Southern Company Services.
 5. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



SOIL SAMPLE LOCATIONS

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

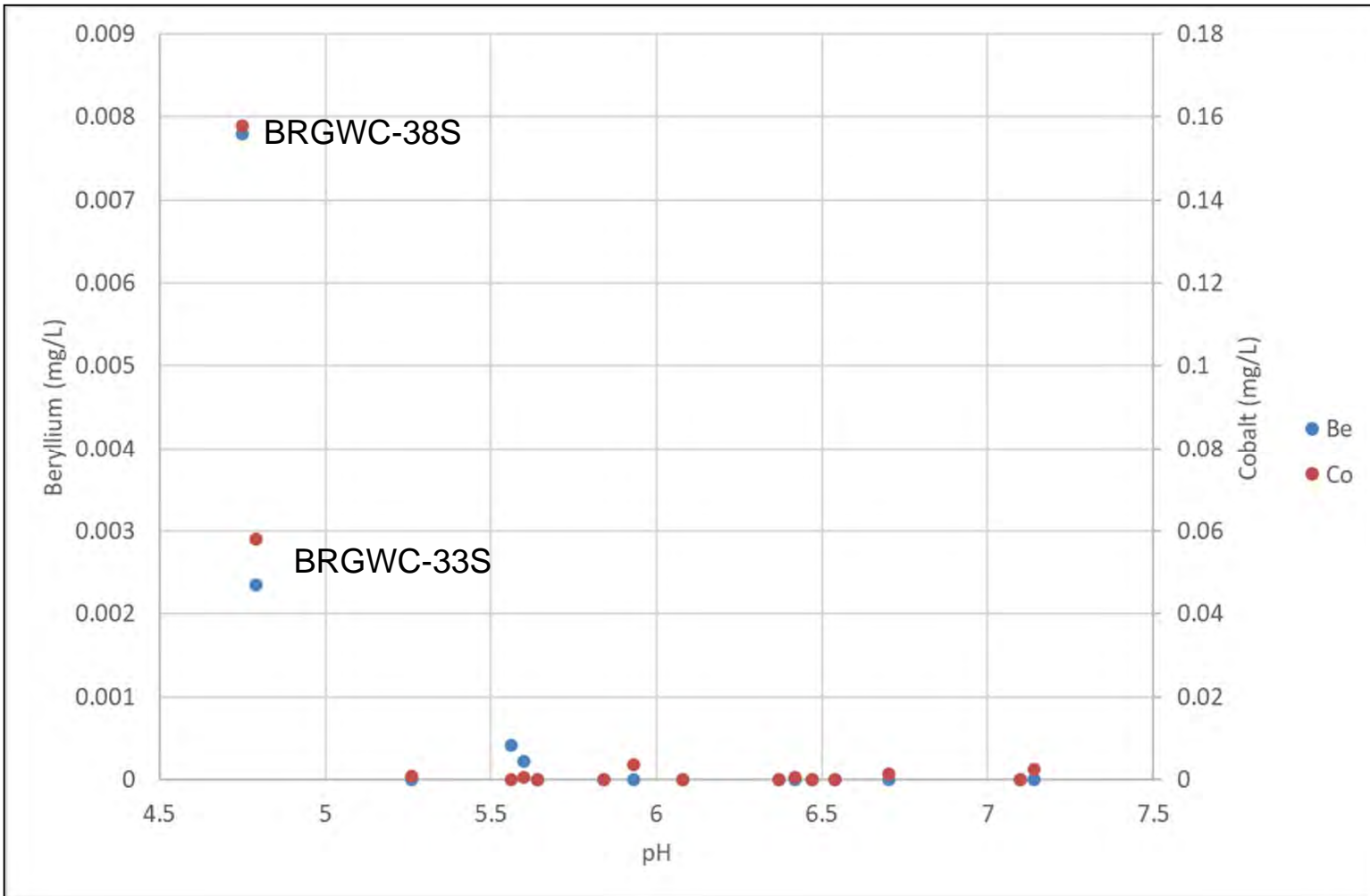
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA

JULY 2023

FIGURE 5



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:



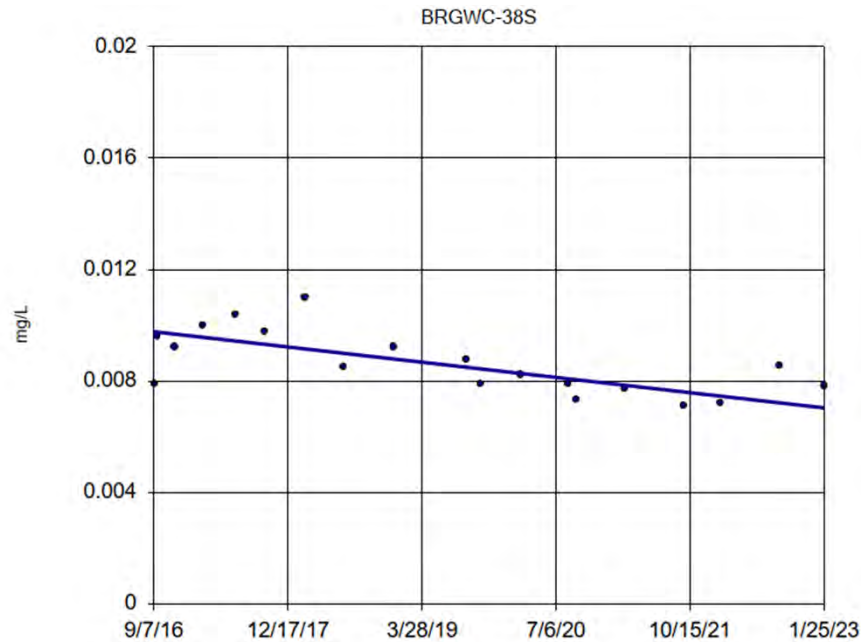
Kennesaw, GA

July 2023

Figure

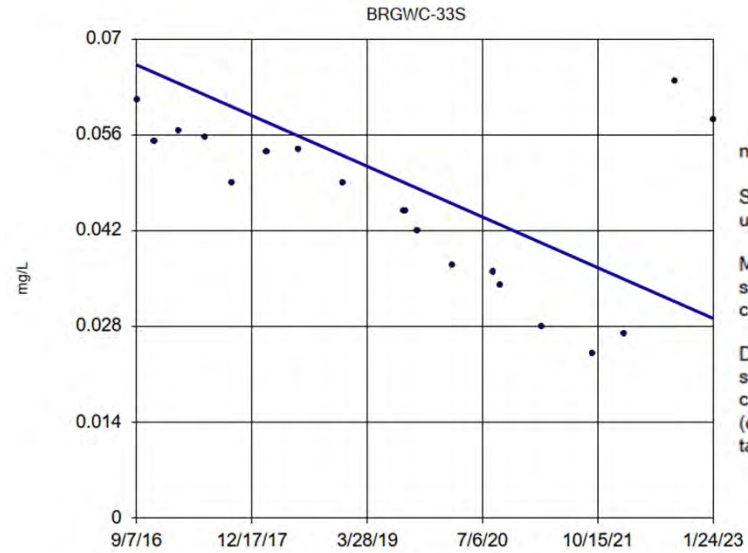
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Beryllium

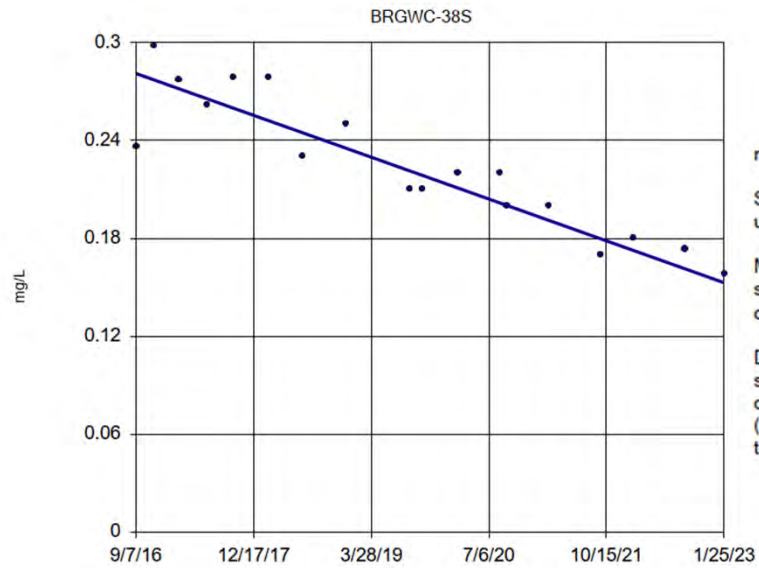


n = 19
 Slope = -0.0004273 units per year.
 Mann-Kendall statistic = -87
 critical = -74
 Decreasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Cobalt



n = 19
 Slope = -0.005794 units per year.
 Mann-Kendall statistic = -91
 critical = -74
 Decreasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).



n = 18
 Slope = -0.02005 units per year.
 Mann-Kendall statistic = -115
 critical = -68
 Decreasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Notes:

1. Groundwater trends completed by Groundwater Stats Consulting using groundwater data collected for the full monitoring period through the January 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

Kennesaw, GA

July 2023

7

APPENDIX A

Analytical Laboratory Reports

SGS Canada Inc.

P.O. Box 4300 - 185 Concession St.
 Lakefield - Ontario - KOL 2H0
 Phone: 705-652-2000 FAX: 705-652-6365

22-November-2022

SiREM Laboratory

Attn : Jacques Smith

180B Market Place Blvd
 Knoxville, Tennessee
 37922, USA

Phone: 865-291-4695
 Fax:

Date Rec. : 12 October 2022
LR Report: CA19107-OCT22
Reference: Plant Branch
 SIREMLABUS. 02. 10. 8151

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

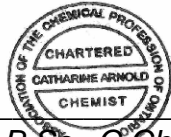
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Ag [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Al [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	98000	92000	91000	48000	74000	91000
As [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	1.0	0.7	1.1	1.0	0.6	0.9
Ba [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	1100	540	930	450	140	1000
Be [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	2	2	2	0.75	2	2
Bi [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.09	0.20	0.09	0.17	0.13	0.10
Ca [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	8100	25000	4300	15000	700	3900
Cd [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	0.13	0.12	0.08	0.15	0.02	0.05
Co [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	20	15	6	22	17	10
Cr [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	53	92	70	47	140	52
Cu [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	18	12	15	16	52	24
Fe [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	21000	46000	29000	49000	46000	21000
K [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	33000	19000	31000	15000	8600	31000
Li [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	13	13	13	14	17	11
Mg [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	5700	19000	5100	17000	8400	6000
Mn [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	660	790	430	840	650	460
Mo [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	0.4	0.4	3.2	0.7	0.3	0.5
Na [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	14000	13000	8700	4200	260	4100
Ni [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	16	64	21	34	29	14
P [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	150	190	200	1500	250	130
Pb [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	24	17	35	6	17	27
Sb [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Se [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Sn [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 6	< 6	< 6	< 6	< 6	< 6
Sr [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	270	180	160	120	35	190
Ti [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	2200	2900	3900	6500	3100	2200
Tl [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	0.56	0.43	0.61	0.42	0.94	0.57

SGS Canada Inc.

P.O. Box 4300 - 185 Concession St.
 Lakefield - Ontario - KOL 2H0
 Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA19107-OCT22

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-64	6: PZ-65	7: PZ-66	8: PZ-68	9: SB-1	10: SB-2
U [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	1.97	3.07	5.94	1.74	2.57	2.71
V [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	45	110	67	100	90	39
Y [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	23.2	25.2	18.4	31.7	21.5	23.6
Zn [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	59	78	81	98	76	48

Catharine Arnold

Catharine Arnold, B.Sc., C.Chem
 Project Specialist,
 Environment, Health & Safety

SGS Canada Inc.

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22-November-2022

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Phone: 865-291-4695
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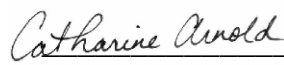

Date Rec. : 12 October 2022
LR Report: CA19110-OCT22
Reference: Plant Branch
 SIREMLABUS.02.10.8151

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-64	6: PZ-65	7: PZ-66	8: PZ-68	9: SB-1	10: SB-2
SiO2 [%]	19-Oct-22	19:03	24-Oct-22	09:51	66.0	56.2	67.7	57.3	62.7	68.1
Al2O3 [%]	19-Oct-22	19:03	24-Oct-22	09:51	17.9	17.0	16.2	17.2	17.6	16.5
Fe2O3 [%]	19-Oct-22	19:03	24-Oct-22	09:51	2.75	8.01	3.57	7.65	6.32	2.32
MgO [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.92	4.06	0.70	2.84	1.38	0.76
CaO [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.99	3.91	0.51	4.78	0.23	0.34
Na2O [%]	19-Oct-22	19:03	24-Oct-22	09:51	1.96	1.47	1.19	3.25	0.37	0.52
K2O [%]	19-Oct-22	19:03	24-Oct-22	09:51	3.90	2.60	3.94	1.69	2.61	4.98
TiO2 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.34	0.54	0.53	1.14	0.76	0.26
P2O5 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.04	0.06	0.05	0.35	0.08	0.02
MnO [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.08	0.13	0.05	0.13	0.07	0.03
Cr2O3 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.02	0.07	0.03	0.03	0.04	0.03
V2O5 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.01	0.03	< 0.01	0.03	0.02	< 0.01
LOI [%]	19-Oct-22	19:03	24-Oct-22	09:51	4.48	5.17	4.74	2.96	7.14	5.12
Sum [%]	19-Oct-22	19:03	24-Oct-22	09:51	99.4	99.3	99.2	99.4	99.3	99.0



Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety



Quantitative X-Ray Diffraction by Rietveld Refinement

Report Prepared for: Environmental Services

Project Number/ LIMS No. Custom XRD/MI4533-OCT22

Sample Receipt: October 20, 2022

Sample Analysis: October 28, 2022

Reporting Date: December 21, 2022

Instrument: BRUKER AXS D8 Advance Diffractometer

Test Conditions: Co radiation, 35 kV, 40 mA; Detector: LYNXEYE
Regular Scanning: Step: 0.02°, Step time: 0.75s, 2θ range: 6-80°

Interpretations : PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.

Detection Limit : 0.5-2%. Strongly dependent on crystallinity.

Contents:

- 1) Method Summary
- 2) Quantitative XRD Results
- 3) XRD Pattern(s)

Kim Gibbs, H.B.Sc., P.Geol.
Senior Mineralogist

Huyun Zhou, Ph.D., P.Geol.
Senior Mineralogist

ACCREDITATION: SGS Natural Resources Lakefield is accredited to the requirements of ISO/IEC 17025 for specific tests as listed on our scope of accreditation, including geochemical, mineralogical and trade mineral tests. To view a list of the accredited methods, please visit the following website and search SGS Canada Inc. - Minerals: <https://www.scc.ca/en/search/palcan>.



Method Summary

The Rietveld Method of Mineral Identification by XRD (ME-LR-MIN-MET-MN-D05) method used by SGS Natural Resources is accredited to the requirements of ISO/IEC 17025.

Mineral Identification and Interpretation:

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

Quantitative Rietveld Analysis:

Quantitative Rietveld Analysis is performed by using Topas 4.2 (Bruker AXS), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

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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.

Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	PZ-64	PZ-65	PZ-66	PZ-68	SB-1	SB-2
	OCT4533-1 (wt %)	OCT4533-2 (wt %)	OCT4533-3 (wt %)	OCT4533-4 (wt %)	OCT4533-5 (wt %)	OCT4533-6 (wt %)
Quartz	26.4	16.4	33.4	21.9	36.7	36.0
Plagioclase	21.2	17.0	13.1	35.7	4.6	9.6
Potassium-feldspar	16.5	10.6	16.7	3.1	14.1	16.0
Mica	16.1	17.2	19.1	26.5	20.5	22.9
Kaolinite	16.9	18.4	16.4	-	23.3	15.0
Gypsum	1.7	0.3	0.5	1.3	-	-
Magnetite	0.3	0.0	0.0	0.4	0.0	0.1
Diopside	1.0	0.1	0.6	1.8	0.6	0.5
Actinolite	-	20.1	-	4.3	-	-
Chlorite	-	-	-	3.9	-	-
Grossular	-	-	-	0.5	0.1	-
Ilmenite	-	-	-	0.7	0.1	-
TOTAL	100	100	100	100	100	100

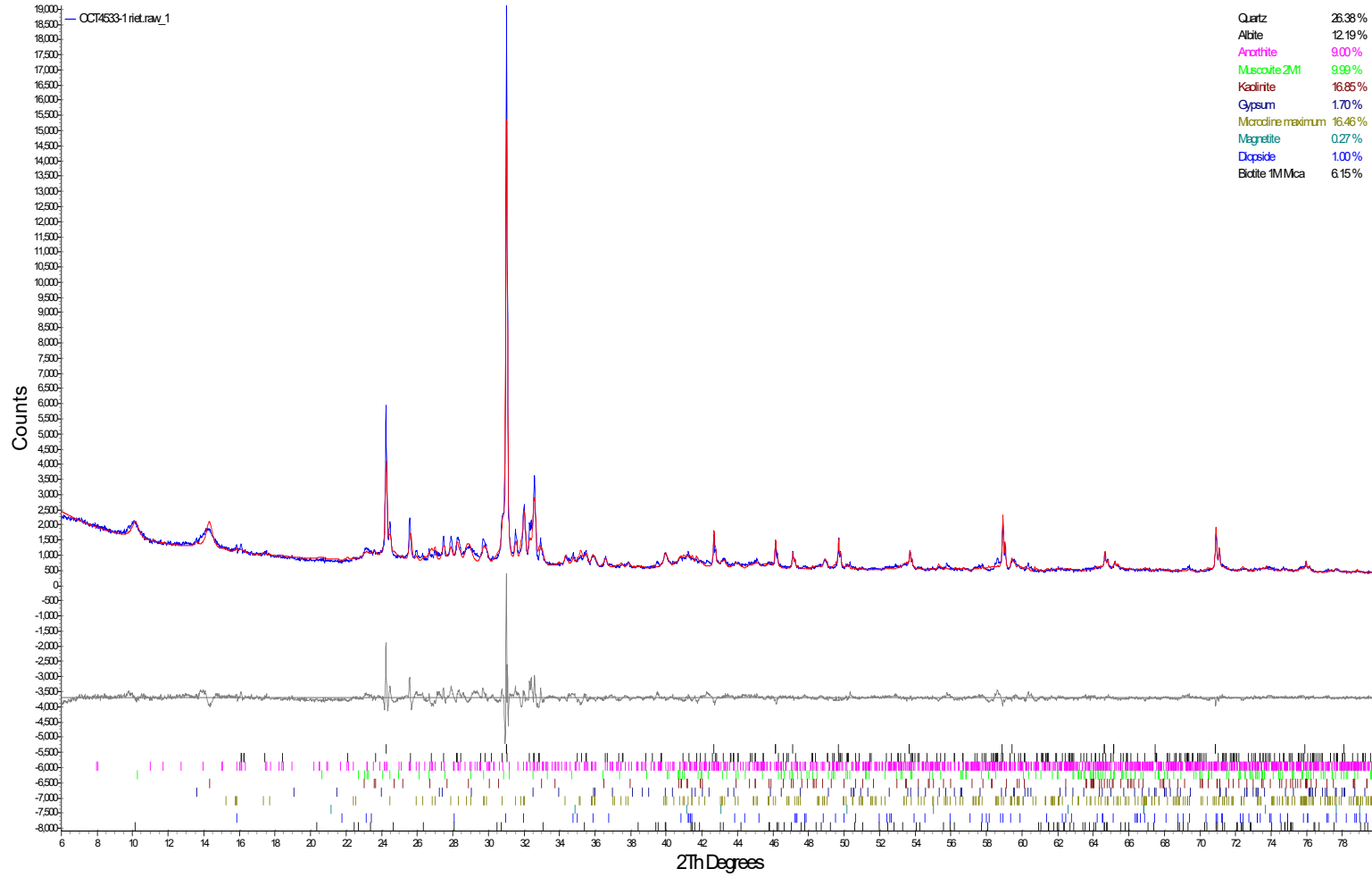
Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

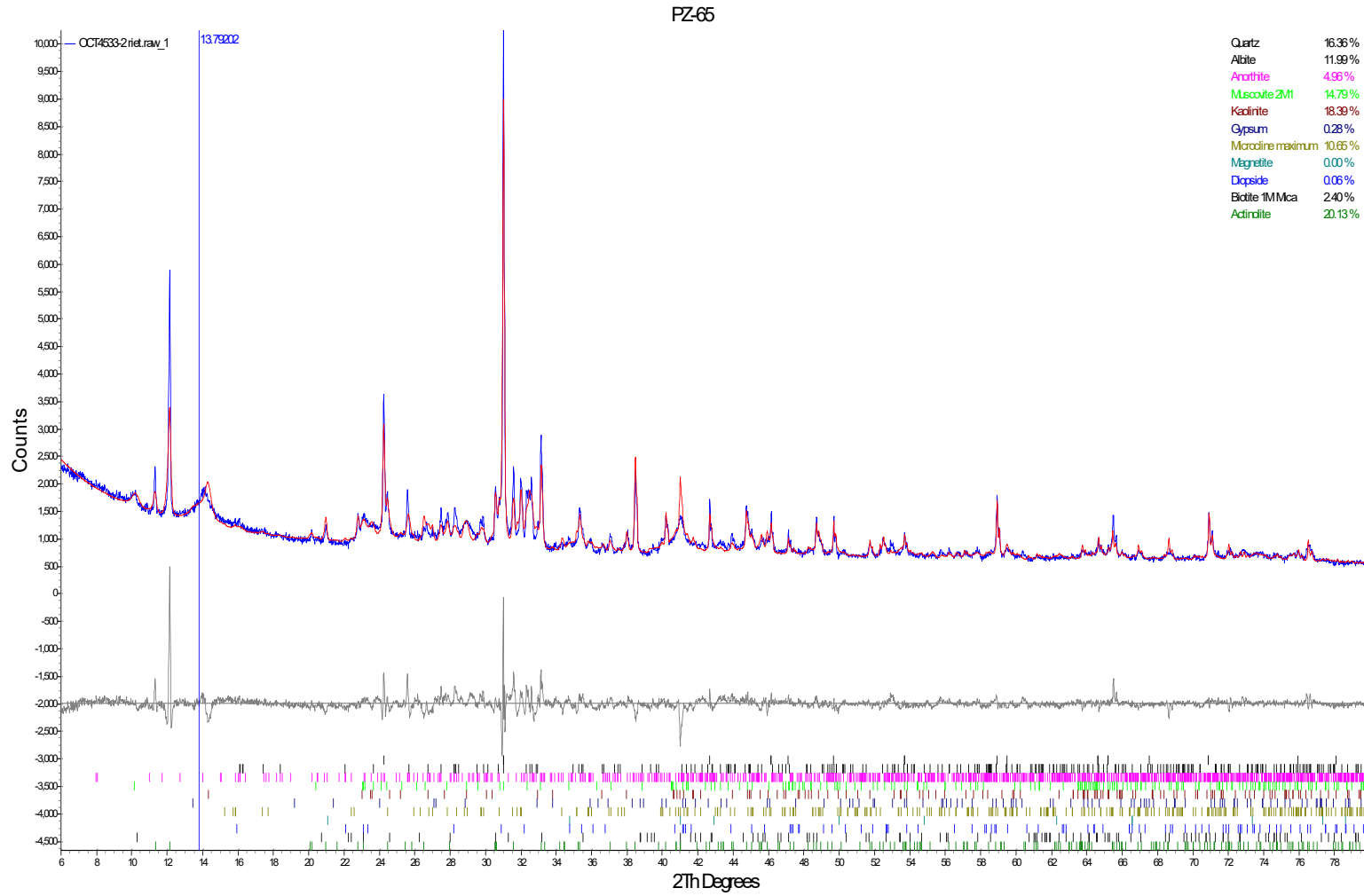
Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

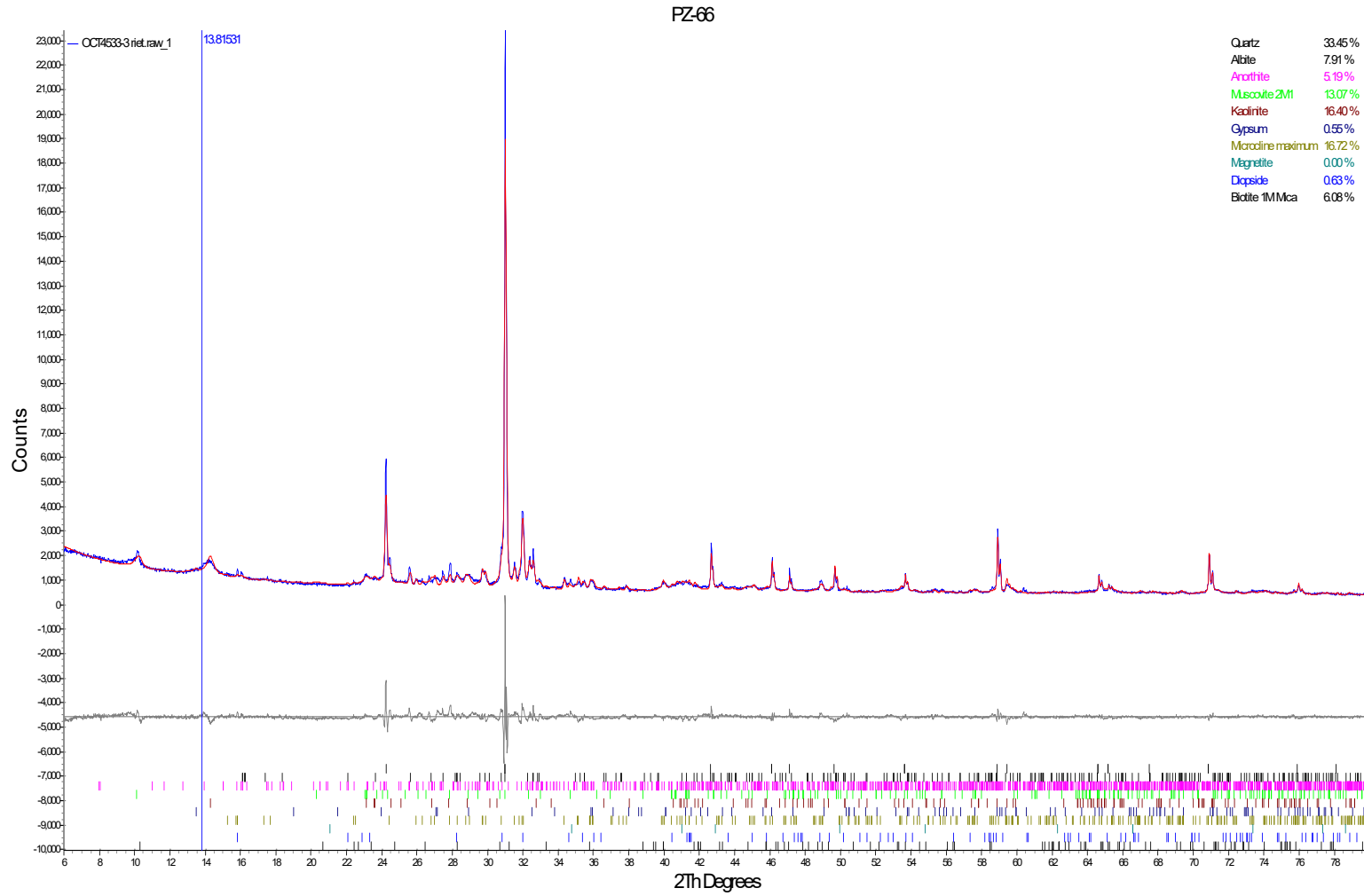
The weight percent quantities indicated have been normalized to a sum of 100%.

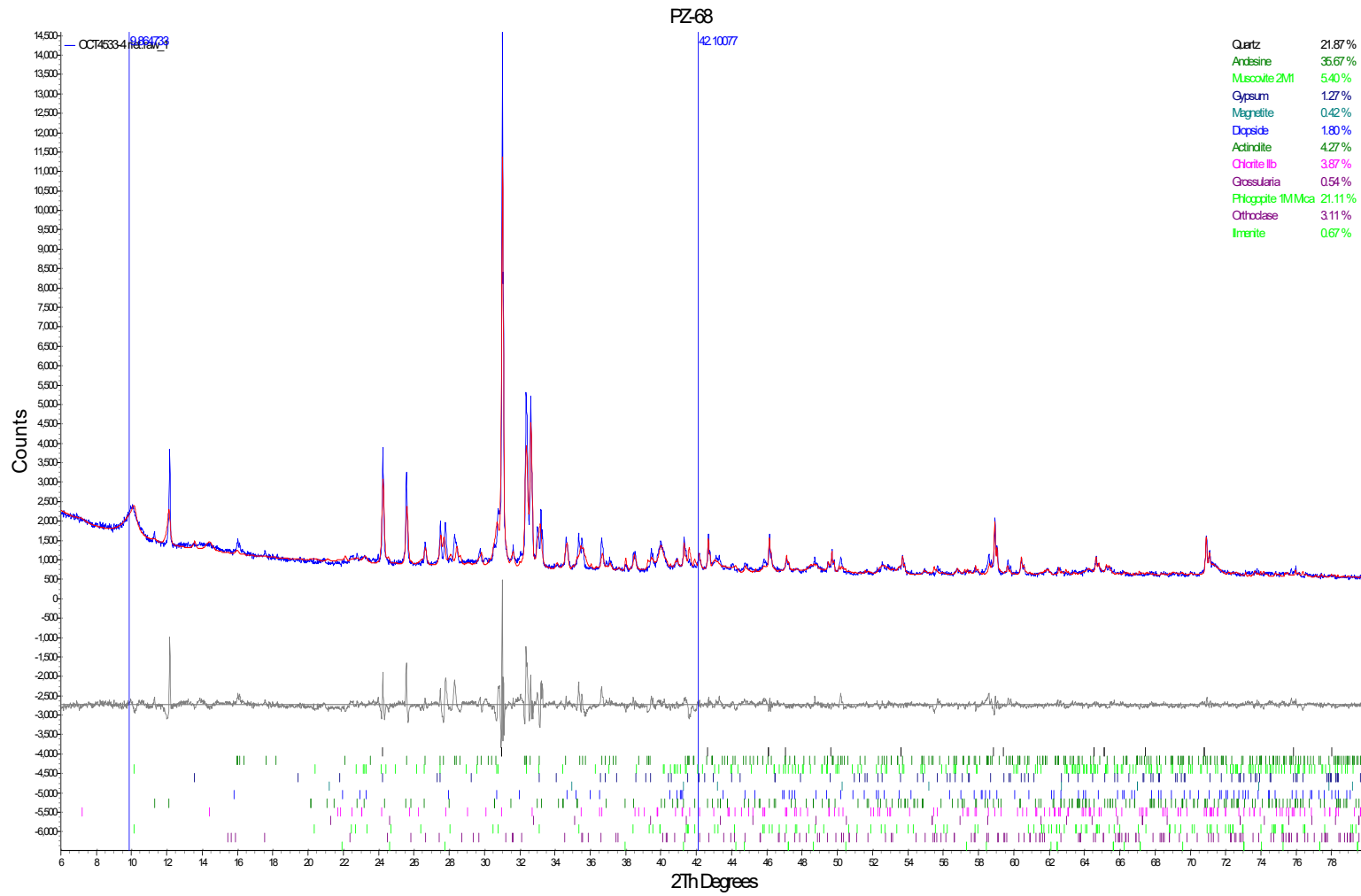
Mineral/Compound	Formula
Quartz	SiO ₂
Plagioclase	(NaSi,CaAl)AlSi ₂ O ₈
Potassium-feldspar	KAlSi ₃ O ₈
Mica	K(Mg,Fe)Al ₂ Si ₃ AlO ₁₀ (OH) ₂
Kaolinite	Al ₂ Si ₂ O ₅ (OH) ₄
Gypsum	CaSO ₄ ·2H ₂ O
Magnetite	Fe ₃ O ₄
Diopside	CaMgSi ₂ O ₆
Actinolite	Ca ₂ (Mg,Fe) ₅ Si ₈ O ₂₂ (OH) ₂
Chlorite	(Fe,(Mg,Mn) ₅ ,Al)(Si ₃ Al)O ₁₀ (OH) ₈
Grossular	Ca ₃ Al ₂ Si ₃ O ₁₂
Ilmenite	FeTiO ₃

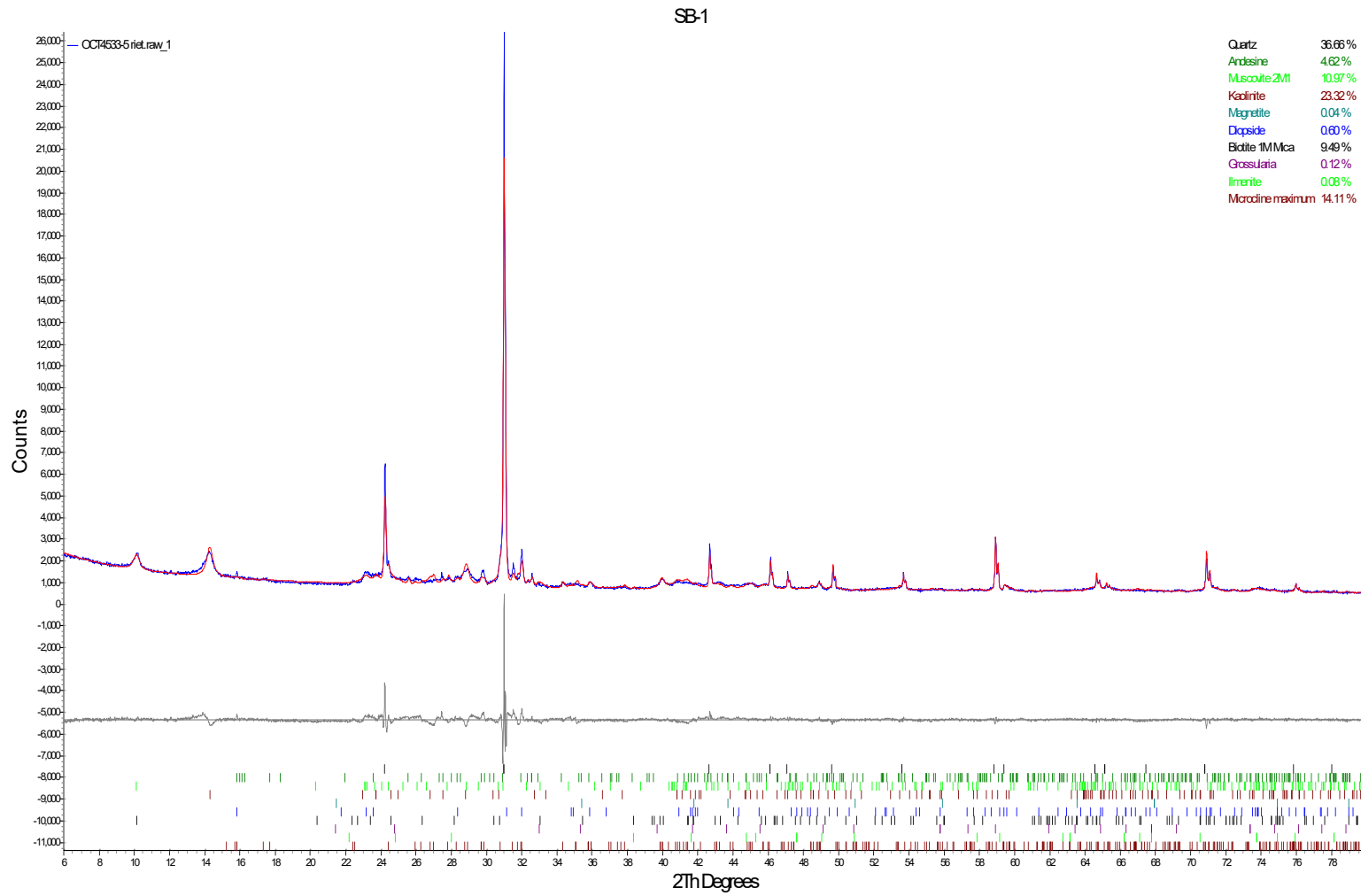
PZ-64



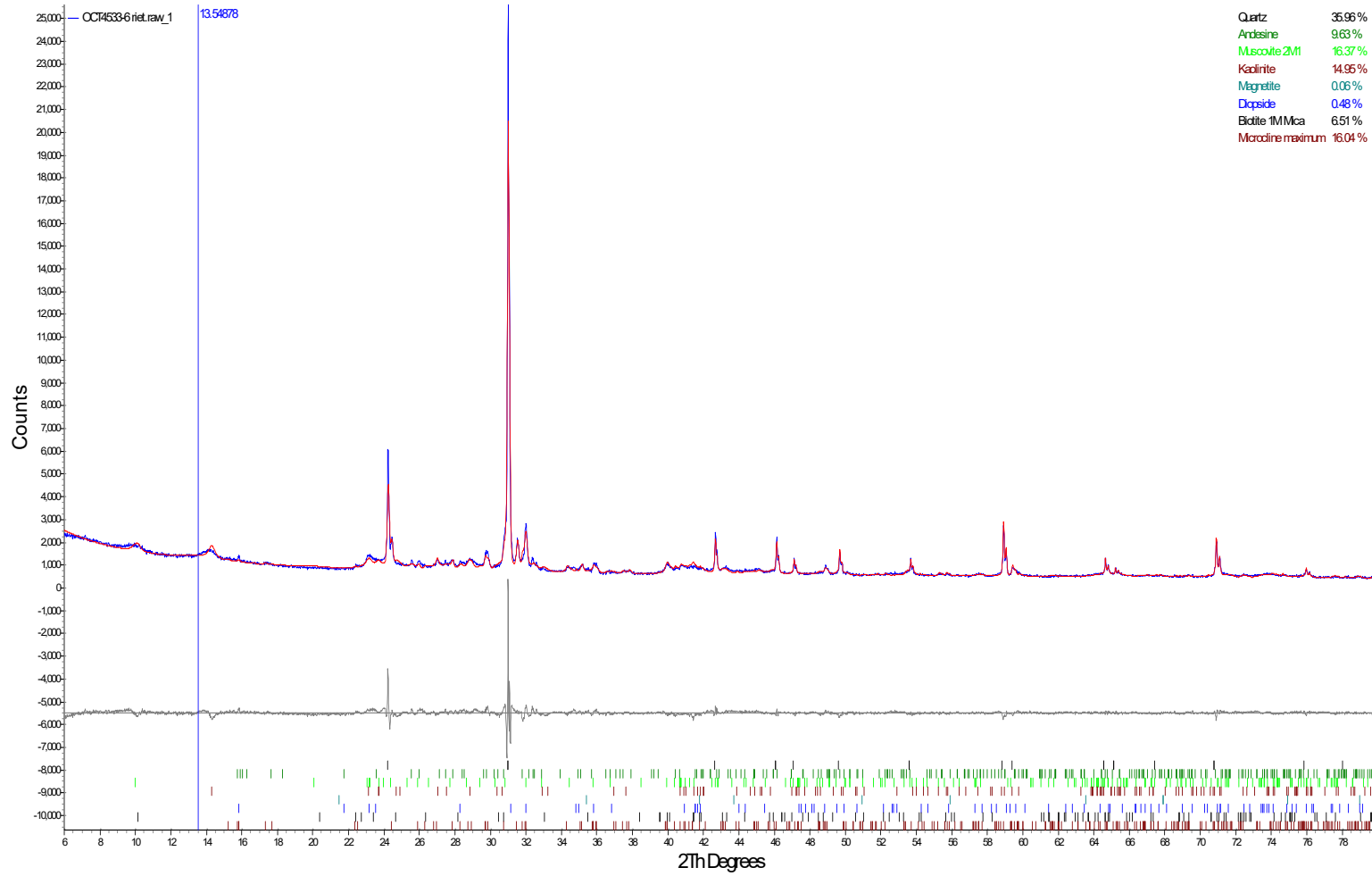








SB-2





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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:

31-January-2023

Date Rec. : 28 November 2022
LR Report: CA19283-NOV22
Reference: Plant Branch SIREMLABUS. 02. 10.
8151

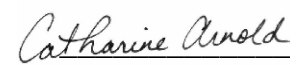
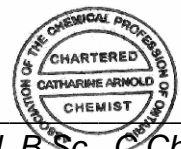
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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time			31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	31-Jan-23	09:52	0.7	< 0.5	< 0.5
Be [µg/g]	31-Jan-23	09:52	1.4	1.5	1.1
Co [µg/g]	31-Jan-23	09:52	16	9.1	3.7
Se [µg/g]	31-Jan-23	09:52	< 0.7	< 0.7	< 0.7

Fraction 6 Residual metals



Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety



SGS Canada Inc.

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Knoxville, Tennessee
37922, USA

Phone: 865-291-4695
Fax:

31-January-2023

Date Rec. : 28 November 2022
LR Report: CA19282-NOV22
Reference: Plant Branch SIREMLABUS. 02. 10.
8151

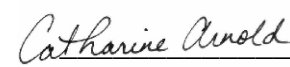
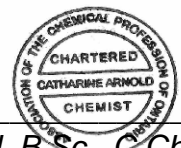
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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time			31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	31-Jan-23	09:52	< 0.5	< 0.5	< 0.5
Be [µg/g]	31-Jan-23	09:52	0.05	0.12	0.09
Co [µg/g]	31-Jan-23	09:52	0.27	0.45	0.70
Se [µg/g]	31-Jan-23	09:52	< 0.7	< 0.7	< 0.7

Fraction 5 Bound to Organic Material



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

SiREM Laboratory

Attn : Jacques Smith

180B Market Place Blvd
Knoxville, Tennessee
37922, USA

Phone: 865-291-4695
Fax:

Tessier Leach Fraction 4 - Metals Bound to Fe and Mn Oxides

31-January-2023

Date Rec. : 28 November 2022
LR Report: CA19281-NOV22
Reference: Plant Branch SIREMLABUS. 02. 10. 8151

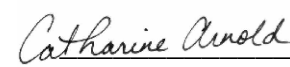
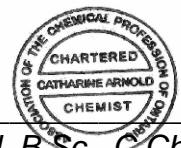
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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time			31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	31-Jan-23	09:51	< 0.5	< 0.5	< 0.5
Be [µg/g]	31-Jan-23	09:51	0.10	0.44	0.30
Co [µg/g]	31-Jan-23	09:51	2.4	4.4	4.0
Se [µg/g]	31-Jan-23	09:51	< 0.7	< 0.7	< 0.7

Fraction 4 Metals Bound to Fe and Mn Oxides



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Phone: 865-291-4695
Fax:

31-January-2023

Date Rec. : 28 November 2022
LR Report: CA19280-NOV22
Reference: Plant Branch SIREMLABUS. 02. 10.
8151


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CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time					31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.5	< 0.5	< 0.5
Be [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	0.02	0.10	0.14
Co [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	0.76	1.1	1.4
Se [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.7	< 0.7	< 0.7

Fraction 3 Metals Bound to Carbonates

Catharine Arnold

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Phone: 865-291-4695
Fax:

31-January-2023

Date Rec. : 28 November 2022
LR Report: CA19279-NOV22
Reference: Plant Branch SIREMLABUS. 02. 10.
8151

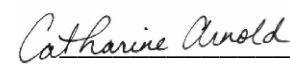
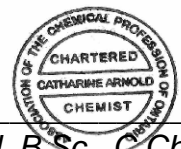
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CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time					31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.5	< 0.5	< 0.5
Be [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.02	< 0.02	< 0.02
Co [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	0.02	0.08	0.10
Se [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.7	< 0.7	< 0.7

Fracti on 2 Exchangeabl e Metal s



Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

ANALYTICAL REPORT

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

Laboratory Job ID: 140-19131-1
Client Project/Site: SCS Site, Plant Branch

For:

Golder Associates Inc.
5170 Peachtree Road
Building 100, Suite 300
Atlanta, Georgia 30341

Attn: Brian Steele



*Authorized for release by:
6/25/2020 3:51:10 PM*

Ryan Henry, Project Manager I
(865)291-3000
william.henry@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Qualifiers

Metals

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
L	A negative instrument reading had an absolute value greater than the reporting limit

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

Case Narrative

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Job ID: 140-19131-1

Laboratory: Eurofins TestAmerica, Knoxville

Narrative

Job Narrative 140-19131-1

Receipt

The samples were received on 5/20/2020 at 9:45am and arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

Metals

7 Step Sequential Extraction Procedure

These soil samples were prepared and analyzed using Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0008, "7 Step Sequential Extraction Procedure". SW-846 Method 6010B as incorporated in Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0007 was used to perform the final instrument analyses.

An aliquot of each sample was sequentially extracted using the steps listed below:

- Step 1 - Exchangeable Fraction: A 5 gram aliquot of sample was extracted with 25 mL of 1M magnesium sulfate (MgSO₄), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 2 - Carbonate Fraction: The sample residue from step 1 was extracted with 25 mL of 1M sodium acetate/acetic acid (NaOAc/HOAc) at pH 5, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 3 - Non-crystalline Materials Fraction: The sample residue from step 2 was extracted with 25 mL of 0.2M ammonium oxalate (pH 3), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 4 - Metal Hydroxide Fraction: The sample residue from step 3 was extracted with 25 mL of 1M hydroxylamine hydrochloride solution in 25% v/v acetic acid, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 5 - Organic-bound Fraction: The sample residue from step 4 was extracted three times with 25 mL of 5% sodium hypochlorite (NaClO) at pH 9.5, centrifuged and filtered. The resulting leachates were combined and 5 mL were digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 6 - Acid/Sulfide Fraction: The sample residue from step 5 was extracted with 25 mL of a 3:1:2 v/v solution of HCl-HNO₃-H₂O, centrifuged and filtered. 5 mL of the resulting leachate was diluted to 50 mL with reagent water and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 7 - Residual Fraction: A 1.0 g aliquot of the sample residue from step 6 was digested using HF, HNO₃, HCl and H₃BO₃. The digestate was analyzed by ICP using method 6010B. Results are reported in mg/kg on a dry weight basis.

In addition, a 1.0 g aliquot of the original sample was digested using HF, HNO₃, HCl and H₃BO₃. The digestate was analyzed by ICP using method 6010B. Total metal results are reported in mg/kg on a dry weight basis.

Results were calculated using the following equation:

$$\text{Result, } \mu\text{g/g or mg/Kg, dry weight} = (C \times V \times V1 \times D) / (W \times S \times V2)$$

Where:

- C = Concentration from instrument readout, $\mu\text{g/mL}$
- V = Final volume of digestate, mL
- D = Instrument dilution factor
- V1 = Total volume of leachate, mL
- V2 = Volume of leachate digested, mL
- W = Wet weight of sample, g

Case Narrative

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Job ID: 140-19131-1 (Continued)

Laboratory: Eurofins TestAmerica, Knoxville (Continued)

S = Percent solids/100

A method blank, laboratory control sample and laboratory control sample duplicate were prepared and analyzed with each SEP step in order to provide information about both the presence of elements of interest in the extraction solutions, and the recovery of elements of interest from the extraction solutions. Results outside of laboratory QC limits do not reflect out of control performance, but rather the effect of the extraction solution upon the analyte.

A laboratory sample duplicate was prepared and analyzed with each batch of samples in order to provide information regarding the reproducibility of the procedure.

SEP Report Notes:

The final report lists the results for each step, the result for the total digestion of the sample, and a sum of the results of steps 1 through 7 by element.

The digestates for steps 1, 2 and 5 were analyzed at a dilution due to instrument problems caused by the high solids content of the digestates. The reporting limits were adjusted accordingly.

Method 6010B: The following samples were diluted due to the presence of Iron which interferes with Cadmium and Selenium: BRGWA-2S(2) 39 FT BGS (140-19131-1), BRGWA-2S(2) 43 FT BGS (140-19131-2), BRGWA-5S(2) 38 FT BGS (140-19131-3), BRGWA-5S(2) 32 FT BGS (140-19131-4), BRGWA-6S(2) 42 FT BGS (140-19131-5), BRGWA-6S(2) 48 FT BGS (140-19131-6), PZ-52D 18 FT BGS (140-19131-7), BRGWC-50(2) 63-63.5 FT BGS (140-19131-10) and PZ-53D 30 FT BGS (140-19131-11). Elevated reporting limits (RLs) are provided.

Method 6010B: The following samples were diluted due to the presence of Manganese which interferes with Selenium: BRGWA-2S(2) 39 FT BGS (140-19131-1) and PZ-52D 18 FT BGS (140-19131-7). Elevated reporting limits (RLs) are provided.

Method 6010B: The following samples were diluted due to the presence of titanium which interferes with Cobalt: BRGWA-2S(2) 39 FT BGS (140-19131-1), BRGWA-2S(2) 43 FT BGS (140-19131-2), BRGWA-5S(2) 38 FT BGS (140-19131-3), BRGWA-5S(2) 32 FT BGS (140-19131-4), BRGWA-6S(2) 42 FT BGS (140-19131-5), BRGWA-6S(2) 48 FT BGS (140-19131-6), PZ-52D 18 FT BGS (140-19131-7), PZ-52D 24-25 FT BGS (140-19131-8), BRGWC-50(2) 59 FT BGS (140-19131-9), BRGWC-50(2) 63-63.5 FT BGS (140-19131-10), PZ-53D 30 FT BGS (140-19131-11) and PZ-53D 36 FT BGS (140-19131-12). Elevated reporting limits (RLs) are provided.

Method 6010B: The following samples were diluted to bring the concentration of target analyte, aluminum, within the calibration range: BRGWA-2S(2) 39 FT BGS (140-19131-1), BRGWA-2S(2) 43 FT BGS (140-19131-2), BRGWA-5S(2) 38 FT BGS (140-19131-3), BRGWA-5S(2) 32 FT BGS (140-19131-4), BRGWA-6S(2) 42 FT BGS (140-19131-5), BRGWA-6S(2) 48 FT BGS (140-19131-6), PZ-52D 18 FT BGS (140-19131-7), PZ-52D 24-25 FT BGS (140-19131-8), BRGWC-50(2) 59 FT BGS (140-19131-9), BRGWC-50(2) 63-63.5 FT BGS (140-19131-10), PZ-53D 30 FT BGS (140-19131-11) and PZ-53D 36 FT BGS (140-19131-12). Elevated reporting limits (RLs) are provided.

Method 6010B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: BRGWA-6S(2) 42 FT BGS (140-19131-5) and BRGWC-50(2) 63-63.5 FT BGS (140-19131-10).

Method 6010B SEP: The following sample was diluted due to the presence of silicon which interferes with Selenium: BRGWA-2S(2) 39 FT BGS (140-19131-1). Elevated reporting limits (RLs) are provided.

Method 6010B SEP: The following samples were diluted due to the nature of the sample matrix: BRGWA-2S(2) 39 FT BGS (140-19131-1), BRGWA-2S(2) 43 FT BGS (140-19131-2), BRGWA-5S(2) 38 FT BGS (140-19131-3), BRGWA-5S(2) 32 FT BGS (140-19131-4), BRGWA-6S(2) 42 FT BGS (140-19131-5), BRGWA-6S(2) 48 FT BGS (140-19131-6), PZ-52D 18 FT BGS (140-19131-7), PZ-52D 24-25 FT BGS (140-19131-8), BRGWC-50(2) 59 FT BGS (140-19131-9), BRGWC-50(2) 63-63.5 FT BGS (140-19131-10), PZ-53D 30 FT BGS (140-19131-11) and PZ-53D 36 FT BGS (140-19131-12). Elevated reporting limits (RLs) are provided for aluminum. The serial dilution analysis indicated a matrix issue with the results for aluminum increasing with dilution.

Case Narrative

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Job ID: 140-19131-1 (Continued)

Laboratory: Eurofins TestAmerica, Knoxville (Continued)

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

General Chemistry

% Moisture: The samples were analyzed for percent moisture using SOP number KNOX-WC-0012 (based on Modified MCAWW 160.3 and SM2540B and on the percent moisture determinations described in methods 3540C and 3550B).

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Sample Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-19131-1	BRGWA-2S(2) 39 FT BGS	Solid	05/13/20 14:30	05/20/20 09:45	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Solid	05/13/20 14:40	05/20/20 09:45	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Solid	05/14/20 07:40	05/20/20 09:45	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Solid	05/14/20 07:50	05/20/20 09:45	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Solid	05/14/20 12:05	05/20/20 09:45	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Solid	05/14/20 12:15	05/20/20 09:45	
140-19131-7	PZ-52D 18 FT BGS	Solid	05/14/20 14:40	05/20/20 09:45	
140-19131-8	PZ-52D 24-25 FT BGS	Solid	05/14/20 14:50	05/20/20 09:45	
140-19131-9	BRGWC-50(2) 59 FT BGS	Solid	05/15/20 09:00	05/20/20 09:45	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Solid	05/15/20 09:20	05/20/20 09:45	
140-19131-11	PZ-53D 30 FT BGS	Solid	05/16/20 16:15	05/20/20 09:45	
140-19131-12	PZ-53D 36 FT BGS	Solid	05/16/20 16:25	05/20/20 09:45	

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 39 FT BGS

Lab Sample ID: 140-19131-1

Date Collected: 05/13/20 14:30

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 71.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		56	9.0	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4
Beryllium	ND		1.4	0.43	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4
Cadmium	ND		1.4	0.090	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4
Cobalt	ND		14	0.25	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4
Iron	ND		28	16	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4
Manganese	0.37	J	4.2	0.17	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4
Selenium	ND		2.8	0.96	mg/Kg	☼	06/02/20 08:00	06/16/20 12:21	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8.9	J *	42	6.8	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3
Beryllium	ND	*	1.1	0.068	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3
Cadmium	ND		1.1	0.046	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3
Cobalt	ND		11	0.27	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3
Iron	ND	*	21	12	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3
Manganese	ND		3.2	1.2	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3
Selenium	ND		2.1	0.72	mg/Kg	☼	06/03/20 08:00	06/16/20 14:15	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	270		14	3.0	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1
Beryllium	0.16	J	0.35	0.021	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1
Cadmium	0.016	J B *	0.35	0.015	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1
Cobalt	14		3.5	0.063	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1
Iron	2000		7.0	4.1	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1
Manganese	320	B	1.1	0.038	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1
Selenium	0.45	J	0.70	0.24	mg/Kg	☼	06/08/20 08:00	06/18/20 12:10	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1900		14	2.3	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1
Beryllium	0.77		0.35	0.023	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1
Cadmium	ND		0.35	0.015	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1
Cobalt	6.5		3.5	0.075	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1
Iron	17000		7.0	4.1	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1
Manganese	240		1.1	0.18	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1
Selenium	1.5	B *	0.70	0.66	mg/Kg	☼	06/10/20 08:00	06/18/20 14:04	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	210	**1	210	33	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5
Beryllium	ND	*	5.3	0.44	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5
Cadmium	ND		5.3	0.23	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5
Cobalt	ND	*	53	0.84	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5
Iron	ND	**1	110	62	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5
Manganese	3.0	J *	16	2.6	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5
Selenium	ND		11	3.7	mg/Kg	☼	06/12/20 08:00	06/19/20 11:43	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		14	2.3	mg/Kg	☼	06/12/20 08:00	06/19/20 13:38	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 39 FT BGS

Lab Sample ID: 140-19131-1

Date Collected: 05/13/20 14:30

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 71.0

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.29	J	0.35	0.017	mg/Kg	☼	06/12/20 08:00	06/19/20 13:38	1
Cadmium	ND	L	0.35	0.015	mg/Kg	☼	06/12/20 08:00	06/19/20 13:38	1
Cobalt	8.3		7.0	0.13	mg/Kg	☼	06/12/20 08:00	06/19/20 16:54	2
Iron	24000		7.0	4.1	mg/Kg	☼	06/12/20 08:00	06/19/20 13:38	1
Manganese	71		1.1	0.35	mg/Kg	☼	06/12/20 08:00	06/19/20 13:38	1
Selenium	0.79		0.70	0.24	mg/Kg	☼	06/12/20 08:00	06/19/20 13:38	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	52000		140	23	mg/Kg	☼	06/15/20 08:00	06/22/20 15:00	10
Beryllium	ND		0.35	0.011	mg/Kg	☼	06/15/20 08:00	06/22/20 13:18	1
Cadmium	0.21	J	1.8	0.077	mg/Kg	☼	06/15/20 08:00	06/22/20 16:27	5
Cobalt	8.1	J	18	0.18	mg/Kg	☼	06/15/20 08:00	06/22/20 16:27	5
Iron	39000		35	29	mg/Kg	☼	06/15/20 08:00	06/22/20 16:27	5
Manganese	290		1.1	0.15	mg/Kg	☼	06/15/20 08:00	06/22/20 13:18	1
Selenium	ND		3.5	1.2	mg/Kg	☼	06/15/20 08:00	06/22/20 16:27	5

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	69000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	1.2		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.22	J	0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	36		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	82000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	930		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	2.8		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	92000		140	23	mg/Kg	☼	05/29/20 08:00	06/23/20 14:27	10
Beryllium	0.66		0.35	0.011	mg/Kg	☼	05/29/20 08:00	06/23/20 12:43	1
Cadmium	1.4	J	3.5	0.15	mg/Kg	☼	05/29/20 08:00	06/23/20 14:27	10
Cobalt	72		70	0.73	mg/Kg	☼	05/29/20 08:00	06/23/20 17:24	20
Iron	97000		70	58	mg/Kg	☼	05/29/20 08:00	06/23/20 14:27	10
Manganese	1700		2.1	0.31	mg/Kg	☼	05/29/20 08:00	06/23/20 16:04	2
Selenium	3.2	J	7.0	2.4	mg/Kg	☼	05/29/20 08:00	06/23/20 14:27	10

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 43 FT BGS

Lab Sample ID: 140-19131-2

Date Collected: 05/13/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 75.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		53	8.5	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4
Beryllium	ND		1.3	0.41	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4
Cadmium	ND		1.3	0.085	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4
Cobalt	ND		13	0.24	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4
Iron	ND		27	15	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4
Manganese	0.80	J	4.0	0.17	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4
Selenium	ND		2.7	0.91	mg/Kg	☼	06/02/20 08:00	06/16/20 12:26	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7.6	J *	40	6.4	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3
Beryllium	ND	*	1.0	0.064	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3
Cadmium	ND		1.0	0.044	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3
Cobalt	ND		10	0.25	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3
Iron	ND	*	20	12	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3
Manganese	ND		3.0	1.1	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3
Selenium	ND		2.0	0.68	mg/Kg	☼	06/03/20 08:00	06/16/20 14:20	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	290		13	2.8	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1
Beryllium	0.15	J	0.33	0.020	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1
Cadmium	ND	*	0.33	0.015	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1
Cobalt	14		3.3	0.060	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1
Iron	1100		6.7	3.9	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1
Manganese	94	B	1.0	0.036	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1
Selenium	0.38	J	0.67	0.23	mg/Kg	☼	06/08/20 08:00	06/18/20 12:15	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2400		13	2.1	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1
Beryllium	0.47		0.33	0.021	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1
Cadmium	ND		0.33	0.015	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1
Cobalt	13		3.3	0.071	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1
Iron	10000		6.7	3.9	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1
Manganese	89		1.0	0.17	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1
Selenium	1.1	B *	0.67	0.63	mg/Kg	☼	06/10/20 08:00	06/18/20 14:10	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	240	**1	200	31	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5
Beryllium	ND	*	5.0	0.42	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5
Cadmium	ND		5.0	0.21	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5
Cobalt	ND	*	50	0.80	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5
Iron	ND	**1	100	59	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5
Manganese	ND	*	15	2.5	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5
Selenium	4.2	J	10	3.5	mg/Kg	☼	06/12/20 08:00	06/19/20 11:48	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000		13	2.1	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 43 FT BGS

Lab Sample ID: 140-19131-2

Date Collected: 05/13/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 75.0

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.16	J	0.33	0.016	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1
Cadmium	ND		0.33	0.015	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1
Cobalt	5.2		3.3	0.061	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1
Iron	15000		6.7	3.9	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1
Manganese	32		1.0	0.33	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1
Selenium	0.64	J	0.67	0.23	mg/Kg	☼	06/12/20 08:00	06/19/20 13:43	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	36000		130	21	mg/Kg	☼	06/15/20 08:00	06/22/20 15:05	10
Beryllium	ND		0.33	0.010	mg/Kg	☼	06/15/20 08:00	06/22/20 13:23	1
Cadmium	0.59	J	1.7	0.073	mg/Kg	☼	06/15/20 08:00	06/22/20 16:32	5
Cobalt	28	J	33	0.35	mg/Kg	☼	06/15/20 08:00	06/22/20 15:05	10
Iron	71000		33	27	mg/Kg	☼	06/15/20 08:00	06/22/20 16:32	5
Manganese	840		1.0	0.15	mg/Kg	☼	06/15/20 08:00	06/22/20 13:23	1
Selenium	3.0	J	3.3	1.1	mg/Kg	☼	06/15/20 08:00	06/22/20 16:32	5

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	55000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	0.78		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.59		0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	60		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	97000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	1100		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	9.4		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	80000		130	21	mg/Kg	☼	05/29/20 08:00	06/23/20 14:32	10
Beryllium	0.46		0.33	0.010	mg/Kg	☼	05/29/20 08:00	06/23/20 12:49	1
Cadmium	1.6	J	3.3	0.15	mg/Kg	☼	05/29/20 08:00	06/23/20 14:32	10
Cobalt	54	J	67	0.69	mg/Kg	☼	05/29/20 08:00	06/23/20 17:29	20
Iron	98000		67	55	mg/Kg	☼	05/29/20 08:00	06/23/20 14:32	10
Manganese	840		1.0	0.15	mg/Kg	☼	05/29/20 08:00	06/23/20 12:49	1
Selenium	3.9	J	6.7	2.3	mg/Kg	☼	05/29/20 08:00	06/23/20 14:32	10

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-5S(2) 38 FT BGS

Lab Sample ID: 140-19131-3

Date Collected: 05/14/20 07:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 84.1

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		48	7.6	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4
Beryllium	ND		1.2	0.37	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4
Cadmium	ND		1.2	0.076	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4
Cobalt	ND		12	0.21	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4
Iron	ND		24	14	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4
Manganese	0.44	J	3.6	0.15	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4
Selenium	ND		2.4	0.81	mg/Kg	☼	06/02/20 08:00	06/16/20 12:31	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6.2	J *	36	5.7	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3
Beryllium	ND	*	0.89	0.057	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3
Cadmium	ND		0.89	0.039	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3
Cobalt	ND		8.9	0.22	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3
Iron	ND	*	18	10	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3
Manganese	ND		2.7	1.0	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3
Selenium	0.72	J	1.8	0.61	mg/Kg	☼	06/03/20 08:00	06/16/20 14:25	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		12	2.5	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1
Beryllium	0.073	J	0.30	0.018	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1
Cadmium	0.023	J B *	0.30	0.013	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1
Cobalt	6.0		3.0	0.053	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1
Iron	410		5.9	3.4	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1
Manganese	78	B	0.89	0.032	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1
Selenium	ND		0.59	0.20	mg/Kg	☼	06/08/20 08:00	06/18/20 12:20	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1900		12	1.9	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1
Beryllium	0.21	J	0.30	0.019	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1
Cadmium	ND		0.30	0.013	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1
Cobalt	2.9	J	3.0	0.063	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1
Iron	4500		5.9	3.4	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1
Manganese	40		0.89	0.15	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1
Selenium	1.0	B *	0.59	0.56	mg/Kg	☼	06/10/20 08:00	06/18/20 14:15	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	77	J * *1	180	28	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5
Beryllium	ND	*	4.5	0.37	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5
Cadmium	ND		4.5	0.19	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5
Cobalt	ND	*	45	0.71	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5
Iron	ND	* *1	89	52	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5
Manganese	ND	*	13	2.2	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5
Selenium	ND		8.9	3.1	mg/Kg	☼	06/12/20 08:00	06/19/20 11:53	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000		12	1.9	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-5S(2) 38 FT BGS

Lab Sample ID: 140-19131-3

Date Collected: 05/14/20 07:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 84.1

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.075	J	0.30	0.014	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1
Cadmium	ND		0.30	0.013	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1
Cobalt	5.4		3.0	0.055	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1
Iron	11000		5.9	3.4	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1
Manganese	42		0.89	0.30	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1
Selenium	0.41	J	0.59	0.20	mg/Kg	☼	06/12/20 08:00	06/19/20 13:48	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	34000		120	19	mg/Kg	☼	06/15/20 08:00	06/22/20 15:10	10
Beryllium	0.33		0.30	0.0089	mg/Kg	☼	06/15/20 08:00	06/22/20 13:29	1
Cadmium	ND		1.5	0.065	mg/Kg	☼	06/15/20 08:00	06/22/20 16:37	5
Cobalt	15		15	0.15	mg/Kg	☼	06/15/20 08:00	06/22/20 16:37	5
Iron	45000		30	24	mg/Kg	☼	06/15/20 08:00	06/22/20 16:37	5
Manganese	580		0.89	0.13	mg/Kg	☼	06/15/20 08:00	06/22/20 13:29	1
Selenium	1.2	J	3.0	1.0	mg/Kg	☼	06/15/20 08:00	06/22/20 16:37	5

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	47000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	0.69		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.023	J	0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	30		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	60000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	740		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	3.4		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	86000		120	19	mg/Kg	☼	05/29/20 08:00	06/23/20 14:37	10
Beryllium	0.60		0.30	0.0089	mg/Kg	☼	05/29/20 08:00	06/23/20 12:54	1
Cadmium	2.2		0.59	0.026	mg/Kg	☼	05/29/20 08:00	06/23/20 16:15	2
Cobalt	43		30	0.31	mg/Kg	☼	05/29/20 08:00	06/23/20 14:37	10
Iron	56000		12	9.7	mg/Kg	☼	05/29/20 08:00	06/23/20 16:15	2
Manganese	750		0.89	0.13	mg/Kg	☼	05/29/20 08:00	06/23/20 12:54	1
Selenium	ND		1.2	0.40	mg/Kg	☼	05/29/20 08:00	06/23/20 16:15	2

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-5S(2) 32 FT BGS

Lab Sample ID: 140-19131-4

Date Collected: 05/14/20 07:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		49	7.8	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4
Beryllium	ND		1.2	0.37	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4
Cadmium	ND		1.2	0.078	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4
Cobalt	ND		12	0.22	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4
Iron	ND		24	14	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4
Manganese	0.43	J	3.6	0.15	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4
Selenium	ND		2.4	0.83	mg/Kg	☼	06/02/20 08:00	06/16/20 12:36	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7.5	J *	36	5.8	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3
Beryllium	ND	*	0.91	0.058	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3
Cadmium	ND		0.91	0.040	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3
Cobalt	ND		9.1	0.23	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3
Iron	ND	*	18	11	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3
Manganese	ND		2.7	1.0	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3
Selenium	0.73	J	1.8	0.62	mg/Kg	☼	06/03/20 08:00	06/16/20 14:31	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140		12	2.6	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1
Beryllium	0.089	J	0.30	0.018	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1
Cadmium	0.021	J B *	0.30	0.013	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1
Cobalt	4.9		3.0	0.055	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1
Iron	590		6.1	3.5	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1
Manganese	120	B	0.91	0.033	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1
Selenium	ND		0.61	0.21	mg/Kg	☼	06/08/20 08:00	06/18/20 12:26	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1800		12	1.9	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1
Beryllium	0.25	J	0.30	0.019	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1
Cadmium	0.018	J	0.30	0.013	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1
Cobalt	2.7	J	3.0	0.064	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1
Iron	4700		6.1	3.5	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1
Manganese	65		0.91	0.16	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1
Selenium	0.90	B *	0.61	0.57	mg/Kg	☼	06/10/20 08:00	06/18/20 14:20	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160	J * *1	180	29	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5
Beryllium	ND	*	4.6	0.38	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5
Cadmium	ND		4.6	0.19	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5
Cobalt	ND	*	46	0.73	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5
Iron	ND	* *1	91	53	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5
Manganese	ND	*	14	2.2	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5
Selenium	ND		9.1	3.2	mg/Kg	☼	06/12/20 08:00	06/19/20 11:58	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9000		12	1.9	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-5S(2) 32 FT BGS

Lab Sample ID: 140-19131-4

Date Collected: 05/14/20 07:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.082	J	0.30	0.015	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1
Cadmium	ND		0.30	0.013	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1
Cobalt	4.0		3.0	0.056	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1
Iron	9100		6.1	3.5	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1
Manganese	32		0.91	0.30	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1
Selenium	ND		0.61	0.21	mg/Kg	☼	06/12/20 08:00	06/19/20 13:53	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	37000		120	19	mg/Kg	☼	06/15/20 08:00	06/22/20 15:15	10
Beryllium	0.35		0.30	0.0091	mg/Kg	☼	06/15/20 08:00	06/22/20 13:50	1
Cadmium	0.17	J	1.5	0.067	mg/Kg	☼	06/15/20 08:00	06/22/20 16:42	5
Cobalt	18		15	0.16	mg/Kg	☼	06/15/20 08:00	06/22/20 16:42	5
Iron	53000		30	25	mg/Kg	☼	06/15/20 08:00	06/22/20 16:42	5
Manganese	690		0.91	0.13	mg/Kg	☼	06/15/20 08:00	06/22/20 13:50	1
Selenium	1.1	J	3.0	1.0	mg/Kg	☼	06/15/20 08:00	06/22/20 16:42	5

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	48000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	0.77		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.21	J	0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	29		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	68000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	900		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	2.7		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	87000		120	19	mg/Kg	☼	05/29/20 08:00	06/23/20 14:41	10
Beryllium	0.67		0.30	0.0091	mg/Kg	☼	05/29/20 08:00	06/23/20 13:16	1
Cadmium	2.2		0.61	0.027	mg/Kg	☼	05/29/20 08:00	06/23/20 16:21	2
Cobalt	36		30	0.32	mg/Kg	☼	05/29/20 08:00	06/23/20 14:41	10
Iron	58000		12	10	mg/Kg	☼	05/29/20 08:00	06/23/20 16:21	2
Manganese	770		0.91	0.13	mg/Kg	☼	05/29/20 08:00	06/23/20 13:16	1
Selenium	ND		1.2	0.41	mg/Kg	☼	05/29/20 08:00	06/23/20 16:21	2

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 42 FT BGS

Lab Sample ID: 140-19131-5

Date Collected: 05/14/20 12:05

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.7

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		57	9.2	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4
Beryllium	ND		1.4	0.44	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4
Cadmium	ND		1.4	0.092	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4
Cobalt	ND		14	0.26	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4
Iron	ND		29	17	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4
Manganese	0.25	J	4.3	0.18	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4
Selenium	ND		2.9	0.98	mg/Kg	☼	06/02/20 08:00	06/16/20 12:57	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9.7	J *	43	6.9	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3
Beryllium	ND	*	1.1	0.069	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3
Cadmium	ND		1.1	0.047	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3
Cobalt	ND		11	0.27	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3
Iron	ND	*	22	12	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3
Manganese	ND		3.2	1.2	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3
Selenium	ND		2.2	0.73	mg/Kg	☼	06/03/20 08:00	06/16/20 14:52	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	220		14	3.0	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1
Beryllium	0.049	J	0.36	0.022	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1
Cadmium	0.11	J B *	0.36	0.016	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1
Cobalt	19		3.6	0.065	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1
Iron	490		7.2	4.2	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1
Manganese	430	B	1.1	0.039	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1
Selenium	0.27	J	0.72	0.24	mg/Kg	☼	06/08/20 08:00	06/18/20 12:46	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3100		14	2.3	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1
Beryllium	0.45		0.36	0.023	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1
Cadmium	ND		0.36	0.016	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1
Cobalt	9.9		3.6	0.076	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1
Iron	10000		7.2	4.2	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1
Manganese	270		1.1	0.19	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1
Selenium	1.4	B *	0.72	0.67	mg/Kg	☼	06/10/20 08:00	06/18/20 14:40	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140	J * *1	220	34	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5
Beryllium	ND	*	5.4	0.45	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5
Cadmium	ND		5.4	0.23	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5
Cobalt	ND	*	54	0.86	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5
Iron	ND	* *1	110	63	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5
Manganese	3.5	J *	16	2.7	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5
Selenium	4.3	J	11	3.7	mg/Kg	☼	06/12/20 08:00	06/19/20 12:19	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000		14	2.3	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 42 FT BGS

Lab Sample ID: 140-19131-5

Date Collected: 05/14/20 12:05

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.7

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.15	J	0.36	0.017	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1
Cadmium	ND	L	0.36	0.016	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1
Cobalt	5.2		3.6	0.066	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1
Iron	20000		7.2	4.2	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1
Manganese	54		1.1	0.36	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1
Selenium	0.69	J	0.72	0.24	mg/Kg	☼	06/12/20 08:00	06/19/20 16:12	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	37000		140	23	mg/Kg	☼	06/15/20 08:00	06/22/20 15:20	10
Beryllium	0.19	J	0.36	0.011	mg/Kg	☼	06/15/20 08:00	06/22/20 13:56	1
Cadmium	0.49		0.36	0.016	mg/Kg	☼	06/15/20 08:00	06/22/20 13:56	1
Cobalt	8.7	J	18	0.19	mg/Kg	☼	06/15/20 08:00	06/22/20 16:47	5
Iron	34000		7.2	5.9	mg/Kg	☼	06/15/20 08:00	06/22/20 13:56	1
Manganese	260		1.1	0.16	mg/Kg	☼	06/15/20 08:00	06/22/20 13:56	1
Selenium	0.90		0.72	0.24	mg/Kg	☼	06/15/20 08:00	06/22/20 13:56	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	57000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	0.84		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.60		0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	43		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	65000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	1000		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	7.5		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110000		140	23	mg/Kg	☼	05/29/20 08:00	06/23/20 14:46	10
Beryllium	0.66	J	0.72	0.022	mg/Kg	☼	05/29/20 08:00	06/23/20 16:26	2
Cadmium	1.7		0.72	0.032	mg/Kg	☼	05/29/20 08:00	06/23/20 16:26	2
Cobalt	58		36	0.37	mg/Kg	☼	05/29/20 08:00	06/23/20 14:46	10
Iron	61000		14	12	mg/Kg	☼	05/29/20 08:00	06/23/20 16:26	2
Manganese	1100		2.2	0.32	mg/Kg	☼	05/29/20 08:00	06/23/20 16:26	2
Selenium	0.94	J	1.4	0.49	mg/Kg	☼	05/29/20 08:00	06/23/20 16:26	2

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 48 FT BGS

Lab Sample ID: 140-19131-6

Date Collected: 05/14/20 12:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		57	9.1	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4
Beryllium	ND		1.4	0.44	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4
Cadmium	ND		1.4	0.091	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4
Cobalt	ND		14	0.26	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4
Iron	ND		29	17	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4
Manganese	0.67	J	4.3	0.18	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4
Selenium	ND		2.9	0.97	mg/Kg	☼	06/02/20 08:00	06/16/20 13:02	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8.2	J *	43	6.9	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3
Beryllium	ND	*	1.1	0.069	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3
Cadmium	ND		1.1	0.047	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3
Cobalt	ND		11	0.27	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3
Iron	ND	*	21	12	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3
Manganese	ND		3.2	1.2	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3
Selenium	ND		2.1	0.73	mg/Kg	☼	06/03/20 08:00	06/16/20 14:57	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	230		14	3.0	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1
Beryllium	0.066	J	0.36	0.021	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1
Cadmium	0.094	J B *	0.36	0.016	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1
Cobalt	21		3.6	0.064	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1
Iron	480		7.1	4.1	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1
Manganese	460	B	1.1	0.039	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1
Selenium	0.29	J	0.71	0.24	mg/Kg	☼	06/08/20 08:00	06/18/20 12:51	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2600		14	2.3	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1
Beryllium	0.20	J	0.36	0.023	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1
Cadmium	0.022	J	0.36	0.016	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1
Cobalt	9.9		3.6	0.076	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1
Iron	5500		7.1	4.1	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1
Manganese	210		1.1	0.19	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1
Selenium	1.6	B *	0.71	0.67	mg/Kg	☼	06/10/20 08:00	06/18/20 14:45	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	96	J * *1	210	34	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5
Beryllium	ND	*	5.4	0.45	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5
Cadmium	ND		5.4	0.23	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5
Cobalt	ND	*	54	0.86	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5
Iron	ND	* *1	110	63	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5
Manganese	3.8	J *	16	2.6	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5
Selenium	ND		11	3.7	mg/Kg	☼	06/12/20 08:00	06/19/20 12:25	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		14	2.3	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 48 FT BGS

Lab Sample ID: 140-19131-6

Date Collected: 05/14/20 12:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.9

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.11	J	0.36	0.017	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1
Cadmium	ND		0.36	0.016	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1
Cobalt	5.6		3.6	0.066	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1
Iron	20000		7.1	4.1	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1
Manganese	40		1.1	0.36	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1
Selenium	0.59	J	0.71	0.24	mg/Kg	☼	06/12/20 08:00	06/19/20 16:17	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	29000		140	23	mg/Kg	☼	06/15/20 08:00	06/22/20 15:25	10
Beryllium	ND		0.36	0.011	mg/Kg	☼	06/15/20 08:00	06/22/20 14:01	1
Cadmium	0.28	J	1.8	0.079	mg/Kg	☼	06/15/20 08:00	06/22/20 16:52	5
Cobalt	16	J	18	0.19	mg/Kg	☼	06/15/20 08:00	06/22/20 16:52	5
Iron	54000		36	29	mg/Kg	☼	06/15/20 08:00	06/22/20 16:52	5
Manganese	500		1.1	0.16	mg/Kg	☼	06/15/20 08:00	06/22/20 14:01	1
Selenium	ND		3.6	1.2	mg/Kg	☼	06/15/20 08:00	06/22/20 16:52	5

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	46000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	0.38		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.39		0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	53		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	80000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	1200		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	2.4		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	98000		140	23	mg/Kg	☼	05/29/20 08:00	06/23/20 14:51	10
Beryllium	0.31	J	0.36	0.011	mg/Kg	☼	05/29/20 08:00	06/23/20 13:27	1
Cadmium	0.66	J	3.6	0.16	mg/Kg	☼	05/29/20 08:00	06/23/20 14:51	10
Cobalt	64		36	0.37	mg/Kg	☼	05/29/20 08:00	06/23/20 14:51	10
Iron	91000		71	59	mg/Kg	☼	05/29/20 08:00	06/23/20 14:51	10
Manganese	1000		1.1	0.16	mg/Kg	☼	05/29/20 08:00	06/23/20 13:27	1
Selenium	2.5	J	7.1	2.4	mg/Kg	☼	05/29/20 08:00	06/23/20 14:51	10

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-52D 18 FT BGS

Lab Sample ID: 140-19131-7

Date Collected: 05/14/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 67.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		59	9.5	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4
Beryllium	ND		1.5	0.46	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4
Cadmium	ND		1.5	0.095	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4
Cobalt	0.47	J	15	0.27	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4
Iron	ND		30	17	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4
Manganese	11		4.5	0.18	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4
Selenium	ND		3.0	1.0	mg/Kg	☼	06/02/20 08:00	06/16/20 13:07	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14	J *	45	7.1	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3
Beryllium	ND	*	1.1	0.071	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3
Cadmium	ND		1.1	0.049	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3
Cobalt	ND		11	0.28	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3
Iron	ND	*	22	13	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3
Manganese	2.7	J	3.3	1.2	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3
Selenium	ND		2.2	0.76	mg/Kg	☼	06/03/20 08:00	06/16/20 15:02	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	370		15	3.1	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1
Beryllium	0.35	J	0.37	0.022	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1
Cadmium	0.029	J B *	0.37	0.016	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1
Cobalt	17		3.7	0.067	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1
Iron	1100		7.4	4.3	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1
Manganese	680	B	1.1	0.040	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1
Selenium	0.39	J	0.74	0.25	mg/Kg	☼	06/08/20 08:00	06/18/20 12:57	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2300		15	2.4	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1
Beryllium	1.6		0.37	0.024	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1
Cadmium	ND		0.37	0.016	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1
Cobalt	4.7		3.7	0.079	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1
Iron	17000		7.4	4.3	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1
Manganese	400		1.1	0.19	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1
Selenium	1.9	B *	0.74	0.70	mg/Kg	☼	06/10/20 08:00	06/18/20 14:50	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	640	**1	220	35	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5
Beryllium	ND	*	5.6	0.47	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5
Cadmium	ND		5.6	0.24	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5
Cobalt	ND	*	56	0.89	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5
Iron	ND	**1	110	65	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5
Manganese	9.8	J *	17	2.7	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5
Selenium	4.4	J	11	3.9	mg/Kg	☼	06/12/20 08:00	06/19/20 12:30	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000		15	2.4	mg/Kg	☼	06/12/20 08:00	06/19/20 16:22	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-52D 18 FT BGS

Lab Sample ID: 140-19131-7

Date Collected: 05/14/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 67.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	1.0		0.37	0.018	mg/Kg	☼	06/12/20 08:00	06/19/20 16:22	1
Cadmium	ND	L	0.37	0.016	mg/Kg	☼	06/12/20 08:00	06/19/20 16:22	1
Cobalt	4.4	J	7.4	0.14	mg/Kg	☼	06/12/20 08:00	06/19/20 17:10	2
Iron	27000		7.4	4.3	mg/Kg	☼	06/12/20 08:00	06/19/20 16:22	1
Manganese	190		1.1	0.37	mg/Kg	☼	06/12/20 08:00	06/19/20 16:22	1
Selenium	0.66	J	0.74	0.25	mg/Kg	☼	06/12/20 08:00	06/19/20 16:22	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	37000		150	24	mg/Kg	☼	06/15/20 08:00	06/22/20 15:30	10
Beryllium	0.96		0.37	0.011	mg/Kg	☼	06/15/20 08:00	06/22/20 14:07	1
Cadmium	0.91		0.37	0.016	mg/Kg	☼	06/15/20 08:00	06/22/20 14:07	1
Cobalt	7.5	J	37	0.39	mg/Kg	☼	06/15/20 08:00	06/22/20 15:30	10
Iron	36000		7.4	6.1	mg/Kg	☼	06/15/20 08:00	06/22/20 14:07	1
Manganese	280		1.1	0.16	mg/Kg	☼	06/15/20 08:00	06/22/20 14:07	1
Selenium	1.0		0.74	0.25	mg/Kg	☼	06/15/20 08:00	06/22/20 14:07	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	53000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	4.0		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.94		0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	34		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	80000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	1600		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	8.3		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	120000		150	24	mg/Kg	☼	05/29/20 08:00	06/23/20 14:56	10
Beryllium	3.6		0.37	0.011	mg/Kg	☼	05/29/20 08:00	06/23/20 13:33	1
Cadmium	1.9		0.74	0.033	mg/Kg	☼	05/29/20 08:00	06/23/20 16:37	2
Cobalt	46		37	0.39	mg/Kg	☼	05/29/20 08:00	06/23/20 14:56	10
Iron	71000		15	12	mg/Kg	☼	05/29/20 08:00	06/23/20 16:37	2
Manganese	1700		2.2	0.33	mg/Kg	☼	05/29/20 08:00	06/23/20 16:37	2
Selenium	1.4	J	1.5	0.51	mg/Kg	☼	05/29/20 08:00	06/23/20 16:37	2

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-52D 24-25 FT BGS

Lab Sample ID: 140-19131-8

Date Collected: 05/14/20 14:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 76.8

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		52	8.3	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4
Beryllium	ND		1.3	0.40	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4
Cadmium	ND		1.3	0.083	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4
Cobalt	ND		13	0.23	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4
Iron	ND		26	15	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4
Manganese	7.1		3.9	0.16	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4
Selenium	ND		2.6	0.89	mg/Kg	☼	06/02/20 08:00	06/16/20 13:12	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17	J *	39	6.3	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3
Beryllium	ND	*	0.98	0.063	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3
Cadmium	ND		0.98	0.043	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3
Cobalt	ND		9.8	0.25	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3
Iron	ND	*	20	11	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3
Manganese	1.7	J	2.9	1.1	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3
Selenium	ND		2.0	0.66	mg/Kg	☼	06/03/20 08:00	06/16/20 15:08	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	260		13	2.7	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1
Beryllium	0.21	J	0.33	0.020	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1
Cadmium	0.025	J B *	0.33	0.014	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1
Cobalt	3.3		3.3	0.059	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1
Iron	460		6.5	3.8	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1
Manganese	170	B	0.98	0.035	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1
Selenium	0.30	J	0.65	0.22	mg/Kg	☼	06/08/20 08:00	06/18/20 13:02	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2200		13	2.1	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1
Beryllium	1.1		0.33	0.021	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1
Cadmium	ND		0.33	0.014	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1
Cobalt	2.6	J	3.3	0.069	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1
Iron	7100		6.5	3.8	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1
Manganese	120		0.98	0.17	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1
Selenium	1.3	B *	0.65	0.61	mg/Kg	☼	06/10/20 08:00	06/18/20 14:55	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	530	**1	200	31	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5
Beryllium	ND	*	4.9	0.41	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5
Cadmium	ND		4.9	0.21	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5
Cobalt	ND	*	49	0.78	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5
Iron	ND	**1	98	57	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5
Manganese	ND	*	15	2.4	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5
Selenium	ND		9.8	3.4	mg/Kg	☼	06/12/20 08:00	06/19/20 12:35	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		13	2.1	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-52D 24-25 FT BGS

Lab Sample ID: 140-19131-8

Date Collected: 05/14/20 14:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 76.8

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.53		0.33	0.016	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1
Cadmium	ND		0.33	0.014	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1
Cobalt	3.0	J	3.3	0.060	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1
Iron	9400		6.5	3.8	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1
Manganese	95		0.98	0.33	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1
Selenium	ND		0.65	0.22	mg/Kg	☼	06/12/20 08:00	06/19/20 16:27	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	47000		130	21	mg/Kg	☼	06/15/20 08:00	06/22/20 15:50	10
Beryllium	1.4		0.33	0.0098	mg/Kg	☼	06/15/20 08:00	06/22/20 14:12	1
Cadmium	0.14	J	0.33	0.014	mg/Kg	☼	06/15/20 08:00	06/22/20 14:12	1
Cobalt	3.5		3.3	0.034	mg/Kg	☼	06/15/20 08:00	06/22/20 14:12	1
Iron	14000		6.5	5.3	mg/Kg	☼	06/15/20 08:00	06/22/20 14:12	1
Manganese	310		0.98	0.14	mg/Kg	☼	06/15/20 08:00	06/22/20 14:12	1
Selenium	ND		0.65	0.22	mg/Kg	☼	06/15/20 08:00	06/22/20 14:12	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	64000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	3.2		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.17	J	0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	12		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	31000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	710		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	1.6		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	86000		130	21	mg/Kg	☼	05/29/20 08:00	06/23/20 15:17	10
Beryllium	2.7		0.33	0.0098	mg/Kg	☼	05/29/20 08:00	06/23/20 13:38	1
Cadmium	0.55		0.33	0.014	mg/Kg	☼	05/29/20 08:00	06/23/20 13:38	1
Cobalt	12		6.5	0.068	mg/Kg	☼	05/29/20 08:00	06/23/20 16:58	2
Iron	24000		6.5	5.3	mg/Kg	☼	05/29/20 08:00	06/23/20 13:38	1
Manganese	580		0.98	0.14	mg/Kg	☼	05/29/20 08:00	06/23/20 13:38	1
Selenium	ND		0.65	0.22	mg/Kg	☼	05/29/20 08:00	06/23/20 13:38	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 59 FT BGS

Lab Sample ID: 140-19131-9

Date Collected: 05/15/20 09:00

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 87.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		46	7.3	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4
Beryllium	ND		1.1	0.35	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4
Cadmium	0.11	J	1.1	0.073	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4
Cobalt	1.6	J	11	0.21	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4
Iron	ND		23	13	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4
Manganese	160		3.4	0.14	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4
Selenium	ND		2.3	0.78	mg/Kg	☼	06/02/20 08:00	06/16/20 13:18	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	29	J *	34	5.5	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3
Beryllium	ND	*	0.86	0.055	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3
Cadmium	0.084	J	0.86	0.038	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3
Cobalt	1.1	J	8.6	0.22	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3
Iron	27	*	17	10	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3
Manganese	36		2.6	0.96	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3
Selenium	ND		1.7	0.58	mg/Kg	☼	06/03/20 08:00	06/16/20 15:13	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	260		11	2.4	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1
Beryllium	0.20	J	0.29	0.017	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1
Cadmium	0.10	J B *	0.29	0.013	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1
Cobalt	2.6	J	2.9	0.052	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1
Iron	1500		5.7	3.3	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1
Manganese	67	B	0.86	0.031	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1
Selenium	0.23	J	0.57	0.19	mg/Kg	☼	06/08/20 08:00	06/18/20 13:07	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1300		11	1.8	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1
Beryllium	0.32		0.29	0.018	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1
Cadmium	0.36		0.29	0.013	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1
Cobalt	1.5	J	2.9	0.061	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1
Iron	5300		5.7	3.3	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1
Manganese	52		0.86	0.15	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1
Selenium	1.1	B *	0.57	0.54	mg/Kg	☼	06/10/20 08:00	06/18/20 15:00	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	200	**1	170	27	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5
Beryllium	ND	*	4.3	0.36	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5
Cadmium	ND		4.3	0.18	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5
Cobalt	ND	*	43	0.69	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5
Iron	ND	**1	86	50	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5
Manganese	ND	*	13	2.1	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5
Selenium	ND		8.6	3.0	mg/Kg	☼	06/12/20 08:00	06/19/20 12:41	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		11	1.8	mg/Kg	☼	06/12/20 08:00	06/19/20 16:32	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 59 FT BGS

Lab Sample ID: 140-19131-9

Date Collected: 05/15/20 09:00

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 87.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.23	J	0.29	0.014	mg/Kg	☼	06/12/20 08:00	06/19/20 16:32	1
Cadmium	ND		0.29	0.013	mg/Kg	☼	06/12/20 08:00	06/19/20 16:32	1
Cobalt	4.5	J	14	0.26	mg/Kg	☼	06/12/20 08:00	06/19/20 17:15	5
Iron	16000		5.7	3.3	mg/Kg	☼	06/12/20 08:00	06/19/20 16:32	1
Manganese	370		0.86	0.29	mg/Kg	☼	06/12/20 08:00	06/19/20 16:32	1
Selenium	0.52	J	0.57	0.19	mg/Kg	☼	06/12/20 08:00	06/19/20 16:32	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	48000		110	18	mg/Kg	☼	06/15/20 08:00	06/22/20 15:55	10
Beryllium	1.6		0.29	0.0086	mg/Kg	☼	06/15/20 08:00	06/22/20 14:18	1
Cadmium	0.047	J	0.29	0.013	mg/Kg	☼	06/15/20 08:00	06/22/20 14:18	1
Cobalt	0.31	J	2.9	0.030	mg/Kg	☼	06/15/20 08:00	06/22/20 14:18	1
Iron	2700		5.7	4.7	mg/Kg	☼	06/15/20 08:00	06/22/20 14:18	1
Manganese	63		0.86	0.13	mg/Kg	☼	06/15/20 08:00	06/22/20 14:18	1
Selenium	ND		0.57	0.19	mg/Kg	☼	06/15/20 08:00	06/22/20 14:18	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	62000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	2.3		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.70		0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	12		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	25000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	750		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	1.8		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	78000		110	18	mg/Kg	☼	05/29/20 08:00	06/23/20 15:22	10
Beryllium	1.9		0.29	0.0086	mg/Kg	☼	05/29/20 08:00	06/23/20 13:44	1
Cadmium	0.72		0.29	0.013	mg/Kg	☼	05/29/20 08:00	06/23/20 13:44	1
Cobalt	11	J	14	0.15	mg/Kg	☼	05/29/20 08:00	06/23/20 17:03	5
Iron	18000		5.7	4.7	mg/Kg	☼	05/29/20 08:00	06/23/20 13:44	1
Manganese	540		0.86	0.13	mg/Kg	☼	05/29/20 08:00	06/23/20 13:44	1
Selenium	ND		0.57	0.19	mg/Kg	☼	05/29/20 08:00	06/23/20 13:44	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 63-63.5 FT BGS

Lab Sample ID: 140-19131-10

Date Collected: 05/15/20 09:20

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 99.8

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4
Beryllium	ND		1.0	0.31	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4
Cadmium	ND		1.0	0.064	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4
Cobalt	ND		10	0.18	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4
Iron	ND		20	12	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4
Manganese	0.70	J	3.0	0.12	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4
Selenium	ND		2.0	0.68	mg/Kg	☼	06/02/20 08:00	06/16/20 13:23	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14	J *	30	4.8	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3
Beryllium	ND	*	0.75	0.048	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3
Cadmium	ND		0.75	0.033	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3
Cobalt	ND		7.5	0.19	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3
Iron	58	*	15	8.7	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3
Manganese	5.0		2.3	0.84	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3
Selenium	ND		1.5	0.51	mg/Kg	☼	06/03/20 08:00	06/16/20 15:18	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110		10	2.1	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1
Beryllium	ND		0.25	0.015	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1
Cadmium	0.028	J B *	0.25	0.011	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1
Cobalt	ND		2.5	0.045	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1
Iron	300		5.0	2.9	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1
Manganese	8.1	B	0.75	0.027	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1
Selenium	0.18	J	0.50	0.17	mg/Kg	☼	06/08/20 08:00	06/18/20 13:12	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	900		10	1.6	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1
Beryllium	ND		0.25	0.016	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1
Cadmium	ND		0.25	0.011	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1
Cobalt	0.30	J	2.5	0.053	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1
Iron	2100		5.0	2.9	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1
Manganese	60		0.75	0.13	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1
Selenium	0.70	B *	0.50	0.47	mg/Kg	☼	06/10/20 08:00	06/18/20 15:05	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	64	J * *1	150	24	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5
Beryllium	ND	*	3.8	0.32	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5
Cadmium	ND		3.8	0.16	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5
Cobalt	ND	*	38	0.60	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5
Iron	ND	* *1	75	44	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5
Manganese	3.0	J *	11	1.9	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5
Selenium	ND		7.5	2.6	mg/Kg	☼	06/12/20 08:00	06/19/20 12:46	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20000		10	1.6	mg/Kg	☼	06/12/20 08:00	06/19/20 16:38	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 63-63.5 FT BGS

Lab Sample ID: 140-19131-10

Date Collected: 05/15/20 09:20

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 99.8

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.25	0.012	mg/Kg	☼	06/12/20 08:00	06/19/20 16:38	1
Cadmium	ND		1.3	0.055	mg/Kg	☼	06/12/20 08:00	06/19/20 17:21	5
Cobalt	8.9	J	13	0.23	mg/Kg	☼	06/12/20 08:00	06/19/20 17:21	5
Iron	39000		25	15	mg/Kg	☼	06/12/20 08:00	06/19/20 17:21	5
Manganese	930		0.75	0.25	mg/Kg	☼	06/12/20 08:00	06/19/20 16:38	1
Selenium	1.3	J	2.5	0.85	mg/Kg	☼	06/12/20 08:00	06/19/20 17:21	5

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	32000		100	16	mg/Kg	☼	06/15/20 08:00	06/22/20 16:00	10
Beryllium	0.94		0.25	0.0075	mg/Kg	☼	06/15/20 08:00	06/22/20 14:23	1
Cadmium	0.12	J	0.25	0.011	mg/Kg	☼	06/15/20 08:00	06/22/20 14:23	1
Cobalt	1.2	J	13	0.13	mg/Kg	☼	06/15/20 08:00	06/22/20 16:57	5
Iron	6900		5.0	4.1	mg/Kg	☼	06/15/20 08:00	06/22/20 14:23	1
Manganese	220		0.75	0.11	mg/Kg	☼	06/15/20 08:00	06/22/20 14:23	1
Selenium	ND		0.50	0.17	mg/Kg	☼	06/15/20 08:00	06/22/20 14:23	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	52000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	0.94		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.15	J	0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	10		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	49000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	1200		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	2.2		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	70000		100	16	mg/Kg	☼	05/29/20 08:00	06/23/20 15:27	10
Beryllium	0.73		0.50	0.015	mg/Kg	☼	05/29/20 08:00	06/23/20 17:08	2
Cadmium	1.4		0.50	0.022	mg/Kg	☼	05/29/20 08:00	06/23/20 17:08	2
Cobalt	12	J	25	0.26	mg/Kg	☼	05/29/20 08:00	06/23/20 15:27	10
Iron	43000		10	8.2	mg/Kg	☼	05/29/20 08:00	06/23/20 17:08	2
Manganese	1300		1.5	0.22	mg/Kg	☼	05/29/20 08:00	06/23/20 17:08	2
Selenium	0.50	J	1.0	0.34	mg/Kg	☼	05/29/20 08:00	06/23/20 17:08	2

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-53D 30 FT BGS

Lab Sample ID: 140-19131-11

Date Collected: 05/16/20 16:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 73.6

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	31	J	54	8.7	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4
Beryllium	ND		1.4	0.42	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4
Cadmium	ND		1.4	0.087	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4
Cobalt	0.43	J	14	0.24	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4
Iron	ND		27	16	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4
Manganese	5.5		4.1	0.17	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4
Selenium	ND		2.7	0.92	mg/Kg	☼	06/02/20 08:00	06/16/20 13:28	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17	J *	41	6.5	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3
Beryllium	ND	*	1.0	0.065	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3
Cadmium	ND		1.0	0.045	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3
Cobalt	ND		10	0.26	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3
Iron	ND	*	20	12	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3
Manganese	ND		3.1	1.1	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3
Selenium	ND		2.0	0.69	mg/Kg	☼	06/03/20 08:00	06/16/20 15:24	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	190		14	2.9	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1
Beryllium	0.13	J	0.34	0.020	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1
Cadmium	0.041	J B *	0.34	0.015	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1
Cobalt	17		3.4	0.061	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1
Iron	640		6.8	3.9	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1
Manganese	480	B	1.0	0.037	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1
Selenium	0.30	J	0.68	0.23	mg/Kg	☼	06/08/20 08:00	06/18/20 13:18	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2100		14	2.2	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1
Beryllium	0.57		0.34	0.022	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1
Cadmium	ND		0.34	0.015	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1
Cobalt	3.5		3.4	0.072	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1
Iron	6200		6.8	3.9	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1
Manganese	200		1.0	0.18	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1
Selenium	1.4	B *	0.68	0.64	mg/Kg	☼	06/10/20 08:00	06/18/20 15:10	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	360	**1	200	32	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5
Beryllium	ND	*	5.1	0.43	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5
Cadmium	ND		5.1	0.22	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5
Cobalt	ND	*	51	0.82	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5
Iron	ND	**1	100	60	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5
Manganese	ND	*	15	2.5	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5
Selenium	ND		10	3.5	mg/Kg	☼	06/12/20 08:00	06/19/20 12:51	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000		14	2.2	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-53D 30 FT BGS

Lab Sample ID: 140-19131-11

Date Collected: 05/16/20 16:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 73.6

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.39		0.34	0.016	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1
Cadmium	ND		0.34	0.015	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1
Cobalt	5.1		3.4	0.063	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1
Iron	14000		6.8	3.9	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1
Manganese	210		1.0	0.34	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1
Selenium	0.39	J	0.68	0.23	mg/Kg	☼	06/12/20 08:00	06/19/20 16:43	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	43000		140	22	mg/Kg	☼	06/15/20 08:00	06/22/20 16:06	10
Beryllium	0.51		0.34	0.010	mg/Kg	☼	06/15/20 08:00	06/22/20 14:29	1
Cadmium	0.12	J	0.34	0.015	mg/Kg	☼	06/15/20 08:00	06/22/20 14:29	1
Cobalt	0.91	J	3.4	0.035	mg/Kg	☼	06/15/20 08:00	06/22/20 14:29	1
Iron	8500		6.8	5.6	mg/Kg	☼	06/15/20 08:00	06/22/20 14:29	1
Manganese	48		1.0	0.15	mg/Kg	☼	06/15/20 08:00	06/22/20 14:29	1
Selenium	ND		0.68	0.23	mg/Kg	☼	06/15/20 08:00	06/22/20 14:29	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	58000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	1.6		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.16	J	0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	26		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	29000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	940		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	2.1		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100000		140	22	mg/Kg	☼	05/29/20 08:00	06/23/20 15:32	10
Beryllium	2.0		0.34	0.010	mg/Kg	☼	05/29/20 08:00	06/23/20 13:55	1
Cadmium	0.44	J	0.68	0.030	mg/Kg	☼	05/29/20 08:00	06/23/20 17:14	2
Cobalt	41		34	0.35	mg/Kg	☼	05/29/20 08:00	06/23/20 15:32	10
Iron	36000		14	11	mg/Kg	☼	05/29/20 08:00	06/23/20 17:14	2
Manganese	1200		1.0	0.15	mg/Kg	☼	05/29/20 08:00	06/23/20 13:55	1
Selenium	0.62	J	1.4	0.46	mg/Kg	☼	05/29/20 08:00	06/23/20 17:14	2

Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-53D 36 FT BGS

Lab Sample ID: 140-19131-12

Date Collected: 05/16/20 16:25

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		49	7.8	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4
Beryllium	ND		1.2	0.38	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4
Cadmium	ND		1.2	0.078	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4
Cobalt	ND		12	0.22	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4
Iron	ND		24	14	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4
Manganese	0.89	J	3.7	0.15	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4
Selenium	ND		2.4	0.83	mg/Kg	☼	06/02/20 08:00	06/16/20 13:33	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6.8	J *	37	5.9	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3
Beryllium	0.14	J *	0.91	0.059	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3
Cadmium	ND		0.91	0.040	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3
Cobalt	ND		9.1	0.23	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3
Iron	ND	*	18	11	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3
Manganese	ND		2.7	1.0	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3
Selenium	0.70	J	1.8	0.62	mg/Kg	☼	06/03/20 08:00	06/16/20 15:29	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140		12	2.6	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1
Beryllium	0.23	J	0.30	0.018	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1
Cadmium	0.060	J B *	0.30	0.013	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1
Cobalt	1.0	J	3.0	0.055	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1
Iron	70		6.1	3.5	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1
Manganese	74	B	0.91	0.033	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1
Selenium	0.25	J	0.61	0.21	mg/Kg	☼	06/08/20 08:00	06/18/20 13:23	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2000		12	2.0	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1
Beryllium	0.42		0.30	0.020	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1
Cadmium	0.035	J	0.30	0.013	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1
Cobalt	0.63	J	3.0	0.065	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1
Iron	1800		6.1	3.5	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1
Manganese	56		0.91	0.16	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1
Selenium	0.91	B *	0.61	0.57	mg/Kg	☼	06/10/20 08:00	06/18/20 15:15	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	240	**1	180	29	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5
Beryllium	ND	*	4.6	0.38	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5
Cadmium	ND		4.6	0.20	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5
Cobalt	ND	*	46	0.73	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5
Iron	ND	**1	91	54	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5
Manganese	ND	*	14	2.3	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5
Selenium	ND		9.1	3.2	mg/Kg	☼	06/12/20 08:00	06/19/20 12:57	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000		12	2.0	mg/Kg	☼	06/12/20 08:00	06/19/20 16:49	1

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Client Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-53D 36 FT BGS

Lab Sample ID: 140-19131-12

Date Collected: 05/16/20 16:25

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.0

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.70		0.30	0.015	mg/Kg	☼	06/12/20 08:00	06/19/20 16:49	1
Cadmium	ND		0.30	0.013	mg/Kg	☼	06/12/20 08:00	06/19/20 16:49	1
Cobalt	6.9		6.1	0.11	mg/Kg	☼	06/12/20 08:00	06/19/20 17:26	2
Iron	20000		6.1	3.5	mg/Kg	☼	06/12/20 08:00	06/19/20 16:49	1
Manganese	290		0.91	0.30	mg/Kg	☼	06/12/20 08:00	06/19/20 16:49	1
Selenium	0.48	J	0.61	0.21	mg/Kg	☼	06/12/20 08:00	06/19/20 16:49	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	48000		120	20	mg/Kg	☼	06/15/20 08:00	06/22/20 16:11	10
Beryllium	0.42		0.30	0.0091	mg/Kg	☼	06/15/20 08:00	06/22/20 14:34	1
Cadmium	0.23	J	0.30	0.013	mg/Kg	☼	06/15/20 08:00	06/22/20 14:34	1
Cobalt	0.27	J	15	0.16	mg/Kg	☼	06/15/20 08:00	06/22/20 17:02	5
Iron	5000		6.1	5.0	mg/Kg	☼	06/15/20 08:00	06/22/20 14:34	1
Manganese	55		0.91	0.13	mg/Kg	☼	06/15/20 08:00	06/22/20 14:34	1
Selenium	ND		0.61	0.21	mg/Kg	☼	06/15/20 08:00	06/22/20 14:34	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	68000		10	1.6	mg/Kg			06/25/20 11:53	1
Beryllium	1.9		0.25	0.0075	mg/Kg			06/25/20 11:53	1
Cadmium	0.33		0.25	0.011	mg/Kg			06/25/20 11:53	1
Cobalt	8.8		2.5	0.023	mg/Kg			06/25/20 11:53	1
Iron	27000		5.0	4.1	mg/Kg			06/25/20 11:53	1
Manganese	480		0.75	0.052	mg/Kg			06/25/20 11:53	1
Selenium	2.4		0.50	0.17	mg/Kg			06/25/20 11:53	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	80000		120	20	mg/Kg	☼	05/29/20 08:00	06/23/20 15:37	10
Beryllium	1.7		0.30	0.0091	mg/Kg	☼	05/29/20 08:00	06/23/20 14:01	1
Cadmium	0.67		0.30	0.013	mg/Kg	☼	05/29/20 08:00	06/23/20 14:01	1
Cobalt	9.6	J	15	0.16	mg/Kg	☼	05/29/20 08:00	06/23/20 17:19	5
Iron	24000		6.1	5.0	mg/Kg	☼	05/29/20 08:00	06/23/20 14:01	1
Manganese	460		0.91	0.13	mg/Kg	☼	05/29/20 08:00	06/23/20 14:01	1
Selenium	ND		0.61	0.21	mg/Kg	☼	05/29/20 08:00	06/23/20 14:01	1

Default Detection Limits

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Prep: 3010A

SEP: Exchangeable

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.077	mg/Kg
Cadmium	0.25	0.016	mg/Kg
Cobalt	2.5	0.045	mg/Kg
Iron	5.0	2.9	mg/Kg
Manganese	0.75	0.031	mg/Kg
Selenium	0.50	0.17	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Prep: 3010A

SEP: Carbonate

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.016	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.063	mg/Kg
Iron	5.0	2.9	mg/Kg
Manganese	0.75	0.28	mg/Kg
Selenium	0.50	0.17	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Prep: 3010A

SEP: Non-Crystalline

Analyte	RL	MDL	Units
Aluminum	10	2.1	mg/Kg
Beryllium	0.25	0.015	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.045	mg/Kg
Iron	5.0	2.9	mg/Kg
Manganese	0.75	0.027	mg/Kg
Selenium	0.50	0.17	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Prep: 3010A

SEP: Metal Hydroxide

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.016	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.053	mg/Kg
Iron	5.0	2.9	mg/Kg
Manganese	0.75	0.13	mg/Kg
Selenium	0.50	0.47	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Prep: 3010A

SEP: Organic-Bound

Analyte	RL	MDL	Units
Aluminum	30	4.7	mg/Kg
Beryllium	0.75	0.063	mg/Kg

Eurofins TestAmerica, Knoxville

Default Detection Limits

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) - Step 5 (Continued)

Prep: 3010A

SEP: Organic-Bound

Analyte	RL	MDL	Units
Cadmium	0.75	0.032	mg/Kg
Cobalt	7.5	0.12	mg/Kg
Iron	15	8.8	mg/Kg
Manganese	2.3	0.37	mg/Kg
Selenium	1.5	0.52	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 6

SEP: Acid/Sulfide

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.012	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.046	mg/Kg
Iron	5.0	2.9	mg/Kg
Manganese	0.75	0.25	mg/Kg
Selenium	0.50	0.17	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Prep: Residual

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.0075	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.026	mg/Kg
Iron	5.0	4.1	mg/Kg
Manganese	0.75	0.11	mg/Kg
Selenium	0.50	0.17	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.0075	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.023	mg/Kg
Iron	5.0	4.1	mg/Kg
Manganese	0.75	0.052	mg/Kg
Selenium	0.50	0.17	mg/Kg

Method: 6010B - SEP Metals (ICP) - Total

Prep: Total

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Beryllium	0.25	0.0075	mg/Kg
Cadmium	0.25	0.011	mg/Kg
Cobalt	2.5	0.026	mg/Kg
Iron	5.0	4.1	mg/Kg
Manganese	0.75	0.11	mg/Kg
Selenium	0.50	0.17	mg/Kg

QC Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B - SEP Metals (ICP) - Total

Lab Sample ID: MB 140-39918/15-A
Matrix: Solid
Analysis Batch: 40512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	1.6	mg/Kg		05/29/20 08:00	06/23/20 12:12	1
Beryllium	ND		0.25	0.0075	mg/Kg		05/29/20 08:00	06/23/20 12:12	1
Cadmium	ND		0.25	0.011	mg/Kg		05/29/20 08:00	06/23/20 12:12	1
Cobalt	ND		2.5	0.026	mg/Kg		05/29/20 08:00	06/23/20 12:12	1
Iron	ND		5.0	4.1	mg/Kg		05/29/20 08:00	06/23/20 12:12	1
Manganese	ND		0.75	0.11	mg/Kg		05/29/20 08:00	06/23/20 12:12	1
Selenium	ND		0.50	0.17	mg/Kg		05/29/20 08:00	06/23/20 12:12	1

Lab Sample ID: LCS 140-39918/16-A
Matrix: Solid
Analysis Batch: 40512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	103		mg/Kg		103	75 - 125
Beryllium	2.50	2.51		mg/Kg		100	75 - 125
Cadmium	2.50	2.63		mg/Kg		105	75 - 125
Cobalt	5.00	5.37		mg/Kg		107	75 - 125
Iron	50.0	52.3		mg/Kg		105	75 - 125
Manganese	5.00	5.34		mg/Kg		107	75 - 125
Selenium	7.50	7.60		mg/Kg		101	75 - 125

Lab Sample ID: LCSD 140-39918/17-A
Matrix: Solid
Analysis Batch: 40512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39918

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	102		mg/Kg		102	75 - 125	1	30
Beryllium	2.50	2.48		mg/Kg		99	75 - 125	1	30
Cadmium	2.50	2.62		mg/Kg		105	75 - 125	1	30
Cobalt	5.00	5.33		mg/Kg		107	75 - 125	1	30
Iron	50.0	51.3		mg/Kg		103	75 - 125	2	30
Manganese	5.00	5.29		mg/Kg		106	75 - 125	1	30
Selenium	7.50	7.53		mg/Kg		100	75 - 125	1	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-40011/15-B ^4
Matrix: Solid
Analysis Batch: 40383

Client Sample ID: Method Blank
Prep Type: Step 1
Prep Batch: 40023

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg		06/02/20 08:00	06/16/20 11:55	4
Beryllium	ND		1.0	0.31	mg/Kg		06/02/20 08:00	06/16/20 11:55	4
Cadmium	ND		1.0	0.064	mg/Kg		06/02/20 08:00	06/16/20 11:55	4
Cobalt	ND		10	0.18	mg/Kg		06/02/20 08:00	06/16/20 11:55	4
Iron	ND		20	12	mg/Kg		06/02/20 08:00	06/16/20 11:55	4
Manganese	ND		3.0	0.12	mg/Kg		06/02/20 08:00	06/16/20 11:55	4
Selenium	ND		2.0	0.68	mg/Kg		06/02/20 08:00	06/16/20 11:55	4

Eurofins TestAmerica, Knoxville

QC Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-40011/16-B ^5
Matrix: Solid
Analysis Batch: 40383

Client Sample ID: Lab Control Sample
Prep Type: Step 1
Prep Batch: 40023

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	100		mg/Kg		100	75 - 125
Beryllium	2.50	2.49		mg/Kg		100	75 - 125
Cadmium	2.50	2.42		mg/Kg		97	75 - 125
Cobalt	5.00	4.76	J	mg/Kg		95	75 - 125
Iron	50.0	49.3		mg/Kg		99	75 - 125
Manganese	5.00	4.92		mg/Kg		98	75 - 125
Selenium	7.50	7.25		mg/Kg		97	75 - 125

Lab Sample ID: LCSD 140-40011/17-B ^5
Matrix: Solid
Analysis Batch: 40383

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 1
Prep Batch: 40023

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	102		mg/Kg		102	75 - 125	2	30
Beryllium	2.50	2.63		mg/Kg		105	75 - 125	6	30
Cadmium	2.50	2.55		mg/Kg		102	75 - 125	5	30
Cobalt	5.00	5.03	J	mg/Kg		101	75 - 125	5	30
Iron	50.0	51.3		mg/Kg		103	75 - 125	4	30
Manganese	5.00	5.18		mg/Kg		104	75 - 125	5	30
Selenium	7.50	7.87		mg/Kg		105	75 - 125	8	30

Lab Sample ID: MB 140-40024/15-B ^3
Matrix: Solid
Analysis Batch: 40383

Client Sample ID: Method Blank
Prep Type: Step 2
Prep Batch: 40062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		30	4.8	mg/Kg		06/03/20 08:00	06/16/20 13:48	3
Beryllium	ND		0.75	0.048	mg/Kg		06/03/20 08:00	06/16/20 13:48	3
Cadmium	ND		0.75	0.033	mg/Kg		06/03/20 08:00	06/16/20 13:48	3
Cobalt	ND		7.5	0.19	mg/Kg		06/03/20 08:00	06/16/20 13:48	3
Iron	ND		15	8.7	mg/Kg		06/03/20 08:00	06/16/20 13:48	3
Manganese	ND		2.3	0.84	mg/Kg		06/03/20 08:00	06/16/20 13:48	3
Selenium	ND		1.5	0.51	mg/Kg		06/03/20 08:00	06/16/20 13:48	3

Lab Sample ID: LCS 140-40024/16-B ^5
Matrix: Solid
Analysis Batch: 40383

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 40062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	ND	*	mg/Kg		-1	75 - 125
Beryllium	2.50	1.28	J *	mg/Kg		51	75 - 125
Cadmium	2.50	2.35		mg/Kg		94	75 - 125
Cobalt	5.00	4.53	J	mg/Kg		91	75 - 125
Iron	50.0	ND	*	mg/Kg		5	75 - 125
Manganese	5.00	4.69		mg/Kg		94	75 - 125
Selenium	7.50	6.68		mg/Kg		89	75 - 125

QC Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCSD 140-40024/17-B ^5
Matrix: Solid
Analysis Batch: 40383

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 2
Prep Batch: 40062

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aluminum	100	ND	*	mg/Kg		-1	75 - 125	19	30	
Beryllium	2.50	1.33	*	mg/Kg		53	75 - 125	4	30	
Cadmium	2.50	2.43		mg/Kg		97	75 - 125	3	30	
Cobalt	5.00	4.67	J	mg/Kg		93	75 - 125	3	30	
Iron	50.0	ND	*	mg/Kg		7	75 - 125	25	30	
Manganese	5.00	4.85		mg/Kg		97	75 - 125	3	30	
Selenium	7.50	6.51		mg/Kg		87	75 - 125	3	30	

Lab Sample ID: MB 140-40065/15-B
Matrix: Solid
Analysis Batch: 40441

Client Sample ID: Method Blank
Prep Type: Step 3
Prep Batch: 40096

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Beryllium	ND		0.25	0.015	mg/Kg		06/08/20 08:00	06/18/20 11:44	1	
Cadmium	0.0820	J	0.25	0.011	mg/Kg		06/08/20 08:00	06/18/20 11:44	1	
Cobalt	ND		2.5	0.045	mg/Kg		06/08/20 08:00	06/18/20 11:44	1	
Iron	ND		5.0	2.9	mg/Kg		06/08/20 08:00	06/18/20 11:44	1	
Manganese	0.0490	J	0.75	0.027	mg/Kg		06/08/20 08:00	06/18/20 11:44	1	
Selenium	ND		0.50	0.17	mg/Kg		06/08/20 08:00	06/18/20 11:44	1	

Lab Sample ID: LCS 140-40065/16-B
Matrix: Solid
Analysis Batch: 40441

Client Sample ID: Lab Control Sample
Prep Type: Step 3
Prep Batch: 40096

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aluminum	100	91.6		mg/Kg		92	75 - 125			
Beryllium	2.50	2.52		mg/Kg		101	75 - 125			
Cadmium	2.50	1.31	*	mg/Kg		52	75 - 125			
Cobalt	5.00	4.55		mg/Kg		91	75 - 125			
Iron	50.0	49.4		mg/Kg		99	75 - 125			
Manganese	5.00	4.74		mg/Kg		95	75 - 125			
Selenium	7.50	7.72		mg/Kg		103	75 - 125			

Lab Sample ID: LCSD 140-40065/17-B
Matrix: Solid
Analysis Batch: 40441

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 3
Prep Batch: 40096

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aluminum	100	95.6		mg/Kg		96	75 - 125	4	30	
Beryllium	2.50	2.60		mg/Kg		104	75 - 125	3	30	
Cadmium	2.50	1.37	*	mg/Kg		55	75 - 125	4	30	
Cobalt	5.00	4.74		mg/Kg		95	75 - 125	4	30	
Iron	50.0	51.1		mg/Kg		102	75 - 125	3	30	
Manganese	5.00	4.91		mg/Kg		98	75 - 125	3	30	
Selenium	7.50	8.04		mg/Kg		107	75 - 125	4	30	

QC Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-40100/15-B
Matrix: Solid
Analysis Batch: 40441

Client Sample ID: Method Blank
Prep Type: Step 4
Prep Batch: 40214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	1.6	mg/Kg		06/10/20 08:00	06/18/20 13:39	1
Beryllium	ND		0.25	0.016	mg/Kg		06/10/20 08:00	06/18/20 13:39	1
Cadmium	ND		0.25	0.011	mg/Kg		06/10/20 08:00	06/18/20 13:39	1
Cobalt	ND		2.5	0.053	mg/Kg		06/10/20 08:00	06/18/20 13:39	1
Iron	ND		5.0	2.9	mg/Kg		06/10/20 08:00	06/18/20 13:39	1
Manganese	ND		0.75	0.13	mg/Kg		06/10/20 08:00	06/18/20 13:39	1
Selenium	0.953		0.50	0.47	mg/Kg		06/10/20 08:00	06/18/20 13:39	1

Lab Sample ID: LCS 140-40100/16-B
Matrix: Solid
Analysis Batch: 40441

Client Sample ID: Lab Control Sample
Prep Type: Step 4
Prep Batch: 40214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	99.1		mg/Kg		99	75 - 125
Beryllium	2.50	2.62		mg/Kg		105	75 - 125
Cadmium	2.50	2.70		mg/Kg		108	75 - 125
Cobalt	5.00	5.26		mg/Kg		105	75 - 125
Iron	50.0	50.9		mg/Kg		102	75 - 125
Manganese	5.00	5.14		mg/Kg		103	75 - 125
Selenium	7.50	0.825	*	mg/Kg		11	75 - 125

Lab Sample ID: LCSD 140-40100/17-B
Matrix: Solid
Analysis Batch: 40441

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 4
Prep Batch: 40214

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	99.2		mg/Kg		99	75 - 125	0	30
Beryllium	2.50	2.63		mg/Kg		105	75 - 125	1	30
Cadmium	2.50	2.72		mg/Kg		109	75 - 125	1	30
Cobalt	5.00	5.26		mg/Kg		105	75 - 125	0	30
Iron	50.0	50.8		mg/Kg		102	75 - 125	0	30
Manganese	5.00	5.20		mg/Kg		104	75 - 125	1	30
Selenium	7.50	0.620	*	mg/Kg		8	75 - 125	28	30

Lab Sample ID: MB 140-40215/15-B ^5
Matrix: Solid
Analysis Batch: 40453

Client Sample ID: Method Blank
Prep Type: Step 5
Prep Batch: 40276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		150	24	mg/Kg		06/12/20 08:00	06/19/20 11:16	5
Beryllium	ND		3.8	0.32	mg/Kg		06/12/20 08:00	06/19/20 11:16	5
Cadmium	ND		3.8	0.16	mg/Kg		06/12/20 08:00	06/19/20 11:16	5
Cobalt	ND		38	0.60	mg/Kg		06/12/20 08:00	06/19/20 11:16	5
Iron	ND		75	44	mg/Kg		06/12/20 08:00	06/19/20 11:16	5
Manganese	ND		11	1.9	mg/Kg		06/12/20 08:00	06/19/20 11:16	5
Selenium	ND		7.5	2.6	mg/Kg		06/12/20 08:00	06/19/20 11:16	5

QC Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-40215/16-B ^5
Matrix: Solid
Analysis Batch: 40453

Client Sample ID: Lab Control Sample
Prep Type: Step 5
Prep Batch: 40276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	300	ND	*	mg/Kg		6	75 - 125
Beryllium	7.50	3.83	*	mg/Kg		51	75 - 125
Cadmium	7.50	7.94		mg/Kg		106	75 - 125
Cobalt	15.0	1.41	J *	mg/Kg		9	75 - 125
Iron	150	ND	*	mg/Kg		3	75 - 125
Manganese	15.0	3.49	J *	mg/Kg		23	75 - 125
Selenium	22.5	23.4		mg/Kg		104	75 - 125

Lab Sample ID: LCSD 140-40215/17-B ^5
Matrix: Solid
Analysis Batch: 40453

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 5
Prep Batch: 40276

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	300	ND	**1	mg/Kg		4	75 - 125	32	30
Beryllium	7.50	3.99	*	mg/Kg		53	75 - 125	4	30
Cadmium	7.50	8.24		mg/Kg		110	75 - 125	4	30
Cobalt	15.0	1.58	J *	mg/Kg		11	75 - 125	12	30
Iron	150	ND	**1	mg/Kg		4	75 - 125	34	30
Manganese	15.0	4.36	J *	mg/Kg		29	75 - 125	22	30
Selenium	22.5	24.8		mg/Kg		110	75 - 125	6	30

Lab Sample ID: MB 140-40277/15-A
Matrix: Solid
Analysis Batch: 40453

Client Sample ID: Method Blank
Prep Type: Step 6
Prep Batch: 40277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	1.6	mg/Kg		06/12/20 08:00	06/19/20 13:12	1
Beryllium	ND		0.25	0.012	mg/Kg		06/12/20 08:00	06/19/20 13:12	1
Cadmium	ND		0.25	0.011	mg/Kg		06/12/20 08:00	06/19/20 13:12	1
Cobalt	ND		2.5	0.046	mg/Kg		06/12/20 08:00	06/19/20 13:12	1
Iron	ND		5.0	2.9	mg/Kg		06/12/20 08:00	06/19/20 13:12	1
Manganese	ND		0.75	0.25	mg/Kg		06/12/20 08:00	06/19/20 13:12	1
Selenium	ND		0.50	0.17	mg/Kg		06/12/20 08:00	06/19/20 13:12	1

Lab Sample ID: LCS 140-40277/16-A
Matrix: Solid
Analysis Batch: 40453

Client Sample ID: Lab Control Sample
Prep Type: Step 6
Prep Batch: 40277

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	101		mg/Kg		101	75 - 125
Beryllium	2.50	2.63		mg/Kg		105	75 - 125
Cadmium	2.50	2.71		mg/Kg		108	75 - 125
Cobalt	5.00	5.22		mg/Kg		104	75 - 125
Iron	50.0	50.8		mg/Kg		102	75 - 125
Manganese	5.00	5.20		mg/Kg		104	75 - 125
Selenium	7.50	7.90		mg/Kg		105	75 - 125

QC Sample Results

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCSD 140-40277/17-A
Matrix: Solid
Analysis Batch: 40453

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 6
Prep Batch: 40277

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	100		mg/Kg		100	75 - 125	1	30
Beryllium	2.50	2.61		mg/Kg		105	75 - 125	1	30
Cadmium	2.50	2.70		mg/Kg		108	75 - 125	0	30
Cobalt	5.00	5.20		mg/Kg		104	75 - 125	0	30
Iron	50.0	50.5		mg/Kg		101	75 - 125	1	30
Manganese	5.00	5.16		mg/Kg		103	75 - 125	1	30
Selenium	7.50	7.92		mg/Kg		106	75 - 125	0	30

Lab Sample ID: MB 140-40294/15-A
Matrix: Solid
Analysis Batch: 40487

Client Sample ID: Method Blank
Prep Type: Step 7
Prep Batch: 40294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	1.6	mg/Kg		06/15/20 08:00	06/22/20 12:47	1
Beryllium	ND		0.25	0.0075	mg/Kg		06/15/20 08:00	06/22/20 12:47	1
Cadmium	ND		0.25	0.011	mg/Kg		06/15/20 08:00	06/22/20 12:47	1
Cobalt	ND		2.5	0.026	mg/Kg		06/15/20 08:00	06/22/20 12:47	1
Iron	ND		5.0	4.1	mg/Kg		06/15/20 08:00	06/22/20 12:47	1
Manganese	ND		0.75	0.11	mg/Kg		06/15/20 08:00	06/22/20 12:47	1
Selenium	ND		0.50	0.17	mg/Kg		06/15/20 08:00	06/22/20 12:47	1

Lab Sample ID: LCS 140-40294/16-A
Matrix: Solid
Analysis Batch: 40487

Client Sample ID: Lab Control Sample
Prep Type: Step 7
Prep Batch: 40294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	103		mg/Kg		103	75 - 125
Beryllium	2.50	2.47		mg/Kg		99	75 - 125
Cadmium	2.50	2.46		mg/Kg		98	75 - 125
Cobalt	5.00	5.06		mg/Kg		101	75 - 125
Iron	50.0	53.3		mg/Kg		107	75 - 125
Manganese	5.00	5.35		mg/Kg		107	75 - 125
Selenium	7.50	6.95		mg/Kg		93	75 - 125

Lab Sample ID: LCSD 140-40294/17-A
Matrix: Solid
Analysis Batch: 40487

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 7
Prep Batch: 40294

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	103		mg/Kg		103	75 - 125	0	30
Beryllium	2.50	2.47		mg/Kg		99	75 - 125	0	30
Cadmium	2.50	2.45		mg/Kg		98	75 - 125	0	30
Cobalt	5.00	5.03		mg/Kg		101	75 - 125	1	30
Iron	50.0	53.3		mg/Kg		107	75 - 125	0	30
Manganese	5.00	5.35		mg/Kg		107	75 - 125	0	30
Selenium	7.50	6.96		mg/Kg		93	75 - 125	0	30

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals

Prep Batch: 39918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	Total	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Total/NA	Solid	Total	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Total/NA	Solid	Total	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Total/NA	Solid	Total	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Total/NA	Solid	Total	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Total/NA	Solid	Total	
140-19131-7	PZ-52D 18 FT BGS	Total/NA	Solid	Total	
140-19131-8	PZ-52D 24-25 FT BGS	Total/NA	Solid	Total	
140-19131-9	BRGWC-50(2) 59 FT BGS	Total/NA	Solid	Total	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Total/NA	Solid	Total	
140-19131-11	PZ-53D 30 FT BGS	Total/NA	Solid	Total	
140-19131-12	PZ-53D 36 FT BGS	Total/NA	Solid	Total	
MB 140-39918/15-A	Method Blank	Total/NA	Solid	Total	
LCS 140-39918/16-A	Lab Control Sample	Total/NA	Solid	Total	
LCSD 140-39918/17-A	Lab Control Sample Dup	Total/NA	Solid	Total	

SEP Batch: 40011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 1	Solid	Exchangeable	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 1	Solid	Exchangeable	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 1	Solid	Exchangeable	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 1	Solid	Exchangeable	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 1	Solid	Exchangeable	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 1	Solid	Exchangeable	
140-19131-7	PZ-52D 18 FT BGS	Step 1	Solid	Exchangeable	
140-19131-8	PZ-52D 24-25 FT BGS	Step 1	Solid	Exchangeable	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 1	Solid	Exchangeable	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 1	Solid	Exchangeable	
140-19131-11	PZ-53D 30 FT BGS	Step 1	Solid	Exchangeable	
140-19131-12	PZ-53D 36 FT BGS	Step 1	Solid	Exchangeable	
MB 140-40011/15-B ^4	Method Blank	Step 1	Solid	Exchangeable	
LCS 140-40011/16-B ^5	Lab Control Sample	Step 1	Solid	Exchangeable	
LCSD 140-40011/17-B ^5	Lab Control Sample Dup	Step 1	Solid	Exchangeable	

Prep Batch: 40023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 1	Solid	3010A	40011
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 1	Solid	3010A	40011
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 1	Solid	3010A	40011
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 1	Solid	3010A	40011
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 1	Solid	3010A	40011
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 1	Solid	3010A	40011
140-19131-7	PZ-52D 18 FT BGS	Step 1	Solid	3010A	40011
140-19131-8	PZ-52D 24-25 FT BGS	Step 1	Solid	3010A	40011
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 1	Solid	3010A	40011
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 1	Solid	3010A	40011
140-19131-11	PZ-53D 30 FT BGS	Step 1	Solid	3010A	40011
140-19131-12	PZ-53D 36 FT BGS	Step 1	Solid	3010A	40011
MB 140-40011/15-B ^4	Method Blank	Step 1	Solid	3010A	40011
LCS 140-40011/16-B ^5	Lab Control Sample	Step 1	Solid	3010A	40011
LCSD 140-40011/17-B ^5	Lab Control Sample Dup	Step 1	Solid	3010A	40011

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals

SEP Batch: 40024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 2	Solid	Carbonate	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 2	Solid	Carbonate	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 2	Solid	Carbonate	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 2	Solid	Carbonate	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 2	Solid	Carbonate	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 2	Solid	Carbonate	
140-19131-7	PZ-52D 18 FT BGS	Step 2	Solid	Carbonate	
140-19131-8	PZ-52D 24-25 FT BGS	Step 2	Solid	Carbonate	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 2	Solid	Carbonate	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 2	Solid	Carbonate	
140-19131-11	PZ-53D 30 FT BGS	Step 2	Solid	Carbonate	
140-19131-12	PZ-53D 36 FT BGS	Step 2	Solid	Carbonate	
MB 140-40024/15-B ^3	Method Blank	Step 2	Solid	Carbonate	
LCS 140-40024/16-B ^5	Lab Control Sample	Step 2	Solid	Carbonate	
LCSD 140-40024/17-B ^5	Lab Control Sample Dup	Step 2	Solid	Carbonate	

Prep Batch: 40062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 2	Solid	3010A	40024
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 2	Solid	3010A	40024
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 2	Solid	3010A	40024
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 2	Solid	3010A	40024
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 2	Solid	3010A	40024
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 2	Solid	3010A	40024
140-19131-7	PZ-52D 18 FT BGS	Step 2	Solid	3010A	40024
140-19131-8	PZ-52D 24-25 FT BGS	Step 2	Solid	3010A	40024
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 2	Solid	3010A	40024
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 2	Solid	3010A	40024
140-19131-11	PZ-53D 30 FT BGS	Step 2	Solid	3010A	40024
140-19131-12	PZ-53D 36 FT BGS	Step 2	Solid	3010A	40024
MB 140-40024/15-B ^3	Method Blank	Step 2	Solid	3010A	40024
LCS 140-40024/16-B ^5	Lab Control Sample	Step 2	Solid	3010A	40024
LCSD 140-40024/17-B ^5	Lab Control Sample Dup	Step 2	Solid	3010A	40024

SEP Batch: 40065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-7	PZ-52D 18 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-8	PZ-52D 24-25 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-11	PZ-53D 30 FT BGS	Step 3	Solid	Non-Crystalline	
140-19131-12	PZ-53D 36 FT BGS	Step 3	Solid	Non-Crystalline	
MB 140-40065/15-B	Method Blank	Step 3	Solid	Non-Crystalline	
LCS 140-40065/16-B	Lab Control Sample	Step 3	Solid	Non-Crystalline	
LCSD 140-40065/17-B	Lab Control Sample Dup	Step 3	Solid	Non-Crystalline	

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals

Prep Batch: 40096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 3	Solid	3010A	40065
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 3	Solid	3010A	40065
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 3	Solid	3010A	40065
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 3	Solid	3010A	40065
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 3	Solid	3010A	40065
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 3	Solid	3010A	40065
140-19131-7	PZ-52D 18 FT BGS	Step 3	Solid	3010A	40065
140-19131-8	PZ-52D 24-25 FT BGS	Step 3	Solid	3010A	40065
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 3	Solid	3010A	40065
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 3	Solid	3010A	40065
140-19131-11	PZ-53D 30 FT BGS	Step 3	Solid	3010A	40065
140-19131-12	PZ-53D 36 FT BGS	Step 3	Solid	3010A	40065
MB 140-40065/15-B	Method Blank	Step 3	Solid	3010A	40065
LCS 140-40065/16-B	Lab Control Sample	Step 3	Solid	3010A	40065
LCSD 140-40065/17-B	Lab Control Sample Dup	Step 3	Solid	3010A	40065

SEP Batch: 40100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-7	PZ-52D 18 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-8	PZ-52D 24-25 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-11	PZ-53D 30 FT BGS	Step 4	Solid	Metal Hydroxide	
140-19131-12	PZ-53D 36 FT BGS	Step 4	Solid	Metal Hydroxide	
MB 140-40100/15-B	Method Blank	Step 4	Solid	Metal Hydroxide	
LCS 140-40100/16-B	Lab Control Sample	Step 4	Solid	Metal Hydroxide	
LCSD 140-40100/17-B	Lab Control Sample Dup	Step 4	Solid	Metal Hydroxide	

Prep Batch: 40214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 4	Solid	3010A	40100
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 4	Solid	3010A	40100
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 4	Solid	3010A	40100
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 4	Solid	3010A	40100
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 4	Solid	3010A	40100
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 4	Solid	3010A	40100
140-19131-7	PZ-52D 18 FT BGS	Step 4	Solid	3010A	40100
140-19131-8	PZ-52D 24-25 FT BGS	Step 4	Solid	3010A	40100
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 4	Solid	3010A	40100
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 4	Solid	3010A	40100
140-19131-11	PZ-53D 30 FT BGS	Step 4	Solid	3010A	40100
140-19131-12	PZ-53D 36 FT BGS	Step 4	Solid	3010A	40100
MB 140-40100/15-B	Method Blank	Step 4	Solid	3010A	40100
LCS 140-40100/16-B	Lab Control Sample	Step 4	Solid	3010A	40100
LCSD 140-40100/17-B	Lab Control Sample Dup	Step 4	Solid	3010A	40100

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals

SEP Batch: 40215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-7	PZ-52D 18 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-8	PZ-52D 24-25 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-11	PZ-53D 30 FT BGS	Step 5	Solid	Organic-Bound	
140-19131-12	PZ-53D 36 FT BGS	Step 5	Solid	Organic-Bound	
MB 140-40215/15-B ^5	Method Blank	Step 5	Solid	Organic-Bound	
LCS 140-40215/16-B ^5	Lab Control Sample	Step 5	Solid	Organic-Bound	
LCSD 140-40215/17-B ^5	Lab Control Sample Dup	Step 5	Solid	Organic-Bound	

Prep Batch: 40276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 5	Solid	3010A	40215
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 5	Solid	3010A	40215
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 5	Solid	3010A	40215
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 5	Solid	3010A	40215
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 5	Solid	3010A	40215
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 5	Solid	3010A	40215
140-19131-7	PZ-52D 18 FT BGS	Step 5	Solid	3010A	40215
140-19131-8	PZ-52D 24-25 FT BGS	Step 5	Solid	3010A	40215
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 5	Solid	3010A	40215
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 5	Solid	3010A	40215
140-19131-11	PZ-53D 30 FT BGS	Step 5	Solid	3010A	40215
140-19131-12	PZ-53D 36 FT BGS	Step 5	Solid	3010A	40215
MB 140-40215/15-B ^5	Method Blank	Step 5	Solid	3010A	40215
LCS 140-40215/16-B ^5	Lab Control Sample	Step 5	Solid	3010A	40215
LCSD 140-40215/17-B ^5	Lab Control Sample Dup	Step 5	Solid	3010A	40215

SEP Batch: 40277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-7	PZ-52D 18 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-8	PZ-52D 24-25 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-11	PZ-53D 30 FT BGS	Step 6	Solid	Acid/Sulfide	
140-19131-12	PZ-53D 36 FT BGS	Step 6	Solid	Acid/Sulfide	
MB 140-40277/15-A	Method Blank	Step 6	Solid	Acid/Sulfide	
LCS 140-40277/16-A	Lab Control Sample	Step 6	Solid	Acid/Sulfide	
LCSD 140-40277/17-A	Lab Control Sample Dup	Step 6	Solid	Acid/Sulfide	

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals

Prep Batch: 40294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 7	Solid	Residual	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 7	Solid	Residual	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 7	Solid	Residual	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 7	Solid	Residual	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 7	Solid	Residual	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 7	Solid	Residual	
140-19131-7	PZ-52D 18 FT BGS	Step 7	Solid	Residual	
140-19131-8	PZ-52D 24-25 FT BGS	Step 7	Solid	Residual	
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 7	Solid	Residual	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 7	Solid	Residual	
140-19131-11	PZ-53D 30 FT BGS	Step 7	Solid	Residual	
140-19131-12	PZ-53D 36 FT BGS	Step 7	Solid	Residual	
MB 140-40294/15-A	Method Blank	Step 7	Solid	Residual	
LCS 140-40294/16-A	Lab Control Sample	Step 7	Solid	Residual	
LCSD 140-40294/17-A	Lab Control Sample Dup	Step 7	Solid	Residual	

Analysis Batch: 40383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-7	PZ-52D 18 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-7	PZ-52D 18 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-8	PZ-52D 24-25 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-8	PZ-52D 24-25 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-11	PZ-53D 30 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-11	PZ-53D 30 FT BGS	Step 2	Solid	6010B SEP	40062
140-19131-12	PZ-53D 36 FT BGS	Step 1	Solid	6010B SEP	40023
140-19131-12	PZ-53D 36 FT BGS	Step 2	Solid	6010B SEP	40062
MB 140-40011/15-B ^4	Method Blank	Step 1	Solid	6010B SEP	40023
MB 140-40024/15-B ^3	Method Blank	Step 2	Solid	6010B SEP	40062
LCS 140-40011/16-B ^5	Lab Control Sample	Step 1	Solid	6010B SEP	40023
LCS 140-40024/16-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	40062
LCSD 140-40011/17-B ^5	Lab Control Sample Dup	Step 1	Solid	6010B SEP	40023
LCSD 140-40024/17-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	40062

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals

Analysis Batch: 40441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-7	PZ-52D 18 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-7	PZ-52D 18 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-8	PZ-52D 24-25 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-8	PZ-52D 24-25 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-11	PZ-53D 30 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-11	PZ-53D 30 FT BGS	Step 4	Solid	6010B SEP	40214
140-19131-12	PZ-53D 36 FT BGS	Step 3	Solid	6010B SEP	40096
140-19131-12	PZ-53D 36 FT BGS	Step 4	Solid	6010B SEP	40214
MB 140-40065/15-B	Method Blank	Step 3	Solid	6010B SEP	40096
MB 140-40100/15-B	Method Blank	Step 4	Solid	6010B SEP	40214
LCS 140-40065/16-B	Lab Control Sample	Step 3	Solid	6010B SEP	40096
LCS 140-40100/16-B	Lab Control Sample	Step 4	Solid	6010B SEP	40214
LCSD 140-40065/17-B	Lab Control Sample Dup	Step 3	Solid	6010B SEP	40096
LCSD 140-40100/17-B	Lab Control Sample Dup	Step 4	Solid	6010B SEP	40214

Analysis Batch: 40453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-7	PZ-52D 18 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-7	PZ-52D 18 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-7	PZ-52D 18 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-8	PZ-52D 24-25 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-8	PZ-52D 24-25 FT BGS	Step 6	Solid	6010B SEP	40277

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals (Continued)

Analysis Batch: 40453 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-11	PZ-53D 30 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-11	PZ-53D 30 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-12	PZ-53D 36 FT BGS	Step 5	Solid	6010B SEP	40276
140-19131-12	PZ-53D 36 FT BGS	Step 6	Solid	6010B SEP	40277
140-19131-12	PZ-53D 36 FT BGS	Step 6	Solid	6010B SEP	40277
MB 140-40215/15-B ^5	Method Blank	Step 5	Solid	6010B SEP	40276
MB 140-40277/15-A	Method Blank	Step 6	Solid	6010B SEP	40277
LCS 140-40215/16-B ^5	Lab Control Sample	Step 5	Solid	6010B SEP	40276
LCS 140-40277/16-A	Lab Control Sample	Step 6	Solid	6010B SEP	40277
LCSD 140-40215/17-B ^5	Lab Control Sample Dup	Step 5	Solid	6010B SEP	40276
LCSD 140-40277/17-A	Lab Control Sample Dup	Step 6	Solid	6010B SEP	40277

Analysis Batch: 40487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-1	BRGWA-2S(2) 39 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-2	BRGWA-2S(2) 43 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-3	BRGWA-5S(2) 38 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-4	BRGWA-5S(2) 32 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-5	BRGWA-6S(2) 42 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-6	BRGWA-6S(2) 48 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-7	PZ-52D 18 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-7	PZ-52D 18 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-8	PZ-52D 24-25 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-8	PZ-52D 24-25 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-9	BRGWC-50(2) 59 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-11	PZ-53D 30 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-11	PZ-53D 30 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-12	PZ-53D 36 FT BGS	Step 7	Solid	6010B SEP	40294
140-19131-12	PZ-53D 36 FT BGS	Step 7	Solid	6010B SEP	40294

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals (Continued)

Analysis Batch: 40487 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-12	PZ-53D 36 FT BGS	Step 7	Solid	6010B SEP	40294
MB 140-40294/15-A	Method Blank	Step 7	Solid	6010B SEP	40294
LCS 140-40294/16-A	Lab Control Sample	Step 7	Solid	6010B SEP	40294
LCSD 140-40294/17-A	Lab Control Sample Dup	Step 7	Solid	6010B SEP	40294

Analysis Batch: 40512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	6010B	39918
140-19131-1	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	6010B	39918
140-19131-1	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	6010B	39918
140-19131-1	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	6010B	39918
140-19131-2	BRGWA-2S(2) 43 FT BGS	Total/NA	Solid	6010B	39918
140-19131-2	BRGWA-2S(2) 43 FT BGS	Total/NA	Solid	6010B	39918
140-19131-2	BRGWA-2S(2) 43 FT BGS	Total/NA	Solid	6010B	39918
140-19131-3	BRGWA-5S(2) 38 FT BGS	Total/NA	Solid	6010B	39918
140-19131-3	BRGWA-5S(2) 38 FT BGS	Total/NA	Solid	6010B	39918
140-19131-3	BRGWA-5S(2) 38 FT BGS	Total/NA	Solid	6010B	39918
140-19131-4	BRGWA-5S(2) 32 FT BGS	Total/NA	Solid	6010B	39918
140-19131-4	BRGWA-5S(2) 32 FT BGS	Total/NA	Solid	6010B	39918
140-19131-4	BRGWA-5S(2) 32 FT BGS	Total/NA	Solid	6010B	39918
140-19131-5	BRGWA-6S(2) 42 FT BGS	Total/NA	Solid	6010B	39918
140-19131-5	BRGWA-6S(2) 42 FT BGS	Total/NA	Solid	6010B	39918
140-19131-6	BRGWA-6S(2) 48 FT BGS	Total/NA	Solid	6010B	39918
140-19131-6	BRGWA-6S(2) 48 FT BGS	Total/NA	Solid	6010B	39918
140-19131-7	PZ-52D 18 FT BGS	Total/NA	Solid	6010B	39918
140-19131-7	PZ-52D 18 FT BGS	Total/NA	Solid	6010B	39918
140-19131-7	PZ-52D 18 FT BGS	Total/NA	Solid	6010B	39918
140-19131-8	PZ-52D 24-25 FT BGS	Total/NA	Solid	6010B	39918
140-19131-8	PZ-52D 24-25 FT BGS	Total/NA	Solid	6010B	39918
140-19131-8	PZ-52D 24-25 FT BGS	Total/NA	Solid	6010B	39918
140-19131-9	BRGWC-50(2) 59 FT BGS	Total/NA	Solid	6010B	39918
140-19131-9	BRGWC-50(2) 59 FT BGS	Total/NA	Solid	6010B	39918
140-19131-9	BRGWC-50(2) 59 FT BGS	Total/NA	Solid	6010B	39918
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Total/NA	Solid	6010B	39918
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Total/NA	Solid	6010B	39918
140-19131-11	PZ-53D 30 FT BGS	Total/NA	Solid	6010B	39918
140-19131-11	PZ-53D 30 FT BGS	Total/NA	Solid	6010B	39918
140-19131-11	PZ-53D 30 FT BGS	Total/NA	Solid	6010B	39918
140-19131-12	PZ-53D 36 FT BGS	Total/NA	Solid	6010B	39918
140-19131-12	PZ-53D 36 FT BGS	Total/NA	Solid	6010B	39918
140-19131-12	PZ-53D 36 FT BGS	Total/NA	Solid	6010B	39918
MB 140-39918/15-A	Method Blank	Total/NA	Solid	6010B	39918
LCS 140-39918/16-A	Lab Control Sample	Total/NA	Solid	6010B	39918
LCSD 140-39918/17-A	Lab Control Sample Dup	Total/NA	Solid	6010B	39918

Analysis Batch: 40572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	

QC Association Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Metals (Continued)

Analysis Batch: 40572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-5	BRGWA-6S(2) 42 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-7	PZ-52D 18 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-8	PZ-52D 24-25 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-9	BRGWC-50(2) 59 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-11	PZ-53D 30 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	
140-19131-12	PZ-53D 36 FT BGS	Sum of Steps 1-7	Solid	6010B SEP	

General Chemistry

Analysis Batch: 40042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-19131-1	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	Moisture	
140-19131-2	BRGWA-2S(2) 43 FT BGS	Total/NA	Solid	Moisture	
140-19131-3	BRGWA-5S(2) 38 FT BGS	Total/NA	Solid	Moisture	
140-19131-4	BRGWA-5S(2) 32 FT BGS	Total/NA	Solid	Moisture	
140-19131-5	BRGWA-6S(2) 42 FT BGS	Total/NA	Solid	Moisture	
140-19131-6	BRGWA-6S(2) 48 FT BGS	Total/NA	Solid	Moisture	
140-19131-7	PZ-52D 18 FT BGS	Total/NA	Solid	Moisture	
140-19131-8	PZ-52D 24-25 FT BGS	Total/NA	Solid	Moisture	
140-19131-9	BRGWC-50(2) 59 FT BGS	Total/NA	Solid	Moisture	
140-19131-10	BRGWC-50(2) 63-63.5 FT BGS	Total/NA	Solid	Moisture	
140-19131-11	PZ-53D 30 FT BGS	Total/NA	Solid	Moisture	
140-19131-12	PZ-53D 36 FT BGS	Total/NA	Solid	Moisture	
140-19131-1 DU	BRGWA-2S(2) 39 FT BGS	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 39 FT BGS

Lab Sample ID: 140-19131-1

Date Collected: 05/13/20 14:30

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
		Instrument ID: NOEQUIP								

Client Sample ID: BRGWA-2S(2) 39 FT BGS

Lab Sample ID: 140-19131-1

Date Collected: 05/13/20 14:30

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 71.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 12:43	KNC	TAL KNX
		Instrument ID: DUO								
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:27	KNC	TAL KNX
		Instrument ID: DUO								
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 16:04	KNC	TAL KNX
		Instrument ID: DUO								
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		20			40512	06/23/20 17:24	KNC	TAL KNX
		Instrument ID: DUO								
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 12:21	KNC	TAL KNX
		Instrument ID: DUO								
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 14:15	KNC	TAL KNX
		Instrument ID: DUO								
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:10	KNC	TAL KNX
		Instrument ID: DUO								
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:04	KNC	TAL KNX
		Instrument ID: DUO								
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:43	KNC	TAL KNX
		Instrument ID: DUO								
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:38	KNC	TAL KNX
		Instrument ID: DUO								

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Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 39 FT BGS

Lab Sample ID: 140-19131-1

Date Collected: 05/13/20 14:30

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 71.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		2			40453	06/19/20 16:54	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 13:18	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:00	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:27	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: BRGWA-2S(2) 43 FT BGS

Lab Sample ID: 140-19131-2

Date Collected: 05/13/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: BRGWA-2S(2) 43 FT BGS

Lab Sample ID: 140-19131-2

Date Collected: 05/13/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 75.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 12:49	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:32	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		20			40512	06/23/20 17:29	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 12:26	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 14:20	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-2S(2) 43 FT BGS

Lab Sample ID: 140-19131-2

Date Collected: 05/13/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 75.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:15	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:10	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:48	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:43	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 13:23	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:05	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:32	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: BRGWA-5S(2) 38 FT BGS

Lab Sample ID: 140-19131-3

Date Collected: 05/14/20 07:40

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: BRGWA-5S(2) 38 FT BGS

Lab Sample ID: 140-19131-3

Date Collected: 05/14/20 07:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 12:54	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:37	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-5S(2) 38 FT BGS

Lab Sample ID: 140-19131-3

Date Collected: 05/14/20 07:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 16:15	KNC	TAL KNX
		Instrument ID: DUO								
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 12:31	KNC	TAL KNX
		Instrument ID: DUO								
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 14:25	KNC	TAL KNX
		Instrument ID: DUO								
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:20	KNC	TAL KNX
		Instrument ID: DUO								
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:15	KNC	TAL KNX
		Instrument ID: DUO								
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:53	KNC	TAL KNX
		Instrument ID: DUO								
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:48	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 13:29	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:10	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:37	KNC	TAL KNX
		Instrument ID: DUO								

Client Sample ID: BRGWA-5S(2) 32 FT BGS

Lab Sample ID: 140-19131-4

Date Collected: 05/14/20 07:50

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
		Instrument ID: NOEQUIP								

Euofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-5S(2) 32 FT BGS

Lab Sample ID: 140-19131-4

Date Collected: 05/14/20 07:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 13:16	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:41	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 16:21	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 12:36	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 14:31	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:26	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:20	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:58	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:53	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 13:50	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:15	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:42	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 42 FT BGS

Lab Sample ID: 140-19131-5

Date Collected: 05/14/20 12:05

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
		Instrument ID: NOEQUIP								

Client Sample ID: BRGWA-6S(2) 42 FT BGS

Lab Sample ID: 140-19131-5

Date Collected: 05/14/20 12:05

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:46	KNC	TAL KNX
		Instrument ID: DUO								
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 16:26	KNC	TAL KNX
		Instrument ID: DUO								
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 12:57	KNC	TAL KNX
		Instrument ID: DUO								
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 14:52	KNC	TAL KNX
		Instrument ID: DUO								
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:46	KNC	TAL KNX
		Instrument ID: DUO								
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:40	KNC	TAL KNX
		Instrument ID: DUO								
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:19	KNC	TAL KNX
		Instrument ID: DUO								
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:12	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 13:56	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:20	KNC	TAL KNX
		Instrument ID: DUO								

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 42 FT BGS

Lab Sample ID: 140-19131-5

Date Collected: 05/14/20 12:05

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:47	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: BRGWA-6S(2) 48 FT BGS

Lab Sample ID: 140-19131-6

Date Collected: 05/14/20 12:15

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: BRGWA-6S(2) 48 FT BGS

Lab Sample ID: 140-19131-6

Date Collected: 05/14/20 12:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 13:27	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:51	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:02	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 14:57	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:51	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:45	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:25	KNC	TAL KNX
Instrument ID: DUO										

Euofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWA-6S(2) 48 FT BGS

Lab Sample ID: 140-19131-6

Date Collected: 05/14/20 12:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 69.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:17	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:01	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:25	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:52	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: PZ-52D 18 FT BGS

Lab Sample ID: 140-19131-7

Date Collected: 05/14/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: PZ-52D 18 FT BGS

Lab Sample ID: 140-19131-7

Date Collected: 05/14/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 67.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 13:33	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 14:56	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 16:37	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:07	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 15:02	KNC	TAL KNX
Instrument ID: DUO										

Eurolins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-52D 18 FT BGS

Lab Sample ID: 140-19131-7

Date Collected: 05/14/20 14:40

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 67.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 12:57	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:50	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:30	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:22	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		2			40453	06/19/20 17:10	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:07	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:30	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: PZ-52D 24-25 FT BGS

Lab Sample ID: 140-19131-8

Date Collected: 05/14/20 14:50

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: PZ-52D 24-25 FT BGS

Lab Sample ID: 140-19131-8

Date Collected: 05/14/20 14:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 13:38	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 15:17	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-52D 24-25 FT BGS

Lab Sample ID: 140-19131-8

Date Collected: 05/14/20 14:50

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 16:58	KNC	TAL KNX
		Instrument ID: DUO								
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:12	KNC	TAL KNX
		Instrument ID: DUO								
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 15:08	KNC	TAL KNX
		Instrument ID: DUO								
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 13:02	KNC	TAL KNX
		Instrument ID: DUO								
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 14:55	KNC	TAL KNX
		Instrument ID: DUO								
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:35	KNC	TAL KNX
		Instrument ID: DUO								
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:27	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:12	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:50	KNC	TAL KNX
		Instrument ID: DUO								

Client Sample ID: BRGWC-50(2) 59 FT BGS

Lab Sample ID: 140-19131-9

Date Collected: 05/15/20 09:00

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
		Instrument ID: NOEQUIP								

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 59 FT BGS

Lab Sample ID: 140-19131-9

Date Collected: 05/15/20 09:00

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 13:44	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 15:22	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		5			40512	06/23/20 17:03	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:18	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 15:13	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 13:07	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 15:00	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:41	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:32	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		5			40453	06/19/20 17:15	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:18	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 15:55	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 63-63.5 FT BGS

Lab Sample ID: 140-19131-10

Date Collected: 05/15/20 09:20

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
		Instrument ID: NOEQUIP								

Client Sample ID: BRGWC-50(2) 63-63.5 FT BGS

Lab Sample ID: 140-19131-10

Date Collected: 05/15/20 09:20

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 99.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 15:27	KNC	TAL KNX
		Instrument ID: DUO								
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 17:08	KNC	TAL KNX
		Instrument ID: DUO								
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:23	KNC	TAL KNX
		Instrument ID: DUO								
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 15:18	KNC	TAL KNX
		Instrument ID: DUO								
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 13:12	KNC	TAL KNX
		Instrument ID: DUO								
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 15:05	KNC	TAL KNX
		Instrument ID: DUO								
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:46	KNC	TAL KNX
		Instrument ID: DUO								
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:38	KNC	TAL KNX
		Instrument ID: DUO								
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		5			40453	06/19/20 17:21	KNC	TAL KNX
		Instrument ID: DUO								
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:23	KNC	TAL KNX
		Instrument ID: DUO								

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: BRGWC-50(2) 63-63.5 FT BGS

Lab Sample ID: 140-19131-10

Date Collected: 05/15/20 09:20

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 99.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 16:00	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 16:57	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: PZ-53D 30 FT BGS

Lab Sample ID: 140-19131-11

Date Collected: 05/16/20 16:15

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: PZ-53D 30 FT BGS

Lab Sample ID: 140-19131-11

Date Collected: 05/16/20 16:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 13:55	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 15:32	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			40512	06/23/20 17:14	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:28	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 15:24	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 13:18	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-53D 30 FT BGS

Lab Sample ID: 140-19131-11

Date Collected: 05/16/20 16:15

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 15:10	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:51	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:43	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:29	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 16:06	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: PZ-53D 36 FT BGS

Lab Sample ID: 140-19131-12

Date Collected: 05/16/20 16:25

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			40572	06/25/20 11:53	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: PZ-53D 36 FT BGS

Lab Sample ID: 140-19131-12

Date Collected: 05/16/20 16:25

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 14:01	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			40512	06/23/20 15:37	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		5			40512	06/23/20 17:19	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 13:33	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: PZ-53D 36 FT BGS

Lab Sample ID: 140-19131-12

Date Collected: 05/16/20 16:25

Matrix: Solid

Date Received: 05/20/20 09:45

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 15:29	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 13:23	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 15:15	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 12:57	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 16:49	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		2			40453	06/19/20 17:26	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 14:34	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			40487	06/22/20 16:11	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		5			40487	06/22/20 17:02	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-39918/15-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 12:12	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40011/15-B ^4

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			40383	06/16/20 11:55	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40024/15-B ^3

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			40383	06/16/20 13:48	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40065/15-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 11:44	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40100/15-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 13:39	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40215/15-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:16	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40277/15-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:12	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-40294/15-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 12:47	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-39918/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 12:17	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40011/16-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			40383	06/16/20 12:00	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40024/16-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			40383	06/16/20 13:54	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40065/16-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 11:49	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40100/16-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 13:44	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40215/16-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:21	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40277/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:17	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-40294/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 12:52	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-39918/17-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	39918	05/29/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			40512	06/23/20 12:22	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40011/17-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	40011	06/01/20 08:01	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	40023	06/02/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			40383	06/16/20 12:05	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40024/17-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	40024	06/02/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	40062	06/03/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			40383	06/16/20 13:59	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40065/17-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	40065	06/03/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	40096	06/08/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			40441	06/18/20 11:54	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40100/17-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	40100	06/08/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	40214	06/10/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			40441	06/18/20 13:49	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40215/17-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	40215	06/10/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	40276	06/12/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			40453	06/19/20 11:27	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40277/17-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	40277	06/12/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			40453	06/19/20 13:22	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-40294/17-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	40294	06/15/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			40487	06/22/20 12:57	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: BRGWA-2S(2) 39 FT BGS

Lab Sample ID: 140-19131-1 DU

Date Collected: 05/13/20 14:30

Matrix: Solid

Date Received: 05/20/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			40042	06/02/20 08:02	BKD	TAL KNX
Instrument ID: NOEQUIP										

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Golder Associates Inc.
 Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Laboratory: Eurofins TestAmerica, Knoxville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	TNI0189	01-02-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010B	Total	Solid	Aluminum
6010B	Total	Solid	Beryllium
6010B	Total	Solid	Cadmium
6010B	Total	Solid	Cobalt
6010B	Total	Solid	Iron
6010B	Total	Solid	Manganese
6010B	Total	Solid	Selenium
6010B SEP		Solid	Aluminum
6010B SEP		Solid	Beryllium
6010B SEP		Solid	Cadmium
6010B SEP		Solid	Cobalt
6010B SEP		Solid	Iron
6010B SEP		Solid	Manganese
6010B SEP		Solid	Selenium
6010B SEP	3010A	Solid	Aluminum
6010B SEP	3010A	Solid	Beryllium
6010B SEP	3010A	Solid	Cadmium
6010B SEP	3010A	Solid	Cobalt
6010B SEP	3010A	Solid	Iron
6010B SEP	3010A	Solid	Manganese
6010B SEP	3010A	Solid	Selenium
6010B SEP	Acid/Sulfide	Solid	Aluminum
6010B SEP	Acid/Sulfide	Solid	Beryllium
6010B SEP	Acid/Sulfide	Solid	Cadmium
6010B SEP	Acid/Sulfide	Solid	Cobalt
6010B SEP	Acid/Sulfide	Solid	Iron
6010B SEP	Acid/Sulfide	Solid	Manganese
6010B SEP	Acid/Sulfide	Solid	Selenium
6010B SEP	Residual	Solid	Aluminum
6010B SEP	Residual	Solid	Beryllium
6010B SEP	Residual	Solid	Cadmium
6010B SEP	Residual	Solid	Cobalt
6010B SEP	Residual	Solid	Iron
6010B SEP	Residual	Solid	Manganese
6010B SEP	Residual	Solid	Selenium
Moisture		Solid	Percent Moisture

Method Summary

Client: Golder Associates Inc.
Project/Site: SCS Site, Plant Branch

Job ID: 140-19131-1

Method	Method Description	Protocol	Laboratory
6010B	SEP Metals (ICP) - Total	SW846	TAL KNX
6010B SEP	SEP Metals (ICP)	SW846	TAL KNX
Moisture	Percent Moisture	EPA	TAL KNX
3010A	Preparation, Total Metals	SW846	TAL KNX
Acid/Sulfide	Sequential Extraction Procedure, Acid/Sulfide Fraction	TAL-KNOX	TAL KNX
Carbonate	Sequential Extraction Procedure, Carbonate Fraction	TAL-KNOX	TAL KNX
Exchangeable	Sequential Extraction Procedure, Exchangeable Fraction	TAL-KNOX	TAL KNX
Metal Hydroxide	Sequential Extraction Procedure, Metal Hydroxide Fraction	TAL-KNOX	TAL KNX
Non-Crystalline	Sequential Extraction Procedure, Non-crystalline Materials	TAL-KNOX	TAL KNX
Organic-Bound	Sequential Extraction Procedure, Organic Bound Fraction	TAL-KNOX	TAL KNX
Residual	Sequential Extraction Procedure, Residual Fraction	TAL-KNOX	TAL KNX
Total	Preparation, Total Material	TAL-KNOX	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

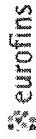
TAL-KNOX = TestAmerica Laboratories, Knoxville, Facility Standard Operating Procedure.

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Chain of Custody

Eurofins TestAmerica, Knoxville
 5815 Middlebrook Pike
 Knoxville, TN 37921-5947
 phone 865.291.3000 fax 865.584.4315



Environment Testing
 TestAmerica



140-19131 Chain of Custody

Project Manager: Brian Steele Email: bsteele@golder.com Tel/Fax: 470-512-3923		Site Contact: Shannon George Date: _____ Lab Contact: Ryan Henry Carrier: FedEx		COC No: 140-8035-2549.1 Page 1 of 1 TALS Project #: _____	
Client Contact Golder Associates Inc. 5170 Peachtree Road, Building 100, Suite 300 Atlanta, GA 30341 770-496-1893		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____	
Project Name: PLANT BRANCH Site: SCS PO # 160625418/14005864		Filtered Sample (Y/N) _____ Perform Ms / MSD (Y/N) _____ 6010B_SEP - SEP Metals _____		Sample Specific Notes: CUSTOM SEALS INTACT RESERVED AT N.D.S. CT 19.86 bkg S-2020 RAW 18099420.8200 P1	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
BRGWA-2S(2) 39 ft bgs	5/13/2020	14:30	G	S	1 x 4 oz jar
BRGWA-2S(2) 43 ft bgs	5/13/2020	14:40	G	S	1 x 4 oz jar
BRGWA-5S(2) 38 ft bgs	5/14/2020	07:40	G	S	1 x 4 oz jar
BRGWA-5S(2) 32 ft bgs	5/14/2020	07:50	G	S	1 x 4 oz jar
BRGWA-6S(2) 42 ft bgs	5/14/2020	12:05	G	S	1 x 4 oz jar
BRGWA-6S(2) 48 ft bgs	5/14/2020	12:15	G	S	1 x 4 oz jar
PZ-52D 18 ft bgs	5/14/2020	14:40	G	S	1 x 4 oz jar
PZ-52D 24-25 ft bgs	5/14/2020	14:50	G	S	1 x 4 oz jar
BRGWC-50(2) 59 ft bgs	5/15/2020	09:00	G	S	1 x 4 oz jar
BRGWC-50(2) 63-63.5 ft bgs	5/15/2020	09:20	G	S	1 x 4 oz jar
PZ-53D 30 ft bgs	5/16/2020	16:15	G	S	1 x 4 oz jar
PZ-53D 36 ft bgs	5/16/2020	16:25	G	S	1 x 4 oz jar
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					
Special Instructions/QC Requirements & Comments: _____					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: Shannon George		Cooler Temp. (°C): Obs'd: _____ Received by: Jude Waquespack Company: Golder		Therm ID No.: _____ Date/Time: 05/18/20 1800	
Relinquished by: Waquespack		Received by: Fed Ex Company: Fed Ex		Date/Time: 05/19/20 0925	
Relinquished by: _____		Received in Laboratory by: _____		Date/Time: 5-20-20 09:45 Company: EVA-101X	



EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			<input type="checkbox"/> Containers, Broken	10
2. Were ambient air containers received intact?			/	<input type="checkbox"/> Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			<input type="checkbox"/> Yes <input type="checkbox"/> NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID : <u>S448</u> Correction factor: <u>0.1</u>	/			<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	/			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	/			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			<input type="checkbox"/> COC; No Date/Time; Client Contacted	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	/			<input checked="" type="checkbox"/> Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			<input type="checkbox"/> COC Incorrect/Incomplete	pH test strip lot number: _____
12. Are tests/parameters listed for each sample?	/			<input type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			<input type="checkbox"/> COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			<input type="checkbox"/> Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?	/			<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Lot Number: _____ Exp Date: _____ Analyst: _____
17. Were VOA samples received without headspace?	/			<input type="checkbox"/> Headspace (VOA only)	Date: _____ Time: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____	/			<input type="checkbox"/> Residual Chlorine	
19. For 1613B water samples is pH<9?	/			<input type="checkbox"/> If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?	/			<input type="checkbox"/> Project missing info	
Project #: <u>1400084</u> PM Instructions: _____					





February 10, 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: 608815,608614,608422 and 608418

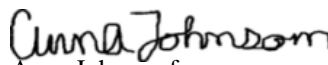
Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 25, 2023, January 26, 2023 and January 27, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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.

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,


Anna Johnson 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: 608614 GEL Work Order: 608614

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

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

** Analyte is a Tracer compound

J See case narrative for an explanation

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

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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608422 GEL Work Order: 608422

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
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- ** Analyte is a Tracer compound
- J See case narrative for an explanation

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: 608815 GEL Work Order: 608815

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
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- ** Analyte is a Tracer compound
- J See case narrative for an explanation

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

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Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608418 GEL Work Order: 608418

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

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

** Analyte is a Tracer compound

J See case narrative for an explanation

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: February 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-04	Project: GPCC00101
Sample ID: 608422001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 12:00	
Receive Date: 25-JAN-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		0.204	0.0330	0.100	mg/L		1	HXC1	01/25/23	1827	2374002	1
Chloride		28.7	2.68	8.00	mg/L		40	HXC1	01/26/23	0210	2374002	2
Sulfate		375	5.32	16.0	mg/L		40					
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	HXC1	01/26/23	0241	2374002	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1057	2374419	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		116	0.800	2.00	mg/L	1.00	10	SKJ	02/02/23	1226	2374301	5
Manganese		2.63	0.0100	0.0500	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1941	2374301	6
Barium		0.0375	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000505	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0577	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		14.3	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00468	0.00150	0.00500	mg/L	1.00	1					
Sodium		36.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1550	2374301	7
Beryllium		0.00236	0.000200	0.000500	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0120	0.00300	0.0100	mg/L	1.00	1					
Magnesium		15.2	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Boron		1.17	0.0520	0.150	mg/L	1.00	10	SKJ	02/03/23	1436	2374301	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		611	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	10

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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-04 Project: GPCC00101
Sample ID: 608422001 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	3.40	1.45	4.00	mg/L			MS3	01/28/23	1258	2375518	11
Bicarbonate alkalinity (CaCO ₃)	J	3.40	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: February 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-FB-07	Project: GPCC00101
Sample ID: 608422002	Client ID: GPCC001
Matrix: WQ	
Collect Date: 24-JAN-23 14:00	
Receive Date: 25-JAN-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	01/25/23	1858	2374002	1
Fluoride	U	ND	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	01/27/23	1059	2374419	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1944	2374301	3
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	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					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1456	2374301	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	6

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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-07	Project: GPCC00101
Sample ID: 608422002	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	2.20	1.45	4.00	mg/L			MS3	01/28/23	1301	2375518	7
Bicarbonate alkalinity (CaCO3)	J	2.20	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

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: February 10, 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: 608815001	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 11:20	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.56			SU			EOS1	01/26/23	1120	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1120	2375357	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.36	0.0670	0.200	mg/L		1	JLD1	01/27/23	1640	2375453	3
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0655	0.0330	0.100	mg/L		1					
Sulfate		75.3	1.33	4.00	mg/L		10	JLD1	01/27/23	2238	2375453	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1050	2375754	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	01/31/23	2345	2375511	6
Arsenic	J	0.00388	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0525	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		16.8	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0153	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					
Manganese	J	0.00207	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.41	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00215	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000422	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1324	2375511	7
Boron	J	0.0104	0.00520	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		9.68	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 10, 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: 608815001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		148	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1146	2376122	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		20.6	1.45	4.00	mg/L			EK1	02/06/23	1521	2378067	10
Bicarbonate alkalinity (CaCO3)		20.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

Notes:

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Certificate of Analysis

Report Date: February 10, 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
Sample ID: 608815001

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 10, 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-70I Project: GPCC00101
Sample ID: 608815002 Client ID: GPCC001
Matrix: WG
Collect Date: 26-JAN-23 10:22
Receive Date: 27-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.60			SU			EOS1	01/26/23	1022	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1022	2375357	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0660	0.200	mg/L		2	JLD1	01/28/23	0037	2375453	3
Chloride		5.37	0.0670	0.200	mg/L		1	JLD1	01/27/23	1709	2375453	4
Nitrate-N		0.275	0.0330	0.100	mg/L		1					
Sulfate		147	2.66	8.00	mg/L		20	JLD1	01/28/23	0007	2375453	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1052	2375754	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000217	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1340	2375511	7
Lithium	J	0.00381	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Magnesium		11.9	0.0500	0.150	mg/L	1.00	5	SKJ	02/01/23	1349	2375511	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0010	2375511	9
Arsenic	J	0.00366	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0250	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		33.4	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000682	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0364	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Manganese		0.271	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.27	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00921	0.00150	0.00500	mg/L	1.00	1					
Sodium		23.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.04	0.104	0.300	mg/L	1.00	20	SKJ	02/02/23	0827	2375511	10
Solids Analysis												

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Report Date: February 10, 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: 608815002	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		272	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1146	2376122	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		14.4	1.45	4.00	mg/L			EK1	02/06/23	1524	2378067	13
Bicarbonate alkalinity (CaCO3)		14.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

Notes:

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Report Date: February 10, 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
Sample ID: 608815002

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 10, 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: 608815003 Client ID: GPCC001
Matrix: WG
Collect Date: 26-JAN-23 12:00
Receive Date: 27-JAN-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		74.9	1.33	4.00	mg/L		10	JLD1	01/28/23	0107	2375453	1
Chloride		3.37	0.0670	0.200	mg/L		1	JLD1	01/27/23	1739	2375453	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0646	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	01/31/23	1057	2375754	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	J	0.00883	0.00520	0.0150	mg/L	1.00	1	SKJ	02/02/23	0829	2375511	4
Beryllium	J	0.000415	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1343	2375511	5
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		9.54	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0014	2375511	6
Arsenic	J	0.00470	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0524	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		16.7	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0152	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					
Manganese	J	0.00195	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.50	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00190	0.00150	0.00500	mg/L	1.00	1					
Sodium		12.1	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		145	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1146	2376122	8

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Certificate of Analysis

Report Date: February 10, 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: 608815003 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		20.4	1.45	4.00	mg/L			EK1	02/06/23	1525	2378067	9
Bicarbonate alkalinity (CaCO ₃)		20.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510

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: February 10, 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-EB-10	Project: GPCC00101
Sample ID: 608815004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 26-JAN-23 11:00	
Receive Date: 27-JAN-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	01/27/23	1809	2375453	1
Fluoride	U	ND	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	01/31/23	1058	2375754	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0018	2375511	3
Arsenic	J	0.00409	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	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					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1345	2375511	4
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					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/02/23	0831	2375511	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1147	2376122	7

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Certificate of Analysis

Report Date: February 10, 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-APE-EB-10 Project: GPCC00101
Sample ID: 608815004 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	1.80	1.45	4.00	mg/L			EK1	02/06/23	1528	2378067	8
Bicarbonate alkalinity (CaCO ₃)	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: February 10, 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: 608815005 Client ID: GPCC001
Matrix: WG
Collect Date: 25-JAN-23 14:24
Receive Date: 27-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.14			SU			EOS1	01/25/23	1424	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1424	2375357	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1100	2375754	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		94.4	0.800	2.50	mg/L	1.00	10	SKJ	02/03/23	1014	2375511	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	0021	2375511	5
Arsenic	J	0.00368	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0171	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		46.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00249	0.000300	0.00100	mg/L	1.00	1					
Iron		0.220	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Manganese		0.0315	0.00100	0.00500	mg/L	1.00	1					
Potassium		8.93	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		0.0362	0.00520	0.0150	mg/L	1.00	1	SKJ	02/02/23	0833	2375511	6
Magnesium		9.93	0.0500	0.150	mg/L	1.00	5	SKJ	02/01/23	1352	2375511	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/01/23	1347	2375511	8
Lithium		0.0165	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.0222	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		443	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375510

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Certificate of Analysis

Report Date: February 10, 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-52D
Sample ID: 608815005

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	01/30/23		1128		2375753		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		

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: February 10, 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: 608815006 Client ID: GPCC001
Matrix: WG
Collect Date: 26-JAN-23 12:40
Receive Date: 27-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.14			SU			EOS1	01/26/23	1240	2375357	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1240	2375357	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		12.3	0.670	2.00	mg/L		10	JLD1	01/28/23	0137	2375453	3
Sulfate		142	1.33	4.00	mg/L		10					
Fluoride		1.93	0.0330	0.100	mg/L		1	JLD1	01/27/23	1839	2375453	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1147	2376122	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		179	1.45	4.00	mg/L			EK1	02/06/23	1532	2378067	6
Bicarbonate alkalinity (CaCO3)		179	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SM 4500-S (2-) D	
6	SM 2320B	

Notes:

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Certificate of Analysis

Report Date: February 10, 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-52D
Sample ID: 608815006

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 9, 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: 608614001	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 15:53	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.64			SU			EOS1	01/25/23	1553	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1553	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		237	2.66	8.00	mg/L		20	HXC1	01/27/23	0453	2374768	3
Chloride		7.93	0.0670	0.200	mg/L		1	HXC1	01/26/23	1926	2374768	4
Fluoride		0.183	0.0330	0.100	mg/L		1					
Nitrate-N		0.131	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	01/30/23	1243	2375028	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Manganese	J	0.00205	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1117	2374786	6
Boron		1.18	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1830	2374786	7
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1946	2374786	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0278	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		48.2	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00682	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		20.1	0.0100	0.0300	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	J	0.00237	0.00150	0.00500	mg/L	1.00	1					
Sodium		40.4	0.0800	0.250	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	SKJ	02/07/23	1934	2374786	9
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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
Sample ID: 608614001

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		418	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1541	2375142	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		22.0	1.45	4.00	mg/L			MS3	02/07/23	1351	2379826	12
Bicarbonate alkalinity (CaCO3)		22.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 9, 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-36S
Sample ID: 608614001

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 9, 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: 608614002 Client ID: GPCC001
Matrix: WG
Collect Date: 25-JAN-23 13:20
Receive Date: 26-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.84			SU			EOS1	01/25/23	1320	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1320	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N		0.318	0.0660	0.200	mg/L		2	HXC1	01/26/23	2317	2374833	3
Chloride		1.92	0.0670	0.200	mg/L		1	HXC1	01/26/23	1535	2374833	4
Fluoride		0.114	0.0330	0.100	mg/L		1					
Sulfate	J	0.325	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	01/30/23	1245	2375028	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/09/23	1052	2374786	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1834	2374786	7
Arsenic	J	0.00300	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0247	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.65	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					
Magnesium		1.35	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		1.94	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		4.85	0.0800	0.250	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	SKJ	02/07/23	1937	2374786	8
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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
Sample ID: 608614002

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		28.0	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		21.2	1.45	4.00	mg/L			MS3	02/07/23	1353	2379826	11
Bicarbonate alkalinity (CaCO3)		21.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 9, 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
Sample ID: 608614002

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 9, 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-38S Project: GPCC00101
Sample ID: 608614003 Client ID: GPCC001
Matrix: WG
Collect Date: 25-JAN-23 13:53
Receive Date: 26-JAN-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.75			SU			EOS1	01/25/23	1353	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1353	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		291	5.32	16.0	mg/L		40	HXC1	01/27/23	0018	2374833	3
Chloride		6.53	0.0670	0.200	mg/L		1	HXC1	01/26/23	1606	2374833	4
Fluoride		0.708	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.145	0.0660	0.200	mg/L		2	HXC1	01/26/23	2348	2374833	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1246	2375028	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.63	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1837	2374786	7
Manganese		1.65	0.0100	0.0500	mg/L	1.00	10					
Beryllium		0.00780	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1941	2374786	8
Lithium		0.0256	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1949	2374786	9
Arsenic	J	0.00486	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0180	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000430	0.000300	0.00100	mg/L	1.00	1					
Calcium		32.8	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00362	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.158	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		36.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.12	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0279	0.00150	0.00500	mg/L	1.00	1					
Sodium		42.3	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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-38S
Sample ID: 608614003

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		484	2.38	10.0	mg/L		CH6	02/01/23	1305	2376741		10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 JW2	01/30/23	1542	2375142		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	3.00	1.45	4.00	mg/L		MS3	02/07/23	1357	2379826		12
Bicarbonate alkalinity (CaCO3)	J	3.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
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:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 9, 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
Sample ID: 608614003

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: February 9, 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-53D	Project: GPCC00101
Sample ID: 608614004	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 16:15	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.10			SU			EOS1	01/25/23	1615	2374741	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1615	2374741	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		285	5.32	16.0	mg/L		40	HXC1	01/27/23	0120	2374833	3
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	HXC1	01/27/23	0049	2374833	4
Chloride		4.66	0.0670	0.200	mg/L		1	HXC1	01/26/23	1637	2374833	5
Fluoride		0.282	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	01/30/23	1251	2375028	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1953	2374786	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0536	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		0.204	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		19.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00234	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.66	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		48.6	0.0800	0.250	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	SKJ	02/07/23	1944	2374786	8
Lithium		0.0207	0.00300	0.0100	mg/L	1.00	1					
Calcium		78.5	0.400	1.00	mg/L	1.00	5	SKJ	02/08/23	1852	2374786	9
Boron		1.11	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1848	2374786	10
Manganese		0.628	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1121	2374786	11
Solids Analysis												

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Certificate of Analysis

Report Date: February 9, 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-53D	Project: GPCC00101
Sample ID: 608614004	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		517	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	12
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	13
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		49.0	1.45	4.00	mg/L			MS3	02/07/23	1401	2379826	14
Bicarbonate alkalinity (CaCO3)		49.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SM 2540C	
13	SM 4500-S (2-) D	
14	SM 2320B	

Notes:

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Certificate of Analysis

Report Date: February 9, 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-53D
Sample ID: 608614004

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: February 9, 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-EB-09	Project: GPCC00101
Sample ID: 608614005	Client ID: GPCC001
Matrix: WQ	
Collect Date: 25-JAN-23 12:45	
Receive Date: 26-JAN-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	01/26/23	1707	2374833	1
Fluoride	U	ND	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	01/30/23	1253	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1948	2374786	3
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1855	2374786	4
Arsenic	J	0.00210	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
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					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/09/23	1055	2374786	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	7

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Certificate of Analysis

Report Date: February 9, 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: 608614005 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	1.45	4.00	mg/L			MS3	02/07/23	1403	2379826	8
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: February 9, 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-FB-08 Project: GPCC00101
Sample ID: 608614006 Client ID: GPCC001
Matrix: WQ
Collect Date: 25-JAN-23 16:45
Receive Date: 26-JAN-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	01/26/23	1809	2374833	1
Fluoride	U	ND	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	01/30/23	1255	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	02/09/23	1057	2374786	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1952	2374786	4
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1859	2374786	5
Arsenic	J	0.00228	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
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					
Sodium	U	ND	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	02/01/23	1305	2376741	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2375142	7

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Report Date: February 9, 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: 608614006 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	1.45	4.00	mg/L			MS3	02/07/23	1405	2379826	8
Bicarbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
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: February 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: 608418001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 16:18	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.37			SU			AJ1	01/24/23	1618	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1618	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.31	0.0670	0.200	mg/L		1	HXC1	01/25/23	1838	2373867	3
Fluoride		0.216	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.119	0.0660	0.200	mg/L		2	HXC1	01/26/23	0136	2373867	4
Sulfate		153	2.66	8.00	mg/L		20	HXC1	01/26/23	0107	2373867	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1051	2374419	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1926	2374301	7
Barium		0.0422	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		41.3	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00886	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					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Potassium		1.08	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00178	0.00150	0.00500	mg/L	1.00	1					
Sodium		25.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1453	2374301	8
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0326	0.00520	0.0150	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		26.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												

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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: 608418001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		344	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		81.4	1.45	4.00	mg/L			EK1	01/30/23	1543	2375521	11
Bicarbonate alkalinity (CaCO3)		81.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

Notes:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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
Sample ID: 608418001

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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-33S	Project: GPCC00101
Sample ID: 608418002	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 13:40	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.79			SU			AJ1	01/24/23	1340	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1340	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.193	0.0330	0.100	mg/L		1	HXC1	01/25/23	1908	2373867	3
Nitrate-N	J	0.0607	0.0330	0.100	mg/L		1					
Chloride		29.0	2.68	8.00	mg/L		40	HXC1	01/26/23	0206	2373867	4
Sulfate		375	5.32	16.0	mg/L		40					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1052	2374419	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.19	0.0520	0.150	mg/L	1.00	10	SKJ	02/03/23	1427	2374301	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1930	2374301	7
Barium		0.0368	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000482	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0582	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		14.5	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00490	0.00150	0.00500	mg/L	1.00	1					
Sodium		37.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		116	0.800	2.00	mg/L	1.00	10	SKJ	02/02/23	1217	2374301	8
Manganese		2.68	0.0100	0.0500	mg/L	1.00	10					
Arsenic	J	0.00201	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1541	2374301	9
Beryllium		0.00235	0.000200	0.000500	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0115	0.00300	0.0100	mg/L	1.00	1					
Magnesium		15.0	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Solids Analysis												

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Certificate of Analysis

Report Date: February 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-33S
Sample ID: 608418002

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		615	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	3.80	1.45	4.00	mg/L			EK1	01/30/23	1551	2375521	12
Bicarbonate alkalinity (CaCO3)	J	3.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 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-33S
Sample ID: 608418002

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 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-34S	Project: GPCC00101
Sample ID: 608418003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 12:53	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.93			SU			AJ1	01/24/23	1253	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1253	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.50	0.0670	0.200	mg/L		1	HXC1	01/25/23	1938	2373867	3
Fluoride		0.122	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		267	5.32	16.0	mg/L		40	HXC1	01/26/23	0236	2373867	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1054	2374419	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1544	2374301	6
Beryllium	U	ND	0.000200	0.000500	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		18.6	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1933	2374301	7
Barium		0.0232	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		0.00351	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		3.54	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		21.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		80.0	0.400	1.00	mg/L	1.00	5	SKJ	02/02/23	1343	2374301	8
Manganese		3.29	0.00500	0.0250	mg/L	1.00	5					
Boron		2.21	0.104	0.300	mg/L	1.00	20	SKJ	02/03/23	1430	2374301	9
Solids Analysis												

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Certificate of Analysis

Report Date: February 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-34S
Sample ID: 608418003

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		433	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		30.0	1.45	4.00	mg/L			EK1	01/30/23	1557	2375521	12
Bicarbonate alkalinity (CaCO3)		30.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

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Certificate of Analysis

Report Date: February 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-34S
Sample ID: 608418003

Project: GPCC00101
Client ID: GPCC001

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

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

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Certificate of Analysis

Report Date: February 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: 608418004	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 14:44	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.08			SU			AJ1	01/24/23	1444	2373871	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1444	2373871	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		334	3.33	10.0	mg/L		25	HXC1	01/26/23	0406	2373867	3
Chloride		6.46	0.0670	0.200	mg/L		1	HXC1	01/25/23	2008	2373867	4
Fluoride		0.239	0.0330	0.100	mg/L		1					
Nitrate-N		0.149	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	01/27/23	1056	2374419	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		67.5	0.400	1.00	mg/L	1.00	5	SKJ	02/02/23	1346	2374301	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1937	2374301	7
Barium		0.0291	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00524	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					
Manganese		0.0113	0.00100	0.00500	mg/L	1.00	1					
Potassium		4.05	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		20.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1547	2374301	8
Beryllium	U	ND	0.000200	0.000500	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		36.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Boron		2.23	0.104	0.300	mg/L	1.00	20	SKJ	02/03/23	1433	2374301	9
Solids Analysis												

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: February 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
Sample ID: 608418004

Project: GPCC00101
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		507	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0354	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		51.6	1.45	4.00	mg/L			EK1	01/30/23	1559	2375521	12
Bicarbonate alkalinity (CaCO3)		51.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
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:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 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
Sample ID: 608418004

Project: GPCC00101
Client ID: GPCC001

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

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: February 7, 2023

Page 1 of 11

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

Contact: Joju Abraham

Workorder: 608422

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374002										
QC1205304359	608413001	DUP									
Chloride		3.79		3.79	mg/L	0.124		(0%-20%)	HXC1	01/25/23	19:29
Fluoride	J	0.0926	J	0.0925	mg/L	0.108	^	(+/-0.100)			
Nitrate-N		0.945		0.920	mg/L	2.68	^	(+/-0.500)		01/25/23	23:05
Sulfate		0.628		0.612	mg/L	2.71	^	(+/-0.400)		01/25/23	19:29
QC1205304358	LCS										
Chloride	5.00			4.87	mg/L			97.3 (90%-110%)		01/25/23	20:31
Fluoride	2.50			2.53	mg/L			101 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.76	mg/L			97.6 (90%-110%)			
QC1205304357	MB										
Chloride			U	ND	mg/L					01/25/23	21:02
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205304360	608413001	PS									
Chloride	5.00	3.79		9.31	mg/L			110 (90%-110%)		01/25/23	20:00

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

QC Summary

Workorder: 608422

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374002										
Fluoride	2.50	J	0.0926	2.68	mg/L		104	(90%-110%)	HXC1	01/25/23	20:00
Nitrate-N	2.50		0.189	2.65	mg/L		98.2	(90%-110%)		01/25/23	23:36
Sulfate	10.0		0.628	10.6	mg/L		99.5	(90%-110%)		01/25/23	20:00
Metals Analysis - ICPMS											
Batch	2374301										
QC1205304629	LCS										
Antimony	0.0500			0.0512	mg/L		102	(80%-120%)	SKJ	02/01/23	18:21
Arsenic	0.0500			0.0540	mg/L		108	(80%-120%)		02/03/23	14:21
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)		02/01/23	18:21
Beryllium	0.0500			0.0599	mg/L		120	(80%-120%)		02/03/23	14:21
Boron	0.100			0.113	mg/L		113	(80%-120%)			
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)		02/01/23	18:21
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0525	mg/L		105	(80%-120%)			
Cobalt	0.0500			0.0523	mg/L		105	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0549	mg/L		110	(80%-120%)		02/03/23	14:21

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

QC Summary

Workorder: 608422

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lithium	0.0500			0.0574	mg/L		115	(80%-120%)	SKJ	02/03/23	14:21
Magnesium	2.00			2.36	mg/L		118	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		02/01/23	18:21
Molybdenum	0.0500			0.0539	mg/L		108	(80%-120%)		02/03/23	14:21
Potassium	2.00			2.08	mg/L		104	(80%-120%)		02/01/23	18:21
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.23	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0526	mg/L		105	(80%-120%)			
QC1205304628	MB										
Antimony			U	ND	mg/L					02/01/23	18:18
Arsenic			U	ND	mg/L					02/03/23	14:18
Barium			U	ND	mg/L					02/01/23	18:18
Beryllium			U	ND	mg/L					02/03/23	14:18
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/01/23	18:18
Calcium			U	ND	mg/L						

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Chromium			U	ND	mg/L				SKJ	02/01/23	18:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					02/03/23	14:18
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					02/01/23	18:18
Molybdenum			U	ND	mg/L					02/03/23	14:18
Potassium			U	ND	mg/L					02/01/23	18:18
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205304630 608410001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		02/01/23	18:29
Arsenic	0.0500	U	ND	0.0534	mg/L		105	(75%-125%)		02/03/23	15:08
Barium	0.0500		0.0118	0.0604	mg/L		97.3	(75%-125%)		02/01/23	18:29

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Beryllium	0.0500	U	ND	0.0578	mg/L		115	(75%-125%)	SKJ	02/06/23	16:16
Boron	0.100	U	ND	0.125	mg/L		121	(75%-125%)		02/03/23	15:08
Cadmium	0.0500	U	ND	0.0524	mg/L		105	(75%-125%)		02/01/23	18:29
Calcium	2.00		4.86	7.20	mg/L		117	(75%-125%)			
Chromium	0.0500	J	0.00950	0.0628	mg/L		107	(75%-125%)			
Cobalt	0.0500	J	0.000829	0.0532	mg/L		105	(75%-125%)			
Iron	2.00	J	0.0824	2.11	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)		02/03/23	15:08
Lithium	0.0500	U	ND	0.0625	mg/L		124	(75%-125%)			
Magnesium	2.00		5.34	7.70	mg/L		118	(75%-125%)			
Manganese	0.0500		0.0348	0.0864	mg/L		103	(75%-125%)		02/01/23	18:29
Molybdenum	0.0500	U	ND	0.0549	mg/L		110	(75%-125%)		02/03/23	15:08
Potassium	2.00		0.432	2.54	mg/L		106	(75%-125%)		02/01/23	18:29
Selenium	0.0500	U	ND	0.0465	mg/L		93.1	(75%-125%)			
Sodium	2.00		3.63	5.85	mg/L		111	(75%-125%)			

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Thallium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	SKJ	02/01/23	18:29
QC1205304631 608410001 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	3.18	99.4	(0%-20%)		02/01/23	18:32
Arsenic	0.0500	U	ND	0.0541	mg/L	1.27	106	(0%-20%)		02/03/23	15:11
Barium	0.0500		0.0118	0.0587	mg/L	3	93.7	(0%-20%)		02/01/23	18:32
Beryllium	0.0500	U	ND	0.0558	mg/L	3.42	112	(0%-20%)		02/06/23	16:18
Boron	0.100	U	ND	0.124	mg/L	0.226	121	(0%-20%)		02/03/23	15:11
Cadmium	0.0500	U	ND	0.0503	mg/L	4.08	101	(0%-20%)		02/01/23	18:32
Calcium	2.00		4.86	7.13	mg/L	0.991	113	(0%-20%)			
Chromium	0.0500	J	0.00950	0.0614	mg/L	2.16	104	(0%-20%)			
Cobalt	0.0500	J	0.000829	0.0530	mg/L	0.458	104	(0%-20%)			
Iron	2.00	J	0.0824	2.06	mg/L	2.49	99	(0%-20%)			
Lead	0.0500	U	ND	0.0543	mg/L	1.38	109	(0%-20%)		02/03/23	15:11
Lithium	0.0500	U	ND	0.0623	mg/L	0.261	123	(0%-20%)			
Magnesium	2.00		5.34	7.85	mg/L	1.81	125	(0%-20%)			
Manganese	0.0500		0.0348	0.0852	mg/L	1.43	101	(0%-20%)		02/01/23	18:32

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Molybdenum	0.0500	U	ND	0.0558	mg/L	1.5	112	(0%-20%)	SKJ	02/03/23	15:11
Potassium	2.00		0.432	2.55	mg/L	0.416	106	(0%-20%)		02/01/23	18:32
Selenium	0.0500	U	ND	0.0467	mg/L	0.333	93.4	(0%-20%)			
Sodium	2.00		3.63	5.71	mg/L	2.43	104	(0%-20%)			
Thallium	0.0500	U	ND	0.0519	mg/L	2.13	104	(0%-20%)			
QC1205304632 608410001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Barium			11.8	J	2.36	ug/L	.33	(0%-20%)		02/01/23	18:39
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/06/23	16:20
Boron		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Calcium			4860		1000	ug/L	3.15	(0%-20%)			
Chromium		J	9.50	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		J	0.829	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	82.4	U	ND	ug/L	N/A	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/03/23	15:17
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		5340		1050	ug/L	1.84		(0%-20%)			
Manganese		34.8		6.88	ug/L	1.11		(0%-20%)		02/01/23	18:39
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/03/23	15:17
Potassium		432	J	97.3	ug/L	12.6		(0%-20%)		02/01/23	18:39
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3630		689	ug/L	4.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2374419										
QC1205304806	608391001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/27/23	10:12
QC1205304805	LCS										
Mercury	0.00200			0.00213	mg/L		106	(80%-120%)		01/27/23	10:08
QC1205304804	MB										
Mercury			U	ND	mg/L					01/27/23	10:07
QC1205304807	608391001	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		106	(75%-125%)		01/27/23	10:13

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2374419										
QC1205304808	608391001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/27/23	10:15
Solids Analysis											
Batch	2376170										
QC1205307926	608418001	DUP									
Total Dissolved Solids		344		341	mg/L	0.876		(0%-5%)	CH6	01/31/23	12:35
QC1205307924	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		01/31/23	12:35
QC1205307923	MB										
Total Dissolved Solids			U	ND	mg/L					01/31/23	12:35
Spectrometric Analysis											
Batch	2374521										
QC1205304980	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:43
QC1205304979	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:43
QC1205304981	608410001	PS									
Total Sulfide	0.400	U	ND	0.387	mg/L		96.8	(75%-125%)		01/30/23	15:43
QC1205304983	608418002	PS									
Total Sulfide	0.400	U	ND	0.352	mg/L		86.7	(75%-125%)		01/30/23	15:43
QC1205304982	608410001	PSD									
Total Sulfide	0.400	U	ND	0.392	mg/L	1.29	98.1	(0%-15%)		01/30/23	15:43
QC1205304984	608418002	PSD									
Total Sulfide	0.400	U	ND	0.362	mg/L	2.82	89.3	(0%-15%)		01/30/23	15:43

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2375518										
QC1205306806	608051001	DUP									
Alkalinity, Total as CaCO3		67.6		69.6	mg/L	2.92		(0%-20%)	MS3	01/28/23	12:24
Bicarbonate alkalinity (CaCO3)		67.6		69.6	mg/L	2.92		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205306658	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		01/28/23	12:18
QC1205306807	608051001	MS									
Alkalinity, Total as CaCO3	100	67.6		167	mg/L		99.6	(80%-120%)		01/28/23	12:30

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

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QC Summary

Report Date: February 10, 2023

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

Contact: Joju Abraham

Workorder: 608815

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2375453										
QC1205306674	608815001	DUP									
Chloride		3.36		3.36	mg/L	0.0149		(0%-20%)	JLD1	01/27/23	20:08
Fluoride	U	ND	U	ND	mg/L	N/A					
Nitrate-N	J	0.0655	J	0.0595	mg/L	9.6 ^		(+/-0.100)			
Sulfate		75.3		74.2	mg/L	1.55		(0%-20%)		01/27/23	23:08
QC1205306563	LCS										
Chloride	5.00			4.55	mg/L		91	(90%-110%)		01/27/23	19:38
Fluoride	2.50			2.56	mg/L		102	(90%-110%)			
Nitrate-N	2.50			2.33	mg/L		93.3	(90%-110%)			
Sulfate	10.0			9.47	mg/L		94.7	(90%-110%)			
QC1205306562	MB										
Chloride			U	ND	mg/L					01/27/23	19:09
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205306675	608815001	PS									
Chloride	5.00	3.36		8.31	mg/L		98.8	(90%-110%)		01/27/23	20:38

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2375453										
Fluoride	2.50	U	ND	2.67	mg/L		107	(90%-110%)	JLD1	01/27/23	20:38
Nitrate-N	2.50	J	0.0655	2.35	mg/L		91.4	(90%-110%)			
Sulfate	10.0		7.53	17.3	mg/L		98.1	(90%-110%)		01/27/23	23:37
Metals Analysis - ICPMS											
Batch	2375511										
QC1205306650	LCS										
Antimony	0.0500			0.0503	mg/L		101	(80%-120%)	SKJ	01/31/23	23:42
Arsenic	0.0500			0.0524	mg/L		105	(80%-120%)			
Barium	0.0500			0.0492	mg/L		98.4	(80%-120%)			
Beryllium	0.0500			0.0567	mg/L		113	(80%-120%)		02/01/23	13:22
Boron	0.100			0.112	mg/L		112	(80%-120%)			
Cadmium	0.0500			0.0520	mg/L		104	(80%-120%)		01/31/23	23:42
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0515	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0515	mg/L		103	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0533	mg/L		107	(80%-120%)			

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QC Summary

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Lithium	0.0500			0.0548	mg/L		110	(80%-120%)	SKJ	02/01/23	13:22
Magnesium	2.00			2.23	mg/L		112	(80%-120%)			
Manganese	0.0500			0.0513	mg/L		103	(80%-120%)		01/31/23	23:42
Molybdenum	0.0500			0.0530	mg/L		106	(80%-120%)		02/01/23	13:22
Potassium	2.00			2.06	mg/L		103	(80%-120%)		01/31/23	23:42
Selenium	0.0500			0.0503	mg/L		101	(80%-120%)			
Sodium	2.00			2.15	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0517	mg/L		103	(80%-120%)			
QC1205306649	MB										
Antimony			U	ND	mg/L					01/31/23	23:38
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/01/23	13:20
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					01/31/23	23:38
Calcium			U	ND	mg/L						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Chromium			U	ND	mg/L				SKJ	01/31/23	23:38
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L					02/01/23	13:20
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					01/31/23	23:38
Molybdenum			U	ND	mg/L					02/01/23	13:20
Potassium			U	ND	mg/L					01/31/23	23:38
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205306651 608815001 MS											
Antimony	0.0500	U	ND	0.0518	mg/L		103	(75%-125%)		01/31/23	23:49
Arsenic	0.0500	J	0.00388	0.0546	mg/L		101	(75%-125%)			
Barium	0.0500		0.0525	0.101	mg/L		96.6	(75%-125%)			

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2375511											
Beryllium	0.0500	J	0.000422		0.0573	mg/L		114	(75%-125%)	SKJ	02/01/23	13:27
Boron	0.100	J	0.0104		0.117	mg/L		106	(75%-125%)			
Cadmium	0.0500	U	ND		0.0519	mg/L		104	(75%-125%)		01/31/23	23:49
Calcium	2.00		16.8		19.3	mg/L		N/A	(75%-125%)			
Chromium	0.0500		0.0153		0.0671	mg/L		104	(75%-125%)			
Cobalt	0.0500	U	ND		0.0514	mg/L		103	(75%-125%)			
Iron	2.00	U	ND		1.99	mg/L		99.2	(75%-125%)			
Lead	0.0500	U	ND		0.0536	mg/L		107	(75%-125%)			
Lithium	0.0500	U	ND		0.0563	mg/L		110	(75%-125%)		02/01/23	13:27
Magnesium	2.00		9.68		11.6	mg/L		N/A	(75%-125%)			
Manganese	0.0500	J	0.00207		0.0523	mg/L		100	(75%-125%)		01/31/23	23:49
Molybdenum	0.0500	U	ND		0.0542	mg/L		108	(75%-125%)		02/01/23	13:27
Potassium	2.00		4.41		6.48	mg/L		104	(75%-125%)		01/31/23	23:49
Selenium	0.0500	J	0.00215		0.0511	mg/L		97.9	(75%-125%)			
Sodium	2.00		11.7		14.3	mg/L		N/A	(75%-125%)			

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Thallium	0.0500	U	ND	0.0522	mg/L		104	(75%-125%)	SKJ	01/31/23	23:49
QC1205306652 608815001 MSD											
Antimony	0.0500	U	ND	0.0498	mg/L	3.93	99.4	(0%-20%)		01/31/23	23:52
Arsenic	0.0500	J	0.00388	0.0549	mg/L	0.541	102	(0%-20%)			
Barium	0.0500		0.0525	0.0994	mg/L	1.41	93.8	(0%-20%)			
Beryllium	0.0500	J	0.000422	0.0577	mg/L	0.723	115	(0%-20%)		02/01/23	13:29
Boron	0.100	J	0.0104	0.124	mg/L	6.12	114	(0%-20%)			
Cadmium	0.0500	U	ND	0.0503	mg/L	3.11	101	(0%-20%)		01/31/23	23:52
Calcium	2.00		16.8	18.5	mg/L	4.38	N/A	(0%-20%)			
Chromium	0.0500		0.0153	0.0660	mg/L	1.77	101	(0%-20%)			
Cobalt	0.0500	U	ND	0.0518	mg/L	0.69	103	(0%-20%)			
Iron	2.00	U	ND	2.00	mg/L	0.515	99.7	(0%-20%)			
Lead	0.0500	U	ND	0.0531	mg/L	0.849	106	(0%-20%)			
Lithium	0.0500	U	ND	0.0561	mg/L	0.276	110	(0%-20%)		02/01/23	13:29
Magnesium	2.00		9.68	11.8	mg/L	1.97	N/A	(0%-20%)			
Manganese	0.0500	J	0.00207	0.0516	mg/L	1.19	99.1	(0%-20%)		01/31/23	23:52

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QC Summary

Workorder: 608815

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Molybdenum	0.0500	U	ND	0.0546	mg/L	0.616	109	(0%-20%)	SKJ	02/01/23	13:29
Potassium	2.00		4.41	6.55	mg/L	1.08	107	(0%-20%)		01/31/23	23:52
Selenium	0.0500	J	0.00215	0.0508	mg/L	0.632	97.3	(0%-20%)			
Sodium	2.00		11.7	14.5	mg/L	0.899	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0522	mg/L	0.0364	104	(0%-20%)			
QC1205306653 608815001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		01/31/23	23:59
Arsenic		J	3.88	U	ND	ug/L	N/A	(0%-20%)			
Barium			52.5		10.3	ug/L	1.39	(0%-20%)			
Beryllium		J	0.422	U	ND	ug/L	N/A	(0%-20%)		02/01/23	13:33
Boron		J	10.4	J	5.27	ug/L	153	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		01/31/23	23:59
Calcium			16800		3280	ug/L	2.22	(0%-20%)			
Chromium			15.3	J	3.02	ug/L	1.13	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2375511										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	01/31/23	23:59
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/01/23	13:33
Magnesium		9680		1880	ug/L	3.11		(0%-20%)			
Manganese	J	2.07	U	ND	ug/L	N/A		(0%-20%)		01/31/23	23:59
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/01/23	13:33
Potassium		4410		839	ug/L	4.91		(0%-20%)		01/31/23	23:59
Selenium	J	2.15	U	ND	ug/L	N/A		(0%-20%)			
Sodium		11700		2330	ug/L	.218		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2375754										
QC1205307096	608803003	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/31/23	10:21
QC1205307095	LCS										
Mercury	0.00200			0.00211	mg/L		105	(80%-120%)		01/31/23	10:11
QC1205307094	MB										
Mercury			U	ND	mg/L					01/31/23	10:09
QC1205307097	608803003	MS									
Mercury	0.00200	U	ND	0.00180	mg/L		90	(75%-125%)		01/31/23	10:22

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2375754										
QC1205307098	608803003	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/31/23	10:24
Solids Analysis											
Batch	2376741										
QC1205308819	608803009	DUP									
Total Dissolved Solids		693		693	mg/L	0		(0%-5%)	CH6	02/01/23	13:05
QC1205308817	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		02/01/23	13:05
QC1205308816	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	13:05
Batch	2377347										
QC1205309759	608803013	DUP									
Total Dissolved Solids		2280		2240	mg/L	1.68		(0%-5%)	CH6	02/02/23	14:28
QC1205309760	608969004	DUP									
Total Dissolved Solids		898		882	mg/L	1.8		(0%-5%)		02/02/23	14:28
QC1205309758	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/02/23	14:28
QC1205309757	MB										
Total Dissolved Solids			U	ND	mg/L					02/02/23	14:28
Spectrometric Analysis											
Batch	2376122										
QC1205307836	LCS										
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	HH2	02/02/23	11:42
QC1205307835	MB										
Total Sulfide			U	ND	mg/L					02/02/23	11:42

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2376122										
QC1205307839	608815006	PS									
Total Sulfide	0.400	U	ND	0.367	mg/L		86.7	(75%-125%)	HH2	02/02/23	11:47
QC1205307840	608815006	PSD									
Total Sulfide	0.400	U	ND	0.374	mg/L	1.88	88.4	(0%-15%)		02/02/23	11:48
Titration and Ion Analysis											
Batch	2378067										
QC1205313003	608803012	DUP									
Alkalinity, Total as CaCO3			6.00	6.20	mg/L	3.28	^	(+/-4.00)	EK1	02/06/23	14:58
Bicarbonate alkalinity (CaCO3)			6.00	6.20	mg/L	3.28	^	(+/-4.00)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205311158	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/06/23	14:46
QC1205313004	608803012	MS									
Alkalinity, Total as CaCO3	100		6.00	107	mg/L		101	(80%-120%)		02/06/23	15:03

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

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QC Summary

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

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

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

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

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

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

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QC Summary

Report Date: February 7, 2023

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

Contact: Joju Abraham

Workorder: 608418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2373867										
QC1205304001	608418004	DUP									
Chloride		6.46		6.46	mg/L	0.065		(0%-20%)	HXC1	01/25/23	20:38
Fluoride		0.239		0.199	mg/L	18.2	^	(+/-0.100)			
Nitrate-N		0.149		0.151	mg/L	0.867	^	(+/-0.100)			
Sulfate		334		334	mg/L	0.0547		(0%-20%)		01/26/23	04:36
QC1205304000	LCS										
Chloride	5.00			4.85	mg/L			97.1 (90%-110%)		01/25/23	23:07
Fluoride	2.50			2.61	mg/L			105 (90%-110%)			
Nitrate-N	2.50			2.50	mg/L			99.8 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205303999	MB										
Chloride			U	ND	mg/L					01/25/23	22:37
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205304002	608418004	PS									
Chloride	5.00	6.46		12.5	mg/L			120* (90%-110%)		01/25/23	22:07

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2373867										
Fluoride	2.50	0.239		2.80	mg/L		103	(90%-110%)	HXC1	01/25/23	22:07
Nitrate-N	2.50	0.149		2.67	mg/L		101	(90%-110%)			
Sulfate	10.0	13.4		24.4	mg/L		111 *	(90%-110%)		01/26/23	05:06
Metals Analysis - ICPMS											
Batch	2374301										
QC1205304629	LCS										
Antimony	0.0500			0.0512	mg/L		102	(80%-120%)	SKJ	02/01/23	18:21
Arsenic	0.0500			0.0540	mg/L		108	(80%-120%)		02/03/23	14:21
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)		02/01/23	18:21
Beryllium	0.0500			0.0599	mg/L		120	(80%-120%)		02/03/23	14:21
Boron	0.100			0.113	mg/L		113	(80%-120%)			
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)		02/01/23	18:21
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0525	mg/L		105	(80%-120%)			
Cobalt	0.0500			0.0523	mg/L		105	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0549	mg/L		110	(80%-120%)		02/03/23	14:21

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QC Summary

Workorder: 608418

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lithium	0.0500			0.0574	mg/L		115	(80%-120%)	SKJ	02/03/23	14:21
Magnesium	2.00			2.36	mg/L		118	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		02/01/23	18:21
Molybdenum	0.0500			0.0539	mg/L		108	(80%-120%)		02/03/23	14:21
Potassium	2.00			2.08	mg/L		104	(80%-120%)		02/01/23	18:21
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.23	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0526	mg/L		105	(80%-120%)			
QC1205304628	MB										
Antimony			U	ND	mg/L					02/01/23	18:18
Arsenic			U	ND	mg/L					02/03/23	14:18
Barium			U	ND	mg/L					02/01/23	18:18
Beryllium			U	ND	mg/L					02/03/23	14:18
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/01/23	18:18
Calcium			U	ND	mg/L						

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Chromium			U	ND	mg/L				SKJ	02/01/23	18:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					02/03/23	14:18
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					02/01/23	18:18
Molybdenum			U	ND	mg/L					02/03/23	14:18
Potassium			U	ND	mg/L					02/01/23	18:18
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205304630 608410001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		02/01/23	18:29
Arsenic	0.0500	U	ND	0.0534	mg/L		105	(75%-125%)		02/03/23	15:08
Barium	0.0500		0.0118	0.0604	mg/L		97.3	(75%-125%)		02/01/23	18:29

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Beryllium	0.0500	U	ND	0.0578	mg/L		115	(75%-125%)	SKJ	02/06/23	16:16
Boron	0.100	U	ND	0.125	mg/L		121	(75%-125%)		02/03/23	15:08
Cadmium	0.0500	U	ND	0.0524	mg/L		105	(75%-125%)		02/01/23	18:29
Calcium	2.00		4.86	7.20	mg/L		117	(75%-125%)			
Chromium	0.0500	J	0.00950	0.0628	mg/L		107	(75%-125%)			
Cobalt	0.0500	J	0.000829	0.0532	mg/L		105	(75%-125%)			
Iron	2.00	J	0.0824	2.11	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)		02/03/23	15:08
Lithium	0.0500	U	ND	0.0625	mg/L		124	(75%-125%)			
Magnesium	2.00		5.34	7.70	mg/L		118	(75%-125%)			
Manganese	0.0500		0.0348	0.0864	mg/L		103	(75%-125%)		02/01/23	18:29
Molybdenum	0.0500	U	ND	0.0549	mg/L		110	(75%-125%)		02/03/23	15:08
Potassium	2.00		0.432	2.54	mg/L		106	(75%-125%)		02/01/23	18:29
Selenium	0.0500	U	ND	0.0465	mg/L		93.1	(75%-125%)			
Sodium	2.00		3.63	5.85	mg/L		111	(75%-125%)			

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QC Summary

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Thallium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	SKJ	02/01/23	18:29
QC1205304631 608410001 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	3.18	99.4	(0%-20%)		02/01/23	18:32
Arsenic	0.0500	U	ND	0.0541	mg/L	1.27	106	(0%-20%)		02/03/23	15:11
Barium	0.0500		0.0118	0.0587	mg/L	3	93.7	(0%-20%)		02/01/23	18:32
Beryllium	0.0500	U	ND	0.0558	mg/L	3.42	112	(0%-20%)		02/06/23	16:18
Boron	0.100	U	ND	0.124	mg/L	0.226	121	(0%-20%)		02/03/23	15:11
Cadmium	0.0500	U	ND	0.0503	mg/L	4.08	101	(0%-20%)		02/01/23	18:32
Calcium	2.00		4.86	7.13	mg/L	0.991	113	(0%-20%)			
Chromium	0.0500	J	0.00950	0.0614	mg/L	2.16	104	(0%-20%)			
Cobalt	0.0500	J	0.000829	0.0530	mg/L	0.458	104	(0%-20%)			
Iron	2.00	J	0.0824	2.06	mg/L	2.49	99	(0%-20%)			
Lead	0.0500	U	ND	0.0543	mg/L	1.38	109	(0%-20%)		02/03/23	15:11
Lithium	0.0500	U	ND	0.0623	mg/L	0.261	123	(0%-20%)			
Magnesium	2.00		5.34	7.85	mg/L	1.81	125	(0%-20%)			
Manganese	0.0500		0.0348	0.0852	mg/L	1.43	101	(0%-20%)		02/01/23	18:32

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Molybdenum	0.0500	U	ND	0.0558	mg/L	1.5	112	(0%-20%)	SKJ	02/03/23	15:11
Potassium	2.00		0.432	2.55	mg/L	0.416	106	(0%-20%)		02/01/23	18:32
Selenium	0.0500	U	ND	0.0467	mg/L	0.333	93.4	(0%-20%)			
Sodium	2.00		3.63	5.71	mg/L	2.43	104	(0%-20%)			
Thallium	0.0500	U	ND	0.0519	mg/L	2.13	104	(0%-20%)			
QC1205304632 608410001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Barium			11.8	J	2.36	ug/L	.33	(0%-20%)		02/01/23	18:39
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/06/23	16:20
Boron		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Calcium			4860		1000	ug/L	3.15	(0%-20%)			
Chromium		J	9.50	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		J	0.829	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	82.4	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

Workorder: 608418

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/03/23	15:17
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		5340		1050	ug/L	1.84		(0%-20%)			
Manganese		34.8		6.88	ug/L	1.11		(0%-20%)		02/01/23	18:39
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/03/23	15:17
Potassium		432	J	97.3	ug/L	12.6		(0%-20%)		02/01/23	18:39
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3630		689	ug/L	4.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2374419										
QC1205304806	608391001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/27/23	10:12
QC1205304805	LCS										
Mercury	0.00200			0.00213	mg/L		106	(80%-120%)		01/27/23	10:08
QC1205304804	MB										
Mercury			U	ND	mg/L					01/27/23	10:07
QC1205304807	608391001	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		106	(75%-125%)		01/27/23	10:13

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2374419										
QC1205304808	608391001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/27/23	10:15
Solids Analysis											
Batch	2376170										
QC1205307926	608418001	DUP									
Total Dissolved Solids		344		341	mg/L	0.876		(0%-5%)	CH6	01/31/23	12:35
QC1205307924	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		01/31/23	12:35
QC1205307923	MB										
Total Dissolved Solids			U	ND	mg/L					01/31/23	12:35
Spectrometric Analysis											
Batch	2374521										
QC1205304980	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:43
QC1205304979	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:43
QC1205304983	608418002	PS									
Total Sulfide	0.400	U	ND	0.352	mg/L		86.7	(75%-125%)		01/30/23	15:43
QC1205304984	608418002	PSD									
Total Sulfide	0.400	U	ND	0.362	mg/L	2.82	89.3	(0%-15%)		01/30/23	15:43
Titration and Ion Analysis											
Batch	2375521										
QC1205306667	608540001	DUP									
Alkalinity, Total as CaCO3		71.6		72.0	mg/L	0.557		(0%-20%)	EK1	01/30/23	16:11
Bicarbonate alkalinity (CaCO3)		71.6		72.0	mg/L	0.557		(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2375521										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A			EK1	01/30/23	16:11
QC1205306666 LCS											
Alkalinity, Total as CaCO3	100			101	mg/L		101	(90%-110%)		01/30/23	15:14
QC1205306668 608540001 MS											
Alkalinity, Total as CaCO3	100	71.6		173	mg/L		101	(80%-120%)		01/30/23	16:15

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

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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.

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QC Summary

Report Date: February 9, 2023

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

Contact: Joju Abraham

Workorder: 608614

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374768										
QC1205305382	608602001	DUP									
Chloride		5.84		5.87	mg/L	0.538		(0%-20%)	HXC1	01/26/23	21:55
Fluoride		0.130		0.180	mg/L	31.8	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				01/26/23	23:25
Sulfate		41.0		41.1	mg/L	0.217		(0%-20%)			
QC1205305381	LCS										
Chloride	5.00			4.83	mg/L			96.6 (90%-110%)		01/26/23	21:25
Fluoride	2.50			2.61	mg/L			104 (90%-110%)			
Nitrate-N	2.50			2.49	mg/L			99.4 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205305380	MB										
Chloride			U	ND	mg/L					01/26/23	19:56
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205305383	608602001	PS									
Chloride	5.00	5.84		11.6	mg/L			115* (90%-110%)		01/26/23	22:25

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374768										
Fluoride	2.50	0.130		2.78	mg/L		106	(90%-110%)	HXC1	01/26/23	22:25
Nitrate-N	2.50	U	ND	2.47	mg/L		98.7	(90%-110%)		01/26/23	23:55
Sulfate	10.0	8.20		18.7	mg/L		105	(90%-110%)			
Batch	2374833										
QC1205305506	608457001	DUP									
Chloride		10.0		10.0	mg/L	0.186		(0%-20%)	HXC1	01/27/23	04:25
Fluoride		0.585		0.734	mg/L	22.6*		(0%-20%)		01/26/23	22:15
Nitrate-N		1.18		1.17	mg/L	1.04		(0%-20%)		01/27/23	04:25
Sulfate		5.03		5.08	mg/L	1.03		(0%-20%)		01/26/23	22:15
QC1205305505	LCS										
Chloride	5.00			4.84	mg/L		96.8	(90%-110%)		01/26/23	21:44
Fluoride	2.50			2.52	mg/L		101	(90%-110%)			
Nitrate-N	2.50			2.39	mg/L		95.7	(90%-110%)			
Sulfate	10.0			9.68	mg/L		96.8	(90%-110%)			
QC1205305504	MB										
Chloride			U	ND	mg/L					01/26/23	20:12
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2374833										
Sulfate			U	ND	mg/L				HXC1	01/26/23	20:12
QC1205305507 608457001 PS											
Chloride	5.00	5.01		10.5	mg/L		110	(90%-110%)		01/27/23	04:56
Fluoride	2.50	0.585		3.14	mg/L		102	(90%-110%)		01/26/23	22:46
Nitrate-N	2.50	0.590		2.87	mg/L		91.3	(90%-110%)		01/27/23	04:56
Sulfate	10.0	5.03		15.4	mg/L		104	(90%-110%)		01/26/23	22:46

Metals Analysis - ICPMS

Batch 2374786

QC1205305393 LCS											
Antimony	0.0500			0.0526	mg/L		105	(80%-120%)	SKJ	02/08/23	17:36
Arsenic	0.0500			0.0527	mg/L		105	(80%-120%)			
Barium	0.0500			0.0508	mg/L		102	(80%-120%)			
Beryllium	0.0500			0.0597	mg/L		119	(80%-120%)		02/07/23	18:32
Boron	0.100			0.119	mg/L		119	(80%-120%)		02/08/23	17:36
Cadmium	0.0500			0.0538	mg/L		108	(80%-120%)			
Calcium	2.00			2.20	mg/L		110	(80%-120%)			
Chromium	0.0500			0.0522	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Iron	2.00			2.04	mg/L		102	(80%-120%)	SKJ	02/08/23	17:36
Lead	0.0500			0.0526	mg/L		105	(80%-120%)			
Lithium	0.0500			0.0571	mg/L		114	(80%-120%)		02/07/23	18:32
Magnesium	2.00			2.24	mg/L		112	(80%-120%)		02/08/23	17:36
Manganese	0.0500			0.0518	mg/L		104	(80%-120%)			
Molybdenum	0.0500			0.0547	mg/L		109	(80%-120%)			
Potassium	2.00			2.06	mg/L		103	(80%-120%)			
Selenium	0.0500			0.0527	mg/L		105	(80%-120%)			
Sodium	2.00			2.24	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0516	mg/L		103	(80%-120%)			
QC1205305392	MB										
Antimony			U	ND	mg/L					02/08/23	17:32
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/07/23	18:29
Boron			U	ND	mg/L					02/08/23	17:32

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Cadmium			U	ND	mg/L				SKJ	02/08/23	17:32
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					02/07/23	18:29
Magnesium			U	ND	mg/L					02/08/23	17:32
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						
QC1205305394	608602001	MS									
Antimony	0.0500	U	ND	0.0535	mg/L		107	(75%-125%)		02/08/23	19:13

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QC Summary

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2374786											
Arsenic	0.0500	J	0.00221		0.0524	mg/L		100	(75%-125%)	SKJ	02/08/23	19:13
Barium	0.0500		0.0498		0.0988	mg/L		97.9	(75%-125%)			
Beryllium	0.0500	U	ND		0.0601	mg/L		120	(75%-125%)		02/07/23	18:40
Boron	0.100		1.47		1.54	mg/L		N/A	(75%-125%)		02/08/23	17:43
Cadmium	0.0500	U	ND		0.0530	mg/L		106	(75%-125%)		02/08/23	19:13
Calcium	2.00		25.1		27.8	mg/L		N/A	(75%-125%)			
Chromium	0.0500	U	ND		0.0520	mg/L		103	(75%-125%)			
Cobalt	0.0500	U	ND		0.0513	mg/L		102	(75%-125%)			
Iron	2.00	J	0.0504		2.04	mg/L		99.6	(75%-125%)			
Lead	0.0500	U	ND		0.0518	mg/L		104	(75%-125%)			
Lithium	0.0500	J	0.00728		0.0653	mg/L		116	(75%-125%)		02/07/23	18:40
Magnesium	2.00		10.8		13.1	mg/L		N/A	(75%-125%)		02/08/23	19:13
Manganese	0.0500		0.396		0.459	mg/L		N/A	(75%-125%)		02/09/23	11:05
Molybdenum	0.0500	U	ND		0.0554	mg/L		111	(75%-125%)		02/08/23	19:13
Potassium	2.00		2.95		5.22	mg/L		114	(75%-125%)			

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Selenium	0.0500	U	ND	0.0492	mg/L		98.3	(75%-125%)	SKJ	02/08/23	19:13
Sodium	2.00		12.5	14.9	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0513	mg/L		103	(75%-125%)			
QC1205305395	608602001 MSD										
Antimony	0.0500	U	ND	0.0526	mg/L	1.66	105	(0%-20%)		02/08/23	19:17
Arsenic	0.0500	J	0.00221	0.0525	mg/L	0.168	101	(0%-20%)			
Barium	0.0500		0.0498	0.0968	mg/L	2	94	(0%-20%)			
Beryllium	0.0500	U	ND	0.0617	mg/L	2.74	123	(0%-20%)		02/07/23	18:43
Boron	0.100		1.47	1.61	mg/L	4.7	N/A	(0%-20%)		02/08/23	17:47
Cadmium	0.0500	U	ND	0.0544	mg/L	2.71	109	(0%-20%)		02/08/23	19:17
Calcium	2.00		25.1	27.2	mg/L	2.09	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0516	mg/L	0.689	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0501	mg/L	2.39	99.8	(0%-20%)			
Iron	2.00	J	0.0504	2.01	mg/L	1.41	98.2	(0%-20%)			
Lead	0.0500	U	ND	0.0502	mg/L	3.16	100	(0%-20%)			
Lithium	0.0500	J	0.00728	0.0658	mg/L	0.747	117	(0%-20%)		02/07/23	18:43

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QC Summary

Workorder: 608614

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Magnesium	2.00	10.8		13.2	mg/L	0.43	N/A	(0%-20%)	SKJ	02/08/23	19:17
Manganese	0.0500	0.396		0.444	mg/L	3.41	N/A	(0%-20%)		02/09/23	11:07
Molybdenum	0.0500	U	ND	0.0559	mg/L	0.82	112	(0%-20%)		02/08/23	19:17
Potassium	2.00	2.95		5.12	mg/L	1.87	109	(0%-20%)			
Selenium	0.0500	U	ND	0.0498	mg/L	1.27	99.6	(0%-20%)			
Sodium	2.00	12.5		14.4	mg/L	3.52	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0494	mg/L	3.8	98.8	(0%-20%)			
QC1205305396	608602001	SDILT									
Antimony	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Arsenic	J	2.21	U	ND	ug/L	N/A		(0%-20%)			
Barium		49.8		9.94	ug/L	.173		(0%-20%)			
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/07/23	18:50
Boron		147		37.0	ug/L	26.2		(0%-20%)		02/08/23	17:50
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Calcium		25100		5080	ug/L	1.08		(0%-20%)			
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374786										
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/08/23	19:24
Iron	J	50.4	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	J	7.28	U	ND	ug/L	N/A		(0%-20%)		02/07/23	18:50
Magnesium		10800		2170	ug/L	.232		(0%-20%)		02/08/23	19:24
Manganese		396		79.8	ug/L	.655		(0%-20%)		02/09/23	11:11
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Potassium		2950		585	ug/L	.814		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		12500		2450	ug/L	1.88		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2375028										
QC1205305820	608516009 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/30/23	12:15
QC1205305819	LCS										
Mercury		0.00200		0.00188	mg/L		93.8	(80%-120%)		01/30/23	12:07
QC1205305818	MB										
Mercury			U	ND	mg/L					01/30/23	12:05

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 2375028											
QC1205305821	608516009	MS									
Mercury	0.00200	U	ND	0.00184	mg/L		91.9	(75%-125%)	JP2	01/30/23	12:17
QC1205305822	608516009	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		01/30/23	12:19
Solids Analysis											
Batch 2376740											
QC1205308815	608602001	DUP									
Total Dissolved Solids			156	154	mg/L	1.29		(0%-5%)	CH6	02/01/23	11:35
QC1205308813	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		02/01/23	11:35
QC1205308812	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	11:35
Batch 2376741											
QC1205308819	608803009	DUP									
Total Dissolved Solids			693	693	mg/L	0		(0%-5%)	CH6	02/01/23	13:05
QC1205308817	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		02/01/23	13:05
QC1205308816	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	13:05
Spectrometric Analysis											
Batch 2375142											
QC1205306028	LCS										
Total Sulfide	0.400			0.413	mg/L		103	(85%-115%)	JW2	01/30/23	15:41
QC1205306027	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:41

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QC Summary

Workorder: 608614

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Spectrometric Analysis											
Batch	2375142										
QC1205306031	608614004	PS									
Total Sulfide	0.400	U	ND	0.392	mg/L		96.8	(75%-125%)	JW2	01/30/23	15:42
QC1205306032	608614004	PSD									
Total Sulfide	0.400	U	ND	0.382	mg/L	2.6	94.3	(0%-15%)		01/30/23	15:42
Titration and Ion Analysis											
Batch	2379826										
QC1205313789	608555001	DUP									
Alkalinity, Total as CaCO3			55.2	55.6	mg/L	0.722		(0%-20%)	MS3	02/07/23	13:24
Bicarbonate alkalinity (CaCO3)			55.2	55.6	mg/L	0.722		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205313786	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		02/07/23	12:39
QC1205313790	608555001	MS									
Alkalinity, Total as CaCO3	100		55.2	158	mg/L		102	(80%-120%)		02/07/23	13:27

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

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QC Summary

Workorder: 608614

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

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

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

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

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

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608815**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2375511

Preparation Method: SW846 3005A

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

Preparation Batch: 2375510

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815005	BRA-PZ-52D
1205306649	Method Blank (MB) ICP-MS
1205306650	Laboratory Control Sample (LCS)
1205306653	608815001(BRA-PZ-13SL) Serial Dilution (SD)
1205306651	608815001(BRA-PZ-13SS) Matrix Spike (MS)
1205306652	608815001(BRA-PZ-13SSD) 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 608815002 (BRA-PZ-70I) and 608815005 (BRA-PZ-52D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608815	
	002	005
Boron	20X	1X
Magnesium	5X	5X
Sodium	1X	10X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2375754

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2375753

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815005	BRA-PZ-52D
1205307094	Method Blank (MB)CVAA
1205307095	Laboratory Control Sample (LCS)
1205307098	608803003(BRA-BRGWC-30IL) Serial Dilution (SD)
1205307096	608803003(BRA-BRGWC-30ID) Sample Duplicate (DUP)
1205307097	608803003(BRA-BRGWC-30IS) 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# 30

Analytical Batch: 2375453

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S

608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815006	BRA-PZ-52D
1205306562	Method Blank (MB)
1205306563	Laboratory Control Sample (LCS)
1205306674	608815001(BRA-PZ-13S) Sample Duplicate (DUP)
1205306675	608815001(BRA-PZ-13S) 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 1205306674 (BRA-PZ-13SDUP), 1205306675 (BRA-PZ-13SPS), 608815001 (BRA-PZ-13S), 608815002 (BRA-PZ-70I), 608815003 (BRA-APE-FD-05) and 608815006 (BRA-PZ-52D) were diluted because target analyte concentrations exceeded the calibration range. The following sample 608815002 (BRA-PZ-70I) 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	608815			
	001	002	003	006
Chloride	1X	1X	1X	10X
Fluoride	1X	2X	1X	1X
Sulfate	10X	20X	10X	10X

Miscellaneous Information

Manual Integrations

Sample 608815006 (BRA-PZ-52D) 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# 20

Analytical Batch: 2376741

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815005	BRA-PZ-52D
1205308816	Method Blank (MB)
1205308817	Laboratory Control Sample (LCS)

1205308819

608803009(BRA-PZ-51D) 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# 20

Analytical Batch: 2377347

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
1205309757	Method Blank (MB)
1205309758	Laboratory Control Sample (LCS)
1205309759	608803013(BRA-PZ-61I) Sample Duplicate (DUP)
1205309760	608969004(BRA-PZ-57I) 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# 12

Analytical Batch: 2376122

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815006	BRA-PZ-52D
1205307835	Method Blank (MB)
1205307836	Laboratory Control Sample (LCS)
1205307839	608815006(BRA-PZ-52D) Post Spike (PS)
1205307840	608815006(BRA-PZ-52D) 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# 14

Analytical Batch: 2378067

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815006	BRA-PZ-52D
1205311158	Laboratory Control Sample (LCS)
1205313003	608803012(BRA-PZ-60I) Sample Duplicate (DUP)
1205313004	608803012(BRA-PZ-60I) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608614**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2374786

Preparation Method: SW846 3005A

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

Preparation Batch: 2374785

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205305392	Method Blank (MB)ICP-MS
1205305393	Laboratory Control Sample (LCS)
1205305396	608602001(BRA-PZ-44L) Serial Dilution (SD)
1205305394	608602001(BRA-PZ-44S) Matrix Spike (MS)
1205305395	608602001(BRA-PZ-44SD) 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 6020A/6020B met the advisory control limits with the exception of boron. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected. 608614001 (BRA-BRGWC-36S), 608614003 (BRA-BRGWC-38S) and 608614004 (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. Samples 608614001 (BRA-BRGWC-36S), 608614003 (BRA-BRGWC-38S) and 608614004 (BRA-PZ-53D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608614		
	001	003	004
Boron	10X	10X	10X
Calcium	1X	1X	5X
Manganese	1X	10X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2375028

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2375027

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205305818	Method Blank (MB)CVAA
1205305819	Laboratory Control Sample (LCS)
1205305822	608516009(NonSDGL) Serial Dilution (SD)
1205305820	608516009(NonSDGD) Sample Duplicate (DUP)
1205305821	608516009(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# 30

Analytical Batch: 2374768

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
1205305380	Method Blank (MB)
1205305381	Laboratory Control Sample (LCS)
1205305382	608602001(BRA-PZ-44) Sample Duplicate (DUP)
1205305383	608602001(BRA-PZ-44) 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	1205305383 (BRA-PZ-44PS)	115* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205305382 (BRA-PZ-44DUP), 1205305383 (BRA-PZ-44PS) and 608614001 (BRA-BRGWC-36S) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205305382 (BRA-PZ-44DUP) and 1205305383 (BRA-PZ-44PS) 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	608614
	001
Sulfate	20X

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2374833

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205305504	Method Blank (MB)
1205305505	Laboratory Control Sample (LCS)
1205305506	608457001(NonSDG) Sample Duplicate (DUP)
1205305507	608457001(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

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
Fluoride	1205305506 (Non SDG 608457001DUP)	22.6* (0%-20%)

Technical Information

Sample Dilutions

The following samples 1205305506 (Non SDG 608457001DUP), 1205305507 (Non SDG 608457001PS), 608614003 (BRA-BRGWC-38S) and 608614004 (BRA-PZ-53D) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205305506 (Non SDG 608457001DUP), 1205305507 (Non SDG 608457001PS), 608614002 (BRA-BRGWC-37S), 608614003 (BRA-BRGWC-38S) and 608614004 (BRA-PZ-53D) 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	608614		
	002	003	004
Nitrate-N	2X	2X	2X
Sulfate	1X	40X	40X

Miscellaneous Information

Manual Integrations

Samples 608614004 (BRA-PZ-53D) and 608614006 (BRA-APE-FB-08) 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# 20
Analytical Batch: 2376740

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
1205308812	Method Blank (MB)
1205308813	Laboratory Control Sample (LCS)
1205308815	608602001(BRA-PZ-44) 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# 20
Analytical Batch: 2376741

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205308816	Method Blank (MB)
1205308817	Laboratory Control Sample (LCS)
1205308819	608803009(BRA-PZ-51D) 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# 12

Analytical Batch: 2375142

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205306027	Method Blank (MB)
1205306028	Laboratory Control Sample (LCS)
1205306031	608614004(BRA-PZ-53D) Post Spike (PS)
1205306032	608614004(BRA-PZ-53D) 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# 14

Analytical Batch: 2379826

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
1205313786	Laboratory Control Sample (LCS)
1205313789	608555001(NonSDG) Sample Duplicate (DUP)
1205313790	608555001(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608422**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2374301

Preparation Method: SW846 3005A

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

Preparation Batch: 2374300

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304628	Method Blank (MB)ICP-MS
1205304629	Laboratory Control Sample (LCS)
1205304632	608410001(BRA-BRGWA-2SL) Serial Dilution (SD)
1205304630	608410001(BRA-BRGWA-2SS) Matrix Spike (MS)
1205304631	608410001(BRA-BRGWA-2SSD) Matrix Spike Duplicate (MSD)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 608422001 (BRA-APE-FD-04) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	608422
	001
Boron	10X
Calcium	10X

Manganese	10X
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Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2374419

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2374418

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304804	Method Blank (MB)CVAA
1205304805	Laboratory Control Sample (LCS)
1205304808	608391001(NonSDGL) Serial Dilution (SD)
1205304806	608391001(NonSDGD) Sample Duplicate (DUP)
1205304807	608391001(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# 30

Analytical Batch: 2374002

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304357	Method Blank (MB)
1205304358	Laboratory Control Sample (LCS)
1205304359	608413001(BRA-BRGWA-12S) Sample Duplicate (DUP)
1205304360	608413001(BRA-BRGWA-12S) 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 sample 608422001 (BRA-APE-FD-04) was diluted because target analyte concentrations exceeded the calibration range. The following samples 1205304359 (BRA-BRGWA-12SDUP), 1205304360 (BRA-BRGWA-12SPS) and 608422001 (BRA-APE-FD-04) 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	608422
	001
Chloride	40X
Nitrate-N	2X
Sulfate	40X

Miscellaneous Information

Manual Integrations

Sample 608422001 (BRA-APE-FD-04) 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# 20

Analytical Batch: 2376170

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205307923	Method Blank (MB)
1205307924	Laboratory Control Sample (LCS)
1205307926	608418001(BRA-BRGWC-17S) 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# 12

Analytical Batch: 2374521

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205304979	Method Blank (MB)
1205304980	Laboratory Control Sample (LCS)
1205304981	608410001(BRA-BRGWA-2S) Post Spike (PS)
1205304982	608410001(BRA-BRGWA-2S) Post Spike Duplicate (PSD)
1205304983	608418002(BRA-BRGWC-33S) Post Spike (PS)
1205304984	608418002(BRA-BRGWC-33S) 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# 14

Analytical Batch: 2375518

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
1205306658	Laboratory Control Sample (LCS)
1205306806	608051001(NonSDG) Sample Duplicate (DUP)
1205306807	608051001(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

**Technical Case Narrative
Georgia Power Company
SDG #: 608418**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2374301

Preparation Method: SW846 3005A

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

Preparation Batch: 2374300

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205304628	Method Blank (MB) ICP-MS
1205304629	Laboratory Control Sample (LCS)
1205304632	608410001(BRA-BRGWA-2SL) Serial Dilution (SD)
1205304630	608410001(BRA-BRGWA-2SS) Matrix Spike (MS)
1205304631	608410001(BRA-BRGWA-2SSD) 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 608418002 (BRA-BRGWC-33S), 608418003 (BRA-BRGWC-34S) and 608418004 (BRA-BRGWC-35S) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608418		
	002	003	004
Boron	10X	20X	20X
Calcium	10X	5X	5X
Manganese	10X	5X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 39

Analytical Batch: 2374419

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 39

Preparation Batch: 2374418

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205304804	Method Blank (MB) CVAA
1205304805	Laboratory Control Sample (LCS)
1205304808	608391001(NonSDGL) Serial Dilution (SD)
1205304806	608391001(NonSDGD) Sample Duplicate (DUP)
1205304807	608391001(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# 30

Analytical Batch: 2373867

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S

608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205303999	Method Blank (MB)
1205304000	Laboratory Control Sample (LCS)
1205304001	608418004(BRA-BRGWC-35S) Sample Duplicate (DUP)
1205304002	608418004(BRA-BRGWC-35S) 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	1205304002 (BRA-BRGWC-35SPS)	120* (90%-110%)
Sulfate	1205304002 (BRA-BRGWC-35SPS)	111* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205304001 (BRA-BRGWC-35SDUP), 1205304002 (BRA-BRGWC-35SPS), 608418001 (BRA-BRGWC-17S), 608418002 (BRA-BRGWC-33S), 608418003 (BRA-BRGWC-34S) and 608418004 (BRA-BRGWC-35S) were diluted because target analyte concentrations exceeded the calibration range. The following sample 608418001 (BRA-BRGWC-17S) 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	608418			
	001	002	003	004
Chloride	1X	40X	1X	1X
Nitrate-N	2X	1X	1X	1X
Sulfate	20X	40X	40X	25X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 20

Analytical Batch: 2376170

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205307923	Method Blank (MB)
1205307924	Laboratory Control Sample (LCS)
1205307926	608418001(BRA-BRGWC-17S) 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# 12

Analytical Batch: 2374521

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205304979	Method Blank (MB)
1205304980	Laboratory Control Sample (LCS)
1205304983	608418002(BRA-BRGWC-33S) Post Spike (PS)
1205304984	608418002(BRA-BRGWC-33S) 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# 14

Analytical Batch: 2375521

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
-----------------------	-------------------------------------

608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
1205306666	Laboratory Control Sample (LCS)
1205306667	608540001(NonSDG) Sample Duplicate (DUP)
1205306668	608540001(NonSDG) Matrix Spike (MS)

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

Data Summary:

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

Certification Statement

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

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty 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

608622
 608614

GEL Work Order Number:
 Phone # 404-506-7116
 Fax # _____

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: T. Gebel ACC

Send Results To: SCS & Geosyntec Contacts

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⁾	Radioactive (If yes, please supply isotopic info.)	Should this sample be considered:	Total number of containers	Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)	Preservative Type ⁽⁶⁾	Comments
BRA-BAGWC-365	01/25/23	1553	G	N	WG	N	Yes	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bicarb Alk SM 2208B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	<- Preservative Type (6)	Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1 field pH = 5.64 field ferrous iron = 0.0
BRA-BAGWC-375	01/25/23	1320	G	N	WG	N	Yes	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bicarb Alk SM 2208B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	<- Preservative Type (6)	field pH = 5.64 field ferrous iron = 0.0
BRA-BAGWC-345	01/25/23	1353	G	N	WG	N	Yes	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bicarb Alk SM 2208B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	<- Preservative Type (6)	field pH = 4.75 field ferrous iron = 0.0
BRA-P2-53D	01/25/23	1615	G	N	WG	N	Yes	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bicarb Alk SM 2208B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	<- Preservative Type (6)	field pH = 7.10 field ferrous iron = 0.0
BRA-APE-EB-09	01/25/23	1245	G	N	WQ	N	Yes	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bicarb Alk SM 2208B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	<- Preservative Type (6)	field pH = _____ field ferrous iron = _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	1-26-23	0827	<u>[Signature]</u>	1/26/23	5:24
<u>[Signature]</u>	1/26/23	115	<u>[Signature]</u>	1/26/23	1:15

TAT Requested: Normal: Yes No Rush: Yes No 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: _____

> 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, 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

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 FW, 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.)

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty 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

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - ~~TK E~~
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: T. Gable ACC

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⁾	Radiactive (If isotopic info) Yes, please supply	Should this sample be considered:	Total number of containers	Preservative Type (6)	Comments
BRA- APE - FB-08	01/25/23	1645	G	N	WG WB	N	Yes	8	None	field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____
BRA-										field pH = _____ field ferrous iron = _____

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

Sample ID: _____
 Date: _____
 Time: _____
 Received by (signed): _____
 Date: _____
 Time: _____

Relinquished By (Signed): _____
 Date: _____
 Time: _____

Chain of Custody Signatures

1. [Signature] 1/26/23 0827
 2. [Signature] 1/26/23 9:15
 3. _____

TAT Requested: Normal: Yes No Rush: _____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

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

Additional Remarks: * Metals: B,Ca,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:

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
 CO = Corrosive
 RE = Reactive
 Listed Waste: _____
 LW = Listed Waste
 (F,K,P and U-listed wastes.)
 Waste code(s): _____
 TSCA Regulated
 PCB = Polychlorinated biphenyls
 RCRA Metals
 As = Arsenic Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCRA metals
 Pb = Lead
 Other: _____
 OT = Other / Unknown
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: **GPCC** SDG/AR/COC/Work Order: **608622, 608614**

Received By: **Stacy Boone** Date Received: **JAN 26, 2023** Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Carrier and Tracking Number

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?
B) Did the client designate the samples are to be received as radioactive?
C) Did the RSO classify the samples as radioactive?
D) Did the client designate samples are hazardous?
E) Did the RSO identify possible hazards?

Table with columns: Sample Receipt Criteria, Yes, NA, No, Comments/Qualifiers (Required for Non-Conforming Items). Rows 1-13 detailing shipping and preservation criteria.

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials [Signature] Date 1/27/23 Page 1 of 1

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) Radiative (if yes, please supply isotopic info): _____
 (9) Yes, please supply isotopic info: _____
 (10) Metals: _____
 (11) Total & Biecarb Alk: _____
 (12) EPA 300, SM 2540C: _____
 (13) Cl, F, SO4, TDS, NO3: _____
 (14) Radium 226 & 228: _____
 (15) SW-846 9315, 9320: _____
 (16) Sulfide SM 4500: _____
 (17) Preservative Type (6): _____

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (6)	Field Filtered (6)	Sample Matrix (6)	Should this sample be considered:	Total number of containers	Comments
BRA-PZ-13S	01/26/23	1120	G	N	WG	N	8	field pH = 5.56 field ferrous iron = 0.0 mg/L
BRA-PZ-70I	01/26/23	1022	G	N	WG	N	8	field pH = 5.60 field ferrous iron = 0.0 mg/L
BRA-APE-FD-05	01/26/23	/	G	N	WG	N	8	field pH = NA field ferrous iron = NA
BRA-APE-EB-10	01/26/23	1100	G	N	WQ	N	8	field pH = NA field ferrous iron = NA
BRA-								field pH = field ferrous iron =

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1. [Signature] 01/27/23 0950
 2. [Signature] 1/27/23 213
 3. _____
 TAT Requested: Normal: Yes No Rush: Yes No Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * 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, 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 = Sulfuric Acid, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 Characteristic Hazards
 FL = Flammable/Ignitable
 LW = Listed Waste
 CO = Corrosive
 RE = Reactive
 Waste code(s):
 TSCA Regulated
 PCB = Polychlorinated biphenyls
 RCRA Metals
 As = Arsenic Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCRA metals
 Pb = Lead
 Other
 OT = Other / Unknown
 (i.e. High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description:
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number: 608815
 GEL Project Manager: Erin Trent

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

Client Name: GA Power
 Project/Site Name: Plant Branch Ash Ponds - E
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: A Selma Hiker ACC
 Send Results To: SCS & Geosyntec Contacts

Phone # 404-506-7116
 Fax # _____

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code ⁽²⁾	Field Filtered ⁽³⁾	Sample Matrix ⁽⁴⁾	Radioactive (if yes, please supply isotopic info.)	Should this sample be considered:	Total number of containers	Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-PZ-52D	01/25/23	1424	G	N	WG	N	(?) Known or possible Hazards	2	NI EPA 6020, 6010, 7470 Metals * Total & Bicarb Alk SM 2320B	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI
BRA-PZ-52D	01/26/23	1240	G	N	WG	N	(?) Known or possible Hazards	3	NI EPA 309, SM 2540C Cl, F, SO4, TDS, NO3	<-- Preservative Type (6)	field pH = 7.14 field ferrous iron = 0.0 mg/L field pH = 7.7 field ferrous iron = 0.0 mg/L
BRA-							(?) Known or possible Hazards			<-- Preservative Type (6)	field pH = _____ field ferrous iron = _____
BRA-							(?) Known or possible Hazards			<-- Preservative Type (6)	field pH = _____ field ferrous iron = _____
BRA-							(?) Known or possible Hazards			<-- Preservative Type (6)	field pH = _____ field ferrous iron = _____

* For composites - indicate start and stop date/time

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	01/27/23	0950	<u>[Signature]</u>	01/27/23	0950
<u>[Signature]</u>	01/27/23	213	<u>[Signature]</u>	01/27/23	213

> 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 = 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
 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.)

SAMPLE RECEIPT & REVIEW FORM

Client: GPOC SDG/AR/COC/Work Order: 608810, 608819 ET
 Received By: Thyasia Tatum Date Received: 1-27-23

Carrier and Tracking Number
 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

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? 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>R2-20</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AT Date 1/31/23 Page 1 of 1

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Speciality 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

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-2023S1
						Yes, please supply isotopic info) (7) Known or possible Hazards	Total number of containers	C1, F, S04, TDS, N03	EPA 300, SM 2540C	Total & Bicarb Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	
BRA- BRGWC-17S	01/24/23	1618	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 6.37 field ferrous iron = 0.0
BRA- BRGWC-33S	01/24/23	1340	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 4.79 field ferrous iron = 0.0
BRA- BRGWC-34S	01/24/23	1253	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 5.93 field ferrous iron = 0.0
BRA- BRGWC-35S	01/24/23	1444	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = 6.08 field ferrous iron = 0.0
BRA-														field pH = field ferrous iron =

Chain of Custody Signatures			
Relinquished By (Signed)	Date	Received by (signed)	Time
<u>T. Goswami</u>	1-25-23	<u>Erin Trent</u>	1:25:23
<u>Erin Trent</u>	1-25-23	<u>M. J. ...</u>	1:25:23

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, NI = Nitric Acid, SH = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	As = Arsenic	Hg = Mercury
Ba = Barium	Se = Selenium	
Cd = Cadmium	Ag = Silver	
Cr = Chromium	MR = Misc. RCRA metals	
Pb = Lead		

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

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

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: 2 of 2
 Project # 608422
 GEL Quote #: 608423
 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. Coyle ACC
 Send Results To: SCS & Geosyntec Contacts
 *For composites - indicate start and stop date/time
 Sample ID
 BRA- APE - FD - 04
 BRA- APE - FB - 07
 BRA-
 BRA-
 BRA-

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178
 GEL.com
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Work Order Number: 608422
 GEL Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax #
 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
 Yes, please supply isotopic info)
 Radioactive (if applicable)
 Total number of containers
 C, F, SO4, TDS, NO3
 EPA 300, SM 2540C
 Total & Bicarb Alk
 SM 220B
 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-2023S1
 field pH = ---
 field ferrous iron = ---
 field pH = ---
 field ferrous iron = ---
 field pH = ---
 field ferrous iron = ---
 field pH = ---
 field ferrous iron = ---
 field pH = ---
 field ferrous iron = ---

TAT Requested: Normal: X 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: 0C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>Trent</u>	<u>1-25-23</u>	<u>0829</u>	<u>Erin Trent</u>	<u>1-25-23</u>	<u>1105</u>
<u>Trent</u>	<u>1-25-23</u>	<u>1338</u>	<u>M. A.</u>	<u>1-25-23</u>	<u>1338</u>

> 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, 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 = Sulfuric Acid, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 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
 Pb = Lead
 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, acid matrices, etc.)

List of current GEL Certifications as of 10 February 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

List of current GEL Certifications as of 07 February 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)
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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

List of current GEL Certifications as of 09 February 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

List of current GEL Certifications as of 07 February 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

APPENDIX B

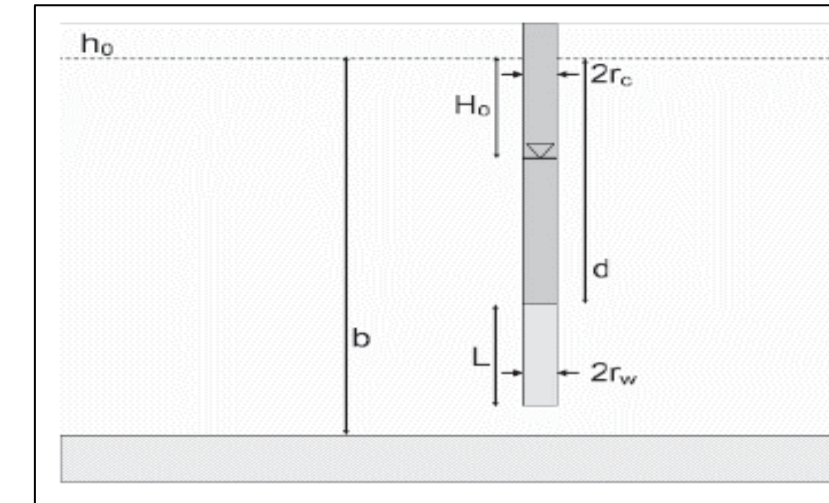
Slug Test Data Plots

Table 3
Summary of Estimated Horizontal Hydraulic Conductivity Values
Plant Branch AP-E, Putnam County, Georgia

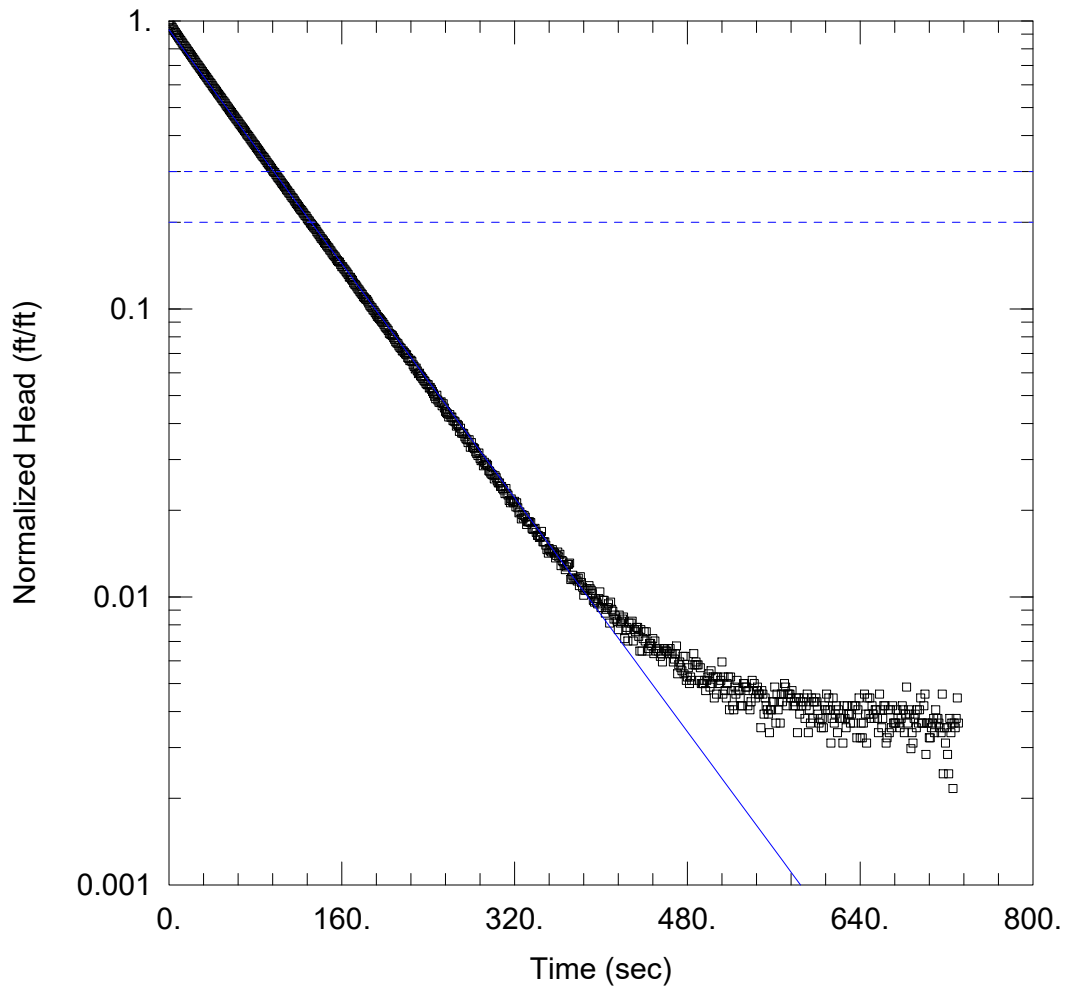
Well ID/Test No.	Screen Zone Material	Slug Test Type	Well Information						AQTESOLV Input Parameters												Horizontal Hydraulic Conductivity (Kh)					
			Depth to Sensor [ft bTOC]	Static DTW [ft bTOC]	DTW after Pressure Release [ft bTOC]	Top Screen Depth [ft TOC]	Bottom Screen Depth [ft bTOC]	Total Depth [ft bTOC]	Ho [ft]	H [ft]	b [ft]	Kv/Kh	d [ft]	L [ft]	T [ft]	r(c) [ft]	r(eq) [ft]	r(p) [ft]	r(w) [ft]	r(sk) [ft]	Bouwer-Rice Kh [ft/day]	KGS or Hvorslev Kh [ft/day]	Geomean Kh [ft/day]	Bouwer-Rice Kh [cm/sec]	KGS or Hvorslev Kh [cm/sec]	Geomean Kh [cm/sec]
PZ-70I Test 1	Saprolite/PWR	Pnumatic	48.00	28.90	36.30	39.60	49.60	50.00	7.40	21.10	21.10	0.1	10.70	10.0	19.10	0.083	0.03	0	0.25	0.25	1.222	1.535	1.400	4.3E-04	5.4E-04	4.9E-04
PZ-70I Test 2		Pnumatic	48.00	28.90	35.34	39.60	49.60	50.00	6.44	21.10	21.10	0.1	10.70	10.0	19.10	0.083	0.03	0	0.25	0.25	1.309	1.566		4.6E-04	5.5E-04	

Notes:

- Ho** Observed initial displacement (change in water level from static)
- H** Static water column height
- b** Saturated thickness of aquifer. If bottom of aquifer is unknown set b=bottom of well.
- Kv/Kh** Ratio of vertical to horizontal hydraulic conductivity
- d** Depth to top of well screen - this is the length from the water level (or top confining unit) to the top of the screen.
- L** Length of well screen
- T** Transducer Depth below the water table
- r(c)** Inside radius of well casing
- r(eq)** Radius of downhole equipment
- r(w)** Radius of well open or perforated interval
- r(sk)** Outside radius of well skin disturbed zone enveloping filter pack
- bTOC** Below Top Of Casing
- DTW** Depth To Water



1. For tests in which pumping was performed in lieu of applying pressurized gas, depth to water after pressure release refers to the depth after pumping is stopped.



WELL TEST ANALYSIS

Data Set: C:\Users\ccain\Desktop\Branch Slug Testing 10_22\Data\Aqtesolv\PZ-70 Test 1 BR.aqt
 Date: 10/14/22 Time: 14:13:27

PROJECT INFORMATION

Company: Geosyntec Consultants
 Client: Georgia Power Company
 Project: GW8862
 Location: Plant Branch
 Test Well: PZ-70
 Test Date: 10/12/2022

AQUIFER DATA

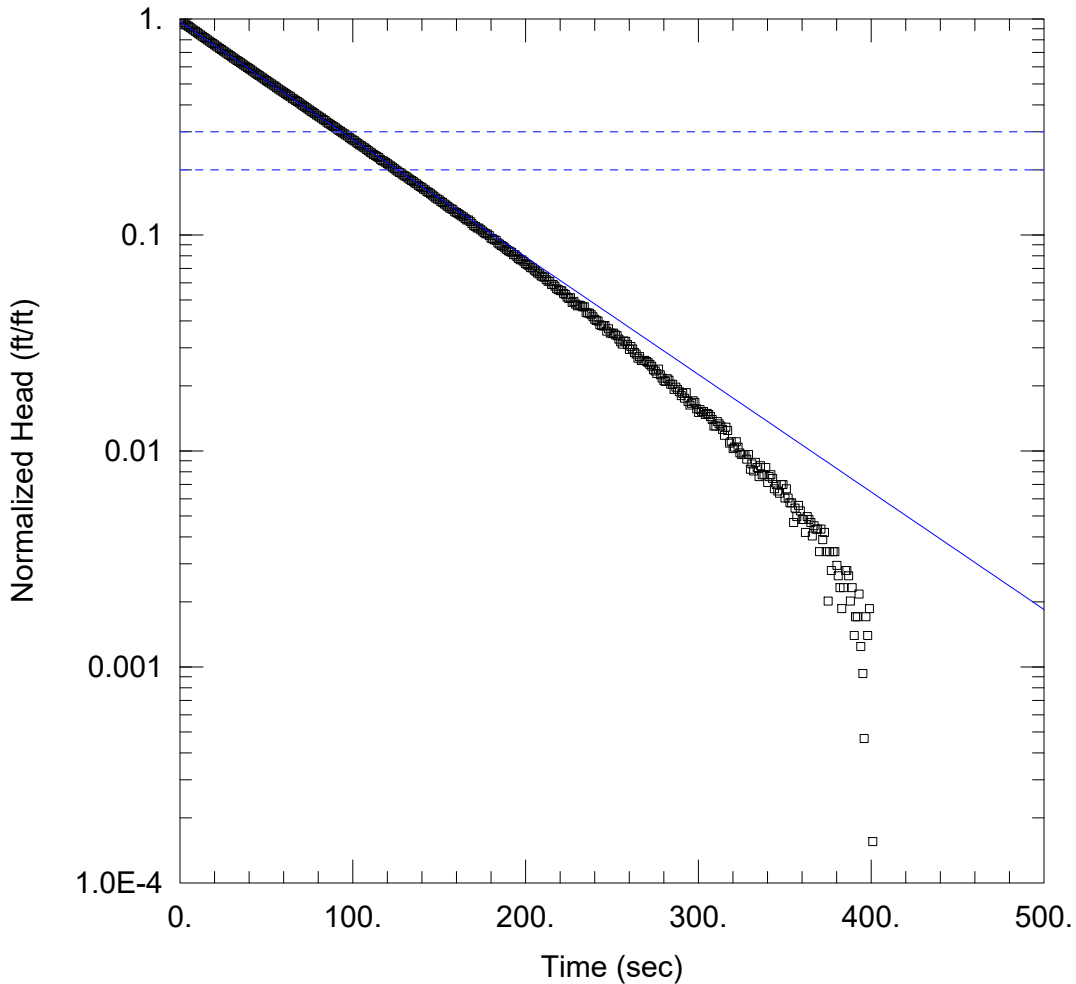
Saturated Thickness: 21.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-70 Test 1)

Initial Displacement: 7.4 ft Static Water Column Height: 21.1 ft
 Total Well Penetration Depth: 20.7 ft Screen Length: 10. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 1.222 ft/day y0 = 6.894 ft



WELL TEST ANALYSIS

Data Set: C:\Users\ccain\Desktop\Branch Slug Testing 10_22\Data\Aqtesol\VPZ-70 Test 2 BR.aqt
 Date: 10/14/22 Time: 14:17:30

PROJECT INFORMATION

Company: Geosyntec Consultants
 Client: Georgia Power Company
 Project: GW8862
 Location: Plant Branch
 Test Well: PZ-70 Test 2
 Test Date: 10/12/2022

AQUIFER DATA

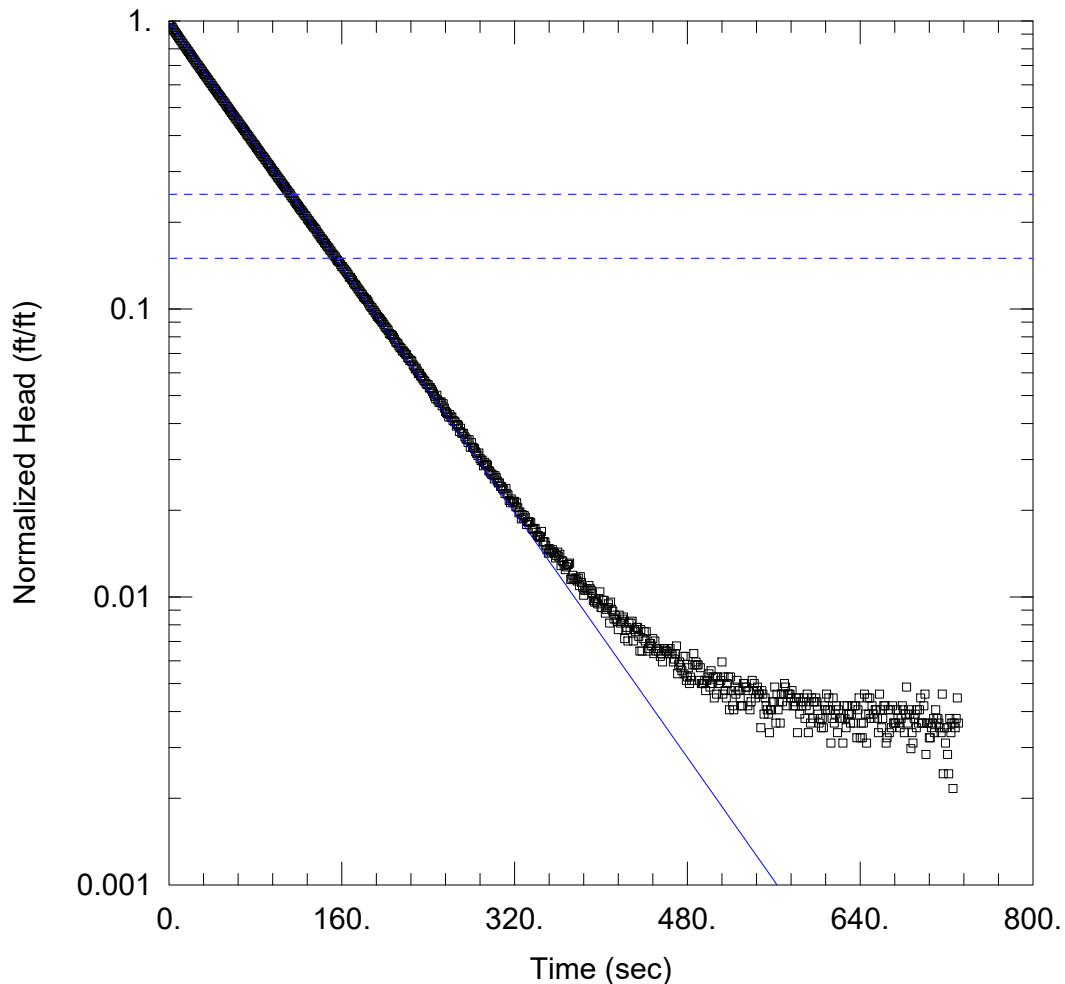
Saturated Thickness: 21.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-70 Test 2)

Initial Displacement: 6.44 ft Static Water Column Height: 21.1 ft
 Total Well Penetration Depth: 20.7 ft Screen Length: 10 ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 1.309 ft/day y0 = 6.24 ft



WELL TEST ANALYSIS

Data Set: C:\Users\ccain\Desktop\Branch Slug Testing 10_22\Data\Aqtesolv\pz-70 Test 1 HS.aqt
 Date: 10/14/22 Time: 14:14:05

PROJECT INFORMATION

Company: Geosyntec Consultants
 Client: Georgia Power Company
 Project: GW8862
 Location: Plant Branch
 Test Well: PZ-70
 Test Date: 10/12/2022

AQUIFER DATA

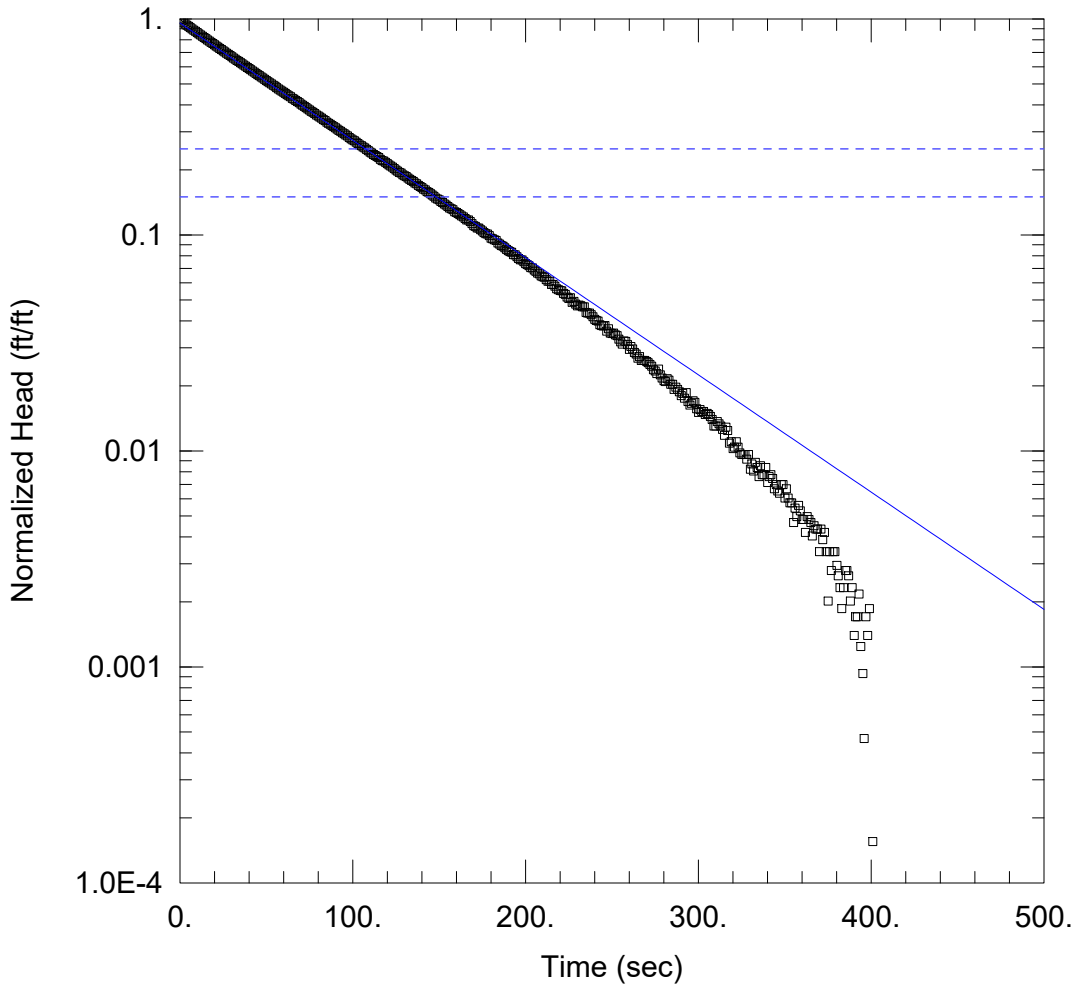
Saturated Thickness: 21.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-70 Test 1)

Initial Displacement: 7.4 ft Static Water Column Height: 21.1 ft
 Total Well Penetration Depth: 20.7 ft Screen Length: 10. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
 K = 1.535 ft/day y0 = 7.36 ft



WELL TEST ANALYSIS

Data Set: C:\Users\ccain\Desktop\Branch Slug Testing 10_22\Data\Aqtesol\VPZ-70 Test 2 HS.aqt
 Date: 10/14/22 Time: 14:18:11

PROJECT INFORMATION

Company: Geosyntec Consultants
 Client: Georgia Power Company
 Project: GW8862
 Location: Plant Branch
 Test Well: PZ-70 Test 2
 Test Date: 10/12/2022

AQUIFER DATA

Saturated Thickness: 21.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-70 Test 2)

Initial Displacement: 6.44 ft Static Water Column Height: 21.1 ft
 Total Well Penetration Depth: 20.7 ft Screen Length: 10. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
 K = 1.566 ft/day y0 = 6.164 ft