



REPORT

2022 Annual Groundwater Monitoring and Corrective Action Report

Georgia Power Company - Plant McDonough-Atkinson Ash Pond 1

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Certification

This 2022 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant McDonough - Atkinson-Ash Pond 1 (AP-1) has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 (6)(a-c) by a qualified groundwater scientist or engineer with Golder Associates USA Inc.

I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g) and that this 2022 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant McDonough-Atkinson Ash Pond 1 has been prepared to meet the requirements of 40 CFR § 257.90(e).

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Executive Summary

This summary of the 2022 Annual Groundwater Monitoring and Corrective Action Report provides the status of the groundwater monitoring and corrective program from July 2021 through June 2022 at Georgia Power Company (Georgia Power)'s Plant McDonough-Atkinson Ash Pond 1 (AP-1). Groundwater monitoring and reporting for AP-1 is performed by Golder Associates USA Inc., a member of WSP (Golder), in accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule published in the Code of Federal Regulations (CFR) Title 40 Part 257 (40 CFR Part 257, Subpart D) dated April 17, 2015, and revised July 2018, 40 CFR § 257.90 through § 257.98. As required in 40 CFR § 257.90(e), this Annual Report describes the status of the groundwater monitoring program, summarizes key actions completed, and presents projected key activities for the upcoming reporting period at AP-1. Other CCR units (AP-2 and 3/4) on-site at Plant McDonough-Atkinson (Plant McDonough, Site) are reported separately.

Plant McDonough, formerly a coal-fired power generating facility, was converted to a natural gas combined-cycle power generating facility in 2011. Located approximately 7 miles northwest of Atlanta in southeast Cobb County (5551 South Cobb Drive SE, Atlanta, Georgia 30339), the property occupies approximately 390 acres and is bounded on the southeast by the Chattahoochee River.



Plant McDonough

Groundwater at AP-1 is monitored by a comprehensive well network comprised of upgradient and downgradient wells that meet federal and state monitoring requirements. Routine sampling and reporting for AP-1 began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater quality, an assessment monitoring program and assessment of corrective measures were established on November 13, 2019, and July 9, 2020, respectively. During the 2022 annual reporting period, the Site remained in assessment monitoring as corrective measures continue to be evaluated.

During the 2022 annual reporting period, the Site remained in assessment monitoring as corrective measures are evaluated. Groundwater elevation measurements were recorded from the site monitoring wells prior to each sampling 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. At the request of the Georgia (GA) Environmental Protection Division (EPD), one additional monitoring well DGWC-121 was installed along the western boundary of AP-1 on March 22, 2022. Background data collection for this well began in June 2022. There are no other changes to the AP-1 certified monitoring network in 2021-2022. Semi-annual groundwater monitoring events for AP-1 were conducted in September 2021, and

January 2022. Groundwater samples were collected and analyzed for Appendix III¹ and Appendix IV² required monitoring parameters.

Analytical data from the September 2021 and the January 2022 monitoring events have been statistically analyzed in accordance with the Site's certified statistical analysis method. For the September 2021 and January 2022 semi-annual monitoring events, statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents above the statistical limits and statistically significant levels (SSLs) of Appendix IV constituents above the groundwater protection standards (GWPS) as summarized below.

On February 22, 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where an 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. Statistical evaluation for the Spring 2022 event was updated to reflect these changes.

Appendix III Constituent	September 2021 SSIs ^[1]
Boron	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-69
Calcium	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A
Chloride	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67
Fluoride	DGWC-68A
pH	DGWC-40, DGWC-68A
Sulfate	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67
TDS	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67
Appendix IV Constituent	September 2021 SSLs ^[2]
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum	DGWC-68A
Appendix III Constituent	January 2022 SSIs ^[1]
Boron	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A
Calcium	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A
Chloride	DGWC-38, DGWC-39, DGWC-40, DGWC-67
pH	DGWC-40
Sulfate	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A
TDS	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67
Appendix IV Constituent	January 2022 SSLs ^[2]
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum	DGWC-68A

Note:

[1] An SSI is determined by an exceedance of the calculated prediction limit.

[2] An SSL is determined by comparing the confidence interval to the GWPS. Until February 22, 2022, GA EPD defined the GWPS as: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL. Under current EPD rules, the GWPS is: (i) the MCL or RSL, or (iii) background levels for constituents where the background level is higher than the MCL or RSL.

¹ Appendix III: boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids

² Appendix IV: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, combined radium (226 + 228), selenium, and thallium.

The Appendix IV SSLs are horizontally delineated by surface water sampling adjacent to the wells that demonstrate SSLs. Surface water samples were collected in September 2021 and January 2022. Arsenic, cobalt, and molybdenum were not detected in the surface water bodies downgradient of AP-1. Arsenic, cobalt, and molybdenum are vertically delineated at onsite deeper wells. Based on review of the Appendix III and Appendix IV results noted above, the site will remain in assessment monitoring. Georgia Power will continue routine groundwater monitoring and evaluation of corrective action alternatives at the Site. Reports will be posted to the website and provided to the GA EPD semi-annually.

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) Rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia (GA) Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, this *2022 Annual Groundwater Monitoring and Corrective Action Report* was prepared to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power)'s Plant McDonough-Atkinson Ash Pond 1 (AP-1) and satisfies the requirements of § 257.90(e). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the US EPA CCR rule (40 CFR 257 Subpart D). For ease of reference, the US EPA CCR rules are cited within this report.

This annual report documents groundwater monitoring activities from both semi-annual monitoring events, conducted in September 2021, and January 2022 at AP-1. Activities completed at Plant McDonough's Ash Ponds 2, and 3/4 are reported under separate cover.

1.1 Site Description and Background

Plant McDonough-Atkinson (Plant McDonough, Site), formerly a coal-fired power generating facility, was converted to a natural gas combined-cycle power generating facility in 2011. Located approximately 7 miles northwest of Atlanta in southeast Cobb County (5551 South Cobb Dr SE, Atlanta, GA 30339), the property comprises approximately 390 acres and is bounded on the southeast by the Chattahoochee River. A Site location map is included as Figure 1.

Four CCR surface impoundments are located on-site: Ash Pond 1 (AP-1), Ash Pond 2 (AP-2), Ash Pond 3 (AP-3) and Ash Pond 4 (AP-4). AP-3 and AP-4 have historically operated together and are being closed as a Combined Unit (AP-3/4). AP-2 and 3/4 are reported separately. A notification of intent to initiate closure of the inactive CCR surface impoundment for AP-1 was certified on December 7, 2015 and posted to Georgia Power's website. A permit application package was submitted to GA EPD in November 2018 and is pending approval. Groundwater monitoring and reporting for AP-1 are being performed to meet the alternate schedule in § 257.100(e)(5) of the revised US EPA CCR rule (August 5, 2016).

1.2 Regional Geology and Hydrogeologic Setting

The following section and subsections include a general description of regional geologic and hydrogeologic characteristics of formations that occur beneath the Site (Golder, 2022). The Site is located in the Piedmont/Blue Ridge geologic province, which contains some of the oldest rock formations in the southeastern United States. These late Precambrian to late Paleozoic rocks have undergone repeated cycles of igneous intrusions and extrusions, metamorphism, folding, faulting, shearing, and silicification. Rock outcrops near the Site consist of biotite gneiss, porphyritic gneiss, mica schist, and quartzite.

Residual soils, primarily clayey/sandy silt, sandy silt with clay, and silty sand, occur as a variably thick blanket overlying bedrock across most of the Site. These residual saprolitic soils along with saprolitic transitionally or partially weathered rock, collectively referred to as the overburden, range between approximately 9 to 61 feet in thickness across the Site, with an average thickness of approximately 38 feet. Saprolitic rock is considered to be transitionally weathered rock (TWR) or partially weathered rock (PWR). Where TWR is a qualitative description, PWR is defined by Standard Penetration Test (SPT) blow counts that exceed 50 blows/six inches.

A regional, unconfined surficial aquifer system is present at the Site, existing within the overburden and weathered and fractured upper bedrock, depending on topographic location. Recharge primarily occurs through precipitation and subsequent infiltration. Generally, groundwater flow occurs through intergranular pore spaces in the overburden and is controlled by topography and top of rock variations. However, a relatively higher transmissive zone is interpreted to occur at the base of the overburden, at the interface of weathered bedrock and competent bedrock (i.e., TWR/PWR) and is believed to be the primary groundwater flow path. Groundwater in the overburden has an average horizontal hydraulic conductivity of 10^{-4} centimeters per second (cm/s) and is interpreted to flow south-southeast.

A limited and localized bedrock aquifer system also occurs beneath the Site. The upper bedrock is fractured and weathered, connected hydraulically with the overburden groundwater, and is considered part of the upper aquifer. The overlying silt/clay-rich overburden may act to retard recharge into the bedrock aquifer system. However, deeper bedrock is unweathered with few discontinuities (e.g., fractures) available to store or transmit groundwater.

1.3 Groundwater Monitoring Network

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at AP-1 to monitor groundwater passing the waste boundary. Wells were located to monitor upgradient and downgradient groundwater conditions based on groundwater flow direction. The monitoring well network was certified by a Professional Engineer in Georgia on April 17, 2019, and the certification is maintained in the Operating Record pursuant to § 257.90(f). AP-1 monitoring well and piezometer locations are shown on Figure 2.

A comprehensive network of monitoring wells was installed for groundwater monitoring around AP-1. Table 1 includes well construction details for the AP-1 monitoring well network. Additionally, a separate network for AP-2 and 3/4 as well as a series of piezometers were installed at the Site. Table 1 also includes the current assessment well network and the construction details for each of the Site wells and piezometers for AP-1, and the separate multi-unit monitoring network for AP-2 and 3/4.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes monitoring-related activities for sampling performed at the Site from July 2021 through June 2022. Routine groundwater sampling was performed in September 2021 and in January 2022 in accordance with 40 CFR § 257.93. Due to flooding during the semi-annual monitoring event, some of the monitoring wells were not accessible and a water level monitoring event and resampling event was conducted on October 27, 2021. Field sampling forms for these monitoring events are provided in Appendix A, while laboratory analytical results are provided in Appendix B.

2.1 Monitoring Well Installation and Maintenance

As part of the permitting process, GA EPD requested that one additional detection monitoring well be installed along the western boundary of AP-1. In response, DGWC-121 was installed in April 2022. The monitoring well installation report for DGWC-121 is included in Appendix C. There were no other changes to the detection groundwater monitoring system during this reporting period. Monitoring well related activities included visual inspection of well conditions prior to sampling, recording conditions around the well, and performing exterior maintenance to provide safe access for sampling. The well condition inspection forms are included in Appendix D.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In September 2021, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed in October 2021, as documented in Appendix D. This documentation will serve as the required five-year well inspection and was performed under the direction of a professional geologist or engineer registered in the State of Georgia.

2.2 Assessment Monitoring

Pursuant to §257.94(e), an assessment monitoring program has been established for AP-1 based on the statistically significant increases (SSIs). A notice of assessment monitoring was placed in the operating record on November 13, 2019.

Groundwater sampling events were conducted for AP-1 in September 2021, with a subsequent resampling event for a single well (DGWC-68A) in October 2021, and in January 2022 in accordance with § 257.93 and GA EPD rule 391-3-4-.10(6)(a). Samples were collected from each well in the certified detection monitoring network as well as the established assessment monitoring network. The monitoring wells sampled included AP-1 monitoring wells presented in Table 1. The location of each of these monitoring wells is shown on Figure 2. Table 2 presents a summary of groundwater sampling events completed for AP-1 and the status of the monitoring network.

During the September 2021 and January 2022 semi-annual sampling events, groundwater samples were collected and analyzed for Appendix III and Appendix IV constituents. Results of sampling activities conducted in September 2021 and January 2022 are presented in Appendix B.

2.3 Additional Sampling

Additional sampling (i.e., non-routine) was conducted during the reporting period in support of the assessment of corrective measures and in continuing to define the nature and extent of impacts resulting from AP-1. Additional sampling included sampling of upgradient monitoring wells B-116D, B-117D, B-118 and B-119D to characterize background conditions at the Site; the results are being evaluated to update the statistical background. Additional sample analyses was also performed on the detection and assessment monitoring wells to characterize the groundwater chemistry as part on ongoing remedy selection activities. Background sample collection was performed at monitoring well DGWC-121 and assessment monitoring wells B-122D and B-123D during June 2022. Results are presented in Appendix B.

Due to the proximity of the engineered stream channel [also referred to as the unnamed tributary (UT)] west of AP-1 and the Chattahoochee River in the downgradient direction of the wells with statistically significant levels (SSLs) of arsenic, cobalt and molybdenum, installation of additional wells to horizontally characterize this area is infeasible. In response, Georgia Power collected surface water samples from within the engineered stream channel and the Chattahoochee River on September 7, 2021 and again on January 19, 2022. The surface water samples collected in September 2021 and January 2022 were analyzed for Appendix III parameters, select Appendix IV parameters (i.e., arsenic, cobalt, and molybdenum) and major ions (i.e., magnesium, potassium, sodium, and total and bicarbonate alkalinity). Samples from within the engineered stream channel are used for delineation (UT02 for molybdenum and UT03 for arsenic). Surface water sample locations are shown on Figure 2. Surface water samples are collected in accordance with *Region 4 U.S. Environmental Protection Agency Science and Ecosystem Support Division Operating Procedures for Surface Water Sampling* SESDPROC-201-R4 (US

EPA, 2016). The laboratory reports associated with the September 2021 and January 2022 sampling events are provided in Appendix B. Georgia Power will continue collecting the surface water samples semi-annually.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

Sampling events completed during this reporting period at AP-1 include the September 2021 and January 2022 semi-annual assessment monitoring events. A verification resampling event was conducted for DGWC-68A on October 27, 2021 to confirm results that were outside the historical range. Groundwater analytical data and chain of custody records are presented in Appendix B. The following sections describe methods used to conduct groundwater monitoring at the Site.

3.1 Groundwater Elevation Measurement

Sitewide groundwater elevations could not be measured at the start of the September 2021 sampling event due to significant rainfall that limited access to some well locations. Therefore, sitewide groundwater elevations were recorded in October 2021 and in January 2022. Groundwater elevations data are summarized in Table 3. Calculated water level data were used to develop Figures 3 and 4. Site potentiometric maps show that groundwater generally flows west/southwest across the Site and is consistent with historical observations.

3.2 Groundwater Gradient and Flow Velocity

Hydraulic gradient is calculated as the difference in groundwater elevation (in feet) divided by the distance between two piezometers or wells (in feet). Groundwater elevation data recorded in October 2021 and January 2022 from three piezometer/well pairings; B-29/DGWC-68A, B-28/DGWC-37, and B-50/DGWC-39, located along the groundwater flow path and perpendicular to the potentiometric contours were used to calculate hydraulic gradients for AP-1.

Average groundwater flow velocities at the Site were calculated using hydraulic gradient data, hydraulic conductivity data generated from slug testing results (Golder, 2022), and an estimated effective porosity of the screened portion of the uppermost aquifer. Based on slug test data, the average hydraulic conductivity of the overburden is 7.70×10^{-4} centimeters/second (cm/s). An effective porosity of 0.2 (20%) was used based on the default values for effective porosity recommended by US EPA for a silty sand-type soil (US EPA, 1996). The hydraulic gradients calculated between the well pairs are shown on Table 4A for October 2021 and Table 4B for January 2022.

The horizontal flow velocities were calculated using the commonly used derivative of Darcy's Law:

$$V = \frac{K * i}{n_e} \quad \text{Where:}$$

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

$K =$ Average hydraulic conductivity of the aquifer $\left(\frac{\text{feet}}{\text{day}} \right)$

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

$n_e =$ Effective porosity

Using this equation, groundwater flow velocities were calculated for AP-1 using October 2021 and January 2022 groundwater elevation data as presented on Tables 4A and 4B.

Calculated (horizontal) flow velocities ranged from approximately 78 feet per year (ft/yr) to 148 ft/yr during the October 2021 and January 2022 events. These estimated flow velocities are consistent with past results and are also generally consistent with other published velocities for regolith-upper bedrock aquifers of the Piedmont (Heath, R.C., 1982).

3.3 Groundwater Sampling

Groundwater samples were collected in accordance with § 257.93(a) and using US EPA Region 4 Field Quality and Technical Procedures as a guide (US EPA, 2001). Monitoring wells were purged and sampled using low-flow sampling procedures. Non-dedicated, low-flow pneumatic bladder pumps and peristaltic pumps were used to purge and sample the wells. Field equipment was decontaminated prior to use and between wells using US EPA Laboratory Services and Applied Science Division, Operating Procedure, Field Equipment Cleaning and Decontamination (US EPA, 2020). In-Situ SmarTroll® and Aqua TROLL® 400 meters were used to monitor and record field water quality parameters [temperature, specific conductance, dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP)] during purging. Turbidity was monitored using a LaMotte 2020we turbidimeter. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

- 0.1 standard units (S.U.) for pH
- 5% for specific conductance
- $\pm 10\%$ or ± 0.2 mg/L (whichever is greater) for DO where $DO > 0.5$ milligrams per liter (mg/L); if $DO < 0.5$ mg/L, no stabilization criteria apply
- Turbidity measurements less than 5 nephelometric turbidity units (NTU).

Following well stabilization, unfiltered samples were collected directly into appropriately preserved laboratory supplied sample containers, placed in ice-packed coolers, and submitted to the laboratory following standard chain-of-custody protocol. Field information forms, generated directly from the SmarTroll®/Aqua TROLL® 400, are included in Appendix A.

Field data and sampling notes for each monitoring well are recorded on the field information forms, which contains a description of the sampling equipment, sampling method, purge rate, field observations, and depth to water measurements at each monitoring location. Any deviations from the sample plan and stabilization criteria are noted on the field information forms. Calibration forms for field instruments and field data sheets are also included in Appendix A.

3.4 Laboratory Analysis

The groundwater samples were analyzed for Appendix III and Appendix IV monitoring parameters per 40 CFR § 257.93 and § 257.95(d)(2). Tables 5A through 5D present a tabulated summary of the September 2021, the October 2021 resampling, and January 2022 detection, assessment, and supplemental sample results. Results of surface water samples collected in September 2021 and January 2022 are presented on Table 6A and 6B. Analytical methods used for monitoring parameters can be found in the analytical data reports in Appendix B.

Laboratory analyses were performed by Pace Analytical Services, LLC (Pace) in Peachtree Corners, Georgia with some analyses subcontracted to Analytical Environmental Services, Inc. (AES) of Atlanta, Georgia. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains NELAP

certification for all parameters analyzed for this project. Analytical data, chain-of-custody records, and NELAP certifications for the monitoring events are presented in Appendix B.

3.5 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a minimum rate of one sample per every 10 samples. QA/QC samples included equipment blanks (where non-dedicated sampling equipment is used), field blanks, and duplicate samples. QA/QC sample data were evaluated during data validation as described below.

Groundwater quality data in this report were independently validated in accordance with US EPA Region IV Data Validation Standard Operating Procedures (US EPA, 2011), National Functional Guidelines for Inorganic Superfund Methods Data Review (November 2020) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries, relative percent differences (RPDs), laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data per US EPA procedures and guidance. Data validation summaries are provided in Appendix B. The data are considered usable for meeting project objectives and the results are considered valid.

A value followed by a "J" flag in tables and laboratory reports indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (RL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. Total radium concentration (Radium 226+228) is a combination of isotopes 226 and 228. When radium data are reported below the Minimum Detectable Concentration (MDC), the values are followed by a "U" flag in tables.

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and Appendix IV groundwater monitoring data was performed pursuant to §257.93-95 following the established statistical method for AP-1 (Groundwater Stats Consulting, 2019). The statistical analysis reports prepared by Groundwater Stats Consulting, LLC. are presented in Appendix E.

4.1 Statistical Method

The selected statistical method for AP-1 was developed in accordance with 40 CFR § 257.93(f), using methodology presented in Statistical Analysis of Groundwater Data at Resource Conservation and Recovery Act (RCRA) Facilities, Unified Guidance, March 2009, US EPA 530/R-09-007 (Unified Guidance; US EPA, 2009). The Sanitas groundwater statistical software was used to perform statistical analyses. Sanitas is a decision-support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the US EPA Unified Guidance document (US EPA, 2009).

4.1.1 Appendix III Detection Monitoring Statistical Methods

Groundwater monitoring data were statistically evaluated through the use of interwell prediction limits for Appendix III parameters. Using this method, upgradient well data were pooled to establish a background statistical limit. Data from the September 2021 and January 2022 assessment monitoring events were compared to the statistical limit to determine whether any concentrations exceed background levels. The selected statistical method uses an optional 1-of-2 verification resample plan. The Sen's Slope/Mann Kendall trend test was also

performed to evaluate concentrations over time and determine whether concentrations are statistically increasing, decreasing, or stabilizing. The results of the trend analyses is presented in Appendix E.

4.1.2 Appendix IV Assessment Monitoring Statistical Methods

Statistical analysis, while in assessment monitoring, is performed through the use of confidence intervals compared to a groundwater protection standard (GWPS). Parametric tolerance limits are used to calculate Site specific background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the GWPS under 40 CFR § 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR § 257.95(h)(1-3), 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, Rule Specified Limits (RSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), or molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Rule-identified GWPS.

On February 22, 2022 GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where an 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 is higher. Statistical evaluation for the Spring 2022 event was updated to reflect these changes.

Following the rule requirements, GWPSs were established for statistical comparison of Appendix IV constituents. Table 7 summarizes the background limit established at each monitoring well and the GWPS established under State and Federal rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. If there is an exceedance of the established standard, an SSL exceedance is identified.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix E. The background period for statistical analyses includes data through the current event. Tolerance limits for confidence interval calculations are updated to include current data. Due to varying reporting limits in background, the most recent reporting limit is used when data are not reported above detection limits. This results in a more appropriate statistical test.

4.2 Statistical Analysis Results

Analytical data from September 2021 and January 2022 at AP-1 have been statistically analyzed in accordance with the Site's certified Statistical Analysis Plan (Groundwater Stats Consulting, 2019). The statistical results are included in Appendix E.

4.2.1 September 2021 Appendix III Statistical Results

Based on the statistical results, SSIs of boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS) were identified following the September assessment monitoring event and October 2021 resampling. A detailed list of the noted exceedances is presented in Appendix E.

4.2.2 September 2021 Appendix IV Statistical Results

Analytical data from the September 2021 monitoring event and October 2021 resampling at AP-1 have been statistically analyzed in accordance with the certified statistical analysis method. Review of the Sanitas results indicates that using the GWPS established according to both 40 CFR § 257.95(h) and 391-3-4-.10(6)(a), the following SSLs were identified:

AP-1 Confidence Interval Statistically Significant Level Exceedances, September 2021	
Appendix IV Parameter	AP-1 Detection Monitoring Well
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum	DGWC-68A

4.2.3 January 2022 Appendix III Statistical Results

Based on the statistical results, SSIs of boron, calcium, chloride, pH, sulfate, and TDS were identified following the January 2022 assessment monitoring event. A detailed list of the noted exceedances is presented in Appendix E.

4.2.4 January 2022 Appendix IV Statistical Results

Analytical data from the January 2022 monitoring event at AP-1 have been statistically analyzed in accordance with the certified statistical analysis method. Review of the Sanitas results indicates that using the GWPS established according to both 40 CFR § 257.95(h) and 391-3-4-.10(6)(a), the following SSLs were identified:

AP-1 Confidence Interval Statistically Significant Level Exceedances, January 2022	
Appendix IV Parameter	AP-1 Detection Monitoring Well
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum	DGWC-68A

5.0 ASSESSMENT MONITORING AND DELINEATION STATUS

To characterize the nature and extent of arsenic, cobalt, and molybdenum SSLs, multiple piezometers have been installed and sampled at the Site (Golder, 2021); refer to the table below for constituent delineation status. In addition, surface water has been sampled at multiple locations to complete horizontal delineation in surface water bodies where proximity to surface water prevented installation of additional wells. The delineation status at AP-1

is discussed in the *Semi-Annual Remedy Selection and Design Progress Report* (Appendix F) and includes isoconcentration contours for each of the constituents with an exceedance of the GWPS.

Constituent of Concern	Detection /Assessment Monitoring Well with SSL	Vertical Delineation Well	Horizontal Delineation Well / Surface Water Monitoring Location
Arsenic	DGWC-69	B-112D ^[1]	UT02
Molybdenum	DGWC-68A	B-113D ^[2]	UT03 ^[2]
Cobalt	DGWC-40	B-105D	B-100 / B-62 / CR-0.1

Note:

[1] Delineation status is complete pending additional data collection. A minimum of four data points is needed to perform the required statistical analyses. To date, concentrations for each of the samples collected at the indicated locations are below the respective GWPS.

[2] An ASD has been submitted for the occurrence of Molybdenum at DGWC-68A.

Insufficient groundwater analytical data are available at assessment monitoring well B-112D. In accordance with Section 21.1.1 of the Unified Guidance (US EPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. At the time of this report, the data set for assessment well B-112D is limited to fewer than four independent datums and therefore not yet appropriate for the statistical analyses. For each of the remaining assessment monitoring wells, statistical analyses are included in Appendix E. Review of the Sanitas results indicates that using the GWPS established according to both 40 CFR § 257.95(h) and 391-3-4-.10(6)(a), no SSLs are noted above the GWPS for any of the assessment monitoring wells.

As a conservative approach, Georgia Power elected to collect surface water samples to supplement horizontal delineation. Due to the proximity of the engineered stream channel (also identified as the unnamed tributary) and the Chattahoochee River in the downgradient direction of the wells showing SSLs of arsenic (DGWC-69), molybdenum (DGWC-68A), and cobalt (DGWC-40), installation of additional wells to horizontally characterize this area is infeasible. As such, surface water samples were collected from both the engineered stream channel and the Chattahoochee River in September 2021 and January 2022. Results of these analyses are summarized on Tables 6A and 6B.

Based on review of the analytical results, statistical analyses and the isoconcentration contours, horizontal and vertical delineation is summarized as follows:

Arsenic at DGWC-69: Horizontal delineation is complete based on results from sampling of the unnamed tributary at UT02. The arsenic SSL noted at DGWC-69 is preliminarily vertically delineated to below GWPS at well B-112D, located adjacent to DGWC-69. Delineation is pending verification statistical analyses following additional data collection. Concentrations for each of the three samples collected to date from B-112D are below the GWPS.

Molybdenum at DGWC-68A: Horizontal delineation of molybdenum is complete with sampling of the unnamed tributary at UT03.

Vertical delineation for molybdenum at DGWC-68A is complete with sampling of B-113D. Delineation efforts with deeper wells B-110D and B-113D, which are adjacent to DGWC-68A, suggest a natural occurrence of

molybdenum in the underlying metamorphic rocks. Results from rock analyses completed at B-113D indicate naturally occurring molybdenum is present in the rock in the form of molybdenite. Occurrence of molybdenite crystals in the biotite gneiss including the more felsic portions indicates that molybdenum in groundwater in wells DGWC-68A, B-110D, and B-113D is likely derived from the molybdenum-rich rocks. An ASD (Appendix G) has been submitted to GA EPD in response to the occurrence of molybdenum in groundwater at DGWC-68A.

The evidence for a natural source of molybdenum to groundwater includes:

- Pure molybdenite crystals were identified in gneissic/pegmatitic bedrock within the screened interval of DGWC-68A.
- Molybdenum concentrations in bedrock samples were substantially (>800 times) higher than average values for various rock types (i.e., crustal, felsic, or mafic).
- Molybdenum is known to be present in regional aquifer materials based on previous studies.

Based on information presented in the ASD, the molybdenum concentrations at DGWC-68A are attributed to a natural source, i.e., the molybdenum-rich bedrock in which DGWC-68A is screened, and not due to a release from the Ash Pond

Cobalt at DGWC-40: Horizontal delineation for cobalt below the GWPS is complete based on results from monitoring well B-100, B-62 and surface water location CR-0.1. Similarly, cobalt is vertically delineated to below the GWPS at well B-105D, which is located adjacent to DGWC-40.

6.0 ASSESSMENT OF CORRECTIVE MEASURES

Following the requirements of 40 CFR § 257.96, Plant McDonough documented an Assessment of Corrective Measures (ACM) on December 4, 2020 for arsenic, cobalt and molybdenum (Golder, 2020).

In accordance with 40 CFR § 257.97(a), a remedy selection progress report is prepared and submitted concurrent with each semi-annual groundwater monitoring report to document results associated with additional data collection, and present progress toward selection and design of a groundwater remedy. A copy of the report is included as Appendix F. At least 30 days prior to the selection of remedy or remedies, a public meeting to discuss the results of the corrective measures assessment will be held pursuant to 40 CFR 257.96(e).

The *Semi-Annual Remedy Selection and Design Progress Report* that is included as Appendix F includes the following information:

- i) A summary of the closure status for AP-1 as it relates to source control
- ii) Summary of work completed to achieve delineation of constituents exceeding GWPS and a summary of data collected to date towards remedy selection
- iii) A summary of remedial alternatives and progress towards remedy selection.

7.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-1 confirm SSIs of Appendix III groundwater monitoring parameters above background and SSLs of Appendix IV groundwater monitoring parameters above the established GWPS. AP-1 will continue to be monitored in accordance with the assessment monitoring

program pursuant to 40 CFR § 257.95. An ACM was documented on December 4, 2020 following the provisions of 40 CFR § 257.96. Pursuant to 40 CFR 257.95(g)(1)(iv), the additional delineation wells and surface water monitoring locations may continue to be sampled as part of the ongoing semi-annual assessment monitoring program.

8.0 CONCLUSIONS AND FUTURE ACTIONS

This 2022 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant McDonough-Atkinson - Ash Pond 1 was prepared to fulfill the requirements of US EPA CCR Rule 40 CFR 257 Subpart D and GA EPD Rule 391-3-4-.10.

The groundwater flow directions interpreted during the most recent sampling events are consistent with historical evaluations, and based on our review, the monitoring well network continues to effectively monitor the uppermost aquifer in the vicinity of AP-1.

Review of analytical results and statistical analyses developed for the Site indicates confirmed SSIs of Appendix III above background and SSLs of Appendix IV above the established GWPS. In accordance with 40 CFR § 257.96, Georgia Power has initiated an ACM study for the identified SSLs. Data collected to date had defined the horizontal and vertical extent of arsenic, cobalt and molybdenum for AP-1. An ASD for the occurrence of molybdenum in groundwater, included as Appendix G, is pending GA EPD approval. Results from rock analyses completed near DGWC-68A indicate naturally occurring molybdenum is present in the rock in the form of molybdenite.

Based on the findings presented herein, Plant McDonough will continue with assessment groundwater monitoring and reporting. The next sampling event is tentatively scheduled for August 2022.

9.0 REFERENCES

- Golder, 2020, *Assessment of Corrective Measures*, Georgia Power Company, Plant McDonough-Atkinson Ash Pond 1, December 4, 2020
- Golder, 2021, *Well and Piezometer Installation (DGWC-121, B-122D, B-123D) and Abandonment (B-84) Report*, Georgia Power Company, Plant McDonough-Atkinson, June 2, 2022.
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- US EPA, 2009, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division, March 2009.

US EPA, 2011, *Data Validation Standard Operating Procedures*, Science and Ecosystem Support Division, Region IV, Athens, GA, September 2011.

US EPA, 2016, *Operating Procedures for Surface Water Sampling*, Science and Ecosystem Support Division, SESDPROC-201-R4, December 16, 2016.

US EPA, 2020, *Field Equipment Cleaning and Decontamination*, Laboratory Services and Applied Science Division, LSASDPROC-205-R4. June 22, 2020.

TABLES

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
 Georgia Power Company - Plant McDonough
 Atlanta, Georgia

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-37	Downgradient	Overburden	1390482.2	2200919.8	766.21	763.7	39.7	734.4	724.4	10	11/28/2012
DGWC-38	Downgradient	Overburden	1390362.7	2201148.6	757.43	754.7	25.0	740.0	730.0	10	11/29/2012
DGWC-39	Downgradient	Overburden	1390303.6	2201540.1	759.89	757.0	21.2	746.2	736.2	10	11/6/2012
DGWC-40	Downgradient	Overburden	1390625.7	2201825.9	779.06	776.2	34.9	751.7	741.7	10	11/5/2012
DGWC-67	Downgradient	Overburden	1390953.8	2200830.7	766.70	767.0	56.3	720.7	710.7	10	3/14/2017
DGWC-68A	Downgradient	Overburden	1391301.2	2200734.9	765.33	765.4	29.8	746.0	736.0	10	4/20/2017
DGWC-69	Downgradient	Overburden	1391585.0	2200657.1	763.75	764.0	24.3	749.7	739.7	10	3/16/2017
DGWC-121	Downgradient	Overburden	1390739.7	2200849.4	764.16	764.5	50.0	724.8	714.8	10	3/22/2022
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK											
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.4	39.9	730.7	720.7	10	10/4/2016
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.3	44.8	740.5	730.5	10	7/8/2020
B-105D	Downgradient	Upper Bedrock	1390634.5	2201831.9	779.01	776.0	70.0	716.0	706.0	10	10/19/2020
B-112D	Downgradient	Upper Bedrock	1391564.2	2200664.1	765.58	766.1	55.0	721.4	711.4	10	3/22/2021
B-113D	Downgradient	Upper Bedrock	1391264.6	2200719.2	758.22	758.8	85.0	684.4	674.4	10	3/30/2021

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ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) DETECTION MONITORING WELL NETWORK											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-2	Downgradient	Overburden/Upper Bedrock	1393958.0	2202119.5	850.88	848.3	49.0	809.6	799.6	10	10/2/2012
DGWC-4	Downgradient	Overburden	1394171.5	2202662.4	814.85	812.1	45.0	777.4	767.4	10	10/3/2012
DGWC-5	Downgradient	Overburden/Upper Bedrock	1394306.3	2202965.1	791.75	788.7	30.0	769.0	759.0	10	10/4/2012
DGWC-8	Downgradient	Overburden	1394322.2	2203882.1	826.38	824.1	49.1	785.4	775.4	10	10/10/2012
DGWC-9	Downgradient	Overburden	1394055.9	2204170.0	824.35	821.8	30.0	802.2	792.2	10	10/10/2012
DGWC-10	Downgradient	Overburden	1393818.3	2204201.1	823.55	820.9	45.4	785.9	775.9	10	10/11/2012
DGWC-11	Downgradient	Overburden	1393547.1	2204166.2	800.57	798.1	49.1	759.3	749.3	10	10/15/2012
DGWC-12	Downgradient	Overburden	1393149.4	2204128.3	773.86	771.2	25.1	756.5	746.5	10	10/15/2012
DGWC-13	Downgradient	Overburden	1392881.1	2204084.6	794.10	791.3	43.8	757.9	747.9	10	11/29/2012
DGWC-14	Downgradient	Overburden/Upper Bedrock	1392574.2	2204013.3	792.40	789.8	34.3	765.9	755.9	10	12/18/2012
DGWC-15	Downgradient	Overburden	1392544.1	2203679.0	824.50	821.5	67.1	764.8	754.8	10	11/29/2012
DGWC-17	Downgradient	Overburden	1392645.6	2203051.0	837.05	834.2	44.5	800.0	790.0	10	1/9/2013
DGWC-19	Downgradient	Overburden	1392342.6	2202601.0	825.46	822.9	39.8	793.5	783.5	10	3/12/2013
DGWC-20	Downgradient	Overburden	1392164.5	2202315.6	822.14	819.8	39.7	790.7	780.7	10	3/5/2013
DGWC-21	Downgradient	Overburden/Upper Bedrock	1392067.5	2202063.5	816.28	813.5	69.0	754.9	744.9	10	10/31/2012
DGWC-22	Downgradient	Upper Bedrock	1392126.3	2201791.9	816.59	813.7	60.0	764.0	754.0	10	10/25/2012
DGWC-23	Downgradient	Upper Bedrock	1392239.7	2201582.0	818.37	815.7	60.1	765.9	755.9	10	10/25/2012
DGWC-42	Downgradient	Overburden	1391327.8	2201870.2	804.68	802.0	50.4	762.1	752.1	10	11/12/2012
DGWC-47	Downgradient	Overburden/Upper Bedrock	1391553.8	2202610.5	797.45	794.3	28.8	775.9	765.9	10	6/23/2016
DGWC-48	Downgradient	Overburden/Upper Bedrock	1391314.6	2202290.2	788.33	785.2	30.0	765.6	755.6	10	6/22/2016

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ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) ASSESSMENT MONITORING WELL NETWORK											
B-56	Downgradient	Overburden	1393957.9	2204187.8	823.59	821.0	45.0	786.4	776.4	10	10/3/2016
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.4	39.9	730.7	720.7	10	10/4/2016
B-63	Downgradient	Overburden	1390999.1	2202978.1	777.10	777.3	46.0	741.8	731.8	10	10/6/2016
B-66	Downgradient	Overburden	1393858.2	2204277.5	815.90	813.3	55.3	768.3	758.3	10	11/16/2016
B-77	Downgradient	Overburden	1390948.7	2202942.0	776.86	777.1	42.0	745.1	735.1	10	9/17/2019
B-82	Downgradient	Overburden	1393750.0	2204258.1	810.07	807.5	45.0	773.0	763.0	10	9/21/2019
B-83	Downgradient	Overburden	1390735.5	2202695.6	776.98	777.1	48.6	738.5	728.5	10	9/30/2019
B-88	Downgradient	Overburden	1394401.1	2203738.3	820.07	817.0	72.0	755.0	745.0	10	11/15/2019
B-92	Downgradient	Overburden	1394392.7	2203026.7	785.08	785.3	24.6	770.7	760.7	10	12/11/2019
B-93	Downgradient	Overburden	1394348.7	2202946.7	789.07	789.2	28.9	770.3	760.3	10	12/12/2019
B-97	Downgradient	Overburden/Upper Bedrock	1394430.0	2203008.3	786.29	786.6	31.0	765.3	755.3	10	2/11/2020
B-98	Downgradient	Overburden	1394392.5	2202934.0	789.67	789.8	19.4	780.8	770.8	10	2/10/2020
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.3	44.8	740.5	730.5	10	7/8/2020
B-101D	Downgradient	Overburden/Upper Bedrock	1394063.6	2204168.2	824.29	821.2	75.0	756.3	746.3	10	11/12/2020
B-102D	Downgradient	Upper Bedrock	1393828.4	2204200.4	823.42	820.6	85.0	746.2	736.2	10	11/10/2020
B-104D	Downgradient	Upper Bedrock	1391318.3	2202298.5	787.90	785.3	60.0	735.3	725.3	10	10/20/2020
B-106D	Downgradient	Upper Bedrock	1394327.1	2203869.2	826.21	823.5	80.0	754.1	744.1	10	11/13/2020
B-107D	Downgradient	Upper Bedrock	1392334.5	2202596.4	823.38	820.6	85.8	745.5	735.5	10	10/28/2020
B-108D	Downgradient	Upper Bedrock	1392156.1	2202312.5	821.13	818.4	80.0	749.4	739.4	10	10/27/2020
B-109D	Downgradient	Upper Bedrock	1393957.5	2202127.0	850.73	847.8	100.0	758.4	748.4	10	10/31/2020
B-111D	Downgradient	Upper Bedrock	1394303.4	2202956.4	791.87	789.1	85.0	714.9	704.9	10	11/3/2020
B-115D	Downgradient	Upper Bedrock	1391265.3	2202580.7	789.17	786.4	80.0	717.2	707.2	10	3/20/2021
B-120D	Downgradient	Upper Bedrock	1394047.2	2202436.4	836.42	834.0	70.0	775.0	765.0	10	3/6/2021
B-122D	Downgradient	Bedrock	1390992.8	2202975.4	777.03	777.3	85.0	707.5	697.5	10	3/24/2022

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ASH POND 1, ASH POND 2 AND ASH POND 3/4 SUPPLEMENTAL SAMPLING NETWORK											
B-90	Downgradient	Overburden	1394501.0	2203212.6	784.00	784.2	33.4	760.8	750.8	10	12/10/2019
B-91	Downgradient	Overburden	1394447.1	2203123.9	782.98	783.1	34.6	758.5	748.5	10	12/11/2019
B-95	Downgradient	Overburden	1394518.6	2203167.7	784.00	784.3	33.3	761.3	751.3	10	2/11/2020
B-96	Downgradient	Overburden	1394478.7	2203099.3	784.92	785.3	33.1	762.2	752.2	10	2/10/2020
B-99	Downgradient	Overburden	1394524.2	2203084.5	782.39	782.6	12.3	775.3	770.3	5	7/7/2020
B-116D	Upgradient	Upper Bedrock	1390483.7	2200611.0	807.82	805.3	90.0	726.1	716.1	10	3/8/2021
B-117D	Upgradient	Upper Bedrock	1393963.8	2201727.3	863.82	861.2	75.0	796.5	786.5	10	3/17/2021
B-118	Upgradient	Upper Bedrock	1391219.3	2200449.7	807.70	805.0	75.0	740.2	730.2	10	3/9/2021
B-119D	Upgradient	Upper Bedrock	1391236.4	2200446.6	807.15	804.5	105	709.8	699.8	10	3/16/2021
PIEZOMETERS											
B-3	Downgradient	Overburden/Upper Bedrock	1394045.1	2202411.5	837.78	835.0	37.0	808.3	798.3	10	10/3/2012
B-6	Downgradient	Overburden	1394419.5	2203266.5	789.47	786.5	35.4	761.5	751.5	10	10/9/2012
B-7	Downgradient	Overburden	1394374.6	2203596.1	809.16	806.1	25.2	791.3	781.3	10	10/9/2012
B-16	Downgradient	Overburden	1392595.1	2203315.4	826.47	823.6	43.7	790.2	780.2	10	12/19/2012
B-18	Downgradient	Overburden	1392521.0	2202875.5	826.56	823.9	32.6	801.5	791.5	10	1/10/2013
B-24	Downgradient	Upper Bedrock	1392479.9	2201450.0	822.11	819.3	79.1	751.0	741.0	10	10/24/2012
B-25	Downgradient	Upper Bedrock	1392813.3	2201502.7	836.54	833.5	54.8	789.1	779.1	10	10/24/2012
B-26	Downgradient	Upper Bedrock	1393105.6	2201550.4	853.60	850.6	49.3	811.7	801.7	10	10/23/2012
B-28	Downgradient	Overburden/Upper Bedrock	1391967.4	2201679.2	816.08	813.3	69.4	754.3	744.3	10	10/31/2012
B-29	Downgradient	Overburden	1391890.0	2201422.0	816.43	813.5	54.4	769.4	759.4	10	1/11/2013
B-31	Downgradient	Upper Bedrock	1392034.3	2200928.5	797.47	794.9	45.1	760.2	750.2	10	1/22/2013
B-41	Downgradient	Overburden	1390920.8	2201751.9	795.20	792.4	60.0	743.0	733.0	10	11/14/2012
B-50	Downgradient	Overburden	1391657.1	2201841.0	809.67	809.2	36.0	784.4	774.4	10	6/24/2016
B-51	Downgradient	Overburden	1390501.2	2200906.5	765.92	763.3	65.0	708.3	698.3	10	6/27/2016
B-52	Downgradient	Overburden	1392308.3	2201314.8	822.89	820.3	50.0	781.4	771.4	10	9/28/2016

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
 Georgia Power Company - Plant McDonough
 Atlanta, Georgia

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
PIEZOMETERS											
B-54	Downgradient	Overburden/Upper Bedrock	1394423.5	2203140.7	785.46	782.6	34.2	758.8	748.8	10	9/26/2016
B-55	Downgradient	Overburden	1394142.6	2204147.9	825.12	822.9	52.0	781.9	771.9	10	9/22/2016
B-57	Downgradient	Upper Bedrock	1391396.3	2202736.9	789.04	786.0	50.5	746.0	736.0	10	9/24/2016
B-58	Downgradient	Overburden	1391125.7	2202426.5	788.17	785.2	45.0	750.7	740.7	10	9/23/2016
B-59	Downgradient	Overburden/Upper Bedrock	1394349.1	2203001.1	788.00	785.5	30.3	765.3	755.3	10	9/23/2016
B-60	Downgradient	Overburden	1391100.7	2202881.6	782.13	779.2	49.8	739.9	729.9	10	9/29/2016
B-61	Downgradient	Overburden	1390957.8	2202505.8	782.09	779.0	51.9	737.5	727.5	10	9/29/2016
B-64	Downgradient	Overburden	1394381.9	2203031.3	785.83	786.1	30.4	766.1	756.1	10	11/2/2016
B-65	Downgradient	Overburden/Upper Bedrock	1394381.2	2204050.8	821.95	822.3	45.4	787.9	777.9	10	11/15/2016
B-68	Downgradient	Overburden	1391298.2	2200714.2	758.68	759.0	18.0	751.0	741.0	10	3/16/2017
B-72	Downgradient	Overburden	1391242.2	2200723.9	758.85	758.09	21.9	746.6	736.6	10	4/19/2017
B-73	Downgradient	Overburden	1391352.4	2200697.5	759.46	758.85	15.8	753.5	743.5	10	4/19/2017
B-74	Downgradient	Overburden	1391279.8	2200665.3	759.44	758.96	16.5	748.2	743.2	5	4/25/2017
B-78	Downgradient	Overburden/Upper Bedrock	1394328.2	2202958.2	790.75	788.0	30.0	768.0	758.5	10	9/22/2019
B-79	Downgradient	Overburden	1394458.6	2203223.0	788.66	785.9	34.9	761.0	751.5	10	9/21/2019
B-80	Downgradient	Overburden	1394372.6	2203533.9	804.47	801.8	30.0	782.0	772.5	10	9/20/2019
B-81	Downgradient	Overburden	1394364.9	2203741.1	820.56	817.7	50.0	778.5	768.5	10	9/22/2019
B-84	Downgradient	Overburden	1390411.9	2202241.9	776.24	776.3	49.1	737.5	727.5	10	10/1/2019
B-85	Downgradient	Overburden/Upper Bedrock	1394433.4	2203134.5	782.54	782.7	34.5	758.5	748.5	10	11/18/2019
B-86	Downgradient	Overburden/Upper Bedrock	1394480.0	2203206.6	784.29	784.6	34.1	760.5	750.5	10	11/18/2019

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
 Georgia Power Company - Plant McDonough
 Atlanta, Georgia

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
PIEZOMETERS											
B-87	Downgradient	Overburden	1394401.9	2203531.3	803.37	800.4	42.0	768.7	758.7	10	11/17/2019
B-89	Downgradient	Upper Bedrock	1394398.4	2204049.4	822.36	822.6	49.5	783.1	773.1	10	11/19/2019
B-94	Downgradient	Overburden	1394402.0	2203513.7	801.74	799.2	45.2	764.6	754.6	10	1/23/2020
B-103D	Downgradient	Upper Bedrock	1391543.5	2202614.4	795.96	793.8	70.0	733.8	723.8	10	10/15/2020
B-110D	Downgradient	Upper Bedrock	1391294.4	2200736.0	764.61	764.7	65.0	711.7	701.7	10	11/17/2020
B-123D	Downgradient	Bedrock	1391234.4	2202608.4	781.80	778.9	160.0	668.9	618.9	50	4/4/2022

Notes:

1. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
2. bgs - Below Ground Surface; NAD - North American Datum; NAVD - North American Vertical Datum

TABLE 2
GROUNDWATER SAMPLING EVENT SUMMARY
 Georgia Power Company - Plant McDonough Ash Pond 1
 Atlanta, Georgia

Well ID	Hydraulic Location	Summary of Sample Events		Status of Monitoring Well
		September 2021	January 2022	
Purpose of Sampling Event		Detection/ Assessment	Detection/ Assessment	
ASH POND 1 (AP-1) MONITORING WELL NETWORK				
DGWA-53	Upgradient	X	X	Assessment
DGWA-70A	Upgradient	X	X	Assessment
DGWA-71	Upgradient	X	X	Assessment
DGWC-37	Downgradient	X	X	Assessment
DGWC-38	Downgradient	X	X	Assessment
DGWC-39	Downgradient	X	X	Assessment
DGWC-40	Downgradient	X	X	Assessment
DGWC-67	Downgradient	X	X	Assessment
DGWC-68A	Downgradient	X	X	Assessment
DGWC-69	Downgradient	X	X	Assessment
DGWC-121	Downgradient	Note 1	Note 1	Assessment
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK				
B-62	Downgradient	X	X	Assessment
B-100	Downgradient	X	X	Assessment
B-105D	Downgradient	X	X	Assessment
B-112D	Downgradient	X	X	Assessment
B-113D	Downgradient	X	X	Assessment
ASH POND 1 (AP-1) SUPPLEMENTAL SAMPLING				
B-90	Upgradient	--	X	Supplemental
B-91	Upgradient	--	X	Supplemental
B-95	Upgradient	--	X	Supplemental
B-96	Upgradient	--	X	Supplemental
B-99	Upgradient	--	X	Supplemental
B-116D	Upgradient	X	X	Supplemental
B-117D	Upgradient	X	X	Supplemental
B-118D	Upgradient	X	X	Supplemental
B-119D	Upgradient	X	X	Supplemental

[1] Monitoring well DGWC-121 was installed in March/April 2022 and first sampled in June 2022.

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
 Georgia Power Company - Plant McDonough
 Atlanta, Georgia

Well ID	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	
		10/27/2021	1/18/2022
ASH POND 1 (AP-1) MONITORING WELLS			
DGWA-53	844.26	829.75	833.41
DGWA-70A	808.52	766.90	767.00
DGWA-71	863.84	835.19	835.49
DGWC-37	766.21	752.28	752.81
DGWC-38	757.43	751.08	751.38
DGWC-39	759.89	752.00	753.11
DGWC-40	779.06	760.54	761.83
DGWC-67	766.70	756.39	757.03
DGWC-68A	765.33	754.97	755.45
DGWC-69	763.75	757.55	758.17
DGWC-121	764.16	--	--
ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) MONITORING WELLS			
DGWA-53	844.26	829.75	833.41
DGWA-70A	808.52	766.90	767.00
DGWA-71	863.84	835.19	835.49
DGWC-2	850.88	820.66	821.71
DGWC-4	814.85	790.13	790.75
DGWC-5	791.75	781.04	782.25
DGWC-8	826.38	787.64	786.94
DGWC-9	824.35	798.22	BTOP
DGWC-10	823.55	794.64	796.63
DGWC-11	800.57	785.55	790.14
DGWC-12	773.86	762.68	766.10
DGWC-13	794.10	760.25	759.56
DGWC-14	792.40	771.99	771.32
DGWC-15	824.50	784.44	783.82
DGWC-17	837.05	802.35	802.91
DGWC-19	825.46	800.23	800.23
DGWC-20	822.14	799.51	799.35
DGWC-21	816.28	799.93	799.38
DGWC-22	816.59	795.57	795.80
DGWC-23	818.37	795.74	799.31
DGWC-42	804.68	775.13	774.95
DGWC-47	797.45	777.86	780.54
DGWC-48	788.33	773.68	774.25

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
 Georgia Power Company - Plant McDonough
 Atlanta, Georgia

Well ID	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	
		10/27/2021	1/18/2022
PIEZOMETERS			
B-3	837.78	801.63	801.27
B-6	789.47	783.05	783.74
B-7	809.16	784.50	784.72
B-16	826.47	792.85	791.85
B-18	826.56	803.08	803.71
B-24	822.11	804.48	803.92
B-25	836.54	818.52	822.26
B-26	853.60	825.71	826.72
B-28	816.08	785.73	786.64
B-29	816.43	787.34	788.92
B-31	797.47	763.41	763.85
B-41	795.20	770.17	770.93
B-50	809.67	787.79	787.64
B-51	765.92	752.76	753.29
B-52	822.89	797.81	797.23
B-54	785.46	779.36	779.74
B-55	825.12	798.84	799.41
B-56	823.59	795.43	795.91
B-57	789.04	770.89	770.19
B-58	788.17	769.31	768.75
B-59	788.00	779.88	780.60
B-60	782.13	751.61	751.29
B-61	782.09	763.66	763.24
B-62	760.08	744.95	745.58
B-63	777.10	748.75	748.95
B-64	785.83	779.28	780.03
B-65	821.95	801.83	801.53
B-66	815.90	796.40	799.00
B-68	758.68	754.70	755.12
B-72	758.46	754.96	755.33
B-73	759.21	754.71	755.29
B-74	759.06	754.90	755.31
B-76	760.53	745.71	746.10
B-77	776.86	747.48	748.13
B-78	790.75	779.65	780.47
B-79	788.66	781.58	781.97
B-80	804.47	784.84	785.16
B-81	820.56	784.31	784.29

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
 Georgia Power Company - Plant McDonough
 Atlanta, Georgia

Well ID	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	
		10/27/2021	1/18/2022
PIEZOMETERS			
B-82	810.07	793.97	798.12
B-83	776.98	746.58	746.75
B-84	776.34	745.42	745.68
B-85	782.54	779.14	779.69
B-86	784.29	782.10	782.65
B-87	803.37	784.94	785.35
B-88	820.07	783.58	783.78
B-89	822.36	796.56	795.86
B-90	784.00	781.97	782.48
B-91	782.98	779.18	779.58
B-92	785.08	779.36	780.13
B-93	789.07	780.57	782.04
B-94	801.74	784.86	785.30
B-95	784.00	781.90	782.15
B-96	784.92	778.88	779.66
B-97	786.29	779.84	781.36
B-98	789.67	780.15	782.45
B-99	782.39	778.63	779.44
B-100	777.95	744.70	744.44
B-101D	824.29	793.84	793.97
B-102D	823.42	791.56	792.20
B-103D	795.96	782.28	783.34
B-104D	787.90	780.44	780.77
B-105D	779.01	760.75	762.19
B-106D	826.21	787.01	786.33
B-107D	823.38	800.95	800.67
B-108D	821.13	800.27	799.68
B-109D	850.73	811.87	811.95
B-110D	764.61	755.69	756.09
B-111D	791.87	780.07	781.56
B-112D	765.58	757.86	758.48
B-113D	758.22	756.21	756.79
B-115D	789.17	768.96	768.28
B-116D	807.82	764.80	765.35
B-117D	863.82	834.63	834.67
B-118	807.70	756.15	756.6
B-119D	807.15	759.14	759.76
B-120D	836.42	801.72	801.34
B-122D	777.03	--	--
B-123D	781.80	--	--

Notes:

1. Elevation data recorded in feet North American Vertical Datum (NAVD)
2. Survey data for monitoring wells and piezometers provided by Metro Engineering.
3. -- = Not Available
4. BTOP = Below top of pump
5. Monitoring well DGWC-121 and peizometers B-122D and B-123D were installed in March/April 2022.

TABLE 4A
GROUNDWATER VELOCITY CALCULATIONS - OCTOBER 2021
 Georgia Power Company - Plant McDonough Ash Pond 1
 Atlanta, Georgia

Flow Paths	Groundwater Elevation (feet msl)	Δh (feet) ¹	Δl (feet) ²	Hydraulic Gradient ($\Delta h/\Delta l$) ³	Average Hydraulic Conductivity, K (centimeter per second) ⁵	Assumed Effective Porosity (n_e) ⁶	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
ASH POND 1 (AP-1)								
B-29/DGWC-68A	787.34	32.37	900	0.036	0.00077	0.2	0.39	143
	754.97							
B-28/DGWC-37	785.73	33.45	1700	0.020	0.00077	0.2	0.21	78
	752.28							
B-50/DGWC-39	787.79	35.79	1400	0.026	0.00077	0.2	0.28	102
	752.00							

Notes:

1. Δh = Change in groundwater elevation
2. Δl = Distance along flow path
3. $I = \Delta h / \Delta l$
4. Velocity = $(I * K)/n_e$
5. Hydraulic conductivity based on historic aquifer performance tests
6. Assumed effective porosities for overburden was based on the default values recommended by USEPA for a silty sand-type soil (1996). Assumed effective porosity for upper bedrock was derived from Daniel and Dahlen (2002) and Dowd and Marshall (1995).

TABLE 4B
GROUNDWATER VELOCITY CALCULATIONS - JANUARY 2022
 Georgia Power Company - Plant McDonough Ash Pond 1
 Atlanta, Georgia

Flow Paths	Groundwater Elevation (feet msl)	Δh (feet) ¹	Δl (feet) ²	Hydraulic Gradient ($\Delta h/\Delta l$) ³	Average Hydraulic Conductivity, K (centimeter per second) ⁵	Assumed Effective Porosity (n_e) ⁶	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
ASH POND 1 (AP-1)								
B-29/DGWC-68A	788.92	33.47	900	0.037	0.00077	0.2	0.41	148
	755.45							
B-28/DGWC-37	786.64	33.83	1700	0.020	0.00077	0.2	0.22	79
	752.81							
B-50/DGWC-39	787.64	34.53	1400	0.025	0.00077	0.2	0.27	98
	753.11							

Notes:

1. Δh = Change in groundwater elevation
2. Δl = Distance along flow path
3. $l = \Delta h / \Delta l$
4. Velocity = $(l * K)/n_e$
5. Hydraulic conductivity based on historic aquifer performance tests
6. Assumed effective porosities for overburden was based on the default values recommended by USEPA for a silty sand-type soil (1996). Assumed effective porosity for upper bedrock was derived from Daniel and Dahlen (2002) and Dowd and Marshall (1995).

**TABLE 5A
ANALYTICAL DATA SUMMARY
September - October 2021**

Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	DETECTION MONITORING WELLS										
		DGWA-53	DGWA-70A	DGWA-71	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-68A	DGWC-69
		9/9/2021	9/9/2021	9/8/2021	9/16/2021	9/15/2021	9/17/2021	9/14/2021	9/16/2021	9/16/2021	10/27/2021 ^[8]	9/16/2021
Appendix III												
BORON, TOTAL	mg/L	0.065	< 0.0086	< 0.0086	1.4	2.8	2.8	0.70	3.4	1.3	--	0.32
CALCIUM, TOTAL	mg/L	18.3	5.30	6.10	63.0	88.3	98.6	45.1	46.0	60.6	--	18
CHLORIDE, TOTAL	mg/L	1.80	1.90	5.90	5.60	7.60	8.30	16.7	7.90	3.40	--	4.5
FLUORIDE, TOTAL	mg/L	0.099 J	< 0.050	< 0.050	0.084 J	0.060 J	0.13	0.13	0.069 J	0.55	--	0.11
pH	S.U.	6.41	5.50	5.76	6.33	6.08	6.49	4.67	6.20	6.79	6.56	6.16
SULFATE, TOTAL	mg/L	11.9	< 0.50	6.10	95.0	219	156	186	101	22.3	--	17.9
TOTAL DISSOLVED SOLIDS	mg/L	131	53.0	75.0	278	474	446	347	282	259	--	113
Appendix IV												
ANTIMONY, TOTAL	mg/L	< 0.00078	0.0015 J	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	--	< 0.00078
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.46	0.0016 J	0.023
BARIUM, TOTAL	mg/L	0.099	0.038	0.025	0.083	0.032	0.090	0.027	0.088	0.13	0.086	0.078
BERYLLIUM, TOTAL	mg/L	< 0.000054	0.000089 J	0.000091 J	0.000059 J	< 0.000054	< 0.000054	0.0032	< 0.000054	< 0.000054	--	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	0.00013 J	0.00021 J	< 0.00011	0.00086	< 0.00011	< 0.00011	--	< 0.00011
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0021 J	< 0.0011	0.0014 J	< 0.0011	< 0.0011
COBALT, TOTAL	mg/L	0.0064	< 0.00039	< 0.00039	< 0.00039	0.0016 J	0.0076	0.050	0.0012 J	0.0032 J	< 0.00039	< 0.00039
FLUORIDE, TOTAL	mg/L	0.099 J	< 0.050	< 0.050	0.084 J	0.060 J	0.13	0.13	0.069 J	0.55	--	0.11
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	--	< 0.00089
LITHIUM, TOTAL	mg/L	0.0091 J	< 0.00073	0.0013 J	0.0021 J	0.0029 J	< 0.00073	0.0030 J	0.0044 J	0.00082 J	--	0.0023 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	0.000096 J	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	--	< 0.000078
MOLYBDENUM, TOTAL	mg/L	0.025	< 0.00074	< 0.00074	< 0.00074	0.00099 J	< 0.00074	< 0.00074	< 0.00074	0.18	--	0.0090 J
RADIUM (226 + 228)	pCi/L	2.72	0.779	0.0510	0.691	2.37	0.911	1.80	0.201	1.74	--	2.06
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	0.0015 J	< 0.0014	< 0.0014	--	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	--	< 0.00018

Notes:

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. -- - Not Available/Not Analyzed
5. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
6. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
7. Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
8. Monitorig well DGWC-68A was resampled on October 27, 2021.

TABLE 5A
ANALYTICAL DATA SUMMARY
September - October 2021
Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	ASSESSMENT MONITORING WELLS				
		B-62	B-100	B-105D	B-112D	B-113D
		9/9/2021	9/13/2021	9/15/2021	9/16/2021	9/17/2021
Appendix III						
BORON, TOTAL	mg/L	0.068	0.24	0.76	0.27	0.089
CALCIUM, TOTAL	mg/L	29.2	51.5	72.7	28.4	44.1
CHLORIDE, TOTAL	mg/L	5.80	11.1	17.4	2.70	48.8
FLUORIDE, TOTAL	mg/L	0.14	< 0.050	0.078 J	0.34	0.87
pH	S.U.	6.31	5.27	6.38	6.74	7.97
SULFATE, TOTAL	mg/L	49.2	351	240	21.2	89.1
TOTAL DISSOLVED SOLIDS	mg/L	174	636	455	162	329
Appendix IV						
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	0.0082	< 0.00078	< 0.00078
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
BARIUM, TOTAL	mg/L	0.021	0.021	0.037	0.0032 J	0.0048 J
BERYLLIUM, TOTAL	mg/L	0.00014 J	0.00053	< 0.000054	< 0.000054	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	0.00029 J	< 0.00011	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	0.0012 J	0.0014 J	< 0.0011
COBALT, TOTAL	mg/L	< 0.00039	0.035	0.0065	0.00054 J	< 0.00039
FLUORIDE, TOTAL	mg/L	0.14	< 0.050	0.078 J	0.34	0.87
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
LITHIUM, TOTAL	mg/L	0.0094 J	0.0022 J	0.014 J	0.0038 J	0.013 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078
MOLYBDENUM, TOTAL	mg/L	< 0.00074	< 0.00074	< 0.00074	0.032	0.074
RADIUM (226 + 228)	pCi/L	1.70	0.774	2.01	0.241	1.08
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

Notes:

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. -- - Not Available/Not Analyzed
5. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is qualified by the laboratory as an
6. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an
7. Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
8. Monitorig well DGWC-68A was resampled on October 27, 2021.

TABLE 5B
SUPPLEMENTAL SAMPLING ANALYTICAL DATA SUMMARY
September - October 2021
Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	SUPPLEMENTAL SAMPLING			
		B-116D	B-117D	B-118	B-119D
		9/9/2021	9/8/2021	9/8/2021	9/8/2021
Appendix III					
BORON, TOTAL	mg/L	< 0.0086	< 0.0086	< 0.0086	0.018 J
CALCIUM, TOTAL	mg/L	9.90	11.3	5.00	20.2
CHLORIDE, TOTAL	mg/L	2.70	6.00	3.00	7.50
FLUORIDE, TOTAL	mg/L	< 0.050	0.058 J	< 0.050	0.16
pH	S.U.	6.02	6.00	6.01	6.88
SULFATE, TOTAL	mg/L	0.730 J	31.1	0.990 J	76.2
TOTAL DISSOLVED SOLIDS	mg/L	93.0	152	65.0	191
Appendix IV					
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	0.00087 J
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	0.0011 J	0.0014 J
BARIUM, TOTAL	mg/L	0.017	0.048	0.021	0.0080
BERYLLIUM, TOTAL	mg/L	< 0.000054	< 0.000054	< 0.000054	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011
COBALT, TOTAL	mg/L	< 0.00039	0.00043 J	< 0.00039	0.00077 J
FLUORIDE, TOTAL	mg/L	< 0.050	0.058 J	< 0.050	0.16
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089
LITHIUM, TOTAL	mg/L	0.0055 J	0.0069 J	0.0028 J	0.0028 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078
MOLYBDENUM, TOTAL	mg/L	< 0.00074	< 0.00074	0.0056 J	0.022
RADIUM (226 + 228)	pCi/L	0.887	0.695	0.0324	0.168
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018

Notes:

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.

**TABLE 5C
ANALYTICAL DATA SUMMARY**

January 2022

Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	DETECTION MONITORING WELLS										
		DGWA-53	DGWA-70A	DGWA-71	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69	DGWC-121 ^[7]
		1/28/2022	1/18/2022	1/18/2022	1/21/2022	1/21/2022	1/20/2022	1/19/2022	1/19/2022	1/25/2022	1/25/2022	6/6/2022
Appendix III												
BORON, TOTAL	mg/L	0.062	0.024 J	0.015 J	1.4	2.8	2.8	0.82	4.1	2.2	0.035 J	1.40
CALCIUM, TOTAL	mg/L	19.5	6.1	6.6	64.4	91	96.2	44.7	48.8	60.4	9.2	44.1
CHLORIDE, TOTAL	mg/L	1.8	1.9	5.9	5.7	8.5	8.0	16.5	8.3	3.8	5.4	4.7
FLUORIDE, TOTAL	mg/L	0.08 J	< 0.05	< 0.05	0.053 J	0.10	0.10	0.12	< 0.05	0.067 J	0.054 J	0.056 J
pH	S.U.	6.35	5.50	5.51	6.31	6.08	6.52	4.66	6.21	6.53	6.02	6.33
SULFATE, TOTAL	mg/L	13.1	< 0.50	6.3	89.8	188	123	177	97.2	36.3	7.1	83.9
TOTAL DISSOLVED SOLIDS	mg/L	155	54	76	316	482	416	336	272	259	84	270
Appendix IV												
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
ARSENIC, TOTAL	mg/L	0.0024 J	0.0046 J	0.0054	< 0.0011	< 0.0011	0.0019 J	0.003 J	0.0033 J	< 0.0011	0.028	< 0.0022
BARIUM, TOTAL	mg/L	0.068	0.043	0.029	0.085	0.031	0.093	0.018	0.091	0.10	0.049	0.04
BERYLLIUM, TOTAL	mg/L	< 0.000054	0.000092 J	0.00012 J	0.000059 J	< 0.000054	< 0.000054	0.0034	< 0.000054	< 0.000054	0.000059 J	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.0002 J	< 0.00011	0.00085	< 0.00011	0.00035 J	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0013 J	< 0.0011
COBALT, TOTAL	mg/L	0.014	< 0.00039	< 0.00039	< 0.00039	0.0017 J	0.0061	0.042	0.0011 J	< 0.00039	< 0.00039	0.0028 J
FLUORIDE, TOTAL	mg/L	0.080 J	< 0.050	< 0.050	0.053 J	0.10	0.10	0.12	< 0.050	0.067 J	0.054 J	0.056 J
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
LITHIUM, TOTAL	mg/L	0.0091 J	< 0.00073	0.0013 J	0.0020 J	0.0025 J	< 0.00073	0.0024 J	0.0046 J	< 0.00073	0.0026 J	0.013 J
MERCURY, TOTAL	mg/L	< 0.00013	< 0.00013	0.00015 J	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013
MOLYBDENUM, TOTAL	mg/L	0.026	< 0.00074	< 0.00074	< 0.00074	0.0013 J	< 0.00074	< 0.00074	< 0.00074	0.23	0.0057 J	0.00093 J
RADIUM (226 + 228)	pCi/L	2.10	1.26	0.729 U	0.343 U	0.0873 U	0.172 U	1.70	0.853 U	0.323 U	0.834 U	1.23
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

Notes:

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Monitoring Well DGWC-121 was installed in May 2022 and first sampled in June 2022.

**TABLE 5C
ANALYTICAL DATA SUMMARY
January 2022**

Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	ASSESSMENT MONITORING WELLS				
		B-62	B-100	B-105D	B-112D	B-113D
		1/20/2022	1/21/2022	1/19/2022	1/19/2022	1/26/2022
Appendix III						
BORON, TOTAL	mg/L	0.077	0.24	0.88	0.31	0.12
CALCIUM, TOTAL	mg/L	36.3	49.9	74.2	24.1	48.4
CHLORIDE, TOTAL	mg/L	5.6	11.3	16.3	2.5	19.8
FLUORIDE, TOTAL	mg/L	0.099 J	< 0.050	0.058 J	0.25	0.74
pH	S.U.	6.32	5.23	6.62	6.74	7.66
SULFATE, TOTAL	mg/L	50.3	344	220	18.4	55.5
TOTAL DISSOLVED SOLIDS	mg/L	187	638	453	167	234
Appendix IV						
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
ARSENIC, TOTAL	mg/L	0.0033 J	< 0.0011	0.0051	0.0050	0.0018 J
BARIUM, TOTAL	mg/L	0.021	0.023	0.040	0.0034 J	0.0051
BERYLLIUM, TOTAL	mg/L	0.00015 J	0.00053	< 0.000054	< 0.000054	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	0.00059	< 0.00011	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
COBALT, TOTAL	mg/L	< 0.00039	0.034	0.0060	< 0.00039	< 0.00039
FLUORIDE, TOTAL	mg/L	0.099 J	< 0.050	0.058 J	0.25	0.74
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
LITHIUM, TOTAL	mg/L	0.0092 J	0.0021 J	0.013 J	0.0044 J	0.014 J
MERCURY, TOTAL	mg/L	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013
MOLYBDENUM, TOTAL	mg/L	< 0.00074	< 0.00074	< 0.00074	0.032	0.074
RADIUM (226 + 228)	pCi/L	1.71	0.769 U	2.45	0.738 U	0.596 U
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

Notes:

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Monitoring Well DGWC-121 was installed in May 2022 and first sampled in June 2022.

TABLE 5D
SUPPLEMENTAL SAMPLING ANALYTICAL DATA SUMMARY
January 2022
Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	SUPPLEMENTAL SAMPLING			
		B-116D	B-117D	B-118	B-119D
		1/19/2022	1/19/2022	1/19/2022	1/19/2022
Appendix III					
BORON, TOTAL	mg/L	< 0.0086	< 0.0086	< 0.0086	0.012 J
CALCIUM, TOTAL	mg/L	10.7	9.7	5.1	16.1
CHLORIDE, TOTAL	mg/L	2.6	5.0	2.8	3.8
FLUORIDE, TOTAL	mg/L	< 0.050	0.058 J	< 0.050	0.099 J
pH	S.U.	6.04	6.02	6.01	6.61
SULFATE, TOTAL	mg/L	0.73 J	21.5	1.1	31.1
TOTAL DISSOLVED SOLIDS	mg/L	93	129	81	145
Appendix IV					
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	0.002 J	0.0019 J
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011
BARIUM, TOTAL	mg/L	0.019	0.047	0.025	0.0047 J
BERYLLIUM, TOTAL	mg/L	< 0.000054	< 0.000054	< 0.000054	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	0.0015 J	< 0.0011
COBALT, TOTAL	mg/L	< 0.00039	< 0.00039	< 0.00039	0.00066 J
FLUORIDE, TOTAL	mg/L	< 0.050	0.058 J	< 0.05	0.099 J
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089
LITHIUM, TOTAL	mg/L	0.0061 J	0.0085 J	0.0027 J	0.0031 J
MERCURY, TOTAL	mg/L	< 0.00013	< 0.00013	< 0.00013	< 0.00013
MOLYBDENUM, TOTAL	mg/L	< 0.00074	< 0.00074	0.0056 J	0.020
RADIUM (226 + 228)	pCi/L	1.04	0.125 U	0.832 U	0.858 U
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.

TABLE 6A
SURFACE WATER ANALYTICAL DATA SUMMARY
September 2021
Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	SURFACE WATER SAMPLES						
		UT01_DS	UT01_US	UT02	UT03	CR+0.4	CR+0.2	CR-0.1
		9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021
Appendix III								
Boron	mg/L	0.13	0.041	0.081	0.088	< 0.040	< 0.040	< 0.040
Calcium	mg/L	18.5	16.3	17.3	17.4	6.7	6.6	6.6
Chloride	mg/L	12.7	13.3	13.1	12.9	9.9	9.7	9.8
Fluoride	mg/L	0.31	0.34	0.32	0.32	0.14	0.14	0.14
Sulfate	mg/L	16.7	13.2	15.2	15.1	7.0	6.4	8.0
Total Dissolved Solids	mg/L	130	117	120	72.0	77.0	73.0	78.0
Appendix IV								
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	--
Cobalt	mg/L	--	--	--	--	< 0.0050	< 0.0050	< 0.0050
Molybdenum	mg/L	< 0.010	< 0.010	--	< 0.010	< 0.010	< 0.010	--
Major Ions								
Alkalinity, Total as CaCO ₃	mg/L	62.2	60.1	62.5	60.6	26.6	26.9	26.8
Alkalinity, Bicarbonate (CaCO ₃)	mg/L	62.2	60.1	62.5	60.6	26.6	26.9	26.8
Magnesium	mg/L	3.9	3.3	3.6	3.5	2.9	2.7	2.7
Potassium	mg/L	3.5	3.2	3.2	3.2	3.4	3.3	3.2
Sodium	mg/L	13.4	13.3	13.4	13.2	10.0	9.9	9.4

Notes:

mg/L = milligrams per liter; ug/L - micrograms per liter; S. U. - Standard Units

< indicates the substance was not detected above the analytical reporting limit (RL). The value displayed is the RL.

"--" = analysis was not performed

TABLE 6B
SURFACE WATER ANALYTICAL DATA SUMMARY
January 2022
Georgia Power Company - Plant McDonough Ash Pond 1
Atlanta, Georgia

Analyte	Units	SURFACE WATER SAMPLES						
		UT01_DS	UT01_US	UT02	UT03	CR+0.4	CR+0.2	CR-0.1
		1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022
Appendix III								
Boron	mg/L	0.13	0.049	0.067	0.076	< 0.040	0.062	< 0.040
Calcium	mg/L	17.0	16.2	16.7	16.4	5.3	7.8	6.0
Chloride	mg/L	18.5	19.3	19.1	18.9	8.1	10.0	9.5
Fluoride	mg/L	0.17	0.20	0.18	0.18	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	17.2	14.7	15.7	15.6	5.5	9.3	7.0
Total Dissolved Solids	mg/L	131	118	114	135	55.0	63.0	65.0
Appendix IV								
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	--	--
Cobalt	mg/L	--	--	--	--	< 0.0050	< 0.0050	< 0.0050
Molybdenum	mg/L	< 0.010	< 0.010	--	< 0.010	< 0.010	--	--
Major Ions								
Alkalinity, Total as CaCO3	mg/L	56.0	53.7	54.6	54.2	23.4	24.2	24.4
Alkalinity, Bicarbonate (CaCO3)	mg/L	56.0	53.7	54.6	54.2	23.4	24.2	24.4
Magnesium	mg/L	3.6	3.5	3.6	3.4	2.0	2.5	2.3
Potassium	mg/L	2.8	3.0	2.9	2.8	2.8	2.8	3.1
Sodium	mg/L	16.0	16.3	16.3	15.8	7.7	8.9	8.3

Notes:

mg/L = milligrams per liter; ug/L - micrograms per liter; S. U. - Standard Units

< indicates the substance was not detected above the analytical reporting limit (RL). The value displayed is the RL.

"--" = analysis was not performed

TABLE 7
SUMMARY OF BACKGROUND LEVELS AND GWPS
 Georgia Power Company - Plant McDonough Ash Pond 1
 Atlanta, Georgia

Analyte	Units	Maximum Contaminant Level (MCL)	Rule Specified Limit (RSL)	Site Specific Background September 2021 ^[1]	Site Specific Background January 2022 ^[1]	GWPS ^[2] September 2021	GWPS ^[2] January 2022
Antimony	mg/L	0.006	--	0.003 ^[3]	0.003 ^[3]	0.006	0.006
Arsenic	mg/L	0.01	--	0.005 ^[3]	0.005 ^[3]	0.01	0.01
Barium	mg/L	2	--	0.19	0.19	2	2
Beryllium	mg/L	0.004	--	0.0009	0.0009	0.004	0.004
Cadmium	mg/L	0.005	--	0.0005 ^[3]	0.0005 ^[3]	0.005	0.005
Chromium	mg/L	0.1	--	0.005 ^[3]	0.005 ^[3]	0.1	0.1
Cobalt	mg/L	NA	0.006	0.032	0.032	0.032	0.032
Fluoride	mg/L	4	--	0.42	0.42	4	4
Lead	mg/L	NA	0.015	0.001 ^[3]	0.001 ^[3]	0.001	0.015
Lithium	mg/L	NA	0.04	0.03 ^[3]	0.03 ^[3]	0.03	0.04
Mercury	mg/L	0.002	--	0.0002 ^[3]	0.0002 ^[3]	0.002	0.002
Molybdenum	mg/L	NA	0.1	0.041	0.041	0.041	0.1
Radium (226 + 228)	pCi/L	5	--	5.61	4.98	5.61	5.00
Selenium	mg/L	0.05	--	0.005 ^[3]	0.005 ^[3]	0.05	0.05
Thallium	mg/L	0.002	--	0.001 ^[3]	0.001 ^[3]	0.002	0.002

Notes:

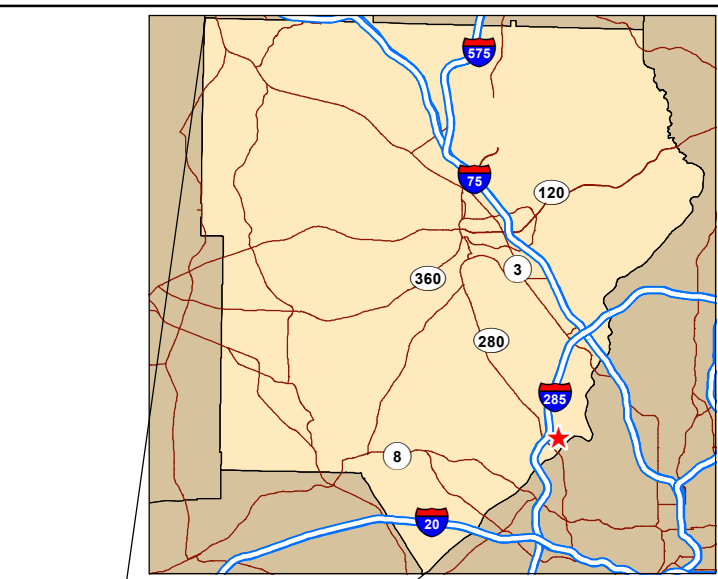
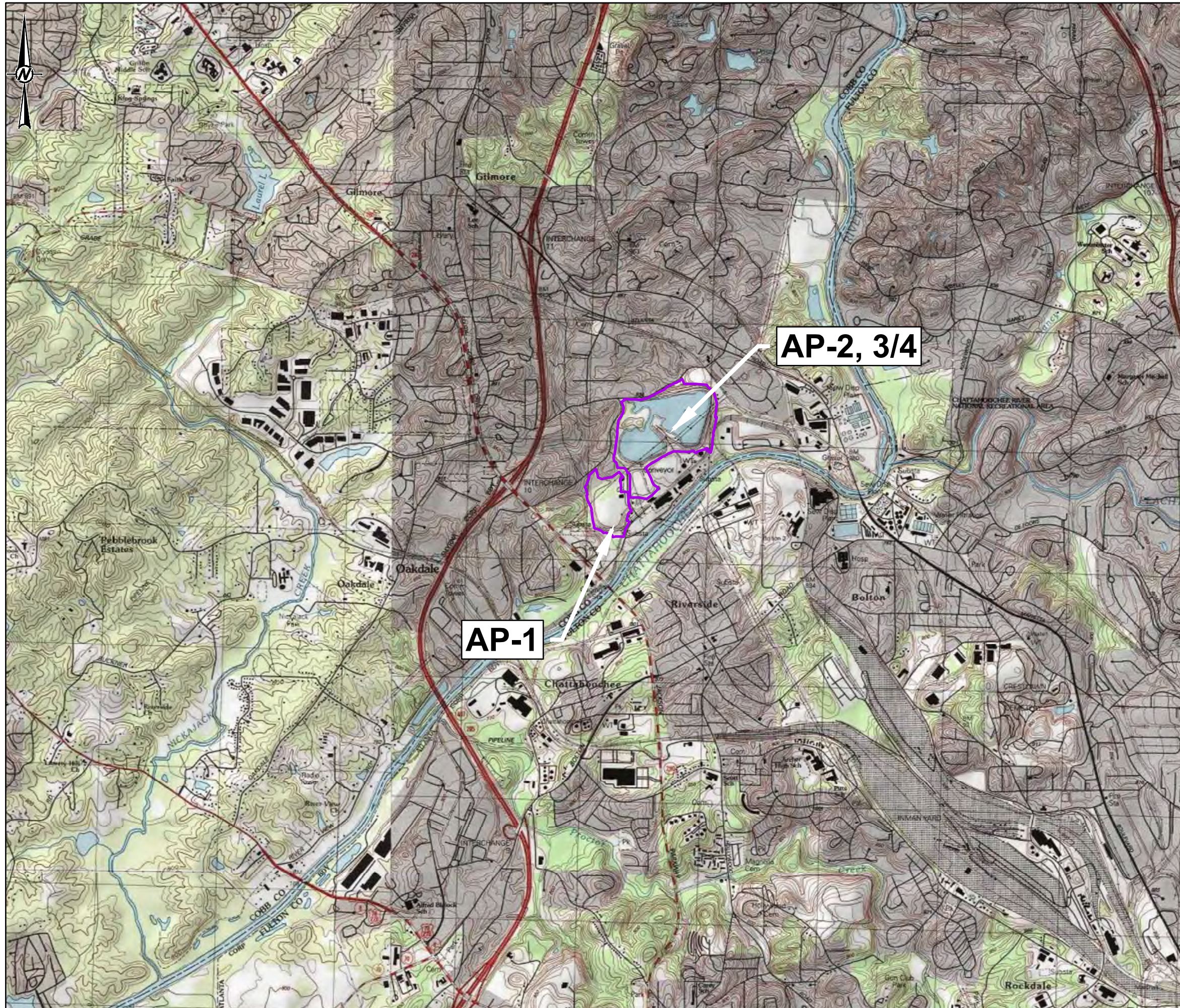
mg/L = milligrams per liter; pCi/L = picocuries per liter; NA = Not Available

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95(h) and 391-3-4-.10(6)(a).

[2] Until February 22, 2022, GA EPD defined the GWPS as: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL. Under current EPD rules, the GWPS is: (i) the MCL or RSL, or (ii) background levels for constituents where the background level is higher than the MCL or RSL.

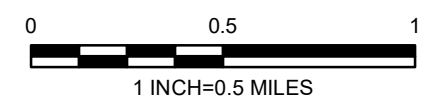
[3] The background tolerance limit (TL) used to evaluate GWPS for this analyte equals the laboratory specified reporting limit (RL). Per the Statistical Analysis Plan, and in accordance with the Unified Guidance, a non-parametric limit approach was used when the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL.

FIGURES



REFERENCE

SERVICE LAYER CREDITS: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED



CLIENT
**GEORGIA POWER COMPANY PLANT
 MCDONOUGH-ATKINSON**



PROJECT
**2022 ANNUAL GROUNDWATER MONITORING AND
 CORRECTIVE ACTION REPORT-ASH POND 1**

TITLE
SITE LOCATION MAP

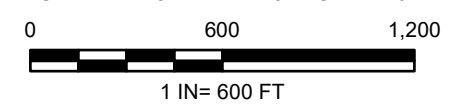
CONSULTANT	YYYY-MM-DD	2022-4-26
wsp GOLDER	PREPARED	SEB
	DESIGN	SEB
	CHECKED	DP
	REVIEWED/APPROVED	RPK



- LEGEND**
- ◆ AP-1 MONITORING WELL
 - ◆ AP-2,3/4 MONITORING WELL
 - ◆ UPGRADIENT WELL
 - ★ ASSESSMENT MONITORING WELLS
 - ◆ PIEZOMETER
 - ▲ DEWATERING WELL
 - ◆ SURFACE WATER MONITORING LOCATION
 - STAFF GAUGE
 - PROPERTY BOUNDARY
 - PERMIT BOUNDARY

NOTES
 1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

- REFERENCE**
1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JUNE 23, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
 2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
 3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH

PROJECT
 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PLANT MCDONOUGH-ATKINSON

TITLE
MONITORING WELL, PIEZOMETER AND SURFACE WATER LOCATION MAP

CONSULTANT	YYYY-MM-DD	2022-07-11
	PREPARED	SEB
	DESIGN	DLP
	CHECKED	DP/RPK
	REVIEWED/APPROVED	RPK

ALL DIMENSIONS AND MEASUREMENTS ARE APPROXIMATE AND SHOWN FOR INFORMATION ONLY. THIS SHEET HAS BEEN MODIFIED FROM ANS.B.



LEGEND

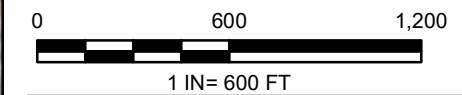
- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELLS
- PIEZOMETER
- DEWATERING WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR (FT-NAVD)
- SURFACE WATER STREAM
- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TOPOGRAPHY 5-FOOT CONTOUR
- EXISTING TOPOGRAPHY 1-FOOT CONTOUR

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED OCTOBER 27, 2021 BY GOLDER ASSOCIATES.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD).
4. WELLS THAT CONTAIN A "D" DESIGNATION FOLLOWING THE NUMBER ARE DEEP WELLS AND ELEVATIONS ARE NOT USED FOR CONTOURING.

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND AUGUST 04, 2021 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



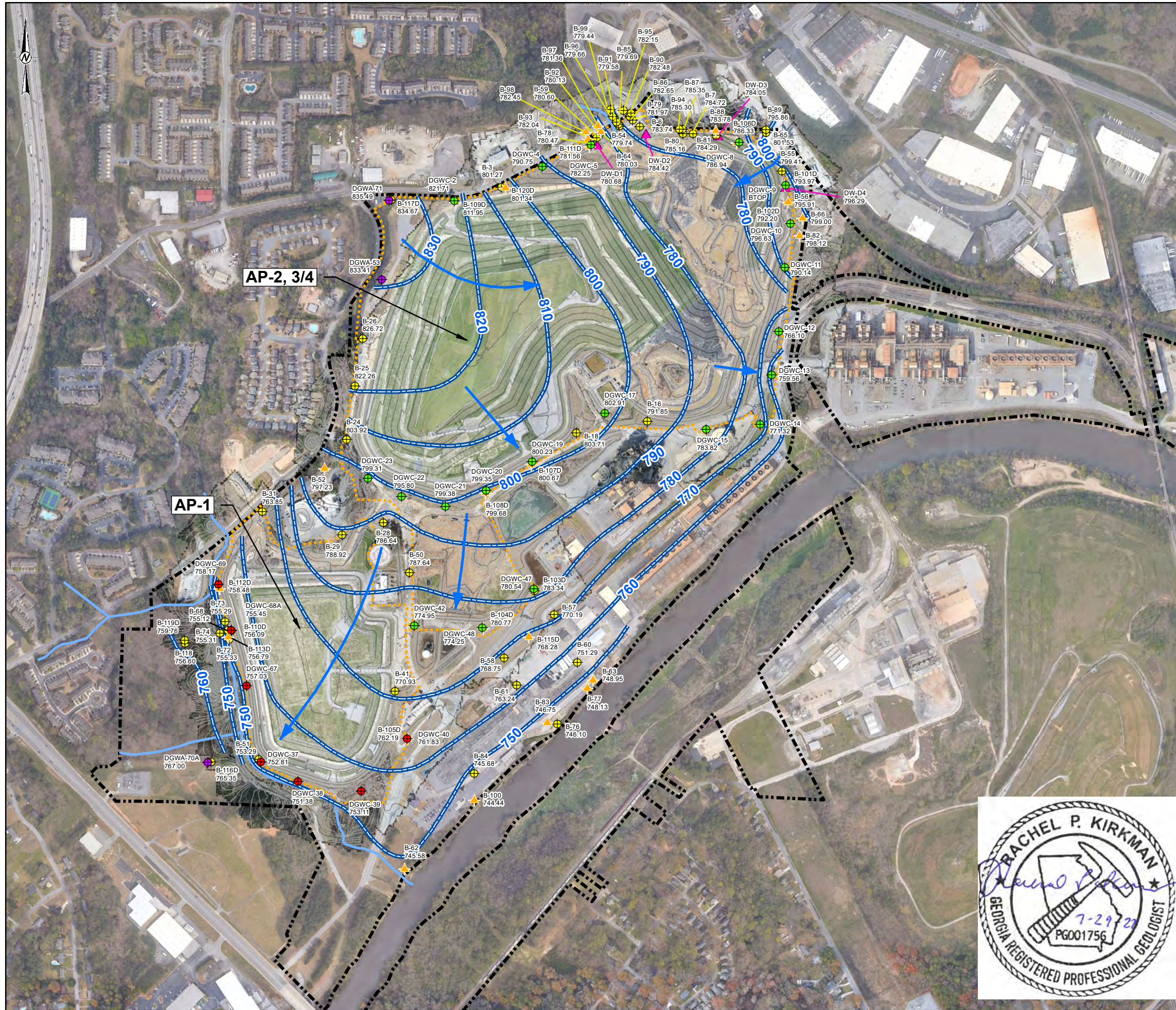
PROJECT
 2022 ANNUAL GROUNDWATER MONITORING AND
 CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
SITE POTENTIOMETRIC MAP – OCTOBER 27, 2021

CONSULTANT	YYYY-MM-DD	2021-10-29
	PREPARED	SEB
	DESIGN	SEB
	CHECKED	BAS
	REVIEWED/APPROVED	RPK



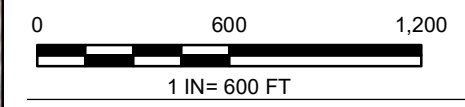
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANSIB



- LEGEND**
- ◆ AP-1 MONITORING WELL
 - ◆ AP-2,3/4 MONITORING WELL
 - ◆ UPGRADIENT WELL
 - ▲ ASSESSMENT MONITORING WELLS
 - ◆ PIEZOMETER
 - ▲ DEWATERING WELL
 - ➔ APPROXIMATE GROUNDWATER FLOW DIRECTION
 - GROUNDWATER SURFACE CONTOUR (FT-NAVD88)
 - SURFACE WATER STREAM
 - - - PERMIT BOUNDARY
 - - - PROPERTY BOUNDARY
 - EXISTING TOPOGRAPHY 10-FOOT CONTOUR
 - EXISTING TOPOGRAPHY 2-FOOT CONTOUR

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
 2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED JANUARY 18, 2022 BY GOLDER ASSOCIATES.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD88).
 4. WELLS AND PIEZOMETERS THAT CONTAIN A "D" DESIGNATION FOLLOWING THE NUMBER ARE DEEP WELLS AND ELEVATIONS ARE NOT USED FOR CONTOURING.
 5. BTOP= BELOW TOP OF PUMP.

- REFERENCE**
1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND FEBRUARY 8, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
 2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
 3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY.



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



PROJECT
 2022 ANNUAL GROUNDWATER MONITORING AND
 CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
SITE POTENTIOMETRIC MAP – JANUARY 18, 2022

CONSULTANT	YYYY-MM-DD	2022-02-11
GOLDER	PREPARED	SEB
	DESIGN	SEB
	CHECKED	BAS
	REVIEWED/APPROVED	RPK

PROJECT No. 166849621 Rev. 0 FIGURE 4



IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANSIB

APPENDIX A

Field Data Forms and Instrument Calibration Records

APPENDIX A

**Field Data Forms
September/October 2021**

Low-Flow Test Report:

Test Date / Time: 9/16/2021 3:56:08 PM

Project: Low-Flow Test 36 (6)

Operator Name: Erin D Hondt

Location Name: DGWC-37 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.08 ft Total Depth: 43.08 ft Initial Depth to Water: 14.45 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Pump Intake From TOC: 38.08 ft Estimated Total Volume Pumped: 14261.333 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: -0.55 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728638
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/16/2021 3:56 PM	00:00	6.32 pH	19.31 °C	461.00 µS/cm	0.97 mg/L	49.30 NTU	87.5 mV	13.55 ft	280.00 ml/min
9/16/2021 4:01 PM	05:00	6.32 pH	19.14 °C	456.21 µS/cm	0.98 mg/L	26.10 NTU	73.1 mV	13.90 ft	280.00 ml/min
9/16/2021 4:06 PM	10:00	6.33 pH	19.05 °C	392.57 µS/cm	1.14 mg/L	15.60 NTU	70.6 mV	13.90 ft	280.00 ml/min
9/16/2021 4:11 PM	15:00	6.34 pH	18.96 °C	441.55 µS/cm	1.21 mg/L	9.00 NTU	85.6 mV	13.90 ft	280.00 ml/min
9/16/2021 4:17 PM	20:56	6.34 pH	18.87 °C	434.71 µS/cm	1.28 mg/L	9.90 NTU	71.0 mV	13.90 ft	280.00 ml/min
9/16/2021 4:22 PM	25:56	6.34 pH	18.76 °C	433.57 µS/cm	1.34 mg/L	8.10 NTU	83.1 mV	13.90 ft	280.00 ml/min
9/16/2021 4:27 PM	30:56	6.33 pH	18.78 °C	433.13 µS/cm	1.28 mg/L	5.60 NTU	82.1 mV	13.90 ft	280.00 ml/min
9/16/2021 4:32 PM	35:56	6.34 pH	18.79 °C	403.04 µS/cm	1.23 mg/L	2.90 NTU	80.6 mV	13.90 ft	280.00 ml/min
9/16/2021 4:37 PM	40:56	6.34 pH	18.84 °C	432.65 µS/cm	1.29 mg/L	3.20 NTU	63.2 mV	13.90 ft	280.00 ml/min
9/16/2021 4:42 PM	45:56	6.34 pH	18.82 °C	432.87 µS/cm	1.31 mg/L	2.20 NTU	78.7 mV	13.90 ft	280.00 ml/min
9/16/2021 4:47 PM	50:56	6.33 pH	18.86 °C	434.56 µS/cm	1.25 mg/L	2.40 NTU	78.1 mV	13.90 ft	280.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/15/2021 2:54:30 PM

Project: Plant McDonough (18)

Operator Name: D Fulton

Location Name: DGWC-38 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 18.08 ft Total Depth: 28.08 ft	Pump Type: Dedicated Bladder Tubing Type: Poly Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 10 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Weather Conditions:

Rain, 80 s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/15/2021 2:54 PM	00:00	6.05 pH	23.16 °C	338.62 µS/cm	5.00 mg/L	12.30 NTU	153.6 mV	6.14 ft	225.00 ml/min
9/15/2021 2:59 PM	05:00	6.02 pH	20.21 °C	649.57 µS/cm	0.94 mg/L	9.91 NTU	95.2 mV	6.16 ft	225.00 ml/min
9/15/2021 3:04 PM	10:00	6.03 pH	19.93 °C	675.98 µS/cm	0.69 mg/L	11.87 NTU	106.4 mV	6.16 ft	225.00 ml/min
9/15/2021 3:09 PM	15:00	6.03 pH	19.81 °C	692.66 µS/cm	0.32 mg/L	14.63 NTU	92.4 mV	6.16 ft	225.00 ml/min
9/15/2021 3:14 PM	20:00	6.04 pH	19.78 °C	695.16 µS/cm	0.23 mg/L	13.70 NTU	56.2 mV	6.16 ft	225.00 ml/min
9/15/2021 3:19 PM	25:00	6.04 pH	19.74 °C	693.59 µS/cm	0.20 mg/L	13.30 NTU	46.3 mV	6.16 ft	225.00 ml/min
9/15/2021 3:24 PM	30:00	6.05 pH	19.72 °C	692.51 µS/cm	0.17 mg/L	9.82 NTU	44.0 mV	6.15 ft	225.00 ml/min
9/15/2021 3:29 PM	35:00	6.06 pH	19.72 °C	690.15 µS/cm	0.16 mg/L	9.13 NTU	46.4 mV	6.15 ft	225.00 ml/min
9/15/2021 3:34 PM	40:00	6.07 pH	19.70 °C	691.00 µS/cm	0.15 mg/L	6.51 NTU	39.3 mV	6.15 ft	225.00 ml/min
9/15/2021 3:39 PM	45:00	6.07 pH	19.64 °C	691.91 µS/cm	0.15 mg/L	4.98 NTU	38.6 mV	6.15 ft	225.00 ml/min
9/15/2021 3:44 PM	50:00	6.08 pH	19.64 °C	690.15 µS/cm	0.14 mg/L	4.77 NTU	38.7 mV	6.15 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/17/2021 10:00:43 AM

Project: Plant McDonough

Operator Name: Erin D Hondt

Location Name: DGWC-39 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 14.62 ft Total Depth: 24.62 ft Initial Depth to Water: 6.85 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 19 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 120 ml/min Final Draw Down: 0.15 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728638
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/17/2021 10:00 AM	00:00	6.42 pH	21.90 °C	768.32 µS/cm	1.29 mg/L	12.80 NTU	-5.6 mV	6.85 ft	120.00 ml/min
9/17/2021 10:05 AM	05:00	6.46 pH	21.63 °C	766.43 µS/cm	0.99 mg/L	11.60 NTU	-17.5 mV	7.00 ft	120.00 ml/min
9/17/2021 10:10 AM	10:00	6.47 pH	21.44 °C	767.55 µS/cm	0.87 mg/L	11.10 NTU	-15.3 mV	7.00 ft	120.00 ml/min
9/17/2021 10:15 AM	15:00	6.48 pH	21.36 °C	767.68 µS/cm	0.79 mg/L	3.59 NTU	-16.9 mV	7.00 ft	120.00 ml/min
9/17/2021 10:20 AM	20:00	6.49 pH	21.30 °C	767.48 µS/cm	0.77 mg/L	2.88 NTU	-18.4 mV	7.00 ft	120.00 ml/min
9/17/2021 10:25 AM	25:00	6.49 pH	21.37 °C	767.17 µS/cm	0.78 mg/L	2.66 NTU	-18.6 mV	7.00 ft	120.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/14/2021 4:03:28 PM

Project: Plant McDonough (7)

Operator Name: E. Dhondt

Location Name: DGWC-40 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.4 ft Total Depth: 38.4 ft Initial Depth to Water: 17.46 ft	Pump Type: Dedicated bladder Tubing Type: Polyethylene Pump Intake From TOC: 33.4 ft Estimated Total Volume Pumped: 5600 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.14 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850724
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/14/2021 4:03 PM	00:00	4.84 pH	22.80 °C	501.13 µS/cm	2.31 mg/L	18.40 NTU	83.7 mV	17.46 ft	280.00 ml/min
9/14/2021 4:08 PM	05:00	4.73 pH	21.85 °C	502.16 µS/cm	2.39 mg/L	13.27 NTU	117.3 mV	17.60 ft	280.00 ml/min
9/14/2021 4:13 PM	10:00	4.68 pH	21.61 °C	519.54 µS/cm	2.46 mg/L	9.64 NTU	129.0 mV	17.60 ft	280.00 ml/min
9/14/2021 4:18 PM	15:00	4.67 pH	21.35 °C	514.84 µS/cm	2.46 mg/L	5.16 NTU	135.2 mV	17.60 ft	280.00 ml/min
9/14/2021 4:23 PM	20:00	4.67 pH	21.18 °C	511.89 µS/cm	2.46 mg/L	1.85 NTU	220.3 mV	17.60 ft	280.00 ml/min

Samples

Sample ID:	Description:
DGWC-40	FB-4

Low-Flow Test Report:

Test Date / Time: 9/16/2021 1:32:30 PM

Project: Plant McDonough

Operator Name: Erin D Hondt

Location Name: DGWC- 67 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 45.5 ft Total Depth: 55.5 ft Initial Depth to Water: 9.85 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 50.5 ft Estimated Total Volume Pumped: 17530.33 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 1 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728638
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/16/2021 1:32 PM	00:00	6.42 pH	19.05 °C	409.17 µS/cm	4.98 mg/L	12.40 NTU	144.9 mV	9.85 ft	220.00 ml/min
9/16/2021 1:38 PM	06:05	6.43 pH	18.87 °C	408.96 µS/cm	4.77 mg/L	2.70 NTU	121.1 mV	10.80 ft	220.00 ml/min
9/16/2021 1:43 PM	11:05	6.38 pH	18.96 °C	410.61 µS/cm	2.82 mg/L	1.10 NTU	124.2 mV	10.85 ft	220.00 ml/min
9/16/2021 1:48 PM	16:05	6.33 pH	18.92 °C	410.84 µS/cm	1.49 mg/L	0.90 NTU	114.0 mV	10.85 ft	220.00 ml/min
9/16/2021 1:53 PM	21:05	6.28 pH	18.83 °C	420.18 µS/cm	0.88 mg/L	1.70 NTU	105.3 mV	10.85 ft	220.00 ml/min
9/16/2021 1:58 PM	26:05	6.23 pH	18.78 °C	423.93 µS/cm	0.45 mg/L	1.90 NTU	102.4 mV	10.85 ft	220.00 ml/min
9/16/2021 2:03 PM	30:45	6.22 pH	18.82 °C	422.11 µS/cm	0.31 mg/L	1.00 NTU	87.7 mV	10.85 ft	220.00 ml/min
9/16/2021 2:08 PM	35:45	6.22 pH	18.80 °C	425.34 µS/cm	0.22 mg/L	1.30 NTU	78.8 mV	10.85 ft	220.00 ml/min
9/16/2021 2:13 PM	40:45	6.22 pH	18.76 °C	425.59 µS/cm	0.17 mg/L	0.80 NTU	75.6 mV	10.85 ft	220.00 ml/min
9/16/2021 2:16 PM	44:09	6.22 pH	18.78 °C	422.70 µS/cm	0.14 mg/L	0.60 NTU	77.8 mV	10.85 ft	220.00 ml/min
9/16/2021 2:21 PM	49:09	6.19 pH	18.91 °C	419.76 µS/cm	0.11 mg/L	1.20 NTU	102.0 mV	10.85 ft	220.00 ml/min
9/16/2021 2:26 PM	54:09	6.21 pH	19.32 °C	424.08 µS/cm	0.10 mg/L	0.90 NTU	73.0 mV	10.85 ft	220.00 ml/min
9/16/2021 2:27 PM	54:41	6.21 pH	19.38 °C	421.54 µS/cm	0.10 mg/L	0.90 NTU	69.0 mV	10.85 ft	220.00 ml/min
9/16/2021 2:32 PM	59:41	6.21 pH	19.50 °C	420.33 µS/cm	0.08 mg/L	1.30 NTU	68.8 mV	10.85 ft	220.00 ml/min
9/16/2021 2:37 PM	01:04:41	6.21 pH	19.14 °C	419.50 µS/cm	0.07 mg/L	1.10 NTU	68.3 mV	10.85 ft	220.00 ml/min
9/16/2021 2:42 PM	01:09:41	6.20 pH	19.04 °C	419.10 µS/cm	0.06 mg/L	1.90 NTU	84.6 mV	10.85 ft	220.00 ml/min

9/16/2021 2:47 PM	01:14:41	6.20 pH	19.08 °C	418.36 µS/cm	0.06 mg/L	1.80 NTU	85.3 mV	10.85 ft	220.00 ml/min
9/16/2021 2:52 PM	01:19:41	6.20 pH	19.16 °C	417.25 µS/cm	0.05 mg/L	3.00 NTU	67.5 mV	10.85 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/16/2021 1:26:02 PM

Project: Plant McDonough (21)

Operator Name: D Fulton

Location Name: DGWC-68A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 19.79 ft Total Depth: 29.79 ft Initial Depth to Water: 3.68 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 8.75 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 0.24 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Weather Conditions:

Rain, 80 s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/16/2021 1:26 PM	00:00	6.77 pH	23.43 °C	482.46 µS/cm	4.51 mg/L	84.30 NTU	-22.4 mV	3.80 ft	175.00 ml/min
9/16/2021 1:31 PM	05:00	6.82 pH	19.88 °C	506.05 µS/cm	0.17 mg/L	60.80 NTU	-44.6 mV	3.90 ft	175.00 ml/min
9/16/2021 1:36 PM	10:00	6.80 pH	19.48 °C	500.01 µS/cm	0.12 mg/L	32.70 NTU	-68.8 mV	3.92 ft	175.00 ml/min
9/16/2021 1:41 PM	15:00	6.80 pH	19.45 °C	497.99 µS/cm	0.09 mg/L	22.20 NTU	-35.7 mV	3.92 ft	175.00 ml/min
9/16/2021 1:46 PM	20:00	6.79 pH	19.54 °C	494.30 µS/cm	0.08 mg/L	16.10 NTU	-33.0 mV	3.92 ft	175.00 ml/min
9/16/2021 1:51 PM	25:00	6.79 pH	19.50 °C	492.41 µS/cm	0.07 mg/L	12.30 NTU	-31.5 mV	3.92 ft	175.00 ml/min
9/16/2021 1:56 PM	30:00	6.79 pH	19.48 °C	491.36 µS/cm	0.07 mg/L	9.20 NTU	-30.3 mV	3.92 ft	175.00 ml/min
9/16/2021 2:01 PM	35:00	6.79 pH	19.50 °C	491.70 µS/cm	0.07 mg/L	7.77 NTU	-58.8 mV	3.92 ft	175.00 ml/min
9/16/2021 2:06 PM	40:00	6.78 pH	19.52 °C	491.01 µS/cm	0.06 mg/L	7.51 NTU	-29.4 mV	3.92 ft	175.00 ml/min
9/16/2021 2:11 PM	45:00	6.78 pH	19.47 °C	491.05 µS/cm	0.06 mg/L	6.33 NTU	-29.0 mV	3.92 ft	175.00 ml/min
9/16/2021 2:16 PM	50:00	6.79 pH	19.41 °C	490.46 µS/cm	0.05 mg/L	4.60 NTU	-28.3 mV	3.92 ft	175.00 ml/min

Samples

Sample ID:	Description:
DGWC-68A	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/16/2021 10:10:43 AM

Project: Plant McDonough (19)

Operator Name: D Fulton

Location Name: DWGC-69 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 14.06 ft Total Depth: 24.06 ft Initial Depth to Water: 5.7 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 19 ft Estimated Total Volume Pumped: 4.50 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 0.65 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Weather Conditions:

Rain, 70 s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/16/2021 10:10 AM	00:00	6.24 pH	21.44 °C	173.63 µS/cm	5.61 mg/L	7.92 NTU	157.0 mV	5.92 ft	200.00 ml/min
9/16/2021 10:15 AM	05:00	6.15 pH	20.31 °C	175.62 µS/cm	2.01 mg/L	6.92 NTU	105.9 mV	6.30 ft	175.00 ml/min
9/16/2021 10:20 AM	10:00	6.14 pH	20.17 °C	175.58 µS/cm	1.95 mg/L	2.22 NTU	83.9 mV	6.35 ft	175.00 ml/min
9/16/2021 10:25 AM	15:00	6.15 pH	20.05 °C	175.33 µS/cm	1.91 mg/L	2.91 NTU	75.6 mV	6.35 ft	175.00 ml/min
9/16/2021 10:30 AM	20:00	6.16 pH	19.99 °C	176.03 µS/cm	1.91 mg/L	3.64 NTU	71.9 mV	6.35 ft	175.00 ml/min
9/16/2021 10:35 AM	25:00	6.16 pH	19.97 °C	175.58 µS/cm	1.93 mg/L	2.94 NTU	69.8 mV	6.35 ft	175.00 ml/min

Samples

Sample ID:	Description:
DWGC-69	

Low-Flow Test Report:

Test Date / Time: 10/27/2021 2:55:12 PM

Project: Plant McDonough

Operator Name: Jude waguespack

Location Name: DGWC-68A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 19.79 ft Total Depth: 29.79 ft Initial Depth to Water: 10.36 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 3750 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.23 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850762
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
10/27/2021 2:55 PM	00:00	6.54 pH	23.05 °C	409.56 µS/cm	0.78 mg/L	1.10 NTU	66.3 mV	10.36 ft	150.00 ml/min
10/27/2021 3:00 PM	05:00	6.55 pH	20.73 °C	443.81 µS/cm	0.32 mg/L	0.82 NTU	24.8 mV	10.59 ft	150.00 ml/min
10/27/2021 3:05 PM	10:00	6.56 pH	20.28 °C	445.39 µS/cm	0.26 mg/L	2.22 NTU	18.4 mV	10.59 ft	150.00 ml/min
10/27/2021 3:10 PM	15:00	6.56 pH	20.10 °C	448.51 µS/cm	0.24 mg/L	0.97 NTU	19.2 mV	10.59 ft	150.00 ml/min
10/27/2021 3:15 PM	20:00	6.56 pH	19.93 °C	446.68 µS/cm	0.22 mg/L	1.46 NTU	17.7 mV	10.59 ft	150.00 ml/min
10/27/2021 3:20 PM	25:00	6.56 pH	19.70 °C	448.69 µS/cm	0.21 mg/L	0.68 NTU	16.3 mV	10.59 ft	150.00 ml/min

Samples

Sample ID:	Description:
DGWC-68A	

Low-Flow Test Report:

Test Date / Time: 9/9/2021 12:28:47 PM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: DGWA-53 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 26.84 ft Total Depth: 36.84 ft Initial Depth to Water: 13.75 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 31 ft Estimated Total Volume Pumped: 22.71 L Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.85 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843593
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Test Notes:

DGWA-53 purged dry. A sample was collected 24-hours later after the well had recharged.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/9/2021 12:28 PM	00:00	6.41 pH	24.27 °C	197.99 µS/cm	1.50 mg/L	4.50 NTU	14.7 mV	14.60 ft	100.00 ml/min
9/9/2021 12:29 PM	01:00	6.41 pH	23.38 °C	198.00 µS/cm	1.41 mg/L	4.50 NTU	16.7 mV	14.60 ft	100.00 ml/min
9/9/2021 12:30 PM	02:00	6.40 pH	22.33 °C	200.14 µS/cm	1.37 mg/L	4.50 NTU	16.1 mV	14.60 ft	100.00 ml/min

Samples

Sample ID:	Description:
DGWA-53	

Low-Flow Test Report:

Test Date / Time: 9/9/2021 2:36:19 PM

Project: Plant McDonough (4)

Operator Name: D Fulton

Location Name: DGWA-70A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 52.41 ft Total Depth: 62.41 ft Initial Depth to Water: 40.75 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 57 ft Estimated Total Volume Pumped: 6.25 liter Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.82 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Weather Conditions:

Clear, 84

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/9/2021 2:36 PM	00:00	5.53 pH	21.22 °C	62.61 µS/cm	5.67 mg/L	1.24 NTU	153.9 mV	41.53 ft	350.00 ml/min
9/9/2021 2:41 PM	05:00	5.49 pH	18.52 °C	63.87 µS/cm	4.83 mg/L	0.36 NTU	98.2 mV	41.55 ft	300.00 ml/min
9/9/2021 2:46 PM	10:00	5.49 pH	18.48 °C	66.22 µS/cm	4.85 mg/L	0.54 NTU	91.9 mV	41.57 ft	300.00 ml/min
9/9/2021 2:51 PM	15:00	5.50 pH	18.21 °C	67.21 µS/cm	4.88 mg/L	0.62 NTU	90.6 mV	41.57 ft	300.00 ml/min
9/9/2021 2:56 PM	20:00	5.50 pH	18.30 °C	67.29 µS/cm	4.91 mg/L	0.65 NTU	90.7 mV	41.57 ft	300.00 ml/min

Samples

Sample ID:	Description:
DGWA-70A	

Low-Flow Test Report:

Test Date / Time: 9/8/2021 12:55:50 PM

Project: Plant McDonough (2)

Operator Name: Erik Rheams

Location Name: DGWA-71 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37.79 ft Total Depth: 47.79 ft Initial Depth to Water: 27.76 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 42.79 ft Estimated Total Volume Pumped: 22990 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.46 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/8/2021 12:55 PM	00:00	7.67 pH	32.77 °C	0.00 µS/cm	6.32 mg/L	2.06 NTU	-47.1 mV	27.76 ft	220.00 ml/min
9/8/2021 1:00 PM	05:00	6.25 pH	24.97 °C	0.00 µS/cm	6.91 mg/L	2.17 NTU	-632.9 mV	28.22 ft	220.00 ml/min
9/8/2021 1:05 PM	10:00	6.08 pH	22.47 °C	0.00 µS/cm	6.37 mg/L	2.27 NTU	-283.1 mV	28.22 ft	220.00 ml/min
9/8/2021 1:10 PM	15:00	6.13 pH	21.45 °C	0.00 µS/cm	6.51 mg/L	1.45 NTU	93.6 mV	28.22 ft	220.00 ml/min
9/8/2021 1:15 PM	20:00	5.81 pH	20.07 °C	81.38 µS/cm	3.40 mg/L	1.62 NTU	192.2 mV	28.22 ft	220.00 ml/min
9/8/2021 1:20 PM	25:00	5.75 pH	19.58 °C	78.19 µS/cm	3.00 mg/L	2.74 NTU	176.0 mV	28.22 ft	220.00 ml/min
9/8/2021 1:25 PM	30:00	5.74 pH	19.44 °C	76.03 µS/cm	2.01 mg/L	3.54 NTU	163.5 mV	28.22 ft	220.00 ml/min
9/8/2021 1:45 PM	49:30	5.74 pH	19.51 °C	73.59 µS/cm	3.91 mg/L	2.32 NTU	131.9 mV	28.22 ft	220.00 ml/min
9/8/2021 1:50 PM	54:30	5.73 pH	19.54 °C	68.82 µS/cm	5.72 mg/L	1.99 NTU	146.8 mV	28.22 ft	220.00 ml/min
9/8/2021 1:55 PM	59:30	5.74 pH	19.63 °C	76.32 µS/cm	3.70 mg/L	3.55 NTU	140.8 mV	28.22 ft	220.00 ml/min
9/8/2021 2:00 PM	01:04:30	5.74 pH	19.46 °C	66.12 µS/cm	2.02 mg/L	4.23 NTU	137.9 mV	28.22 ft	220.00 ml/min
9/8/2021 2:05 PM	01:09:30	5.75 pH	20.13 °C	79.94 µS/cm	1.74 mg/L	4.01 NTU	132.0 mV	28.22 ft	220.00 ml/min
9/8/2021 2:10 PM	01:14:30	5.75 pH	20.12 °C	80.41 µS/cm	3.16 mg/L	3.28 NTU	130.5 mV	28.22 ft	220.00 ml/min
9/8/2021 2:15 PM	01:19:30	5.74 pH	20.39 °C	79.37 µS/cm	2.43 mg/L	3.01 NTU	127.3 mV	28.22 ft	220.00 ml/min
9/8/2021 2:20 PM	01:24:30	5.76 pH	20.39 °C	76.16 µS/cm	1.60 mg/L	2.81 NTU	124.9 mV	28.22 ft	220.00 ml/min

9/8/2021 2:25 PM	01:29:30	5.76 pH	20.77 °C	78.64 µS/cm	1.70 mg/L	3.27 NTU	127.3 mV	28.22 ft	220.00 ml/min
9/8/2021 2:30 PM	01:34:30	5.75 pH	20.84 °C	78.13 µS/cm	1.42 mg/L	4.50 NTU	160.1 mV	28.22 ft	220.00 ml/min
9/8/2021 2:35 PM	01:39:30	5.76 pH	20.71 °C	75.78 µS/cm	1.35 mg/L	2.70 NTU	131.9 mV	28.22 ft	220.00 ml/min
9/8/2021 2:40 PM	01:44:30	5.76 pH	20.69 °C	77.38 µS/cm	1.36 mg/L	1.88 NTU	128.8 mV	28.22 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/9/2021 2:26:06 PM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-62 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29.62 ft Total Depth: 39.62 ft Initial Depth to Water: 11.95 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 34 ft Estimated Total Volume Pumped: 20000 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0.45 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843593
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/9/2021 2:26 PM	00:00	6.40 pH	29.86 °C	261.98 µS/cm	4.59 mg/L		47.2 mV	11.95 ft	250.00 ml/min
9/9/2021 2:31 PM	05:00	6.35 pH	20.27 °C	296.54 µS/cm	0.41 mg/L	38.80 NTU	13.7 mV	12.38 ft	250.00 ml/min
9/9/2021 2:36 PM	10:00	6.37 pH	19.77 °C	286.67 µS/cm	0.31 mg/L	35.50 NTU	3.9 mV	12.40 ft	250.00 ml/min
9/9/2021 2:41 PM	15:00	6.27 pH	19.63 °C	278.05 µS/cm	0.26 mg/L	38.00 NTU	3.9 mV	12.40 ft	250.00 ml/min
9/9/2021 2:46 PM	20:00	6.32 pH	19.59 °C	270.42 µS/cm	0.19 mg/L	13.00 NTU	1.5 mV	12.40 ft	250.00 ml/min
9/9/2021 2:51 PM	25:00	6.33 pH	19.59 °C	274.22 µS/cm	0.24 mg/L	17.00 NTU	11.6 mV	12.40 ft	250.00 ml/min
9/9/2021 2:56 PM	30:00	6.32 pH	19.55 °C	268.88 µS/cm	0.21 mg/L	12.20 NTU	4.3 mV	12.40 ft	250.00 ml/min
9/9/2021 3:01 PM	35:00	6.29 pH	19.53 °C	268.39 µS/cm	0.20 mg/L	15.20 NTU	6.0 mV	12.40 ft	250.00 ml/min
9/9/2021 3:06 PM	40:00	6.30 pH	19.72 °C	268.63 µS/cm	0.20 mg/L	15.10 NTU	13.7 mV	12.40 ft	250.00 ml/min
9/9/2021 3:11 PM	45:00	6.25 pH	20.08 °C	269.64 µS/cm	0.22 mg/L	13.20 NTU	8.7 mV	12.40 ft	250.00 ml/min
9/9/2021 3:16 PM	50:00	6.27 pH	20.70 °C	271.92 µS/cm	0.30 mg/L	19.10 NTU	11.8 mV	12.40 ft	250.00 ml/min
9/9/2021 3:21 PM	55:00	6.23 pH	20.95 °C	269.42 µS/cm	0.32 mg/L	20.50 NTU	18.7 mV	12.40 ft	250.00 ml/min
9/9/2021 3:26 PM	01:00:00	6.29 pH	19.95 °C	269.54 µS/cm	0.31 mg/L	19.50 NTU	17.3 mV	12.40 ft	250.00 ml/min
9/9/2021 3:31 PM	01:05:00	6.26 pH	19.81 °C	269.39 µS/cm	0.24 mg/L	12.70 NTU	16.6 mV	12.40 ft	250.00 ml/min
9/9/2021 3:36 PM	01:10:00	6.29 pH	19.86 °C	269.42 µS/cm	0.21 mg/L	9.60 NTU	15.2 mV	12.40 ft	250.00 ml/min

9/9/2021 3:41 PM	01:15:00	6.29 pH	19.79 °C	268.73 µS/cm	0.18 mg/L	6.66 NTU	14.7 mV	12.40 ft	250.00 ml/min
9/9/2021 3:46 PM	01:20:00	6.31 pH	19.81 °C	268.58 µS/cm	0.18 mg/L	3.00 NTU	14.5 mV	12.40 ft	250.00 ml/min

Samples

Sample ID:	Description:
B-62	

Low-Flow Test Report:

Test Date / Time: 9/13/2021 3:54:15 PM

Project: Plant McDonough (15)

Operator Name: Erik Rheams

Location Name: B-100 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37.93 ft Total Depth: 47.93 ft Initial Depth to Water: 34.88 ft	Pump Type: bladder Tubing Type: Polyethylene Pump Intake From TOC: 42 ft Estimated Total Volume Pumped: 9600 ml Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 0.12 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/13/2021 3:54 PM	00:00	5.15 pH	33.05 °C	729.00 µS/cm	2.59 mg/L	78.30 NTU	42.4 mV	34.88 ft	160.00 ml/min
9/13/2021 3:59 PM	05:00	5.18 pH	25.97 °C	785.56 µS/cm	0.61 mg/L	48.00 NTU	34.9 mV	34.99 ft	160.00 ml/min
9/13/2021 4:04 PM	10:00	5.20 pH	25.35 °C	781.72 µS/cm	0.45 mg/L	25.10 NTU	32.8 mV	35.03 ft	160.00 ml/min
9/13/2021 4:09 PM	15:00	5.22 pH	24.97 °C	776.70 µS/cm	0.38 mg/L	20.00 NTU	32.0 mV	35.00 ft	160.00 ml/min
9/13/2021 4:14 PM	20:00	5.23 pH	24.43 °C	777.53 µS/cm	0.33 mg/L	17.40 NTU	31.1 mV	35.00 ft	160.00 ml/min
9/13/2021 4:19 PM	25:00	5.23 pH	24.49 °C	773.98 µS/cm	0.30 mg/L	17.00 NTU	30.3 mV	35.00 ft	160.00 ml/min
9/13/2021 4:24 PM	30:00	5.23 pH	24.79 °C	771.20 µS/cm	0.27 mg/L	11.90 NTU	29.6 mV	35.00 ft	160.00 ml/min
9/13/2021 4:29 PM	35:00	5.23 pH	25.08 °C	764.96 µS/cm	0.26 mg/L	12.50 NTU	28.9 mV	35.00 ft	160.00 ml/min
9/13/2021 4:34 PM	40:00	5.23 pH	25.82 °C	762.55 µS/cm	0.28 mg/L	11.70 NTU	27.9 mV	35.00 ft	160.00 ml/min
9/13/2021 4:39 PM	45:00	5.22 pH	26.07 °C	751.76 µS/cm	0.28 mg/L	14.20 NTU	27.6 mV	35.00 ft	160.00 ml/min
9/13/2021 4:44 PM	50:00	5.25 pH	23.30 °C	752.36 µS/cm	0.22 mg/L	10.59 NTU	29.5 mV	35.00 ft	160.00 ml/min
9/13/2021 4:49 PM	55:00	5.26 pH	22.98 °C	756.66 µS/cm	0.16 mg/L	5.34 NTU	29.6 mV	35.00 ft	160.00 ml/min
9/13/2021 4:54 PM	01:00:00	5.27 pH	23.12 °C	750.79 µS/cm	0.13 mg/L	4.33 NTU	29.3 mV	35.00 ft	160.00 ml/min

Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/15/2021 1:43:57 PM

Project: Plant McDonough

Operator Name: Erin D Hondt

Location Name: B-105D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 60 ft Total Depth: 70 ft Initial Depth to Water: 17.29 ft	Pump Type: Bladder Tubing Type: Polyethylene Pump Intake From TOC: 65 ft Estimated Total Volume Pumped: 18634 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 1.71 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728638
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
9/15/2021 1:43 PM	00:00	6.80 pH	21.01 °C	685.88 µS/cm	7.89 mg/L	14.10 NTU	-18.1 mV	17.29 ft	280.00 ml/min
9/15/2021 1:48 PM	05:00	6.86 pH	20.47 °C	665.27 µS/cm	7.70 mg/L	11.00 NTU	-20.8 mV	19.10 ft	280.00 ml/min
9/15/2021 1:51 PM	07:06	6.82 pH	20.44 °C	664.74 µS/cm	6.16 mg/L	8.49 NTU	-12.0 mV	19.10 ft	280.00 ml/min
9/15/2021 1:56 PM	12:06	6.72 pH	20.73 °C	658.23 µS/cm	4.45 mg/L	12.50 NTU	-6.4 mV	19.05 ft	280.00 ml/min
9/15/2021 2:01 PM	17:06	6.94 pH	22.04 °C	0.17 µS/cm	8.31 mg/L	11.80 NTU	21.1 mV	18.90 ft	280.00 ml/min
9/15/2021 2:06 PM	22:06	7.01 pH	23.49 °C	0.11 µS/cm	8.34 mg/L	13.20 NTU	21.1 mV	18.75 ft	280.00 ml/min
9/15/2021 2:12 PM	28:21	6.69 pH	21.23 °C	630.22 µS/cm	9.19 mg/L	12.80 NTU	-13.2 mV	18.60 ft	240.00 ml/min
9/15/2021 2:17 PM	33:21	6.78 pH	21.04 °C	0.40 µS/cm	8.33 mg/L	7.10 NTU	20.7 mV	18.90 ft	240.00 ml/min
9/15/2021 2:21 PM	37:55	6.58 pH	20.98 °C	656.67 µS/cm	7.29 mg/L	6.07 NTU	-9.0 mV	19.00 ft	240.00 ml/min
9/15/2021 2:26 PM	42:55	6.52 pH	20.66 °C	642.86 µS/cm	6.47 mg/L	5.91 NTU	-14.8 mV	19.00 ft	240.00 ml/min
9/15/2021 2:31 PM	47:55	6.47 pH	20.65 °C	636.01 µS/cm	6.02 mg/L	3.77 NTU	-15.0 mV	19.00 ft	240.00 ml/min
9/15/2021 2:36 PM	52:55	6.45 pH	20.60 °C	637.62 µS/cm	5.94 mg/L	3.61 NTU	-14.8 mV	19.00 ft	240.00 ml/min
9/15/2021 2:41 PM	57:55	6.42 pH	20.52 °C	634.47 µS/cm	5.58 mg/L	2.92 NTU	-15.0 mV	19.00 ft	240.00 ml/min
9/15/2021 2:46 PM	01:02:55	6.40 pH	20.49 °C	629.87 µS/cm	5.34 mg/L	2.81 NTU	-13.7 mV	19.00 ft	240.00 ml/min
9/15/2021 2:51 PM	01:07:55	6.38 pH	20.47 °C	635.29 µS/cm	5.24 mg/L	2.44 NTU	-14.7 mV	19.00 ft	240.00 ml/min
9/15/2021 2:56 PM	01:12:55	6.38 pH	20.42 °C	634.64 µS/cm	5.26 mg/L	2.46 NTU	-9.2 mV	19.00 ft	240.00 ml/min

Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/16/2021 11:48:28 AM

Project: Plant McDonough (20)

Operator Name: D Fulton

Location Name: B-112D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 45 ft Total Depth: 55 ft Initial Depth to Water: 8.27 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 50 ft Estimated Total Volume Pumped: 5 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: -0.85 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Weather Conditions:

Rain,80 s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/16/2021 11:48 AM	00:00	9.24 pH	23.07 °C	212.47 µS/cm	4.02 mg/L	8.75 NTU	54.2 mV	7.40 ft	200.00 ml/min
9/16/2021 11:53 AM	05:00	6.74 pH	20.26 °C	279.58 µS/cm	0.33 mg/L	7.06 NTU	12.1 mV	7.40 ft	200.00 ml/min
9/16/2021 11:58 AM	10:00	6.75 pH	19.91 °C	280.92 µS/cm	0.23 mg/L	5.19 NTU	-44.9 mV	7.42 ft	200.00 ml/min
9/16/2021 12:03 PM	15:00	6.73 pH	19.77 °C	280.65 µS/cm	0.19 mg/L	3.70 NTU	-6.3 mV	7.42 ft	200.00 ml/min
9/16/2021 12:08 PM	20:00	6.73 pH	19.77 °C	282.73 µS/cm	0.15 mg/L	4.86 NTU	6.6 mV	7.42 ft	200.00 ml/min
9/16/2021 12:13 PM	25:00	6.74 pH	19.87 °C	289.94 µS/cm	0.14 mg/L	3.77 NTU	13.3 mV	7.42 ft	200.00 ml/min

Samples

Sample ID:	Description:
B-112D	

Low-Flow Test Report:

Test Date / Time: 9/17/2021 12:48:15 PM

Project: Plant McDonough

Operator Name: Erin D Hondt

Location Name: B-113D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 70 ft Total Depth: 80 ft Initial Depth to Water: 2.13 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 75 ft Estimated Total Volume Pumped: 17588 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 19.77 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728638
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Test Notes:

Complete well evacuation 9/16

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/17/2021 12:48 PM	00:00	8.10 pH	20.41 °C	523.50 µS/cm	0.98 mg/L	5.27 NTU	58.9 mV	2.13 ft	200.00 ml/min
9/17/2021 12:53 PM	05:00	8.12 pH	20.34 °C	532.68 µS/cm	1.00 mg/L	4.72 NTU	62.7 mV	5.20 ft	200.00 ml/min
9/17/2021 12:58 PM	10:00	8.12 pH	19.99 °C	529.42 µS/cm	0.93 mg/L	4.86 NTU	61.6 mV	6.50 ft	160.00 ml/min
9/17/2021 1:03 PM	15:00	8.13 pH	19.41 °C	532.53 µS/cm	0.88 mg/L	4.78 NTU	57.6 mV	7.40 ft	160.00 ml/min
9/17/2021 1:05 PM	16:48	8.13 pH	19.48 °C	534.70 µS/cm	0.90 mg/L	4.11 NTU	57.1 mV	7.84 ft	160.00 ml/min
9/17/2021 1:10 PM	21:48	8.13 pH	19.67 °C	534.38 µS/cm	1.03 mg/L	4.84 NTU	54.9 mV	8.85 ft	120.00 ml/min
9/17/2021 1:15 PM	26:48	8.13 pH	19.70 °C	534.52 µS/cm	1.05 mg/L	4.80 NTU	41.9 mV	9.70 ft	120.00 ml/min
9/17/2021 1:20 PM	31:48	8.14 pH	19.71 °C	534.16 µS/cm	1.07 mg/L	4.75 NTU	40.2 mV	10.53 ft	120.00 ml/min
9/17/2021 1:25 PM	36:48	8.14 pH	19.70 °C	533.97 µS/cm	1.09 mg/L	4.71 NTU	39.1 mV	11.30 ft	120.00 ml/min
9/17/2021 1:30 PM	41:48	8.13 pH	19.68 °C	533.07 µS/cm	1.09 mg/L	4.73 NTU	47.0 mV	12.12 ft	120.00 ml/min
9/17/2021 1:35 PM	46:48	8.13 pH	19.80 °C	533.58 µS/cm	1.10 mg/L	4.61 NTU	37.7 mV	12.83 ft	120.00 ml/min
9/17/2021 1:40 PM	51:48	8.12 pH	19.76 °C	532.62 µS/cm	1.11 mg/L	4.72 NTU	45.5 mV	13.56 ft	120.00 ml/min
9/17/2021 1:45 PM	56:48	8.12 pH	19.72 °C	532.18 µS/cm	1.13 mg/L	4.69 NTU	36.7 mV	14.30 ft	120.00 ml/min
9/17/2021 1:50 PM	01:01:48	8.12 pH	19.76 °C	533.62 µS/cm	1.15 mg/L	4.65 NTU	35.9 mV	14.90 ft	120.00 ml/min
9/17/2021 1:55 PM	01:06:48	8.12 pH	19.78 °C	531.21 µS/cm	1.16 mg/L	4.67 NTU	43.2 mV	15.59 ft	120.00 ml/min
9/17/2021 2:00 PM	01:11:48	8.12 pH	19.82 °C	533.05 µS/cm	1.18 mg/L	4.65 NTU	35.4 mV	16.20 ft	120.00 ml/min

9/17/2021 2:05 PM	01:16:48	8.11 pH	19.80 °C	533.30 µS/cm	1.21 mg/L	4.61 NTU	34.2 mV	16.80 ft	120.00 ml/min
9/17/2021 2:10 PM	01:21:48	8.10 pH	19.94 °C	533.59 µS/cm	1.28 mg/L	4.47 NTU	33.5 mV	17.25 ft	100.00 ml/min
9/17/2021 2:15 PM	01:26:48	8.10 pH	19.94 °C	530.19 µS/cm	1.31 mg/L	4.64 NTU	41.6 mV	17.72 ft	100.00 ml/min
9/17/2021 2:20 PM	01:31:48	8.12 pH	19.84 °C	530.96 µS/cm	1.40 mg/L	4.30 NTU	33.6 mV	18.14 ft	100.00 ml/min
9/17/2021 2:25 PM	01:36:48	8.13 pH	19.94 °C	530.04 µS/cm	1.52 mg/L	4.31 NTU	40.2 mV	18.51 ft	100.00 ml/min
9/17/2021 2:30 PM	01:41:48	8.14 pH	19.88 °C	526.30 µS/cm	1.61 mg/L	4.28 NTU	33.5 mV	18.90 ft	100.00 ml/min
9/17/2021 2:35 PM	01:46:48	8.12 pH	20.74 °C	538.48 µS/cm	4.93 mg/L	4.17 NTU	29.9 mV	18.90 ft	100.00 ml/min
9/17/2021 2:40 PM	01:51:48	8.12 pH	19.23 °C	532.83 µS/cm	1.19 mg/L	4.11 NTU	36.8 mV	19.24 ft	100.00 ml/min
9/17/2021 2:45 PM	01:56:48	8.11 pH	19.95 °C	541.68 µS/cm	4.12 mg/L	3.98 NTU	34.2 mV	19.60 ft	100.00 ml/min
9/17/2021 2:50 PM	02:01:48	8.20 pH	19.30 °C	423.32 µS/cm	8.05 mg/L	3.72 NTU	30.9 mV	20.10 ft	100.00 ml/min
9/17/2021 2:55 PM	02:06:48	7.99 pH	18.45 °C	583.09 µS/cm	0.90 mg/L	2.36 NTU	-53.6 mV	20.70 ft	100.00 ml/min
9/17/2021 3:00 PM	02:11:48	7.97 pH	18.97 °C	586.89 µS/cm	0.55 mg/L	1.99 NTU	-98.9 mV	21.06 ft	100.00 ml/min
9/17/2021 3:05 PM	02:16:48	7.97 pH	19.06 °C	591.59 µS/cm	0.35 mg/L	1.83 NTU	-75.9 mV	21.40 ft	100.00 ml/min
9/17/2021 3:10 PM	02:21:48	7.97 pH	19.01 °C	597.56 µS/cm	0.26 mg/L	1.75 NTU	-80.5 mV	21.65 ft	100.00 ml/min
9/17/2021 3:15 PM	02:26:48	7.97 pH	19.02 °C	604.44 µS/cm	0.23 mg/L	0.83 NTU	-115.3 mV	21.90 ft	100.00 ml/min

Samples

Sample ID:	Description:
B-113D	Complete well evacuation 9/16

Low-Flow Test Report:

Test Date / Time: 9/9/2021 1:23:11 PM

Project: Plant McDonough (3)

Operator Name: D Fulton

Location Name: B-116D Well Diameter: 2 ft Casing Type: PVC Screen Length: 10 ft Top of Screen: 80 ft Total Depth: 90 ft Initial Depth to Water: 42.28 ft	Pump Type: Bladder Pump Tubing Type: Polyethylene Pump Intake From TOC: 85 ft Estimated Total Volume Pumped: 6 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.42 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Weather Conditions:

Clear, 82

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/9/2021 1:23 PM	00:00	6.08 pH	27.12 °C	107.36 µS/cm	7.49 mg/L	2.08 NTU	129.4 mV	42.70 ft	225.00 ml/min
9/9/2021 1:28 PM	05:00	6.01 pH	19.63 °C	108.63 µS/cm	5.72 mg/L	2.30 NTU	82.6 mV	42.68 ft	225.00 ml/min
9/9/2021 1:33 PM	10:00	6.02 pH	19.15 °C	108.98 µS/cm	5.31 mg/L	4.57 NTU	76.7 mV	42.70 ft	200.00 ml/min
9/9/2021 1:38 PM	15:00	6.02 pH	19.15 °C	109.01 µS/cm	5.06 mg/L	4.78 NTU	75.7 mV	42.70 ft	200.00 ml/min
9/9/2021 1:43 PM	20:00	6.02 pH	19.10 °C	109.27 µS/cm	4.90 mg/L	5.00 NTU	75.0 mV	42.70 ft	200.00 ml/min
9/9/2021 1:48 PM	25:00	6.02 pH	19.15 °C	109.39 µS/cm	4.82 mg/L	3.64 NTU	75.0 mV	42.70 ft	200.00 ml/min
9/9/2021 1:53 PM	30:00	6.02 pH	19.23 °C	108.28 µS/cm	4.72 mg/L	3.76 NTU	75.1 mV	42.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
B-116D	

Low-Flow Test Report:

Test Date / Time: 9/8/2021 3:44:20 PM

Project: Plant McDonough (3)

Operator Name: Erik Rheams

Location Name: B-117D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 69.03 ft Total Depth: 79.03 ft Initial Depth to Water: 28.41 ft	Pump Type: dedicated Tubing Type: Polyethylene Pump Intake From TOC: 74 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.92 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/8/2021 3:44 PM	00:00	6.16 pH	25.97 °C	127.86 µS/cm	4.21 mg/L	8.02 NTU	166.9 mV	28.41 ft	180.00 ml/min
9/8/2021 3:49 PM	05:00	6.00 pH	20.57 °C	152.23 µS/cm	2.36 mg/L	19.40 NTU	129.8 mV	29.01 ft	180.00 ml/min
9/8/2021 3:54 PM	10:00	5.99 pH	20.55 °C	152.76 µS/cm	2.14 mg/L	12.30 NTU	111.2 mV	29.22 ft	180.00 ml/min
9/8/2021 3:59 PM	15:00	5.99 pH	20.51 °C	151.83 µS/cm	2.12 mg/L	8.31 NTU	103.7 mV	29.29 ft	180.00 ml/min
9/8/2021 4:04 PM	20:00	6.00 pH	19.98 °C	151.17 µS/cm	2.16 mg/L	6.67 NTU	100.8 mV	29.32 ft	180.00 ml/min
9/8/2021 4:09 PM	25:00	6.00 pH	20.04 °C	144.41 µS/cm	2.09 mg/L	6.66 NTU	100.2 mV	29.32 ft	180.00 ml/min
9/8/2021 4:14 PM	30:00	6.00 pH	20.16 °C	147.22 µS/cm	2.02 mg/L	4.88 NTU	98.3 mV	29.33 ft	180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/8/2021 1:11:12 PM

Project: Plant McDonough

Operator Name: K. Minkara

Location Name: B-118 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 68.32 ft Total Depth: 78.32 ft Initial Depth to Water: 50.46 ft	Pump Type: Bladder Tubing Type: Polyethylene Pump Intake From TOC: 73 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 0.27 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850724
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/8/2021 1:11 PM	00:00	6.08 pH	28.14 °C	102.33 µS/cm	6.23 mg/L	10.11 NTU	136.9 mV	50.46 ft	240.00 ml/min
9/8/2021 1:16 PM	05:00	6.02 pH	19.77 °C	90.18 µS/cm	5.01 mg/L	10.81 NTU	94.1 mV	50.70 ft	240.00 ml/min
9/8/2021 1:21 PM	10:00	6.02 pH	18.98 °C	90.32 µS/cm	4.87 mg/L	7.53 NTU	90.7 mV	50.73 ft	240.00 ml/min
9/8/2021 1:26 PM	15:00	6.02 pH	18.88 °C	89.52 µS/cm	4.89 mg/L	5.29 NTU	89.6 mV	50.73 ft	240.00 ml/min
9/8/2021 1:31 PM	20:00	6.01 pH	18.70 °C	89.15 µS/cm	4.81 mg/L	3.74 NTU	89.0 mV	50.73 ft	240.00 ml/min
9/8/2021 1:36 PM	25:00	6.01 pH	18.91 °C	91.98 µS/cm	4.70 mg/L	2.05 NTU	88.6 mV	50.73 ft	240.00 ml/min

Samples

Sample ID:	Description:
B-118	

Low-Flow Test Report:

Test Date / Time: 9/8/2021 2:27:01 PM

Project: Plant McDonough

Operator Name: K. Minkara

Location Name: B-119D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 97.98 ft Total Depth: 107.98 ft Initial Depth to Water: 46.88 ft	Pump Type: Bladder Tubing Type: Polyethylene Pump Intake From TOC: 103 ft Estimated Total Volume Pumped: 6600 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 3.97 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850724
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Test Notes:

Well labeled as GPC-119D

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/8/2021 2:27 PM	00:00	6.62 pH	24.37 °C	160.70 µS/cm	5.26 mg/L	56.40 NTU	-79.8 mV	46.88 ft	180.00 ml/min
9/8/2021 2:32 PM	05:00	7.32 pH	19.72 °C	697.68 µS/cm	0.69 mg/L	25.20 NTU	-63.3 mV	47.43 ft	180.00 ml/min
9/8/2021 2:37 PM	10:00	7.26 pH	19.33 °C	622.03 µS/cm	0.49 mg/L	14.30 NTU	-73.6 mV	48.64 ft	180.00 ml/min
9/8/2021 2:42 PM	15:00	7.07 pH	19.14 °C	530.44 µS/cm	0.59 mg/L	10.32 NTU	-35.7 mV	49.48 ft	180.00 ml/min
9/8/2021 2:47 PM	20:00	6.80 pH	19.14 °C	378.29 µS/cm	1.15 mg/L	5.34 NTU	8.3 mV	50.33 ft	100.00 ml/min
9/8/2021 2:52 PM	25:00	6.75 pH	20.06 °C	372.43 µS/cm	1.56 mg/L	4.83 NTU	22.2 mV	50.59 ft	100.00 ml/min
9/8/2021 2:57 PM	30:00	6.73 pH	20.41 °C	345.91 µS/cm	1.60 mg/L	2.62 NTU	27.7 mV	50.70 ft	100.00 ml/min
9/8/2021 3:02 PM	35:00	6.72 pH	20.57 °C	335.13 µS/cm	1.73 mg/L	3.76 NTU	33.0 mV	50.73 ft	100.00 ml/min
9/8/2021 3:07 PM	40:00	6.70 pH	20.41 °C	313.36 µS/cm	1.69 mg/L	1.57 NTU	31.1 mV	50.78 ft	100.00 ml/min
9/8/2021 3:12 PM	45:00	6.69 pH	20.43 °C	315.99 µS/cm	1.64 mg/L	0.88 NTU	37.3 mV	50.83 ft	100.00 ml/min
9/8/2021 3:17 PM	50:00	6.68 pH	20.36 °C	305.64 µS/cm	1.64 mg/L	0.93 NTU	33.6 mV	50.85 ft	100.00 ml/min

Samples

Sample ID:	Description:
B-119D	

APPENDIX A

**Field Data Forms
January 2022**

Low-Flow Test Report:

Test Date / Time: 1/28/2022 8:54:52 AM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: DGWA-53 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 26.89 ft Total Depth: 36.89 ft Initial Depth to Water: 11.75 ft	Pump Type: peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 31 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 7.45 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/28/2022 8:54 AM	00:00	6.41 pH	12.12 °C	173.97 µS/cm	3.92 mg/L	11.10 NTU	99.9 mV	11.75 ft	150.00 ml/min
1/28/2022 8:59 AM	05:00	6.36 pH	14.33 °C	168.70 µS/cm	3.52 mg/L	11.90 NTU	113.2 mV	13.35 ft	150.00 ml/min
1/28/2022 9:04 AM	10:00	6.36 pH	14.44 °C	167.31 µS/cm	3.44 mg/L	12.00 NTU	111.9 mV	14.20 ft	150.00 ml/min
1/28/2022 9:09 AM	15:00	6.34 pH	14.39 °C	168.48 µS/cm	3.43 mg/L	11.50 NTU	111.4 mV	14.90 ft	150.00 ml/min
1/28/2022 9:14 AM	20:00	6.34 pH	14.45 °C	169.68 µS/cm	3.57 mg/L	11.00 NTU	109.4 mV	15.52 ft	150.00 ml/min
1/28/2022 9:19 AM	25:00	6.35 pH	14.44 °C	168.04 µS/cm	3.48 mg/L	12.00 NTU	87.5 mV	16.15 ft	150.00 ml/min
1/28/2022 9:24 AM	30:00	6.35 pH	14.42 °C	169.15 µS/cm	3.40 mg/L	11.10 NTU	105.8 mV	16.70 ft	150.00 ml/min
1/28/2022 9:29 AM	35:00	6.33 pH	14.17 °C	170.98 µS/cm	3.29 mg/L	13.67 NTU	101.4 mV	17.10 ft	100.00 ml/min
1/28/2022 9:34 AM	40:00	6.33 pH	14.00 °C	171.87 µS/cm	3.34 mg/L	13.76 NTU	101.6 mV	17.42 ft	100.00 ml/min
1/28/2022 9:39 AM	45:00	6.34 pH	14.03 °C	170.84 µS/cm	3.36 mg/L	14.61 NTU	100.3 mV	17.42 ft	100.00 ml/min
1/28/2022 9:44 AM	50:00	6.35 pH	14.04 °C	172.64 µS/cm	3.29 mg/L	13.93 NTU	82.2 mV	18.00 ft	100.00 ml/min
1/28/2022 9:49 AM	55:00	6.34 pH	14.30 °C	170.68 µS/cm	3.22 mg/L	14.07 NTU	78.9 mV	18.25 ft	100.00 ml/min
1/28/2022 9:54 AM	01:00:00	6.33 pH	14.13 °C	171.73 µS/cm	3.15 mg/L	14.96 NTU	88.4 mV	18.50 ft	100.00 ml/min
1/28/2022 9:59 AM	01:05:00	6.35 pH	14.13 °C	170.55 µS/cm	3.11 mg/L	11.50 NTU	75.7 mV	18.72 ft	100.00 ml/min
1/28/2022 10:04 AM	01:10:00	6.34 pH	14.31 °C	172.61 µS/cm	3.02 mg/L	14.65 NTU	82.8 mV	19.00 ft	100.00 ml/min

1/28/2022 10:09 AM	01:15:00	6.35 pH	14.31 °C	171.60 µS/cm	2.97 mg/L	11.99 NTU	72.3 mV	19.20 ft	100.00 ml/min
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Samples

Sample ID:	Description:
DGWA-53	

Low-Flow Test Report:

Test Date / Time: 1/18/2022 4:00:59 PM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWA-70A Well Diameter: 2 ft Casing Type: PVC Screen Length: 10 ft Top of Screen: 52.41 ft Total Depth: 62.41 ft Initial Depth to Water: 41.5 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 57 ft Pump Intake From TOC: 57 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.28 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Clear, 51

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 5	
1/18/2022 4:00 PM	00:00	7.49 pH	16.32 °C	72.07 µS/cm	8.65 mg/L	0.33 NTU	191.1 mV	41.75 ft	100.00 ml/min
1/18/2022 4:05 PM	05:00	5.49 pH	16.61 °C	70.62 µS/cm	4.94 mg/L	2.87 NTU	171.1 mV	41.75 ft	100.00 ml/min
1/18/2022 4:10 PM	10:00	5.50 pH	16.63 °C	70.10 µS/cm	4.82 mg/L	1.60 NTU	159.5 mV	41.76 ft	100.00 ml/min
1/18/2022 4:15 PM	15:00	5.48 pH	16.41 °C	70.76 µS/cm	4.79 mg/L	1.26 NTU	155.9 mV	41.78 ft	100.00 ml/min
1/18/2022 4:20 PM	20:00	5.49 pH	16.52 °C	71.55 µS/cm	4.77 mg/L	0.88 NTU	166.9 mV	41.78 ft	100.00 ml/min
1/18/2022 4:25 PM	25:00	5.50 pH	16.33 °C	71.69 µS/cm	4.76 mg/L	0.64 NTU	164.9 mV	41.78 ft	100.00 ml/min
1/18/2022 4:30 PM	30:00	5.50 pH	16.15 °C	71.60 µS/cm	4.78 mg/L	0.44 NTU	164.6 mV	41.78 ft	100.00 ml/min

Samples

Sample ID:	Description:
DGWA-70A	Groundwater Sample

Low-Flow Test Report:

Test Date / Time: 1/18/2022 4:05:01 PM

Project: Plant McDonough

Operator Name: Joe Booth

Location Name: DGWA-71 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37.71 ft Total Depth: 47.71 ft Initial Depth to Water: 28.53 ft	Pump Type: QED Dedicated Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 42 ft Pump Intake From TOC: 42 ft Estimated Total Volume Pumped: 2895 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843285
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Test Notes:

Prepurged 2 liters

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 0.3	+/- 10	+/- 1000 %	+/- 5	
1/18/2022 4:05 PM	00:00	5.59 pH	16.39 °C	126.50 µS/cm	1.37 mg/L	2.33 NTU	110.7 mV	28.53 ft	180.00 ml/min
1/18/2022 4:07 PM	02:02	5.55 pH	16.38 °C	129.27 µS/cm	1.24 mg/L	2.33 NTU	114.8 mV	28.57 ft	180.00 ml/min
1/18/2022 4:11 PM	06:02	5.52 pH	16.45 °C	127.58 µS/cm	1.35 mg/L	2.94 NTU	101.0 mV	28.57 ft	180.00 ml/min
1/18/2022 4:15 PM	10:02	5.51 pH	16.32 °C	127.60 µS/cm	1.22 mg/L	1.93 NTU	99.0 mV	28.57 ft	180.00 ml/min
1/18/2022 4:17 PM	12:05	5.51 pH	16.30 °C	128.62 µS/cm	1.20 mg/L	1.78 NTU	107.0 mV	28.57 ft	180.00 ml/min
1/18/2022 4:21 PM	16:05	5.51 pH	16.36 °C	128.78 µS/cm	1.11 mg/L	1.67 NTU	106.8 mV	28.57 ft	180.00 ml/min

Samples

Sample ID:	Description:
BGWA-71	Metals, TDS, Alkalinity, Inorganics, Radium

Low-Flow Test Report:

Test Date / Time: 1/21/2022 9:07:04 AM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWC-37 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.08 ft Total Depth: 43.08 ft Initial Depth to Water: 13.25 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 38 ft Pump Intake From TOC: 38 ft Estimated Total Volume Pumped: 6450 ml Flow Cell Volume: 90 ml Final Flow Rate: 165 ml/min Final Draw Down: 0.2 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Cloudy, 31 Deg

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 5	
1/21/2022 9:07 AM	00:00	6.95 pH	9.27 °C	510.66 µS/cm	7.75 mg/L	0.92 NTU	114.4 mV	13.52 ft	350.00 ml/min
1/21/2022 9:12 AM	05:00	6.31 pH	14.10 °C	508.17 µS/cm	0.86 mg/L	0.59 NTU	109.7 mV	13.40 ft	145.00 ml/min
1/21/2022 9:17 AM	10:00	6.32 pH	14.95 °C	510.96 µS/cm	0.94 mg/L	1.33 NTU	113.4 mV	13.40 ft	155.00 ml/min
1/21/2022 9:22 AM	15:00	6.31 pH	15.66 °C	498.34 µS/cm	0.61 mg/L	1.47 NTU	105.7 mV	13.42 ft	155.00 ml/min
1/21/2022 9:27 AM	20:00	6.32 pH	15.74 °C	486.99 µS/cm	0.72 mg/L	0.54 NTU	86.2 mV	13.42 ft	155.00 ml/min
1/21/2022 9:32 AM	25:00	6.31 pH	15.93 °C	486.23 µS/cm	0.65 mg/L	0.92 NTU	97.1 mV	13.45 ft	165.00 ml/min
1/21/2022 9:37 AM	30:00	6.31 pH	15.96 °C	481.56 µS/cm	0.65 mg/L	0.50 NTU	95.2 mV	13.45 ft	165.00 ml/min

Samples

Sample ID:	Description:
DGWC-37	

Low-Flow Test Report:

Test Date / Time: 1/21/2022 10:37:35 AM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWC-38 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 18.08 ft Total Depth: 28.08 ft Initial Depth to Water: 5.9 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 23 ft Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 5000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.3 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Cloudy, 32 Deg.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 5	
1/21/2022 10:37 AM	00:00	6.32 pH	7.79 °C	789.07 µS/cm	7.53 mg/L	3.50 NTU	101.7 mV	6.10 ft	200.00 ml/min
1/21/2022 10:42 AM	05:00	6.05 pH	15.46 °C	725.47 µS/cm	0.52 mg/L	2.75 NTU	102.7 mV	6.20 ft	200.00 ml/min
1/21/2022 10:47 AM	10:00	6.05 pH	15.81 °C	702.03 µS/cm	0.41 mg/L	2.49 NTU	99.3 mV	6.20 ft	200.00 ml/min
1/21/2022 10:52 AM	15:00	6.06 pH	16.04 °C	705.00 µS/cm	0.36 mg/L	3.70 NTU	115.5 mV	6.20 ft	200.00 ml/min
1/21/2022 10:57 AM	20:00	6.06 pH	16.07 °C	706.00 µS/cm	0.32 mg/L	3.90 NTU	114.7 mV	6.20 ft	200.00 ml/min
1/21/2022 11:02 AM	25:00	6.06 pH	15.79 °C	702.88 µS/cm	0.25 mg/L	3.33 NTU	113.8 mV	6.20 ft	200.00 ml/min

Samples

Sample ID:	Description:
DGWC-38	

Low-Flow Test Report:

Test Date / Time: 1/20/2022 10:18:08 AM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWC-39 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 14.65 ft Total Depth: 24.65 ft Initial Depth to Water: 6.55 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 22 ft Pump Intake From TOC: 22 ft Estimated Total Volume Pumped: 7850 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.42 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Rain, 48

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 5	
1/20/2022 10:18 AM	00:00	6.55 pH	12.26 °C	724.54 µS/cm	0.79 mg/L	22.20 NTU	-25.6 mV	6.62 ft	150.00 ml/min
1/20/2022 10:23 AM	05:00	6.52 pH	14.13 °C	757.11 µS/cm	0.41 mg/L	23.00 NTU	-29.8 mV	6.81 ft	145.00 ml/min
1/20/2022 10:28 AM	10:00	6.52 pH	14.76 °C	750.32 µS/cm	0.27 mg/L	18.00 NTU	-40.0 mV	6.90 ft	115.00 ml/min
1/20/2022 10:33 AM	15:00	6.52 pH	14.68 °C	744.83 µS/cm	0.38 mg/L	14.30 NTU	-30.2 mV	6.88 ft	115.00 ml/min
1/20/2022 10:38 AM	20:00	6.52 pH	14.81 °C	748.60 µS/cm	0.42 mg/L	13.30 NTU	-29.7 mV	6.90 ft	115.00 ml/min
1/20/2022 10:43 AM	25:00	6.53 pH	15.20 °C	742.78 µS/cm	0.54 mg/L	11.70 NTU	-41.0 mV	6.95 ft	115.00 ml/min
1/20/2022 10:48 AM	30:00	6.52 pH	15.10 °C	747.69 µS/cm	0.31 mg/L	10.64 NTU	-40.2 mV	6.95 ft	115.00 ml/min
1/20/2022 10:53 AM	35:00	6.52 pH	14.94 °C	745.32 µS/cm	0.26 mg/L	9.53 NTU	-39.4 mV	6.95 ft	100.00 ml/min
1/20/2022 10:58 AM	40:00	6.52 pH	14.86 °C	749.13 µS/cm	0.31 mg/L	8.07 NTU	-38.8 mV	6.95 ft	100.00 ml/min
1/20/2022 11:03 AM	45:00	6.51 pH	15.01 °C	746.04 µS/cm	0.27 mg/L	7.14 NTU	-37.8 mV	6.95 ft	100.00 ml/min
1/20/2022 11:08 AM	50:00	6.52 pH	15.17 °C	747.10 µS/cm	0.15 mg/L	6.67 NTU	-40.4 mV	6.97 ft	100.00 ml/min
1/20/2022 11:13 AM	55:00	6.52 pH	15.22 °C	745.60 µS/cm	0.16 mg/L	6.15 NTU	-40.0 mV	6.97 ft	100.00 ml/min
1/20/2022 11:18 AM	01:00:00	6.52 pH	15.13 °C	745.36 µS/cm	0.16 mg/L	5.82 NTU	-31.7 mV	6.97 ft	100.00 ml/min

1/20/2022 11:23 AM	01:05:00	6.52 pH	15.12 °C	745.40 µS/cm	0.14 mg/L	4.95 NTU	-39.0 mV	6.97 ft	100.00 ml/min
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Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/19/2022 11:44:39 AM

Project: Plant McDonough

Operator Name: E. Rheams

Location Name: DGWC-40 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.4 ft Total Depth: 38.4 ft Initial Depth to Water: 17.22 ft	Pump Type: Alexis Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 30.12 ft Pump Intake From TOC: 30.12 ft Estimated Total Volume Pumped: 10800 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 0.13 ft	Instrument Used: Aqua TROLL 400 Serial Number: 851413
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10	+/- 5	+/- 10	+/- 5	
1/19/2022 11:44 AM	00:00	4.96 pH	18.34 °C	536.94 µS/cm	3.90 mg/L	6.82 NTU	110.5 mV	17.22 ft	240.00 ml/min
1/19/2022 11:49 AM	05:00	4.73 pH	18.92 °C	537.32 µS/cm	2.71 mg/L	9.74 NTU	120.5 mV	17.30 ft	240.00 ml/min
1/19/2022 11:54 AM	10:00	4.68 pH	19.01 °C	546.61 µS/cm	2.55 mg/L	14.60 NTU	161.2 mV	17.35 ft	240.00 ml/min
1/19/2022 11:59 AM	15:00	4.68 pH	19.02 °C	547.56 µS/cm	2.51 mg/L	11.63 NTU	166.9 mV	17.35 ft	240.00 ml/min
1/19/2022 12:04 PM	20:00	4.68 pH	18.97 °C	548.02 µS/cm	2.51 mg/L	7.96 NTU	134.4 mV	17.35 ft	240.00 ml/min
1/19/2022 12:09 PM	25:00	4.67 pH	18.98 °C	548.41 µS/cm	2.52 mg/L	4.35 NTU	135.6 mV	17.35 ft	240.00 ml/min
1/19/2022 12:14 PM	30:00	4.67 pH	19.23 °C	548.44 µS/cm	2.52 mg/L	3.10 NTU	137.8 mV	17.35 ft	240.00 ml/min
1/19/2022 12:19 PM	35:00	4.68 pH	19.14 °C	548.23 µS/cm	2.51 mg/L	1.74 NTU	139.4 mV	17.35 ft	240.00 ml/min
1/19/2022 12:24 PM	40:00	4.67 pH	19.18 °C	548.29 µS/cm	2.51 mg/L	1.60 NTU	141.0 mV	17.35 ft	240.00 ml/min
1/19/2022 12:29 PM	45:00	4.68 pH	19.19 °C	547.83 µS/cm	2.50 mg/L	1.18 NTU	142.8 mV	17.35 ft	240.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/19/2022 2:17:32 PM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWC-67 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 45.5 ft Total Depth: 55.5 ft Initial Depth to Water: 9.71 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 50 ft Pump Intake From TOC: 50 ft Estimated Total Volume Pumped: 3000 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: 850751
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Test Notes:

Weather Conditions:

Cloudy, 58

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 5	
1/19/2022 2:17 PM	00:00	6.53 pH	17.65 °C	442.72 µS/cm	5.87 mg/L	2.61 NTU	49.6 mV	9.87 ft	100.00 ml/min
1/19/2022 2:22 PM	05:00	6.22 pH	17.55 °C	437.74 µS/cm	0.59 mg/L	2.99 NTU	51.5 mV	9.92 ft	100.00 ml/min
1/19/2022 2:27 PM	10:00	6.21 pH	17.52 °C	441.40 µS/cm	0.35 mg/L	1.60 NTU	54.5 mV	9.95 ft	100.00 ml/min
1/19/2022 2:32 PM	15:00	6.21 pH	17.51 °C	439.09 µS/cm	0.29 mg/L	2.48 NTU	50.4 mV	9.95 ft	100.00 ml/min
1/19/2022 2:37 PM	20:00	6.20 pH	17.52 °C	440.74 µS/cm	0.23 mg/L	1.24 NTU	54.0 mV	9.95 ft	100.00 ml/min
1/19/2022 2:42 PM	25:00	6.20 pH	17.44 °C	437.87 µS/cm	0.22 mg/L	1.00 NTU	51.0 mV	9.95 ft	100.00 ml/min
1/19/2022 2:47 PM	30:00	6.20 pH	17.32 °C	438.06 µS/cm	0.20 mg/L	1.55 NTU	50.3 mV	9.95 ft	100.00 ml/min

Samples

Sample ID:	Description:
DGWC-67	

Low-Flow Test Report:

Test Date / Time: 1/25/2022 2:57:32 PM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWC-68A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 19.79 ft Total Depth: 29.79 ft Initial Depth to Water: 9.95 ft	Pump Type: Peri Pump Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 24 ft Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 5050 ml Flow Cell Volume: 90 ml Final Flow Rate: 165 ml/min Final Draw Down: 0.24 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 0.3	
1/25/2022 2:57 PM	00:00	6.55 pH	20.57 °C	415.82 µS/cm	4.50 mg/L	15.70 NTU	85.1 mV	10.10 ft	175.00 ml/min
1/25/2022 3:02 PM	05:00	6.53 pH	17.63 °C	455.34 µS/cm	0.24 mg/L	6.87 NTU	73.4 mV	10.18 ft	175.00 ml/min
1/25/2022 3:07 PM	10:00	6.54 pH	17.32 °C	458.69 µS/cm	0.18 mg/L	4.99 NTU	77.1 mV	10.19 ft	165.00 ml/min
1/25/2022 3:12 PM	15:00	6.54 pH	17.21 °C	457.81 µS/cm	0.16 mg/L	4.30 NTU	65.3 mV	10.19 ft	165.00 ml/min
1/25/2022 3:17 PM	20:00	6.54 pH	17.23 °C	458.51 µS/cm	0.14 mg/L	3.40 NTU	63.4 mV	10.19 ft	165.00 ml/min
1/25/2022 3:22 PM	25:00	6.53 pH	17.27 °C	458.89 µS/cm	0.13 mg/L	3.45 NTU	63.5 mV	10.19 ft	165.00 ml/min

Samples

Sample ID:	Description:
DWGC-68A	

Low-Flow Test Report:

Test Date / Time: 1/25/2022 11:52:27 AM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: DGWC-69 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 14.06 ft Total Depth: 24.06 ft Initial Depth to Water: 5.6 ft	Pump Type: Peri Pump Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 20 ft Pump Intake From TOC: 20 ft Estimated Total Volume Pumped: 6550 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.72 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Cloudy, 56

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 0.3	
1/25/2022 11:52 AM	00:00	6.90 pH	17.00 °C	129.12 µS/cm	5.54 mg/L	11.78 NTU	54.4 mV	5.82 ft	100.00 ml/min
1/25/2022 11:57 AM	05:00	6.09 pH	16.93 °C	116.21 µS/cm	2.79 mg/L	9.37 NTU	81.5 mV	5.95 ft	80.00 ml/min
1/25/2022 12:02 PM	10:00	6.05 pH	16.89 °C	116.43 µS/cm	2.62 mg/L	10.21 NTU	86.4 mV	5.96 ft	80.00 ml/min
1/25/2022 12:07 PM	15:00	6.03 pH	17.28 °C	116.98 µS/cm	2.41 mg/L	8.34 NTU	89.1 mV	6.28 ft	150.00 ml/min
1/25/2022 12:12 PM	20:00	6.02 pH	17.41 °C	116.41 µS/cm	2.44 mg/L	9.02 NTU	90.8 mV	6.29 ft	150.00 ml/min
1/25/2022 12:17 PM	25:00	6.02 pH	17.53 °C	116.43 µS/cm	2.43 mg/L	4.68 NTU	91.8 mV	6.31 ft	150.00 ml/min
1/25/2022 12:22 PM	30:00	6.02 pH	17.60 °C	116.17 µS/cm	2.43 mg/L	4.24 NTU	92.0 mV	6.32 ft	150.00 ml/min
1/25/2022 12:27 PM	35:00	6.02 pH	17.50 °C	116.19 µS/cm	2.46 mg/L	4.33 NTU	93.1 mV	6.32 ft	150.00 ml/min
1/25/2022 12:32 PM	40:00	6.02 pH	17.50 °C	116.51 µS/cm	2.47 mg/L	3.60 NTU	94.0 mV	6.32 ft	150.00 ml/min
1/25/2022 12:37 PM	45:00	6.02 pH	17.55 °C	116.45 µS/cm	2.48 mg/L	3.87 NTU	94.7 mV	6.32 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/19/2022 3:43:33 PM

Project: Plant McDonough

Operator Name: E. Rheams

Location Name: B-105D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 60 ft Total Depth: 70 ft Initial Depth to Water: 16.79 ft	Pump Type: bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 65 ft Pump Intake From TOC: 65 ft Estimated Total Volume Pumped: 6400 ml Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 0.66 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 5	
1/19/2022 3:43 PM	00:00	6.87 pH	19.24 °C	625.52 µS/cm	7.95 mg/L	12.13 NTU	-27.0 mV	16.79 ft	160.00 ml/min
1/19/2022 3:48 PM	05:00	6.88 pH	18.96 °C	633.39 µS/cm	6.44 mg/L	10.28 NTU	-41.7 mV	17.45 ft	160.00 ml/min
1/19/2022 3:53 PM	10:00	6.80 pH	18.92 °C	623.66 µS/cm	5.04 mg/L	5.83 NTU	-39.4 mV	17.45 ft	160.00 ml/min
1/19/2022 3:58 PM	15:00	6.74 pH	18.70 °C	615.47 µS/cm	4.30 mg/L	4.42 NTU	-37.3 mV	17.45 ft	160.00 ml/min
1/19/2022 4:03 PM	20:00	6.67 pH	18.66 °C	610.52 µS/cm	3.30 mg/L	2.49 NTU	-36.0 mV	17.45 ft	160.00 ml/min
1/19/2022 4:08 PM	25:00	6.64 pH	18.63 °C	606.15 µS/cm	2.67 mg/L	3.27 NTU	-41.8 mV	17.45 ft	160.00 ml/min
1/19/2022 4:13 PM	30:00	6.62 pH	18.52 °C	600.93 µS/cm	2.32 mg/L	1.87 NTU	-42.3 mV	17.45 ft	160.00 ml/min
1/19/2022 4:18 PM	35:00	6.62 pH	18.48 °C	599.74 µS/cm	2.18 mg/L	1.62 NTU	-21.4 mV	17.45 ft	160.00 ml/min
1/19/2022 4:23 PM	40:00	6.62 pH	18.48 °C	602.01 µS/cm	2.16 mg/L	1.54 NTU	-46.4 mV	17.45 ft	160.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 1/19/2022 10:37:31 AM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: B-112D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 45 ft Total Depth: 55 ft Initial Depth to Water: 7.12 ft	Pump Type: Dedicated Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 50 ft Pump Intake From TOC: 50 ft Estimated Total Volume Pumped: 4250 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.16 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Clear / 52

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 5	
1/19/2022 10:37 AM	00:00	7.45 pH	13.13 °C	242.05 µS/cm	5.91 mg/L	2.88 NTU	98.1 mV	7.12 ft	50.00 ml/min
1/19/2022 10:42 AM	05:00	6.86 pH	14.99 °C	292.30 µS/cm	0.59 mg/L	3.25 NTU	-11.2 mV	7.26 ft	50.00 ml/min
1/19/2022 10:47 AM	10:00	6.77 pH	16.24 °C	280.72 µS/cm	0.25 mg/L	2.24 NTU	9.5 mV	7.28 ft	150.00 ml/min
1/19/2022 10:52 AM	15:00	6.75 pH	16.46 °C	278.68 µS/cm	0.21 mg/L	2.13 NTU	21.4 mV	7.28 ft	150.00 ml/min
1/19/2022 10:57 AM	20:00	6.74 pH	16.52 °C	275.81 µS/cm	0.19 mg/L	1.80 NTU	24.9 mV	7.29 ft	150.00 ml/min
1/19/2022 11:02 AM	25:00	6.73 pH	16.61 °C	274.53 µS/cm	0.17 mg/L	2.39 NTU	19.8 mV	7.29 ft	150.00 ml/min
1/19/2022 11:07 AM	30:00	6.74 pH	16.60 °C	274.20 µS/cm	0.16 mg/L	1.75	5.2 mV	7.28 ft	150.00 ml/min

Samples

Sample ID:	Description:
B-112D	Groundwater Sample

Low-Flow Test Report:

Test Date / Time: 1/26/2022 9:31:40 AM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: B-113D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 74.18 ft Total Depth: 84.18 ft Initial Depth to Water: 1.45 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 80 ft Pump Intake From TOC: 80 ft Estimated Total Volume Pumped: 5250 ml Flow Cell Volume: 90 ml Final Flow Rate: 75 ml/min Final Draw Down: 6.07 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Purged 15 gallons on 01-19-22

Purged dry (35 gallons) on 01-25-22

Weather Conditions:

Clear, 32 Deg.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 0.3	
1/26/2022 9:31 AM	00:00	7.52 pH	7.52 °C	526.18 µS/cm	9.39 mg/L	5.87 NTU	176.8 mV	1.95 ft	125.00 ml/min
1/26/2022 9:36 AM	05:00	7.81 pH	11.94 °C	458.78 µS/cm	1.38 mg/L	5.13 NTU	102.5 mV	2.55 ft	100.00 ml/min
1/26/2022 9:41 AM	10:00	7.84 pH	11.89 °C	451.81 µS/cm	1.23 mg/L	4.29 NTU	63.3 mV	3.00 ft	75.00 ml/min
1/26/2022 9:46 AM	15:00	7.84 pH	11.92 °C	452.56 µS/cm	1.22 mg/L	4.44 NTU	42.9 mV	3.50 ft	75.00 ml/min
1/26/2022 9:51 AM	20:00	7.85 pH	12.20 °C	453.70 µS/cm	1.24 mg/L	3.59 NTU	32.6 mV	4.02 ft	75.00 ml/min
1/26/2022 9:56 AM	25:00	7.85 pH	12.67 °C	450.90 µS/cm	1.27 mg/L	3.85 NTU	28.0 mV	4.50 ft	75.00 ml/min
1/26/2022 10:01 AM	30:00	7.86 pH	12.68 °C	450.64 µS/cm	1.30 mg/L	3.92 NTU	25.5 mV	5.00 ft	75.00 ml/min
1/26/2022 10:06 AM	35:00	7.86 pH	12.58 °C	452.14 µS/cm	1.34 mg/L	3.18 NTU	25.5 mV	5.50 ft	75.00 ml/min
1/26/2022 10:11 AM	40:00	7.85 pH	12.88 °C	456.62 µS/cm	1.36 mg/L	3.21 NTU	23.7 mV	5.85 ft	75.00 ml/min
1/26/2022 10:16 AM	45:00	7.86 pH	13.16 °C	449.85 µS/cm	1.36 mg/L	4.04 NTU	24.9 mV	6.20 ft	75.00 ml/min
1/26/2022 10:21 AM	50:00	7.86 pH	13.22 °C	451.79 µS/cm	1.36 mg/L	4.00 NTU	22.7 mV	6.75 ft	75.00 ml/min
1/26/2022 10:26 AM	55:00	7.86 pH	13.54 °C	457.38 µS/cm	1.35 mg/L	4.05 NTU	16.7 mV	7.05 ft	75.00 ml/min
1/26/2022 10:31 AM	01:00:00	7.86 pH	13.86 °C	451.44 µS/cm	1.36 mg/L	4.10 NTU	13.9 mV	7.52 ft	75.00 ml/min

Samples

Sample ID:	Description:
B-113D	

Low-Flow Test Report:

Test Date / Time: 1/20/2022 12:44:06 PM

Project: Plant McDonough

Operator Name: Duane Fulton

Location Name: B-62 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29.62 ft Total Depth: 39.62 ft Initial Depth to Water: 15.25 ft	Pump Type: Dedicated Bladder Pump Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 35 ft Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 16850 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.23 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Weather Conditions:

Rain, 45 Deg.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 2	+/- 10	+/- 0.3	
1/20/2022 12:44 PM	00:00	6.93 pH	9.18 °C	534.18 µS/cm	7.45 mg/L	46.10 NTU	-14.3 mV	15.35 ft	150.00 ml/min
1/20/2022 12:49 PM	05:00	6.76 pH	13.40 °C	566.15 µS/cm	0.58 mg/L	10.78 NTU	-41.3 mV	15.38 ft	80.00 ml/min
1/20/2022 12:54 PM	10:00	6.69 pH	14.76 °C	542.20 µS/cm	0.78 mg/L	9.03 NTU	-26.2 mV	15.38 ft	80.00 ml/min
1/20/2022 12:59 PM	15:00	6.69 pH	14.56 °C	546.35 µS/cm	0.33 mg/L	11.90 NTU	-21.6 mV	15.38 ft	105.00 ml/min
1/20/2022 1:04 PM	20:00	6.68 pH	14.40 °C	543.15 µS/cm	0.30 mg/L	14.70 NTU	-13.5 mV	15.40 ft	105.00 ml/min
1/20/2022 1:09 PM	25:00	6.67 pH	14.36 °C	540.81 µS/cm	0.27 mg/L	18.10 NTU	-11.4 mV	15.40 ft	105.00 ml/min
1/20/2022 1:14 PM	30:00	6.65 pH	14.49 °C	537.67 µS/cm	0.24 mg/L	20.50 NTU	-15.5 mV	15.40 ft	105.00 ml/min
1/20/2022 1:19 PM	35:00	6.66 pH	14.72 °C	528.36 µS/cm	0.96 mg/L	25.20 NTU	-15.8 mV	15.40 ft	105.00 ml/min
1/20/2022 1:24 PM	40:00	6.66 pH	14.68 °C	527.87 µS/cm	0.72 mg/L	24.20 NTU	-14.3 mV	15.40 ft	105.00 ml/min
1/20/2022 1:29 PM	45:00	6.67 pH	13.95 °C	525.62 µS/cm	0.76 mg/L	28.30 NTU	-13.8 mV	15.38 ft	60.00 ml/min
1/20/2022 1:34 PM	50:00	6.67 pH	13.77 °C	537.48 µS/cm	0.39 mg/L	21.90 NTU	-13.4 mV	15.38 ft	75.00 ml/min
1/20/2022 1:39 PM	55:00	6.67 pH	13.86 °C	539.87 µS/cm	0.33 mg/L	20.90 NTU	-7.7 mV	15.40 ft	75.00 ml/min
1/20/2022 1:44 PM	01:00:00	6.67 pH	14.36 °C	528.32 µS/cm	0.76 mg/L	24.10 NTU	-14.5 mV	15.40 ft	75.00 ml/min

1/20/2022 1:49 PM	01:05:00	6.68 pH	14.33 °C	525.79 µS/cm	1.10 mg/L	21.60 NTU	-14.0 mV	15.40 ft	75.00 ml/min
1/20/2022 1:54 PM	01:10:00	6.68 pH	14.32 °C	526.98 µS/cm	0.92 mg/L	22.50 NTU	-13.1 mV	15.40 ft	75.00 ml/min
1/20/2022 1:59 PM	01:15:00	6.67 pH	13.99 °C	527.01 µS/cm	1.07 mg/L	22.00 NTU	-12.2 mV	15.40 ft	75.00 ml/min
1/20/2022 2:04 PM	01:20:00	6.66 pH	15.76 °C	529.73 µS/cm	0.72 mg/L	23.80 NTU	-14.9 mV	15.50 ft	150.00 ml/min
1/20/2022 2:09 PM	01:25:00	6.65 pH	16.11 °C	512.38 µS/cm	0.81 mg/L	37.50 NTU	-18.8 mV	15.50 ft	150.00 ml/min
1/20/2022 2:14 PM	01:30:00	6.60 pH	15.97 °C	465.61 µS/cm	0.95 mg/L	36.90 NTU	-20.7 mV	15.50 ft	150.00 ml/min
1/20/2022 2:19 PM	01:35:00	6.47 pH	15.90 °C	405.04 µS/cm	0.36 mg/L	28.10 NTU	-15.5 mV	15.50 ft	150.00 ml/min
1/20/2022 2:24 PM	01:40:00	6.43 pH	16.03 °C	368.65 µS/cm	0.88 mg/L	21.20 NTU	-16.7 mV	15.50 ft	150.00 ml/min
1/20/2022 2:29 PM	01:45:00	6.40 pH	16.06 °C	344.66 µS/cm	1.27 mg/L	15.80 NTU	-17.6 mV	15.50 ft	150.00 ml/min
1/20/2022 2:34 PM	01:50:00	6.37 pH	15.89 °C	331.11 µS/cm	1.04 mg/L	13.80 NTU	-15.3 mV	15.50 ft	150.00 ml/min
1/20/2022 2:39 PM	01:55:00	6.35 pH	15.85 °C	323.04 µS/cm	1.01 mg/L	12.30 NTU	-14.3 mV	15.50 ft	150.00 ml/min
1/20/2022 2:44 PM	02:00:00	6.34 pH	15.88 °C	318.63 µS/cm	1.10 mg/L	9.81 NTU	-14.9 mV	15.50 ft	150.00 ml/min
1/20/2022 2:49 PM	02:05:00	6.33 pH	15.98 °C	313.53 µS/cm	1.26 mg/L	6.89 NTU	-15.8 mV	15.48 ft	150.00 ml/min
1/20/2022 2:54 PM	02:10:00	6.32 pH	15.94 °C	306.04 µS/cm	1.30 mg/L	5.61 NTU	-17.0 mV	15.48 ft	150.00 ml/min
1/20/2022 2:59 PM	02:15:00	6.33 pH	15.89 °C	305.60 µS/cm	1.05 mg/L	4.79 NTU	-17.1 mV	15.48 ft	150.00 ml/min
1/20/2022 3:04 PM	02:20:00	6.32 pH	15.84 °C	304.59 µS/cm	1.07 mg/L	4.19 NTU	-16.6 mV	15.48 ft	150.00 ml/min

Samples

Sample ID:	Description:
B-62	

Low-Flow Test Report:

Test Date / Time: 1/21/2022 9:47:37 AM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-100 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37.93 ft Total Depth: 47.93 ft Initial Depth to Water: 33 ft	Pump Type: Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 42 ft Pump Intake From TOC: 42 ft Estimated Total Volume Pumped: 3750 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.39 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728623
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/21/2022 9:47 AM	00:00	5.23 pH	15.35 °C	855.09 µS/cm	0.74 mg/L	12.20 NTU	77.1 mV	33.00 ft	150.00 ml/min
1/21/2022 9:52 AM	05:00	5.22 pH	16.20 °C	856.27 µS/cm	0.37 mg/L	10.95 NTU	61.1 mV	33.30 ft	150.00 ml/min
1/21/2022 9:57 AM	10:00	5.22 pH	16.38 °C	857.99 µS/cm	0.28 mg/L	8.89 NTU	52.3 mV	33.30 ft	150.00 ml/min
1/21/2022 10:02 AM	15:00	5.23 pH	16.65 °C	862.01 µS/cm	0.22 mg/L	8.87 NTU	48.5 mV	33.34 ft	150.00 ml/min
1/21/2022 10:07 AM	20:00	5.23 pH	16.69 °C	864.52 µS/cm	0.19 mg/L	5.87 NTU	42.0 mV	33.39 ft	150.00 ml/min
1/21/2022 10:12 AM	25:00	5.23 pH	16.89 °C	871.77 µS/cm	0.17 mg/L	4.06 NTU	37.8 mV	33.39 ft	150.00 ml/min

Samples

Sample ID:	Description:
B-100	

Low-Flow Test Report:

Test Date / Time: 1/26/2022 10:41:28 AM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-90 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 23.4 ft Total Depth: 33.4 ft Initial Depth to Water: 1.65 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 28ft Pump Intake From TOC: 28 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 1.01 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/26/2022 10:41 AM	00:00	5.39 pH	15.61 °C	921.73 µS/cm	0.38 mg/L	1.95 NTU	133.6 mV	1.65 ft	300.00 ml/min
1/26/2022 10:46 AM	05:00	5.37 pH	16.44 °C	871.40 µS/cm	0.24 mg/L	1.62 NTU	144.7 mV	2.62 ft	300.00 ml/min
1/26/2022 10:51 AM	10:00	5.37 pH	16.71 °C	864.76 µS/cm	0.20 mg/L	1.27 NTU	90.3 mV	2.66 ft	300.00 ml/min
1/26/2022 10:56 AM	15:00	5.38 pH	16.75 °C	850.40 µS/cm	0.21 mg/L	0.61 NTU	77.8 mV	2.66 ft	300.00 ml/min
1/26/2022 11:01 AM	20:00	5.45 pH	16.94 °C	825.91 µS/cm	0.34 mg/L	0.84 NTU	97.8 mV	2.66 ft	300.00 ml/min

Samples

Sample ID:	Description:
B-90	

Low-Flow Test Report:

Test Date / Time: 1/26/2022 11:39:55 AM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-91 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 24.6 ft Total Depth: 34.6 ft Initial Depth to Water: 3.5 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 29 ft Pump Intake From TOC: 29 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.5 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/26/2022 11:39 AM	00:00	5.31 pH	18.97 °C	888.34 µS/cm	0.27 mg/L	1.00 NTU	157.8 mV	3.50 ft	300.00 ml/min
1/26/2022 11:44 AM	05:00	5.31 pH	17.73 °C	907.91 µS/cm	0.13 mg/L	1.03 NTU	120.3 mV	3.95 ft	300.00 ml/min
1/26/2022 11:49 AM	10:00	5.30 pH	17.89 °C	904.88 µS/cm	0.09 mg/L	0.75 NTU	66.6 mV	4.00 ft	300.00 ml/min
1/26/2022 11:54 AM	15:00	5.29 pH	17.86 °C	905.22 µS/cm	0.08 mg/L	0.51 NTU	54.6 mV	4.00 ft	300.00 ml/min
1/26/2022 11:59 AM	20:00	5.29 pH	17.90 °C	902.58 µS/cm	0.07 mg/L	0.79 NTU	49.8 mV	4.00 ft	300.00 ml/min

Samples

Sample ID:	Description:
B-91	

Low-Flow Test Report:

Test Date / Time: 1/26/2022 12:43:37 PM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-95 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 25.16 ft Total Depth: 35.16 ft Initial Depth to Water: 1.95 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 30 ft Pump Intake From TOC: 30 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 1.25 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/26/2022 12:43 PM	00:00	5.38 pH	19.76 °C	576.92 µS/cm	0.49 mg/L	4.80 NTU	128.0 mV	1.95 ft	300.00 ml/min
1/26/2022 12:48 PM	05:00	5.31 pH	18.28 °C	599.36 µS/cm	0.14 mg/L	3.19 NTU	72.0 mV	3.00 ft	300.00 ml/min
1/26/2022 12:53 PM	10:00	5.31 pH	17.99 °C	599.65 µS/cm	0.11 mg/L	3.93 NTU	53.6 mV	3.15 ft	300.00 ml/min
1/26/2022 12:58 PM	15:00	5.31 pH	18.10 °C	588.96 µS/cm	0.09 mg/L	4.13 NTU	48.3 mV	3.20 ft	300.00 ml/min
1/26/2022 1:03 PM	20:00	5.33 pH	18.17 °C	592.65 µS/cm	0.09 mg/L	3.12 NTU	44.5 mV	3.20 ft	300.00 ml/min

Samples

Sample ID:	Description:
B-95	

Low-Flow Test Report:

Test Date / Time: 1/26/2022 1:37:08 PM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-96 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 22.33 ft Total Depth: 32.33 ft Initial Depth to Water: 5 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 27 ft Pump Intake From TOC: 27 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.9 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/26/2022 1:37 PM	00:00	5.03 pH	19.15 °C	1,007.4 µS/cm	0.31 mg/L	1.18 NTU	352.5 mV	5.00 ft	300.00 ml/min
1/26/2022 1:42 PM	05:00	5.02 pH	18.45 °C	1,012.4 µS/cm	0.16 mg/L	0.96 NTU	522.0 mV	5.90 ft	300.00 ml/min
1/26/2022 1:47 PM	10:00	5.02 pH	18.21 °C	1,018.8 µS/cm	0.13 mg/L	0.68 NTU	417.3 mV	5.90 ft	300.00 ml/min
1/26/2022 1:52 PM	15:00	5.02 pH	18.08 °C	1,016.7 µS/cm	0.10 mg/L	0.53 NTU	417.9 mV	5.90 ft	300.00 ml/min
1/26/2022 1:57 PM	20:00	5.01 pH	18.14 °C	1,017.8 µS/cm	0.09 mg/L	0.56 NTU	416.3 mV	5.90 ft	300.00 ml/min

Samples

Sample ID:	Description:
B-96	

Low-Flow Test Report:

Test Date / Time: 1/26/2022 2:41:52 PM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-99 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 6.93 ft Total Depth: 11.93 ft Initial Depth to Water: 3.1 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 9 ft Pump Intake From TOC: 9 ft Estimated Total Volume Pumped: 24000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.31 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/26/2022 2:41 PM	00:00	5.64 pH	16.74 °C	784.47 µS/cm	0.30 mg/L	1,467.0 NTU	125.5 mV	3.10 ft	300.00 ml/min
1/26/2022 2:46 PM	05:00	5.64 pH	15.75 °C	785.66 µS/cm	0.19 mg/L	150.00 NTU	109.0 mV	3.80 ft	300.00 ml/min
1/26/2022 2:51 PM	10:00	5.64 pH	15.75 °C	781.00 µS/cm	0.19 mg/L	35.90 NTU	125.1 mV	3.83 ft	300.00 ml/min
1/26/2022 2:56 PM	15:00	5.65 pH	15.84 °C	780.98 µS/cm	0.10 mg/L	21.30 NTU	88.5 mV	3.83 ft	300.00 ml/min
1/26/2022 3:01 PM	20:00	5.64 pH	15.91 °C	778.68 µS/cm	0.08 mg/L	14.70 NTU	83.4 mV	3.83 ft	300.00 ml/min
1/26/2022 3:06 PM	25:00	5.66 pH	15.90 °C	778.73 µS/cm	0.08 mg/L	13.20 NTU	74.1 mV	3.85 ft	300.00 ml/min
1/26/2022 3:11 PM	30:00	5.65 pH	15.93 °C	778.66 µS/cm	0.07 mg/L	12.35 NTU	67.4 mV	3.85 ft	300.00 ml/min
1/26/2022 3:16 PM	35:00	5.72 pH	15.98 °C	777.52 µS/cm	0.07 mg/L	8.82 NTU	61.0 mV	3.85 ft	300.00 ml/min
1/26/2022 3:21 PM	40:00	5.66 pH	15.97 °C	776.42 µS/cm	0.07 mg/L	7.25 NTU	60.4 mV	3.85 ft	300.00 ml/min
1/26/2022 3:26 PM	45:00	5.66 pH	16.07 °C	777.35 µS/cm	0.07 mg/L	7.01 NTU	52.6 mV	3.85 ft	300.00 ml/min
1/26/2022 3:31 PM	50:00	5.65 pH	16.02 °C	773.29 µS/cm	0.07 mg/L	6.76 NTU	58.8 mV	3.85 ft	300.00 ml/min
1/26/2022 3:36 PM	55:00	5.67 pH	16.11 °C	777.10 µS/cm	0.06 mg/L	11.50 NTU	46.0 mV	3.85 ft	300.00 ml/min
1/26/2022 3:41 PM	01:00:00	5.67 pH	15.88 °C	765.79 µS/cm	0.11 mg/L	26.30 NTU	58.2 mV	3.50 ft	100.00 ml/min
1/26/2022 3:46 PM	01:05:00	5.69 pH	15.47 °C	776.35 µS/cm	0.13 mg/L	13.40 NTU	46.6 mV	3.44 ft	100.00 ml/min
1/26/2022 3:51 PM	01:10:00	5.68 pH	15.32 °C	776.10 µS/cm	0.14 mg/L	12.95 NTU	54.3 mV	3.41 ft	100.00 ml/min

1/26/2022 3:56 PM	01:15:00	5.68 pH	15.29 °C	777.72 µS/cm	0.14 mg/L	12.00 NTU	62.7 mV	3.41 ft	100.00 ml/min
1/26/2022 4:01 PM	01:20:00	5.67 pH	15.32 °C	776.53 µS/cm	0.15 mg/L	7.24 NTU	68.0 mV	3.41 ft	100.00 ml/min
1/26/2022 4:06 PM	01:25:00	5.35 pH	15.26 °C	774.66 µS/cm	0.15 mg/L	8.88 NTU	104.9 mV	3.41 ft	100.00 ml/min
1/26/2022 4:11 PM	01:30:00	5.67 pH	15.24 °C	776.81 µS/cm	0.15 mg/L	4.92 NTU	80.0 mV	3.41 ft	100.00 ml/min
1/26/2022 4:16 PM	01:35:00	5.66 pH	15.14 °C	774.28 µS/cm	0.15 mg/L	4.31 NTU	86.7 mV	3.41 ft	100.00 ml/min
1/26/2022 4:21 PM	01:40:00	5.21 pH	15.05 °C	776.76 µS/cm	0.15 mg/L	8.23 NTU	86.9 mV	3.41 ft	100.00 ml/min
1/26/2022 4:26 PM	01:45:00	5.68 pH	14.99 °C	778.68 µS/cm	0.15 mg/L	4.38 NTU	84.5 mV	3.41 ft	100.00 ml/min
1/26/2022 4:31 PM	01:50:00	5.67 pH	14.94 °C	776.96 µS/cm	0.15 mg/L	3.89 NTU	86.8 mV	3.41 ft	100.00 ml/min
1/26/2022 4:36 PM	01:55:00	5.67 pH	14.85 °C	776.40 µS/cm	0.15 mg/L	3.51 NTU	118.7 mV	3.41 ft	100.00 ml/min

Samples

Sample ID:	Description:
B-99	

Low-Flow Test Report:

Test Date / Time: 1/19/2022 3:19:48 PM

Project: Plant McDonough

Operator Name: Joe Booth

Location Name: B-116D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 82.45 ft Total Depth: 92.45 ft Initial Depth to Water: 42.36 ft	Pump Type: QED Dedicated Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 88 ft Pump Intake From TOC: 88 ft Estimated Total Volume Pumped: 6240 ml Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min Final Draw Down: 0.24 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843285
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Test Notes:

Prepurge 1.5 liters

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 0.3	+/- 10	+/- 1000 %	+/- 0.3	
1/19/2022 3:19 PM	00:00	6.03 pH	18.78 °C	120.49 µS/cm	4.51 mg/L	41.20 NTU	42.6 mV	42.36 ft	130.00 ml/min
1/19/2022 3:23 PM	04:00	6.01 pH	18.06 °C	120.40 µS/cm	4.65 mg/L	19.40 NTU	45.7 mV	42.59 ft	130.00 ml/min
1/19/2022 3:27 PM	08:00	6.02 pH	18.33 °C	122.34 µS/cm	4.63 mg/L	11.88 NTU	47.6 mV	42.60 ft	130.00 ml/min
1/19/2022 3:31 PM	12:00	6.02 pH	18.51 °C	122.35 µS/cm	4.62 mg/L	9.65 NTU	49.3 mV	42.60 ft	130.00 ml/min
1/19/2022 3:35 PM	16:00	6.03 pH	18.11 °C	122.86 µS/cm	4.64 mg/L	9.07 NTU	50.8 mV	42.60 ft	130.00 ml/min
1/19/2022 3:39 PM	20:00	6.03 pH	17.70 °C	123.63 µS/cm	4.66 mg/L	8.69 NTU	52.4 mV	42.60 ft	130.00 ml/min
1/19/2022 3:43 PM	24:00	6.03 pH	17.55 °C	124.06 µS/cm	4.67 mg/L	7.95 NTU	53.6 mV	42.60 ft	130.00 ml/min
1/19/2022 3:47 PM	28:00	6.03 pH	17.70 °C	124.19 µS/cm	4.63 mg/L	7.44 NTU	54.5 mV	42.60 ft	130.00 ml/min
1/19/2022 3:51 PM	32:00	6.04 pH	17.70 °C	124.33 µS/cm	4.62 mg/L	6.99 NTU	55.2 mV	42.60 ft	130.00 ml/min
1/19/2022 3:55 PM	36:00	6.04 pH	17.44 °C	124.73 µS/cm	4.62 mg/L	6.46 NTU	56.3 mV	42.60 ft	130.00 ml/min
1/19/2022 3:59 PM	40:00	6.04 pH	17.36 °C	125.04 µS/cm	4.61 mg/L	5.78 NTU	57.2 mV	42.60 ft	130.00 ml/min
1/19/2022 4:03 PM	44:00	6.04 pH	17.35 °C	125.05 µS/cm	4.60 mg/L	4.80 NTU	57.9 mV	42.60 ft	130.00 ml/min
1/19/2022 4:07 PM	48:00	6.04 pH	17.23 °C	125.22 µS/cm	4.61 mg/L	2.81 NTU	58.5 mV	42.60 ft	130.00 ml/min

Samples

Sample ID:	Description:
B-116D	Metals, TDS, Inorganics, Alkalinity, Radium

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 1/19/2022 11:35:56 AM

Project: Plant McDonough

Operator Name: Jude Waguespack

Location Name: B-117D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 69.03 ft Total Depth: 79.03 ft Initial Depth to Water: 29.13 ft	Pump Type: Bladder Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 74 ft Pump Intake From TOC: 74 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.97 ft	Instrument Used: Aqua TROLL 400 Serial Number: 728623
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 2	+/- 10	+/- 0.3	
1/19/2022 11:35 AM	00:00	6.45 pH	15.49 °C	105.75 µS/cm	2.85 mg/L	6.88 NTU	71.4 mV	29.13 ft	200.00 ml/min
1/19/2022 11:40 AM	05:00	6.12 pH	16.50 °C	105.92 µS/cm	5.34 mg/L	5.44 NTU	70.4 mV	29.85 ft	200.00 ml/min
1/19/2022 11:45 AM	10:00	6.02 pH	16.65 °C	108.06 µS/cm	3.68 mg/L	4.17 NTU	70.6 mV	29.95 ft	200.00 ml/min
1/19/2022 11:50 AM	15:00	6.02 pH	16.74 °C	110.31 µS/cm	2.85 mg/L	2.19 NTU	68.6 mV	30.12 ft	200.00 ml/min
1/19/2022 11:55 AM	20:00	6.02 pH	16.74 °C	120.64 µS/cm	3.73 mg/L	2.40 NTU	67.9 mV	30.18 ft	200.00 ml/min
1/19/2022 12:00 PM	25:00	6.02 pH	16.77 °C	125.35 µS/cm	3.72 mg/L	2.39 NTU	64.6 mV	30.18 ft	200.00 ml/min
1/19/2022 12:05 PM	30:00	6.00 pH	16.79 °C	129.91 µS/cm	4.84 mg/L	1.68 NTU	65.7 mV	30.18 ft	200.00 ml/min
1/19/2022 12:10 PM	35:00	6.00 pH	16.92 °C	134.80 µS/cm	4.00 mg/L	1.94 NTU	65.9 mV	30.05 ft	200.00 ml/min
1/19/2022 12:15 PM	40:00	6.02 pH	16.87 °C	136.80 µS/cm	3.98 mg/L	2.85 NTU	64.9 mV	30.05 ft	200.00 ml/min
1/19/2022 12:20 PM	45:00	6.02 pH	16.91 °C	137.65 µS/cm	4.14 mg/L	2.41 NTU	64.8 mV	30.10 ft	200.00 ml/min

Samples

Sample ID:	Description:
B-117D	

Low-Flow Test Report:

Test Date / Time: 1/19/2022 1:09:07 PM

Project: Plant McDonough

Operator Name: Joe Booth

Location Name: B-118 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 68.32 ft Total Depth: 78.32 ft Initial Depth to Water: 51.12 ft	Pump Type: QED Dedicated Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 73 ft Pump Intake From TOC: 73 ft Estimated Total Volume Pumped: 5600 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.16 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843285
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Test Notes:

Prepurged 1.5 liters

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 0.3	+/- 10	+/- 1000 %	+/- 0.3	
1/19/2022 1:09 PM	00:00	6.14 pH	15.88 °C	87.91 µS/cm	6.02 mg/L	12.30 NTU	25.6 mV	51.12 ft	200.00 ml/min
1/19/2022 1:13 PM	04:00	6.05 pH	15.74 °C	87.68 µS/cm	5.48 mg/L	11.30 NTU	32.4 mV	51.28 ft	200.00 ml/min
1/19/2022 1:17 PM	08:00	6.02 pH	15.85 °C	87.21 µS/cm	5.39 mg/L	13.40 NTU	37.0 mV	51.28 ft	200.00 ml/min
1/19/2022 1:21 PM	12:00	6.01 pH	15.87 °C	86.96 µS/cm	5.49 mg/L	13.00 NTU	40.3 mV	51.28 ft	200.00 ml/min
1/19/2022 1:25 PM	16:00	6.03 pH	15.78 °C	86.93 µS/cm	5.39 mg/L	10.97 NTU	42.0 mV	51.28 ft	200.00 ml/min
1/19/2022 1:29 PM	20:00	6.02 pH	15.77 °C	86.72 µS/cm	5.36 mg/L	7.57 NTU	45.1 mV	51.28 ft	200.00 ml/min
1/19/2022 1:33 PM	24:00	6.01 pH	15.74 °C	86.52 µS/cm	5.29 mg/L	5.51 NTU	47.3 mV	51.28 ft	200.00 ml/min
1/19/2022 1:37 PM	28:00	6.01 pH	15.78 °C	86.28 µS/cm	5.28 mg/L	4.43 NTU	49.2 mV	51.28 ft	200.00 ml/min

Samples

Sample ID:	Description:
B-118	Metals, TDS, Inorganics, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 1/19/2022 10:24:35 AM

Project: Plant McDonough

Operator Name: Joe Booth

Location Name: B-119D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 97.98 ft Total Depth: 107.98 ft Initial Depth to Water: 45.95 ft	Pump Type: QED Dedicated Tubing Type: Polyethylene Tubing Inner Diameter: 0.170 in Tubing Length: 103 ft Pump Intake From TOC: 103 ft Estimated Total Volume Pumped: 9360 ml Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min Final Draw Down: 3.03 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843285
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Test Notes:

Prepurged 2 liters

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 0.3	+/- 10	+/- 1000 %	+/- 0.3	
1/19/2022 10:24 AM	00:00	6.68 pH	10.89 °C	230.60 µS/cm	4.15 mg/L	5.76 NTU	65.1 mV	45.95 ft	130.00 ml/min
1/19/2022 10:28 AM	04:00	6.69 pH	12.51 °C	507.69 µS/cm	2.17 mg/L	4.17 NTU	35.4 mV	47.74 ft	130.00 ml/min
1/19/2022 10:32 AM	08:00	6.77 pH	13.06 °C	598.28 µS/cm	1.32 mg/L	3.98 NTU	15.2 mV	47.93 ft	130.00 ml/min
1/19/2022 10:36 AM	12:00	6.80 pH	13.18 °C	623.21 µS/cm	1.02 mg/L	2.36 NTU	4.3 mV	48.11 ft	130.00 ml/min
1/19/2022 10:40 AM	16:00	6.83 pH	13.20 °C	626.76 µS/cm	0.84 mg/L	2.14 NTU	-9.5 mV	48.24 ft	130.00 ml/min
1/19/2022 10:44 AM	20:00	6.86 pH	13.29 °C	617.87 µS/cm	0.74 mg/L	2.29 NTU	-23.0 mV	48.38 ft	130.00 ml/min
1/19/2022 10:48 AM	24:00	6.88 pH	13.34 °C	596.21 µS/cm	0.72 mg/L	1.97 NTU	-31.9 mV	48.49 ft	130.00 ml/min
1/19/2022 10:52 AM	28:00	6.89 pH	13.48 °C	565.29 µS/cm	0.74 mg/L	2.39 NTU	-35.9 mV	48.56 ft	130.00 ml/min
1/19/2022 10:56 AM	32:00	6.90 pH	13.53 °C	526.57 µS/cm	0.78 mg/L	2.21 NTU	-37.1 mV	48.64 ft	130.00 ml/min
1/19/2022 11:00 AM	36:00	6.88 pH	13.61 °C	466.45 µS/cm	0.81 mg/L	2.05 NTU	-35.5 mV	48.69 ft	130.00 ml/min
1/19/2022 11:04 AM	40:00	6.84 pH	13.57 °C	409.51 µS/cm	0.86 mg/L	2.50 NTU	-31.9 mV	48.74 ft	130.00 ml/min
1/19/2022 11:08 AM	44:00	6.78 pH	13.72 °C	352.51 µS/cm	0.96 mg/L	2.41 NTU	-27.2 mV	48.83 ft	130.00 ml/min
1/19/2022 11:12 AM	48:00	6.73 pH	13.83 °C	317.75 µS/cm	1.05 mg/L	2.16 NTU	-22.3 mV	48.85 ft	130.00 ml/min
1/19/2022 11:16 AM	52:00	6.69 pH	13.93 °C	296.29 µS/cm	1.12 mg/L	2.38 NTU	-17.1 mV	48.87 ft	130.00 ml/min

1/19/2022 11:20 AM	56:00	6.66 pH	14.07 °C	283.74 µS/cm	1.19 mg/L	2.34 NTU	-13.3 mV	48.90 ft	130.00 ml/min
1/19/2022 11:24 AM	01:00:00	6.65 pH	14.23 °C	278.12 µS/cm	1.22 mg/L	2.43 NTU	-10.1 mV	48.93 ft	130.00 ml/min
1/19/2022 11:28 AM	01:04:00	6.63 pH	14.24 °C	273.29 µS/cm	1.25 mg/L	2.31 NTU	-7.0 mV	48.95 ft	130.00 ml/min
1/19/2022 11:32 AM	01:08:00	6.63 pH	14.25 °C	266.79 µS/cm	1.27 mg/L	2.28 NTU	-4.6 mV	48.96 ft	130.00 ml/min
1/19/2022 11:36 AM	01:12:00	6.61 pH	14.23 °C	258.23 µS/cm	1.31 mg/L	1.54 NTU	-2.6 mV	48.98 ft	130.00 ml/min

Samples

Sample ID:	Description:
B-119D	Metals, TDS, Inorganics, Radium

APPENDIX A

**Field Data Forms
June 2022**

Low-Flow Test Report:

Test Date / Time: 6/6/2022 10:41:29 AM

Project: plant McDonough

Operator Name: Joe Booth

Location Name: DGWC-121 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 39.4 ft Total Depth: 49.4 ft Initial Depth to Water: 9.69 ft	Pump Type: Alexis Peristaltic Tubing Type: Hope Pump Intake From TOC: 44 ft Estimated Total Volume Pumped: 9805 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 5.36 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843285
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Test Notes:

Prepurged 1.5 liters

Weather Conditions:

80 sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 1 %	+/- 5	+/- 100 %	+/- 0.3	
6/6/2022 10:41 AM	00:00	6.32 pH	22.07 °C	356.29 µS/cm	0.56 mg/L	23.00 NTU	-19.0 mV	9.69 ft	150.00 ml/min
6/6/2022 10:45 AM	04:00	6.28 pH	20.70 °C	359.23 µS/cm	0.89 mg/L	22.30 NTU	-19.9 mV	12.49 ft	150.00 ml/min
6/6/2022 10:49 AM	08:00	6.28 pH	20.57 °C	360.21 µS/cm	0.98 mg/L	18.90 NTU	-28.7 mV	13.10 ft	150.00 ml/min
6/6/2022 10:53 AM	12:00	6.29 pH	20.64 °C	360.97 µS/cm	0.94 mg/L	17.60 NTU	-40.9 mV	13.70 ft	150.00 ml/min
6/6/2022 10:54 AM	13:07	6.29 pH	20.61 °C	361.05 µS/cm	0.94 mg/L	17.60 NTU	-43.9 mV	13.70 ft	150.00 ml/min
6/6/2022 10:58 AM	17:22	6.30 pH	20.37 °C	362.13 µS/cm	0.83 mg/L	15.00 NTU	-56.4 mV	14.33 ft	150.00 ml/min
6/6/2022 11:02 AM	21:22	6.31 pH	20.15 °C	367.16 µS/cm	0.72 mg/L	12.30 NTU	-63.7 mV	14.36 ft	150.00 ml/min
6/6/2022 11:06 AM	25:22	6.32 pH	20.22 °C	366.44 µS/cm	0.63 mg/L	12.00 NTU	-68.4 mV	14.39 ft	150.00 ml/min
6/6/2022 11:10 AM	29:22	6.32 pH	20.11 °C	367.45 µS/cm	0.57 mg/L	10.60 NTU	-72.1 mV	14.42 ft	150.00 ml/min
6/6/2022 11:14 AM	33:22	6.32 pH	20.11 °C	367.26 µS/cm	0.52 mg/L	10.40 NTU	-74.5 mV	14.46 ft	150.00 ml/min
6/6/2022 11:18 AM	37:22	6.33 pH	20.37 °C	366.41 µS/cm	0.44 mg/L	7.38 NTU	-78.4 mV	14.50 ft	150.00 ml/min
6/6/2022 11:22 AM	41:22	6.33 pH	20.81 °C	363.49 µS/cm	0.39 mg/L	9.20 NTU	-80.4 mV	14.65 ft	150.00 ml/min
6/6/2022 11:26 AM	45:22	6.33 pH	20.89 °C	363.60 µS/cm	0.36 mg/L	7.90 NTU	-81.5 mV	14.70 ft	150.00 ml/min

6/6/2022 11:30 AM	49:22	6.33 pH	20.75 °C	362.38 µS/cm	0.32 mg/L	7.29 NTU	-83.0 mV	14.85 ft	150.00 ml/min
6/6/2022 11:34 AM	53:22	6.33 pH	20.91 °C	363.13 µS/cm	0.28 mg/L	6.48 NTU	-84.8 mV	14.90 ft	150.00 ml/min
6/6/2022 11:38 AM	57:22	6.33 pH	20.51 °C	363.20 µS/cm	0.26 mg/L	6.14 NTU	-84.0 mV	14.95 ft	150.00 ml/min
6/6/2022 11:42 AM	01:01:22	6.33 pH	20.33 °C	363.10 µS/cm	0.24 mg/L	5.67 NTU	-84.0 mV	15.00 ft	150.00 ml/min
6/6/2022 11:46 AM	01:05:22	6.33 pH	20.79 °C	362.78 µS/cm	0.22 mg/L	4.78 NTU	-83.7 mV	15.05 ft	150.00 ml/min

Samples

Sample ID:	Description:
DGWC-121	Metals, Alkalinity, inorganics, radium
DUP-1	Metals, Alkalinity, inorganics, radium

APPENDIX A

**Instrument Calibration Forms
September/October 2021**

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J.Waguespack / E. Rheams / K. Minkara / D. Fulton

Instrument Calibration

Date: 09/09/21 09/13/21 09/14/21 09/14/21
 Time: 07:33 07:30 07:15

Parameter	Units	Standard	SmarTROLL SN 85075 iPad # 81	SmarTROLL SN 85075 iPad # 81	SmarTROLL SN 85075 iPad # 81	SmarTROLL SN 83593 iPad # 109
DO	% saturation	100	99.46	105.94	98.17	100.52
Conductivity	us/cm	4490	4509.7	4645.9	4257.4	4305.5
pH	S.U.	4.00	4.00	4.05	3.95	4.00
pH	S.U.	7.00	7.05	7.05	6.95	7.00
pH	S.U.	10.00	10.37	10.04	9.98	9.97
ORP	mV	228.00	228	225.3	229.4	226.1

Turbidity	Units	Standard	LaMotte SN 5990-3915	LaMotte SN 5040-3915	LaMotte SN 5990-3915	LaMotte SN 7007-1916
	NTU	0.0	0.0	0.0	0.77	0.33
	NTU	1.0	0.93	1.25	2.17	0.95
	NTU	10.0	9.03	9.87	9.109	10.14

Date: 09/10/21 09/13/21 09/14/21
 Time: 07:25 16:30 15:37

Parameter	Units	Standard	SmarTROLL SN 85075 iPad # 81	SmarTROLL SN 85075 iPad # 81	SmarTROLL SN 85075 iPad # 81	SmarTROLL SN iPad #
DO	% saturation	100	94.96			
Conductivity	us/cm	4490	4471.2			
pH	S.U.	4.00	4.02	4.03	4.01	
pH	S.U.	7.00	7.02	7.03	7.03	
pH	S.U.	10.00	10.05	9.78	9.69	
ORP	mV	228.00	234.0			

Turbidity	Units	Standard	LaMotte SN 5090-3915	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0	0.01			
	NTU	1.0	0.98			
	NTU	10.0	9.28			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Daily Calibration Log

Project Plant McDonough **Include daily mid-day pH check**
 Field Staff J. Waguespack / E. Rheams / K. Minkara / D. Fulton

Instrument Calibration

Date: 09/15/21 09/15/21 09/16/21
 Time: 07:30 08:00 08:00

Parameter	Units	Standard	SmarTROLL SN <u>850767</u> iPad # <u>81</u>	SmarTROLL SN <u>843593</u> iPad # <u>109</u>	SmarTROLL SN <u>850767</u> iPad # <u>81</u>	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	99.83	97.73	101.90	
Conductivity	us/cm	4490	4426	4524.6	4476.6	
pH	S.U.	4.00	3.94	4.03	4.00	
pH	S.U.	7.00	6.92	7.00	7.00	
pH	S.U.	10.00	9.95	10.02	9.98	
ORP	mV	228.00	225.6	220.8	236.6	

	Units	Standard	LaMotte SN <u>5990-3915</u>	LaMotte SN <u>7007-1416</u>	LaMotte SN <u>5990-3915</u>	LaMotte SN _____
Turbidity	NTU	0.0	0.0	0.01	0.68	
	NTU	1.0	0.92	0.87	0.81	
	NTU	10.0	9.93	9.98	9.64	

Date: 09/16/21 09/16/21
 Time: 0800

Parameter	Units	Standard	SmarTROLL SN <u>843593</u> iPad # <u>109</u>	SmarTROLL SN <u>850767</u> iPad # <u>51</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	101.72			
Conductivity	us/cm	4490	4535.9			
pH	S.U.	4.00	4.04	4.01		
pH	S.U.	7.00	7.06	7.03		
pH	S.U.	10.00	10.00	10.07		
ORP	mV	228.00	229.0			

	Units	Standard	LaMotte SN <u>7007-1416</u>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
Turbidity	NTU	0.0	0.02			
	NTU	1.0	1.18			
	NTU	10.0	10.02			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J.Waguespack / E. Rheams / K. Minkara / D. Fulton

Instrument Calibration

Date: 09/09/21 9/10/21 9/13/21 9/13/21
 Time: 05:05 07:51 09:24 12:30

Parameter	Units	Standard	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	98.51	106.00	96.53	
Conductivity	us/cm	4490	4722.8	4491.6	4693.1	
pH	S.U.	4.00	4.01	4.01	4.12	
pH	S.U.	7.00	7.05	7.01	7.07	7.00
pH	S.U.	10.00	9.98	10.05	10.03	
ORP	mV	228.00	227	235.5	228.0	

Turbidity	Units	Standard	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN _____
	NTU	0.0	0.56	0.0	0.65	
	NTU	1.0	1.15	1.08	0.98	
	NTU	10.0	9.30	7.54	8.88	

Date: 9/13/21
 Time: 11:00

Parameter	Units	Standard	SmarTROLL SN 850724 iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	100.52			
Conductivity	us/cm	4490	4684.5			
pH	S.U.	4.00	4.02			
pH	S.U.	7.00	7.03			
pH	S.U.	10.00	10.0			
ORP	mV	228.00	220.5			

Turbidity	Units	Standard	LaMotte SN 1510-4111	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	-0.02			
	NTU	1.0	0.84			
	NTU	10.0	12.73			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J.Waguespack / E. Rheams / K. Minkara / D. Fulton

Instrument Calibration

Date: 9-8-21 9-9-21 9-10-21
 Time: 1110 0830 1030

Parameter	Units	Standard	SmarTROLL SN <u>850724</u> iPad # <u>55</u>	SmarTROLL SN <u>850724</u> iPad # <u>55</u>	SmarTROLL SN <u>850724</u> iPad # <u>55</u>	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	99.83	98.53	101.94	
Conductivity	us/cm	4490	3850	5244	4496	
pH	S.U.	4.00	3.50	3.99	3.98	
pH	S.U.	7.00	7.23	7.00	7.02	
pH	S.U.	10.00	9.97	9.96	10.04	
ORP	mV	228.00	223.8	227.4	232.6	

Turbidity	Units	Standard	LaMotte SN <u>1510-4111</u>	LaMotte SN <u>1510-4111</u>	LaMotte SN <u>1510-4111</u>	LaMotte SN _____
	NTU	0.0	0.08	0.08	0.06	
	NTU	1.0	1.09	1.00	1.11	
	NTU	10.0	9.84	10.01	9.88	

Date: 9/8/21
 Time: 7w

Parameter	Units	Standard	SmarTROLL SN <u>84393</u> iPad # <u>109</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	98.86			
Conductivity	us/cm	4490	3852.3			
pH	S.U.	4.00	4.08			
pH	S.U.	7.00	7.07			
pH	S.U.	10.00	10.37			
ORP	mV	228.00	219.8			

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

APPENDIX A

**Instrument Calibration Forms
January 2022**

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

		Date:	1/19/22			
		Time:	10:20			
Parameter	Units	Standard	SmarTROLL SN 728623 iPad # No#	Mid-Day pH	SmarTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100	102.30	-----		-----
Conductivity	us/cm	4490	5027.7	-----		-----
pH	S.U.	4.00	4.09			
pH	S.U.	7.00	7.26			
pH	S.U.	10.00	10.51			
ORP	mV	228.00	235.6	-----		-----

Turbidity	Units	Standard	LaMotte SN 5373-1515	LaMotte SN	LaMotte SN 7009-1416	LaMotte SN 1603-4411
	NTU	0.0	0.0			~0.01
	NTU	1.0	0.80			1.13
	NTU	10.0	10.32			8.87

		Date:	01/27/22			
		Time:	0830			
Parameter	Units	Standard	SmarTROLL SN 851413 iPad # 80	Mid-Day pH	SmarTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100	103.12	-----		-----
Conductivity	us/cm	4490	4537.6	-----		-----
pH	S.U.	4.00	4.08			
pH	S.U.	7.00	7.10			
pH	S.U.	10.00	10.14			
ORP	mV	228.00	232.2	-----		-----

Turbidity	Units	Standard	LaMotte SN 1438-3911	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0	~0.02			
	NTU	1.0	1.06			
	NTU	10.0	10.06			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated



Project Plant McDonough **Include daily mid-day pH check**
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

		Date:	1/19/22			
		Time:	0800			
Parameter	Units	Standard	SmarTROLL SN _____ iPad # _____	Mid-Day pH	SmarTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100		-----		-----
Conductivity	us/cm	4490	4134	-----		-----
pH	S.U.	4.00	3.954,01			
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00		-----		-----

Turbidity	Units	Standard	LaMotte SN	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0	_____	_____	_____	_____
	NTU	1.0	_____	_____	_____	_____
	NTU	10.0	_____	_____	_____	_____

		Date:				
		Time:				
Parameter	Units	Standard	SmarTROLL SN _____ iPad # _____	Mid-Day pH	SmarTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100		-----		-----
Conductivity	us/cm	4490		-----		-----
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00		-----		-----

Turbidity	Units	Standard	LaMotte SN	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0	_____	_____	_____	_____
	NTU	1.0	_____	_____	_____	_____
	NTU	10.0	_____	_____	_____	_____

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough *Include daily mid-day pH check*
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

Parameter	Units	Standard	Date: 01/18/22		Date: 01/19/22	
			Time: 1500			Time: 0730
			SmarTROLL SN 851413 iPad # 80	Mid-Day pH	SmarTROLL SN 851413 iPad # 80	Mid-Day pH
DO	% saturation	100	103.45	-----	98.99	-----
Conductivity	us/cm	4490		-----	4488.2	-----
pH	S.U.	4.00			3.96	4.01
pH	S.U.	7.00			7.03	7.10
pH	S.U.	10.00			10.09	10.11
ORP	mV	228.00		-----	244.1	-----

Turbidity	Units	Standard	LaMotte SN 1438-3911	LaMotte SN	LaMotte SN 1438-3911	LaMotte SN 1438-3911
	NTU	0.0	0.04	0.01	0.01	
	NTU	1.0	1.07	1.13	1.13	
	NTU	10.0	9.92		10.01	

Parameter	Units	Standard	Date: 01/20/22		Date: 01/21/22	
			Time: 0730			Time: 0800
			SmarTROLL SN iPad #	Mid-Day pH	SmarTROLL SN iPad #	Mid-Day pH
DO	% saturation	100	100.20	-----	101.40	-----
Conductivity	us/cm	4490	4584.2	-----	4626.5	-----
pH	S.U.	4.00	4.04	4.08	3.93	
pH	S.U.	7.00	7.03	6.98	7.04	
pH	S.U.	10.00	10.11	10.03	10.22	
ORP	mV	228.00	224.0	-----	240.2	-----

Turbidity	Units	Standard	LaMotte SN 1438-3911	LaMotte SN	LaMotte SN 1438-3911	LaMotte SN
	NTU	0.0	0.01		0.01	
	NTU	1.0	1.03		1.07	
	NTU	10.0	9.98		10.13	

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

		Date:	01/24/22		01/25/22	
		Time:	0730		0730	
Parameter	Units	Standard	SmarTROLL SN 851413 iPad # 80	Mid-Day pH	SmarTROLL SN 851413 iPad # 80	Mid-Day pH
DO	% saturation	100	92.41	-----	103.19	-----
Conductivity	us/cm	4490	4520.5	-----	4373.3	-----
pH	S.U.	4.00	4.03	3.99	4.08	
pH	S.U.	7.00	7.13	7.07	7.14	
pH	S.U.	10.00	10.09	9.98	10.17	
ORP	mV	228.00	228.9	-----	214.4	-----

Turbidity	Units	Standard	LaMotte SN 1438-3911	LaMotte SN 1491	LaMotte SN 1438-3911	LaMotte SN
	NTU	0.0	-0.03	80	-0.00	
	NTU	1.0	1.08		1.03	
	NTU	10.0	10.02		8.95	

		Date:	01/24/22			
		Time:	0730			
Parameter	Units	Standard	SmarTROLL SN 728623 iPad # _____	Mid-Day pH	SmarTROLL SN 850767 iPad # _____	Mid-Day pH
DO	% saturation	100	94.3	-----	103.15	-----
Conductivity	us/cm	4490	4608.9	-----	4388.5	-----
pH	S.U.	4.00	4.05		4.07	
pH	S.U.	7.00	6.97		7.51	
pH	S.U.	10.00	9.03		10.84	
ORP	mV	228.00	232.6	-----	249.6	-----

Turbidity	Units	Standard	LaMotte SN	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

B-1020
 BGWC-10

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

Parameter	Units	Standard	Date: 01/25/22		Date: 01/26/22	
			Time: 06:20	Time: 16:00	Time: 06:10	Time: 14:15
			SmarTROLL SN 850731 iPad # 2491	Mid-Day pH	SmarTROLL SN 850731 iPad # 2491	Mid-Day pH
DO	% saturation	100	93.89	-----	102.53	-----
Conductivity	us/cm	4490	4412.4	-----	4479.1	-----
pH	S.U.	4.00	4.10	4.03	3.94	4.00
pH	S.U.	7.00	7.07	7.03	6.98	7.07
pH	S.U.	10.00	10.07	10.07	10.04	10.04
ORP	mV	228.00	229.6	-----	230.3	-----

Turbidity	Units	Standard	LaMotte SN 5533-1515	LaMotte SN	LaMotte SN 5533-1515	LaMotte SN 5533-1515
	NTU	0.0	0.0	0.01		0.02
NTU	1.0	1.0	1.01		1.25	1.07
NTU	10.0	10.0	10.70		10.9	10.61

Parameter	Units	Standard	Date: 01/27/22		Date:	
			Time: 06:00	Time:	Time:	Time:
			SmarTROLL SN 850731 iPad # 2491	Mid-Day pH	SmarTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100	99.56	-----		-----
Conductivity	us/cm	4490	4431.1	-----		-----
pH	S.U.	4.00	3.96			
pH	S.U.	7.00	6.97			
pH	S.U.	10.00	10.07			
ORP	mV	228.00	232.9	-----		-----

Turbidity	Units	Standard	LaMotte SN	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0	0.0			
NTU	1.0	1.0				
NTU	10.0	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Include daily mid-day pH check

Instrument Calibration

		Date:	01/18/22		01/19/22	
		Time:	14:30	—	05:20	15:25
Parameter	Units	Standard	SmarTROLL SN 850751 iPad #2491	Mid-Day pH	SmarTROLL SN 850751 iPad #2491	Mid-Day pH
DO	% saturation	100	110.166	-----	97.09	-----
Conductivity	us/cm	4490	3790	-----	4427.9	-----
pH	S.U.	4.00	3.97	NC	4.03	4.09
pH	S.U.	7.00	7.35	NC	7.03	7.10
pH	S.U.	10.00	12.75	NC	10.01	10.06
ORP	mV	228.00	233.5	-----	222.9	-----

Turbidity	Units	Standard	LaMotte SN 2491	LaMotte SN	LaMotte SN 2491	LaMotte SN 2491
	NTU	0.0	0.0	NC	0.02	0.02
	NTU	1.0	0.9	NC	0.97	0.97
	NTU	10.0	10.10	NC	10.40	10.42

		Date:	01/20/22		01/21/22	
		Time:	05:30	16:08	06:00	—
Parameter	Units	Standard	SmarTROLL SN 850751 iPad #2491	Mid-Day pH	SmarTROLL SN 850751 iPad #2491	Mid-Day pH
DO	% saturation	100	101.51	-----	101.20	-----
Conductivity	us/cm	4490	4440.5	-----	4414.2	-----
pH	S.U.	4.00	3.95	4.06	3.96	NC
pH	S.U.	7.00	6.97	7.08	6.96	NC
pH	S.U.	10.00	10.75	10.10	10.04	NC
ORP	mV	228.00	224.5	-----	232	-----

Turbidity	Units	Standard	LaMotte SN 2491	LaMotte SN 2491	LaMotte SN 5533	LaMotte SN
	NTU	0.0	0.0	NC	0.04	NC
	NTU	1.0	0.91	NC	1.01	NC
	NTU	10.0	10.34	NC	10.07	NC

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough **Include daily mid-day pH check**
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

		Date:	1/25/22		1/25/22	
		Time:	0730	1215	0750	1231
Parameter	Units	Standard	SmarTROLL SN 543205 iPad # 76	Mid-Day pH	SmarTROLL SN 543205 iPad #	Mid-Day pH
DO	% saturation	100	100.13	-----	102.90	-----
Conductivity	us/cm	4490	4019.3	-----	3845.4	-----
pH	S.U.	4.00	4.03	4.01	4.03	4.06
pH	S.U.	7.00	7.08	7.06	7.13	7.09
pH	S.U.	10.00	10.09	10.07	10.08	10.02
ORP	mV	228.00	234.81	-----	214.6	-----

Turbidity	Units	Standard	LaMotte SN 2289-242	LaMotte SN 2289-242	LaMotte SN 2289-242	LaMotte SN
	NTU	0.0	0.03	0.05	0.01	0.01
	NTU	1.0	1.07	1.10	1.06	1.07
	NTU	10.0	9.94	10.07	10.10	10.09

		Date:	1/26/22			
		Time:	0734	1700		
Parameter	Units	Standard	SmarTROLL SN 543205 iPad # 76	Mid-Day pH	SmarTROLL SN iPad #	Mid-Day pH
DO	% saturation	100	98.17	-----		-----
Conductivity	us/cm	4490	4583.2	-----		-----
pH	S.U.	4.00	4.01	4.06		
pH	S.U.	7.00	7.07	7.08		
pH	S.U.	10.00	10.14	10.03		
ORP	mV	228.00	228.4	-----		-----

Turbidity	Units	Standard	LaMotte SN 2289-242	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0	0.00	0.01		
	NTU	1.0	1.06	1.03		
	NTU	10.0	10.05	10.09		

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Include daily mid-day pH check

Project Plant McDonough
 Field Staff J. Waguespack, D. Fulton, E. Rheams, J. Booth

Instrument Calibration

		Date: 1/19/22 Time: 14:55			1/19/22	
Parameter	Units	Standard	SmarTROLL SN 043285 iPad # 76	Mid-Day pH	SmarTROLL SN 843285 iPad # 76	Mid-Day pH
DO	% saturation	100	96.17	-----	101.2	-----
Conductivity	us/cm	4490	2476.9	-----	6383.2	-----
pH	S.U.	4.00	4.17	-----	3.44	4.01
pH	S.U.	7.00	7.75	-----	6.86	6.95
pH	S.U.	10.00	11.49	-----	9.77	10.09
ORP	mV	228.00	230.00	-----	242.8	-----

Turbidity	Units	Standard	LaMotte SN 2289-267	LaMotte SN 2289-267	LaMotte SN 2289-267	LaMotte SN 2289-267
	NTU	0.0	0.01	-----	0.00	0.00
	NTU	1.0	1.10	-----	1.10	1.04
	NTU	10.0	10.4	-----	9.99	10.6

		Date: 1/20/22 Time: 08:04			1/21/22	
Parameter	Units	Standard	SmarTROLL SN 843285 iPad # 76	Mid-Day pH	SmarTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100	102.91	-----	101.84	-----
Conductivity	us/cm	4490	4557.7	-----	4551.2	-----
pH	S.U.	4.00	4.01	4.00	4.00	4.03
pH	S.U.	7.00	7.06	7.03	7.05	7.06
pH	S.U.	10.00	10.06	9.99	10.09	10.08
ORP	mV	228.00	219.4	-----	234.3	-----

Turbidity	Units	Standard	LaMotte SN 2289-267	LaMotte SN 2289-267	LaMotte SN 2289-267	LaMotte SN -----
	NTU	0.0	0.0	0.01	0.01	0.01
	NTU	1.0	1.04	1.06	1.07	1.06
	NTU	10.0	10.06	10.10	10.05	10.09

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

APPENDIX A

**Instrument Calibration Forms
June 2022**

Daily Calibration Log

Project Plant McDonough
 Field Staff J. Waguespack, C. Tidwell, J. Booth

Include daily mid-day pH check

Instrument Calibration

		Date:	6/6/22			
		Time:	8:00			
Parameter	Units	Standard	AquaTROLL SN <u>843285</u> iPad # _____	Mid-Day pH	AquaTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100	100	-----		-----
Conductivity	us/cm	4490	4473	-----		-----
pH	S.U.	4.00	4.01			
pH	S.U.	7.00	7.02			
pH	S.U.	10.00	9.99			
ORP	mV	228.00	227.03	-----		-----

Turbidity	Units	Standard	Hach SN <u>1705001775</u>	Hach SN	Hach SN	Hach SN
	NTU	20	20.7			
	NTU	100	98.0			
	NTU	800	791			
	NTU	10.0				

		Date:				
		Time:				
Parameter	Units	Standard	AquaTROLL SN _____ iPad # _____	Mid-Day pH	AquaTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100		-----		-----
Conductivity	us/cm	4490		-----		-----
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00		-----		-----

Turbidity	Units	Standard	Hach SN	Hach SN	Hach SN	Hach SN
	NTU	20				
	NTU	100				
	NTU	800				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough
 Field Staff J. Waguespack, C. Tidwell, J. Booth

Include daily mid-day pH check

Instrument Calibration

		Date:	6/6/22			
		Time:	8:02			
Parameter	Units	Standard	AquaTROLL SN <u>851413</u> iPad # <u>78</u>	Mid-Day pH	AquaTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100	101.33	-----		-----
Conductivity	us/cm	4490	4618.9	-----		-----
pH	S.U.	4.00	4.09			
pH	S.U.	7.00	7.05			
pH	S.U.	10.00	10.11			
ORP	mV	228.00	219.0	-----		-----

Turbidity	Units	Standard	Hach SN <u>11050C009431</u>	Hach SN	Hach SN	Hach SN
	NTU	20	19.7			
	NTU	100	100			
	NTU	800	795			
	NTU	10.0	10.3			

		Date:				
		Time:				
Parameter	Units	Standard	AquaTROLL SN _____ iPad # _____	Mid-Day pH	AquaTROLL SN _____ iPad # _____	Mid-Day pH
DO	% saturation	100		-----		-----
Conductivity	us/cm	4490		-----		-----
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00		-----		-----

Turbidity	Units	Standard	Hach SN	Hach SN	Hach SN	Hach SN
	NTU	20				
	NTU	100				
	NTU	800				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Daily Calibration Log

Project Plant McDonough
 Field Staff J. Waguespack, C. Tidwell, J. Booth

Include daily mid-day pH check

Instrument Calibration

		Date:	6-6-22		6-7-22	
		Time:	8:00		7:50	
Parameter	Units	Standard	AquaTROLL SN <u>884189</u> iPad # <u>94</u>	Mid-Day pH	AquaTROLL SN <u>884189</u> iPad # <u>94</u>	Mid-Day pH
DO	% saturation	100	101.92	-----	105.13	-----
Conductivity	us/cm	4490	4626	-----	4456	-----
pH	S.U.	4.00	4.08 4.11	4.11	3.96	
pH	S.U.	7.00	6.89	7.02	6.97	
pH	S.U.	10.00	10.08	10.05	10.01	
ORP	mV	228.00	219.3	-----	229.1	-----

		6-7-22				
Turbidity	Units	Standard	Hach SN <u>15040040490</u>	Hach SN <u>15040040490</u>	Hach SN	Hach SN
	NTU	20	20.6	20.4		
	NTU	100	102	101		
	NTU	800	792	797		
	NTU	10.0	10.5	10.6		

		Date:	6/8/22		6/9/22	
		Time:	9:50		14:50	
Parameter	Units	Standard	AquaTROLL SN <u>84325</u> iPad # <u>72</u>	Mid-Day pH	AquaTROLL SN <u>84325</u> iPad # <u>72</u>	Mid-Day pH
DO	% saturation	100	100.71	-----	102.59*	-----
Conductivity	us/cm	4490	4526.5	-----	4328.4	-----
pH	S.U.	4.00	4.00		4.00	
pH	S.U.	7.00	6.94		6.98	
pH	S.U.	10.00	9.93		9.96	
ORP	mV	228.00	232.9	-----	225.5	-----

Turbidity	Units	Standard	Hach SN <u>12050017105</u>	Hach SN	Hach SN <u>12050017105</u>	Hach SN
	NTU	20	21.0		17.6	
	NTU	100	101.0		102	
	NTU	800	803		795	
	NTU	10.0	9.04		8.91	

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

* DO nominal after 10 mins

APPENDIX B

Analytical Results, Data Validation Summaries and
Laboratory Accreditation

APPENDIX B

Analytical Results
September/October 2021

October 06, 2021

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

RE: Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 15, 2021 and September 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



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CERTIFICATIONS

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92561303001	DGWC-40	Water	09/14/21 16:30	09/15/21 09:34
92561303002	FB-4	Water	09/14/21 16:15	09/15/21 09:34
92561303003	DGWC-38	Water	09/15/21 15:45	09/16/21 09:06
92561303004	DGWC-37	Water	09/16/21 16:50	09/17/21 17:06
92561303005	DGWC-39	Water	09/17/21 10:30	09/17/21 17:06
92561303006	DGWC-67	Water	09/16/21 15:00	09/17/21 17:06
92561303007	DGWC-68A	Water	09/16/21 14:16	09/17/21 17:06
92561303008	DGWC-69	Water	09/16/21 10:35	09/17/21 17:06
92561303009	DUP-6	Water	09/16/21 00:00	09/17/21 17:06

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92561303001	DGWC-40	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303002	FB-4	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303003	DGWC-38	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303004	DGWC-37	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303005	DGWC-39	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303006	DGWC-67	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303007	DGWC-68A	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303008	DGWC-69	EPA 6010D	KH	1
		EPA 6020B	CW1	13

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561303009	DUP-6	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-40		Lab ID: 92561303001		Collected: 09/14/21 16:30		Received: 09/15/21 09:34		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/15/21 11:10		
pH	4.67	Std. Units			1		09/15/21 11:10		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	45.1	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 17:02	7440-70-2	M1
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/24/21 08:24	09/24/21 16:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 16:34	7440-38-2	
Barium	0.027	mg/L	0.0050	0.00067	1	09/24/21 08:24	09/24/21 16:34	7440-39-3	
Beryllium	0.0032	mg/L	0.00050	0.000054	1	09/24/21 08:24	09/24/21 16:34	7440-41-7	
Boron	0.70	mg/L	0.040	0.0086	1	09/24/21 08:24	09/24/21 16:34	7440-42-8	
Cadmium	0.00086	mg/L	0.00050	0.00011	1	09/24/21 08:24	09/24/21 16:34	7440-43-9	
Chromium	0.0021J	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 16:34	7440-47-3	
Cobalt	0.050	mg/L	0.0050	0.00039	1	09/24/21 08:24	09/24/21 16:34	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/24/21 08:24	09/24/21 16:34	7439-92-1	
Lithium	0.0030J	mg/L	0.030	0.00073	1	09/24/21 08:24	09/24/21 16:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/24/21 08:24	09/24/21 16:34	7439-98-7	
Selenium	0.0015J	mg/L	0.0050	0.0014	1	09/24/21 08:24	09/24/21 16:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/24/21 08:24	09/24/21 16:34	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:12	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	347	mg/L	10.0	10.0	1		09/21/21 12:34		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	16.7	mg/L	1.0	0.60	1		09/17/21 08:03	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.050	1		09/17/21 08:03	16984-48-8	
Sulfate	186	mg/L	4.0	2.0	4		09/17/21 23:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: FB-4		Lab ID: 92561303002		Collected: 09/14/21 16:15	Received: 09/15/21 09:34	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 17:21	7440-70-2		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	09/24/21 08:24	09/24/21 17:53	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 17:53	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	09/24/21 08:24	09/24/21 17:53	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	09/24/21 08:24	09/24/21 17:53	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	09/24/21 08:24	09/24/21 17:53	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/24/21 08:24	09/24/21 17:53	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 17:53	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	09/24/21 08:24	09/24/21 17:53	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	09/24/21 08:24	09/24/21 17:53	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	09/24/21 08:24	09/24/21 17:53	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	09/24/21 08:24	09/24/21 17:53	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	09/24/21 08:24	09/24/21 17:53	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	09/24/21 08:24	09/24/21 17:53	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:15	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/21/21 12:34			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/17/21 08:18	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/17/21 08:18	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/17/21 08:18	14808-79-8		

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-38		Lab ID: 92561303003		Collected: 09/15/21 15:45		Received: 09/16/21 09:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/16/21 11:20		
pH	6.08	Std. Units			1		09/16/21 11:20		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	88.3	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 17:26	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/24/21 08:24	09/24/21 18:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 18:05	7440-38-2	
Barium	0.032	mg/L	0.0050	0.00067	1	09/24/21 08:24	09/24/21 18:05	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/24/21 08:24	09/24/21 18:05	7440-41-7	
Boron	2.8	mg/L	0.040	0.0086	1	09/24/21 08:24	09/24/21 18:05	7440-42-8	
Cadmium	0.00021J	mg/L	0.00050	0.00011	1	09/24/21 08:24	09/24/21 18:05	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 18:05	7440-47-3	
Cobalt	0.0016J	mg/L	0.0050	0.00039	1	09/24/21 08:24	09/24/21 18:05	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/24/21 08:24	09/24/21 18:05	7439-92-1	
Lithium	0.0029J	mg/L	0.030	0.00073	1	09/24/21 08:24	09/24/21 18:05	7439-93-2	
Molybdenum	0.00099J	mg/L	0.010	0.00074	1	09/24/21 08:24	09/24/21 18:05	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/24/21 08:24	09/24/21 18:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/24/21 08:24	09/24/21 18:05	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:17	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	474	mg/L	10.0	10.0	1		09/21/21 19:08		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.6	mg/L	1.0	0.60	1		09/18/21 03:05	16887-00-6	
Fluoride	0.060J	mg/L	0.10	0.050	1		09/18/21 03:05	16984-48-8	
Sulfate	219	mg/L	5.0	2.5	5		09/18/21 13:06	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-37		Lab ID: 92561303004		Collected: 09/16/21 16:50		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:46		
pH	6.33	Std. Units			1		09/20/21 14:46		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	63.0	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 18:31	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:21	7440-38-2	
Barium	0.083	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:21	7440-39-3	
Beryllium	0.000059J	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:21	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:21	7440-42-8	
Cadmium	0.00013J	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:21	7439-92-1	
Lithium	0.0021J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:21	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:20	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	278	mg/L	10.0	10.0	1		09/23/21 20:01		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.6	mg/L	1.0	0.60	1		09/21/21 15:28	16887-00-6	
Fluoride	0.084J	mg/L	0.10	0.050	1		09/21/21 15:28	16984-48-8	M1
Sulfate	95.0	mg/L	1.0	0.50	1		09/21/21 15:28	14808-79-8	M1

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-39		Lab ID: 92561303005		Collected: 09/17/21 10:30		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:47		
pH	6.49	Std. Units			1		09/20/21 14:47		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	98.6	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 18:36	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:26	7440-38-2	
Barium	0.090	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:26	7440-41-7	
Boron	2.8	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:26	7440-47-3	
Cobalt	0.0076	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:26	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:23	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	446	mg/L	20.0	20.0	1		09/23/21 20:02		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.3	mg/L	1.0	0.60	1		09/21/21 16:14	16887-00-6	
Fluoride	0.13	mg/L	0.10	0.050	1		09/21/21 16:14	16984-48-8	
Sulfate	156	mg/L	3.0	1.5	3		09/22/21 04:24	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-67		Lab ID: 92561303006		Collected: 09/16/21 15:00		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:47		
pH	6.20	Std. Units			1		09/20/21 14:47		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	46.0	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 18:41	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:32	7440-38-2	
Barium	0.088	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:32	7440-41-7	
Boron	3.4	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:32	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:32	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:32	7440-47-3	
Cobalt	0.0012J	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:32	7439-92-1	
Lithium	0.0044J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:32	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:25	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	282	mg/L	10.0	10.0	1		09/23/21 20:01		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.9	mg/L	1.0	0.60	1		09/21/21 16:30	16887-00-6	
Fluoride	0.069J	mg/L	0.10	0.050	1		09/21/21 16:30	16984-48-8	
Sulfate	101	mg/L	2.0	1.0	2		09/22/21 04:40	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-68A		Lab ID: 92561303007		Collected: 09/16/21 14:16		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:47		
pH	6.79	Std. Units			1		09/20/21 14:47		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	60.6	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 18:46	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:38	7440-36-0	
Arsenic	0.46	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:38	7440-38-2	
Barium	0.13	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:38	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:38	7440-41-7	
Boron	1.3	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:38	7440-43-9	
Chromium	0.0014J	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:38	7440-47-3	
Cobalt	0.0032J	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:38	7439-92-1	
Lithium	0.00082J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:38	7439-93-2	
Molybdenum	0.18	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:38	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:38	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:28	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	259	mg/L	10.0	10.0	1		09/23/21 20:01		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.4	mg/L	1.0	0.60	1		09/21/21 17:16	16887-00-6	
Fluoride	0.55	mg/L	0.10	0.050	1		09/21/21 17:16	16984-48-8	
Sulfate	22.3	mg/L	1.0	0.50	1		09/21/21 17:16	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DGWC-69	Lab ID: 92561303008	Collected: 09/16/21 10:35	Received: 09/17/21 17:06	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:47		
pH	6.16	Std. Units			1		09/20/21 14:47		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	18.0	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 19:00	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:44	7440-36-0	
Arsenic	0.023	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:44	7440-38-2	
Barium	0.078	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:44	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:44	7440-41-7	
Boron	0.32	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:44	7439-92-1	
Lithium	0.0023J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:44	7439-93-2	
Molybdenum	0.0090J	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:44	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:30	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	113	mg/L	10.0	10.0	1		09/23/21 20:02		D6
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.5	mg/L	1.0	0.60	1		09/21/21 17:32	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.050	1		09/21/21 17:32	16984-48-8	
Sulfate	17.9	mg/L	1.0	0.50	1		09/21/21 17:32	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Sample: DUP-6		Lab ID: 92561303009		Collected: 09/16/21 00:00		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	18.4	mg/L	1.0	0.12	1	09/29/21 10:10	09/29/21 19:05	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:49	7440-36-0	
Arsenic	0.023	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:49	7440-38-2	
Barium	0.083	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:49	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:49	7440-41-7	
Boron	0.34	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:49	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:49	7439-92-1	
Lithium	0.0025J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:49	7439-93-2	
Molybdenum	0.0093J	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:49	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:00	09/28/21 19:38	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	117	mg/L	10.0	10.0	1		09/23/21 20:02		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.4	mg/L	1.0	0.60	1		09/21/21 17:47	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.050	1		09/21/21 17:47	16984-48-8	
Sulfate	18.0	mg/L	1.0	0.50	1		09/21/21 17:47	14808-79-8	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

QC Batch: 649648 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92561303001, 92561303002, 92561303003, 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

METHOD BLANK: 3407003 Matrix: Water
Associated Lab Samples: 92561303001, 92561303002, 92561303003, 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/29/21 16:41	

LABORATORY CONTROL SAMPLE: 3407004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407005 3407006

Parameter	Units	92561303001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	45.1	1	1	46.7	46.4	160	129	75-125	1	20	M1

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

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

QC Batch: 649183 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92561303001, 92561303002, 92561303003

METHOD BLANK: 3405029 Matrix: Water
Associated Lab Samples: 92561303001, 92561303002, 92561303003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/24/21 15:43	
Arsenic	mg/L	ND	0.0050	0.0011	09/24/21 15:43	
Barium	mg/L	ND	0.0050	0.00067	09/24/21 15:43	
Beryllium	mg/L	ND	0.00050	0.000054	09/24/21 15:43	
Boron	mg/L	ND	0.040	0.0086	09/24/21 15:43	
Cadmium	mg/L	ND	0.00050	0.00011	09/24/21 15:43	
Chromium	mg/L	ND	0.0050	0.0011	09/24/21 15:43	
Cobalt	mg/L	ND	0.0050	0.00039	09/24/21 15:43	
Lead	mg/L	ND	0.0010	0.00089	09/24/21 15:43	
Lithium	mg/L	ND	0.030	0.00073	09/24/21 15:43	
Molybdenum	mg/L	ND	0.010	0.00074	09/24/21 15:43	
Selenium	mg/L	ND	0.0050	0.0014	09/24/21 15:43	
Thallium	mg/L	ND	0.0010	0.00018	09/24/21 15:43	

LABORATORY CONTROL SAMPLE: 3405030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405031 3405032

Parameter	Units	92560768019 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	
Arsenic	mg/L	0.0018J	0.1	0.1	0.098	0.098	96	96	75-125	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Parameter	Units	3405031		3405032		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560768019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.016	0.1	0.1	0.12	0.12	105	104	75-125	1	20		
Beryllium	mg/L	0.011	0.1	0.1	0.094	0.092	82	80	75-125	2	20		
Boron	mg/L	0.61	1	1	1.4	1.4	83	77	75-125	4	20		
Cadmium	mg/L	0.00035J	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20		
Cobalt	mg/L	0.28	0.1	0.1	0.37	0.36	91	82	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	3	20		
Lithium	mg/L	0.085	0.1	0.1	0.16	0.16	78	72	75-125	4	20	M1	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Selenium	mg/L	0.0041J	0.1	0.1	0.10	0.099	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

QC Batch: 649484 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

METHOD BLANK: 3406420 Matrix: Water
Associated Lab Samples: 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/28/21 15:09	
Arsenic	mg/L	ND	0.0050	0.0011	09/28/21 15:09	
Barium	mg/L	ND	0.0050	0.00067	09/28/21 15:09	
Beryllium	mg/L	ND	0.00050	0.000054	09/28/21 15:09	
Boron	mg/L	ND	0.040	0.0086	09/28/21 15:09	
Cadmium	mg/L	ND	0.00050	0.00011	09/28/21 15:09	
Chromium	mg/L	ND	0.0050	0.0011	09/28/21 15:09	
Cobalt	mg/L	ND	0.0050	0.00039	09/28/21 15:09	
Lead	mg/L	ND	0.0010	0.00089	09/28/21 15:09	
Lithium	mg/L	ND	0.030	0.00073	09/28/21 15:09	
Molybdenum	mg/L	ND	0.010	0.00074	09/28/21 15:09	
Selenium	mg/L	ND	0.0050	0.0014	09/28/21 15:09	
Thallium	mg/L	ND	0.0010	0.00018	09/28/21 15:09	

LABORATORY CONTROL SAMPLE: 3406421

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.096	96	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.093	93	80-120	
Beryllium	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.093	93	80-120	
Lithium	mg/L	0.1	0.094	94	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406422 3406423

Parameter	Units	92562762002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Parameter	Units	3406422		3406423		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562762002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	138 ug/L	0.1	0.1	0.23	0.24	94	105	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.092	0.093	92	93	75-125	1	20		
Boron	mg/L	163 ug/L	1	1	1.1	1.1	97	98	75-125	1	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	98	101	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.089	0.088	89	88	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.098	0.10	93	95	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	102	102	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

QC Batch:	649667	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561303001, 92561303002, 92561303003, 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

METHOD BLANK: 3407093 Matrix: Water

Associated Lab Samples: 92561303001, 92561303002, 92561303003, 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/28/21 18:20	

LABORATORY CONTROL SAMPLE: 3407094

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407095 3407096

Parameter	Units	92560768022 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Mercury	mg/L	ND	0.0025	0.0026	0.0025	0.0027	103	107	75-125	4	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

QC Batch: 648469	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561303001, 92561303002

METHOD BLANK: 3400861 Matrix: Water

Associated Lab Samples: 92561303001, 92561303002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/21/21 12:32	

LABORATORY CONTROL SAMPLE: 3400862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	392	98	90-111	

SAMPLE DUPLICATE: 3400863

Parameter	Units	92561295001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	788	808	3	10	

SAMPLE DUPLICATE: 3400864

Parameter	Units	92560768020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	882	916	4	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

QC Batch: 648470	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561303003

METHOD BLANK: 3400865 Matrix: Water

Associated Lab Samples: 92561303003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/21/21 19:07	

LABORATORY CONTROL SAMPLE: 3400866

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	400	100	90-111	

SAMPLE DUPLICATE: 3400867

Parameter	Units	92562042001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	74.0	5	10	

SAMPLE DUPLICATE: 3400868

Parameter	Units	92560768028 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

QC Batch:	649122	Analysis Method:	SM 2540C-2011
QC Batch Method:	SM 2540C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

METHOD BLANK: 3404908 Matrix: Water
Associated Lab Samples: 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/23/21 20:00	

LABORATORY CONTROL SAMPLE: 3404909

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	397	99	90-111	

SAMPLE DUPLICATE: 3404910

Parameter	Units	92562006012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	644	678	5	10	

SAMPLE DUPLICATE: 3404911

Parameter	Units	92561303008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	113	127	12	10	D6

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

QC Batch: 647837 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561303001, 92561303002

METHOD BLANK: 3398284 Matrix: Water

Associated Lab Samples: 92561303001, 92561303002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/17/21 05:43	
Fluoride	mg/L	ND	0.10	0.050	09/17/21 05:43	
Sulfate	mg/L	ND	1.0	0.50	09/17/21 05:43	

LABORATORY CONTROL SAMPLE: 3398285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.3	99	90-110	
Fluoride	mg/L	2.5	2.3	93	90-110	
Sulfate	mg/L	50	50.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398286 3398287

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560768022	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	ND	50	50	59.2	60.1	118	120	90-110	2	10	M1	
Fluoride	mg/L	ND	2.5	2.5	2.9	2.9	115	115	90-110	0	10	M1	
Sulfate	mg/L	ND	50	50	59.8	60.7	119	121	90-110	2	10	M1	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

QC Batch: 647979 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561303003

METHOD BLANK: 3398609 Matrix: Water
Associated Lab Samples: 92561303003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/17/21 23:38	
Fluoride	mg/L	ND	0.10	0.050	09/17/21 23:38	
Sulfate	mg/L	ND	1.0	0.50	09/17/21 23:38	

LABORATORY CONTROL SAMPLE: 3398610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.7	97	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	52.1	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398611 3398612

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561816013	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	11900	50	50	50	12800	13000	1830	2190	90-110	1	10	M1
Fluoride	mg/L	3.6	2.5	2.5	2.5	4.3	21.0	29	698	90-110	132	10	M1,R1
Sulfate	mg/L	8660	50	50	50	9380	9600	1430	1880	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398613 3398614

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560768026	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	29.9	50	50	50	65.4	66.1	71	72	90-110	1	10	M1
Fluoride	mg/L	0.098J	2.5	2.5	2.5	2.8	2.8	109	109	90-110	0	10	
Sulfate	mg/L	325	50	50	50	365	368	81	86	90-110	1	10	M1

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

QC Batch: 648429 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

METHOD BLANK: 3400731 Matrix: Water
Associated Lab Samples: 92561303004, 92561303005, 92561303006, 92561303007, 92561303008, 92561303009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/21/21 14:57	
Fluoride	mg/L	ND	0.10	0.050	09/21/21 14:57	
Sulfate	mg/L	ND	1.0	0.50	09/21/21 14:57	

LABORATORY CONTROL SAMPLE: 3400732

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.1	102	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	52.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400733 3400734

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561303004	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	5.6	50	50	56.6	56.8	102	103	90-110	0	10		
Fluoride	mg/L	0.084J	2.5	2.5	3.0	3.0	118	118	90-110	0	10	M1	
Sulfate	mg/L	95.0	50	50	129	129	67	68	90-110	0	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400735 3400736

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561637004	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	ND	50	50	50.3	50.7	101	101	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	97	98	90-110	1	10		
Sulfate	mg/L	ND	50	50	52.1	52.5	104	105	90-110	1	10		

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QUALIFIERS

Project: MCDONOUGH AP-1

Pace Project No.: 92561303

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1
Pace Project No.: 92561303

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92561303001	DGWC-40				
92561303003	DGWC-38				
92561303004	DGWC-37				
92561303005	DGWC-39				
92561303006	DGWC-67				
92561303007	DGWC-68A				
92561303008	DGWC-69				
92561303001	DGWC-40	EPA 3010A	649648	EPA 6010D	649927
92561303002	FB-4	EPA 3010A	649648	EPA 6010D	649927
92561303003	DGWC-38	EPA 3010A	649648	EPA 6010D	649927
92561303004	DGWC-37	EPA 3010A	649648	EPA 6010D	649927
92561303005	DGWC-39	EPA 3010A	649648	EPA 6010D	649927
92561303006	DGWC-67	EPA 3010A	649648	EPA 6010D	649927
92561303007	DGWC-68A	EPA 3010A	649648	EPA 6010D	649927
92561303008	DGWC-69	EPA 3010A	649648	EPA 6010D	649927
92561303009	DUP-6	EPA 3010A	649648	EPA 6010D	649927
92561303001	DGWC-40	EPA 3005A	649183	EPA 6020B	649262
92561303002	FB-4	EPA 3005A	649183	EPA 6020B	649262
92561303003	DGWC-38	EPA 3005A	649183	EPA 6020B	649262
92561303004	DGWC-37	EPA 3005A	649484	EPA 6020B	649562
92561303005	DGWC-39	EPA 3005A	649484	EPA 6020B	649562
92561303006	DGWC-67	EPA 3005A	649484	EPA 6020B	649562
92561303007	DGWC-68A	EPA 3005A	649484	EPA 6020B	649562
92561303008	DGWC-69	EPA 3005A	649484	EPA 6020B	649562
92561303009	DUP-6	EPA 3005A	649484	EPA 6020B	649562
92561303001	DGWC-40	EPA 7470A	649667	EPA 7470A	649675
92561303002	FB-4	EPA 7470A	649667	EPA 7470A	649675
92561303003	DGWC-38	EPA 7470A	649667	EPA 7470A	649675
92561303004	DGWC-37	EPA 7470A	649667	EPA 7470A	649675
92561303005	DGWC-39	EPA 7470A	649667	EPA 7470A	649675
92561303006	DGWC-67	EPA 7470A	649667	EPA 7470A	649675
92561303007	DGWC-68A	EPA 7470A	649667	EPA 7470A	649675
92561303008	DGWC-69	EPA 7470A	649667	EPA 7470A	649675
92561303009	DUP-6	EPA 7470A	649667	EPA 7470A	649675
92561303001	DGWC-40	SM 2540C-2011	648469		
92561303002	FB-4	SM 2540C-2011	648469		
92561303003	DGWC-38	SM 2540C-2011	648470		
92561303004	DGWC-37	SM 2540C-2011	649122		
92561303005	DGWC-39	SM 2540C-2011	649122		
92561303006	DGWC-67	SM 2540C-2011	649122		
92561303007	DGWC-68A	SM 2540C-2011	649122		
92561303008	DGWC-69	SM 2540C-2011	649122		
92561303009	DUP-6	SM 2540C-2011	649122		
92561303001	DGWC-40	EPA 300.0 Rev 2.1 1993	647837		
92561303002	FB-4	EPA 300.0 Rev 2.1 1993	647837		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: MCDONOUGH AP-1

Pace Project No.: 92561303

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92561303003	DGWC-38	EPA 300.0 Rev 2.1 1993	647979		
92561303004	DGWC-37	EPA 300.0 Rev 2.1 1993	648429		
92561303005	DGWC-39	EPA 300.0 Rev 2.1 1993	648429		
92561303006	DGWC-67	EPA 300.0 Rev 2.1 1993	648429		
92561303007	DGWC-68A	EPA 300.0 Rev 2.1 1993	648429		
92561303008	DGWC-69	EPA 300.0 Rev 2.1 1993	648429		
92561303009	DUP-6	EPA 300.0 Rev 2.1 1993	648429		

REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GPA Power

Project WO#: **92561303**

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____



Date/Initials Person Examining Contents: 11/15/21/keu

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 THRO SWAN Type of Ice: Wet Blue None

Cooler Temp: 2.4 Correction Factor: ±0 Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.4

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4. <u>10 Day TAT</u>
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Powell

Project #:

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 9/16/21

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 3.2 Correction Factor: +0.1
Add/Subtract (°C)

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.1

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match CDC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



CHAIN-OF-CUSTODY / Analytical Request Document
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Item A
 Client Information: **Georgia Power - Coal Combustion Residuals**
 2450 Kerner Road
 Atlanta, GA 30339
 Email: lethalam@scitech.com
 Phone: (404) 508-7399
 Fax: (404) 508-7399
 Requested Date: 10 Day TAT

Section B
 Required Project Information:
 Report To: **Jill Abraham**
 Copy To: **Golden**
 Purchase Order #: **Plant McDonough AP-1**
 Project Name: **Plant McDonough AP-1**
 Project #: **18884921**

Section C
 Invoicing Information:
 Attention: **scdmvoce@scitech.com**
 Company Name:
 Address:
 State / Location: **GA**
 Project Manager: **Karin Henning**
 Price Profile #:

Page: 1 of 1

ITEM #	MATRIX CODE	SAMPLE TYPE (G-GRAB C-COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS			Analysis Test	Y/N	Residual Chlorine (Y/N)	TEMP in C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)	
						Unpreserved - Ice	H2SO4	HNO3 + Ice								
1	DDWC-36	G	8/15/2021	15:45		5	2	3	App IUV Total Metals	N						
2									Cl, F, SO4, TDS	N						
3									Radium 226/228	N						
4																

ADDITIONAL COMMENTS: **SPU-16-21-2021**

APPROVED BY: **M. BATH** DATE: **7-16-21** TIME: **08:23**

ACCEPTED BY: **M. BATH** DATE: **9-16-21** TIME: **8:04**

DATE Signed: **9-16-21**

TEMP in C: **32**

Received on ice (Y/N): **Y**

Custody Sealed Cooler (Y/N): **N**

Samples Intact (Y/N): **Y**

Signature: *Jill Abraham*



Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-093-Rev.07

Document Revised: October 28, 2020
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

G A Power

Project #:

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *9/17/20*
COF

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: *083* Type of ice: Wet Blue None

Cooler Temp: *2.0* Correction Factor: Add/Subtract (°C) *2.0*

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *2.0*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>W</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

October 29, 2021

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

RE: Project: MCDONOUGH AP-1 RADS
Pace Project No.: 92561311

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 15, 2021 and September 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 RADS
Pace Project No.: 92561311

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92561311001	DGWC-40	Water	09/14/21 16:30	09/15/21 09:34
92561311002	FB-4	Water	09/14/21 16:15	09/15/21 09:34
92561311003	DGWC-38	Water	09/15/21 15:45	09/16/21 09:06
92561311004	DGWC-37	Water	09/16/21 16:50	09/17/21 17:06
92561311005	DGWC-39	Water	09/17/21 10:30	09/17/21 17:06
92561311006	DGWC-67	Water	09/16/21 15:00	09/17/21 17:06
92561311007	DGWC-68A	Water	09/16/21 14:16	09/17/21 17:06
92561311008	DGWC-69	Water	09/16/21 10:35	09/17/21 17:06
92561311009	DUP-6	Water	09/16/21 00:00	09/17/21 17:06

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92561311001	DGWC-40	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311002	FB-4	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311003	DGWC-38	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311004	DGWC-37	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311005	DGWC-39	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311006	DGWC-67	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311007	DGWC-68A	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311008	DGWC-69	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561311009	DUP-6	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-40 Lab ID: 92561311001 Collected: 09/14/21 16:30 Received: 09/15/21 09:34 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.192 ± 0.212 (0.437) C:99% T:NA	pCi/L	10/07/21 08:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.61 ± 0.531 (0.739) C:75% T:89%	pCi/L	10/06/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.80 ± 0.743 (1.18)	pCi/L	10/07/21 15:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: FB-4 **Lab ID: 92561311002** Collected: 09/14/21 16:15 Received: 09/15/21 09:34 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0174 ± 0.191 (0.494) C:89% T:NA	pCi/L	10/07/21 08:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.887 ± 0.454 (0.802) C:65% T:86%	pCi/L	10/06/21 11:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.904 ± 0.645 (1.30)	pCi/L	10/07/21 15:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: DGWC-38 **Lab ID: 92561311003** Collected: 09/15/21 15:45 Received: 09/16/21 09:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.543 ± 0.296 (0.468) C:100% T:NA	pCi/L	10/07/21 08:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.83 ± 0.624 (0.882) C:63% T:82%	pCi/L	10/06/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.37 ± 0.920 (1.35)	pCi/L	10/07/21 15:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: DGWC-37 **Lab ID: 92561311004** Collected: 09/16/21 16:50 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0559 ± 0.115 (0.268) C:94% T:NA	pCi/L	10/19/21 08:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.635 ± 0.455 (0.891) C:73% T:86%	pCi/L	10/14/21 14:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.691 ± 0.570 (1.16)	pCi/L	10/20/21 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-39 Lab ID: 92561311005 Collected: 09/17/21 10:30 Received: 09/17/21 17:06 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.149 ± 0.141 (0.271) C:95% T:NA	pCi/L	10/19/21 08:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.762 ± 0.485 (0.922) C:76% T:83%	pCi/L	10/14/21 14:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.911 ± 0.626 (1.19)	pCi/L	10/20/21 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: DGWC-67 **Lab ID: 92561311006** Collected: 09/16/21 15:00 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.126 ± 0.135 (0.267) C:84% T:NA	pCi/L	10/19/21 08:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0750 ± 0.384 (0.877) C:75% T:78%	pCi/L	10/14/21 14:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.201 ± 0.519 (1.14)	pCi/L	10/20/21 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: DGWC-68A **Lab ID: 92561311007** Collected: 09/16/21 14:16 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	1.17 ± 0.327 (0.216) C:95% T:NA	pCi/L	10/19/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.568 ± 0.418 (0.820) C:77% T:86%	pCi/L	10/14/21 14:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.74 ± 0.745 (1.04)	pCi/L	10/20/21 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: DGWC-69 **Lab ID: 92561311008** Collected: 09/16/21 10:35 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.22 ± 0.332 (0.221) C:97% T:NA	pCi/L	10/19/21 09:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.839 ± 0.511 (0.971) C:77% T:81%	pCi/L	10/14/21 14:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.06 ± 0.843 (1.19)	pCi/L	10/20/21 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

Sample: DUP-6 **Lab ID: 92561311009** Collected: 09/16/21 00:00 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.902 ± 0.283 (0.220) C:92% T:NA	pCi/L	10/19/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.650 ± 0.443 (0.855) C:76% T:83%	pCi/L	10/14/21 14:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.55 ± 0.726 (1.08)	pCi/L	10/20/21 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

QC Batch: 467255

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561311004, 92561311005, 92561311006, 92561311007, 92561311008, 92561311009

METHOD BLANK: 2256295

Matrix: Water

Associated Lab Samples: 92561311004, 92561311005, 92561311006, 92561311007, 92561311008, 92561311009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.151 ± 0.301 (0.746) C:75% T:86%	pCi/L	10/14/21 11:15	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

QC Batch: 466957

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561311004, 92561311005, 92561311006, 92561311007, 92561311008, 92561311009

METHOD BLANK: 2255015

Matrix: Water

Associated Lab Samples: 92561311004, 92561311005, 92561311006, 92561311007, 92561311008, 92561311009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0260 ± 0.142 (0.353) C:102% T:NA	pCi/L	10/19/21 08:55	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

QC Batch: 465348

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561311001, 92561311002, 92561311003

METHOD BLANK: 2247079

Matrix: Water

Associated Lab Samples: 92561311001, 92561311002, 92561311003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.625 ± 0.317 (0.544) C:74% T:91%	pCi/L	10/06/21 11:18	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

QC Batch:	465350	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92561311001, 92561311002, 92561311003

METHOD BLANK: 2247083 Matrix: Water

Associated Lab Samples: 92561311001, 92561311002, 92561311003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0502 ± 0.146 (0.360) C:88% T:NA	pCi/L	10/07/21 08:30	

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

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QUALIFIERS

Project: MCDONOUGH AP-1 RADS

Pace Project No.: 92561311

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1 RADS
Pace Project No.: 92561311

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92561311001	DGWC-40	EPA 9315	465350		
92561311002	FB-4	EPA 9315	465350		
92561311003	DGWC-38	EPA 9315	465350		
92561311004	DGWC-37	EPA 9315	466957		
92561311005	DGWC-39	EPA 9315	466957		
92561311006	DGWC-67	EPA 9315	466957		
92561311007	DGWC-68A	EPA 9315	466957		
92561311008	DGWC-69	EPA 9315	466957		
92561311009	DUP-6	EPA 9315	466957		
92561311001	DGWC-40	EPA 9320	465348		
92561311002	FB-4	EPA 9320	465348		
92561311003	DGWC-38	EPA 9320	465348		
92561311004	DGWC-37	EPA 9320	467255		
92561311005	DGWC-39	EPA 9320	467255		
92561311006	DGWC-67	EPA 9320	467255		
92561311007	DGWC-68A	EPA 9320	467255		
92561311008	DGWC-69	EPA 9320	467255		
92561311009	DUP-6	EPA 9320	467255		
92561311001	DGWC-40	Total Radium Calculation	467218		
92561311002	FB-4	Total Radium Calculation	467218		
92561311003	DGWC-38	Total Radium Calculation	467224		
92561311004	DGWC-37	Total Radium Calculation	469112		
92561311005	DGWC-39	Total Radium Calculation	469112		
92561311006	DGWC-67	Total Radium Calculation	469112		
92561311007	DGWC-68A	Total Radium Calculation	469112		
92561311008	DGWC-69	Total Radium Calculation	469112		
92561311009	DUP-6	Total Radium Calculation	469112		

REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GPA Power

Project WO#: **92561303**

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____



Date/Initials Person Examining Contents: 11/15/21/keu

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 THRO SWAN Type of Ice: Wet Blue None

Cooler Temp: 2.4 Correction Factor: ±0 Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.4

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	<u>10 Day TAT</u>
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

Courier:
 Commercial Fed Ex UPS USPS Client
 Pace Other: _____

Custody Seal Present? Yes No **Seals Intact?** Yes No

Date/Initials Person Examining Contents: MT 9/16/20

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 214 **Type of Ice:** Wet Blue None

Yes No N/A

Cooler Temp: 3.2 **Correction Factor:** +0.1
 Add/Subtract (°C)

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.1

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?

Yes No

Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match CDC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	<u>WT</u>	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-093-Rev.07

Document Revised: October 28, 2020
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

G A Power

Project #:

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *9/17/20*
COF

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: *083* Type of ice: Wet Blue None

Cooler Temp: *2.0* Correction Factor: Add/Subtract (°C) *2.0*

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *2.0*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>W</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

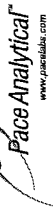
CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/1/2021
Worklist: 62852
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247079
MB concentration:	0.625
MB 2 Sigma CSU:	0.317
MB MDC:	0.544
MB Numerical Performance Indicator:	3.86
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date:	10/6/2021	LCSD62852	10/6/2021
Spike I.D.:	21-029		21-029
Decay Corrected Spike Concentration (pCi/mL):	37.949		37.949
Volume Used (mL):	0.20		0.20
Aliquot Volume (L, g, F):	0.809		0.809
Target Conc. (pCi/L, g, F):	9.350		9.379
Uncertainty (Calculated):	0.460		0.460
Result (pCi/L, g, F):	8.389		7.162
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.704		1.451
Numerical Performance Indicator:	-1.07		-2.86
Percent Recovery:	89.73%		76.36%
Status vs Numerical Indicator:	N/A		N/A
Status vs Recovery:	Pass		Pass
Upper % Recovery Limits:	135%		135%
Lower % Recovery Limits:	60%		60%

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCSD62852	
Duplicate Sample I.D.:	LCSD62852	
Sample Result (pCi/L, g, F):	6.389	
Sample Duplicate Result (pCi/L, g, F):	1.704	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.451	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.075	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.075	
Duplicate Numerical Performance Indicator:	16.10%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result: Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Initial MW

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 10/14/2021
Worklist: 63017
Matrix: DW

Method Blank Assessment	
MB Sample ID	2255015
MB concentration:	0.026
MIB Counting Uncertainty:	0.142
MB MDC:	0.353
MB Numerical Performance Indicator:	0.36
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?		Y
	LCS63017	LCS63017	
Count Date:	10/19/2021	10/19/2021	
Spike ID:	19-033	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033	
Volume Used (mL):	0.10	0.10	
Alliquot Volume (L, g, F):	0.503	0.502	
Target Conc. (pCi/L, g, F):	4.780	4.792	
Uncertainty (Calculated):	0.057	0.058	
Result (pCi/L, g, F):	5.814	5.134	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.601	0.572	
Numerical Performance Indicator:	3.36	1.17	
Percent Recovery:	121.64%	107.13%	
Status vs Numerical Indicator:	N/A	N/A	
Status vs Recovery:	Pass	Pass	
Upper % Recovery Limits:	125%	125%	
Lower % Recovery Limits:	75%	75%	

Duplicate Sample Assessment	LCS/D (Y or N)?		Y
	LCS63017	LCS63017	
Sample ID:	92561311006	92561311006DUP	
Duplicate Sample ID:	92561311006DUP	92561311006DUP	
Sample Result (pCi/L, g, F):	5.814	0.126	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.601	0.134	
Sample Duplicate Result (pCi/L, g, F):	5.134	0.107	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.572	0.111	
Are sample and/or duplicate results below RL?	NO	See Below #	
Duplicate Numerical Performance Indicator:	1.607	0.214	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.68%	16.30%	
Duplicate Status vs Numerical Indicator:	N/A	N/A	
Duplicate Status vs RPD:	Pass	Pass	
% RPD Limit:	25%	25%	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

10/19/2021

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MS Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

10/20/2021

Quality Control Sample Performance Assessment



Analyst *Must Manually Enter All Fields Highlighted in Yellow.*

Test: Ra-226
Analyst: CLA
Date: 9/30/2021
Worklist: 62853
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247083
MB concentration:	0.050
MB Counting Uncertainty:	0.146
MB MDC:	0.360
MB Numerical Performance Indicator:	0.67
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS62853	LCS062853
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Alliquot Volume (L, g, F):	0.505	0.519
Target Conc. (pCi/L, g, F):	4.761	4.633
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	4.725	4.672
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.695	0.664
Numerical Performance Indicator:	-0.10	0.11
Percent Recovery:	99.25%	100.82%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
Sample I.D.:	LCS62853	LCS062853
Duplicate Sample I.D.:	92560765020	92560765020DUP
Sample Result (pCi/L, g, F):	4.725	1.170
Sample Result Counting Uncertainty (pCi/L, g, F):	0.695	0.367
Sample Duplicate Result (pCi/L, g, F):	4.672	1.156
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.664	0.354
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	0.109	0.052
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	1.57%	1.15%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

OK
10/12/21
10/12/21

VAM 10/17/21

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/12/2021
Worklist: 63069
Matrix: WT



Method Blank Assessment	
MB Sample ID	2256295
MB concentration:	-0.151
M/B 2 Sigma CSU:	0.301
MB MDC:	0.746
MB Numerical Performance Indicator:	-0.98
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS2 (Y or N)?		Y
	LCS63069	LCS23069	
Count Date:	10/14/2021	10/14/2021	
Spike I.D.:	21-029	21-029	
Decay Corrected Spike Concentration (pCi/mL):	37.849	37.849	
Volume Used (mL):	0.10	0.10	
Aliquot Volume (L, g, F):	0.807	0.821	
Target Conc. (pCi/L, g, F):	4.691	4.612	
Uncertainty (Calculated):	0.230	0.226	
Result (pCi/L, g, F):	4.670	4.581	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.058	1.052	
Numerical Performance Indicator:	-0.04	-0.06	
Percent Recovery:	99.54%	99.33%	
Status vs Numerical Indicator:	N/A	N/A	
Status vs Recovery:	Pass	Pass	
Upper % Recovery Limits:	135%	135%	
Lower % Recovery Limits:	60%	60%	

Duplicate Sample Assessment	LCS63069	LCS23069
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.	
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):	4.670	
Sample Duplicate Result (pCi/L, g, F):	1.058	
Sample Result 2 Sigma CSU (pCi/L, g, F):	4.581	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.052	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.117	
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.21%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
Duplicate (Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature and date: 10/15/21

November 03, 2021

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

RE: Project: Plant McDonough AP-1-Revised Report
Pace Project No.: 92569178

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

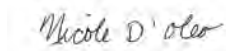
The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

Revision 1 - This revision was issued on 11/3/21 to update the reporting units to mg/L.

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Pace Analytical Services Charlotte

9800 Kincey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92569178001	DGWC-68A	Water	10/27/21 15:20	10/28/21 08:25
92569178002	DUP-1	Water	10/27/21 00:00	10/28/21 08:25
92569178003	FB-1	Water	10/27/21 15:38	10/28/21 08:25
92569178004	EB-1	Water	10/27/21 15:40	10/28/21 08:25

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92569178001	DGWC-68A	EPA 200.8	KH	4
92569178002	DUP-1	EPA 200.8	KH	4
92569178003	FB-1	EPA 200.8	KH	4
92569178004	EB-1	EPA 200.8	KH	4

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Sample: DGWC-68A		Lab ID: 92569178001		Collected: 10/27/21 15:20	Received: 10/28/21 08:25	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		10/28/21 09:50		
pH	6.56	Std. Units			1		10/28/21 09:50		
200.8 ATL ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Peachtree Corners, GA									
Arsenic	0.0016J	mg/L	0.0050	0.0011	1	11/01/21 10:10	11/01/21 21:31	7440-38-2	B
Barium	0.086	mg/L	0.0050	0.00067	1	11/01/21 10:10	11/01/21 21:31	7440-39-3	
Chromium	ND	mg/L	0.0050	0.0011	1	11/01/21 10:10	11/01/21 21:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	11/01/21 10:10	11/01/21 21:31	7440-48-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Sample: DUP-1 **Lab ID: 92569178002** Collected: 10/27/21 00:00 Received: 10/28/21 08:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
200.8 ATL ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Pace Analytical Services - Peachtree Corners, GA									
Arsenic	0.0021J	mg/L	0.0050	0.0011	1	11/01/21 10:10	11/01/21 21:37	7440-38-2	B
Barium	0.096	mg/L	0.0050	0.00067	1	11/01/21 10:10	11/01/21 21:37	7440-39-3	
Chromium	ND	mg/L	0.0050	0.0011	1	11/01/21 10:10	11/01/21 21:37	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	11/01/21 10:10	11/01/21 21:37	7440-48-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Sample: FB-1 **Lab ID: 92569178003** Collected: 10/27/21 15:38 Received: 10/28/21 08:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
200.8 ATL ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Pace Analytical Services - Peachtree Corners, GA									
Arsenic	0.0014J	mg/L	0.0050	0.0011	1	11/01/21 10:10	11/01/21 21:43	7440-38-2	B
Barium	ND	mg/L	0.0050	0.00067	1	11/01/21 10:10	11/01/21 21:43	7440-39-3	
Chromium	ND	mg/L	0.0050	0.0011	1	11/01/21 10:10	11/01/21 21:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	11/01/21 10:10	11/01/21 21:43	7440-48-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-1-Revised Report
Pace Project No.: 92569178

QC Batch: 656504 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92569178001, 92569178002, 92569178003, 92569178004

METHOD BLANK: 3441478 Matrix: Water
Associated Lab Samples: 92569178001, 92569178002, 92569178003, 92569178004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	0.0023J	0.0050	0.0011	11/01/21 19:02	
Barium	mg/L	ND	0.0050	0.00067	11/01/21 19:02	
Chromium	mg/L	ND	0.0050	0.0011	11/01/21 19:02	
Cobalt	mg/L	ND	0.0050	0.00039	11/01/21 19:02	

LABORATORY CONTROL SAMPLE: 3441479

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.11	105	85-115	
Barium	mg/L	0.1	0.10	103	85-115	
Chromium	mg/L	0.1	0.10	104	85-115	
Cobalt	mg/L	0.1	0.10	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3441480 3441481

Parameter	Units	92569142003		3441480		3441481		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	101	70-130	0	20		
Barium	mg/L	19.6 ug/L	0.1	0.1	0.13	0.13	108	109	70-130	1	20		
Chromium	mg/L	ND	0.1	0.1	0.11	0.11	106	108	70-130	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	107	107	70-130	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3441482 3441483

Parameter	Units	92569533003		3441482		3441483		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Arsenic	mg/L	ND	0.1	0.1	0.099	0.10	99	100	70-130	1	20		
Barium	mg/L	23.0 ug/L	0.1	0.1	0.13	0.13	110	105	70-130	4	20		
Chromium	mg/L	ND	0.1	0.1	0.11	0.11	106	105	70-130	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	102	104	70-130	2	20		

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-1-Revised Report

Pace Project No.: 92569178

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92569178001	DGWC-68A				
92569178001	DGWC-68A	EPA 200.8	656504	EPA 200.8	656575
92569178002	DUP-1	EPA 200.8	656504	EPA 200.8	656575
92569178003	FB-1	EPA 200.8	656504	EPA 200.8	656575
92569178004	EB-1	EPA 200.8	656504	EPA 200.8	656575

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

GPA Power

Project #

WO# : 92569178



Courier: Commercial Fed Ex Pace UPS USPS Other: Client

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 10/28/20 Kew

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: T4R2214 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 3.3 Correction Factor: Add/Subtract (°C) ±0

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

Comments/Discrepancy:

Chain of Custody Present?	Yes	No	N/A	1.
Chain of Custody Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. <u>10 Days</u>
Sufficient Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
-Pace Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Containers Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10.
Trip Blank Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.07

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

WO# : 92569178

PM: NMG

Due Date: 11/11/21

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

CLIENT: GA-GA Power

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
 Client Information: Georgia Power - Coal Combustion Residuals
 Address: 2480 Mariner Road, Atlanta, GA 30339
 Contact: j.abraham@epscor.com
 Phone: (404) 506-7238
 Fax: (404) 506-7238
 Project Due Date: 10 Day TAT

Section B
 Requested Project Information: Report To: Jody Abraham
 Copy To: Golder
 Purchase Order #: P10272021
 Project Name: Plant McDonough AP-1
 Project #: 18894521
 State / Location: GA

Section C
 Invoice Information: Attention: ecalm@epscor.com
 Company Name: EcoAnalytical
 Address: 10280 Peachtree Dunwoody Rd, Atlanta, GA 30338
 Phone: (404) 487-8800
 Fax: (404) 487-8801
 Project Manager: Kevin Herring
 Price Profile #: 10280

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS							Requested Analysis Finished (Y/N)	Residual Chlorine (Y/N)	pH				
							Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol				Other	Analysis Test		
1	DCWC-88A	WT	G	10/27/2021	15:20		1													
2	Dxp-1	WT	G	10/27/2021	-		1													
3	FB-1	WT	G	10/27/2021	15:38		1													
4	EB-1	WT	G	10/27/2021	15:40		1													

ADDITIONAL COMMENTS
 RELINQUISHED BY: Jody Abraham
 DATE: 10/28/21
 TIME: 08:25
 ACCEPTED BY: [Signature]
 DATE: 10/28/21
 TIME: 08:28

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

October 22, 2021

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

RE: Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 09, 2021 and September 10, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92560138001	DGWA-71	Water	09/08/21 14:40	09/09/21 08:45
92560138002	DGWA-53	Water	09/09/21 12:29	09/10/21 17:40
92560138003	DGWA-70A	Water	09/09/21 14:56	09/10/21 17:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92560138001	DGWA-71	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92560138002	DGWA-53	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92560138003	DGWA-70A	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

Sample: DGWA-71		Lab ID: 92560138001		Collected: 09/08/21 14:40		Received: 09/09/21 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/09/21 10:15		
pH	5.76	Std. Units			1		09/09/21 10:15		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	6.1	mg/L	1.0	0.12	1	09/11/21 09:00	09/13/21 16:43	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/11/21 09:00	09/14/21 19:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:08	7440-38-2	
Barium	0.025	mg/L	0.0050	0.00067	1	09/11/21 09:00	09/14/21 19:08	7440-39-3	
Beryllium	0.000091J	mg/L	0.00050	0.000054	1	09/11/21 09:00	09/14/21 19:08	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/11/21 09:00	09/14/21 19:08	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/21 09:00	09/14/21 19:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/21 09:00	09/14/21 19:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/11/21 09:00	09/14/21 19:08	7439-92-1	
Lithium	0.0013J	mg/L	0.030	0.00073	1	09/11/21 09:00	09/14/21 19:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/21 09:00	09/14/21 19:08	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/21 09:00	09/14/21 19:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/21 09:00	09/14/21 19:08	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.000096J	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 12:09	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	75.0	mg/L	10.0	10.0	1		09/15/21 18:56		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.9	mg/L	1.0	0.60	1		09/14/21 18:43	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/14/21 18:43	16984-48-8	
Sulfate	6.1	mg/L	1.0	0.50	1		09/14/21 18:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

Sample: DGWA-53 Lab ID: 92560138002 Collected: 09/09/21 12:29 Received: 09/10/21 17:40 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/13/21 08:32		
pH	6.41	Std. Units			1		09/13/21 08:32		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	18.3	mg/L	1.0	0.12	1	09/17/21 11:09	09/17/21 18:31	7440-70-2	M1
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/17/21 11:11	09/17/21 15:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/17/21 11:11	09/17/21 15:49	7440-38-2	
Barium	0.099	mg/L	0.0050	0.00067	1	09/17/21 11:11	09/17/21 15:49	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/17/21 11:11	09/17/21 15:49	7440-41-7	
Boron	0.065	mg/L	0.040	0.0086	1	09/17/21 11:11	09/17/21 15:49	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/17/21 11:11	09/17/21 15:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/17/21 11:11	09/17/21 15:49	7440-47-3	
Cobalt	0.0064	mg/L	0.0050	0.00039	1	09/17/21 11:11	09/17/21 15:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/17/21 11:11	09/17/21 15:49	7439-92-1	
Lithium	0.0091J	mg/L	0.030	0.00073	1	09/17/21 11:11	09/17/21 15:49	7439-93-2	
Molybdenum	0.025	mg/L	0.010	0.00074	1	09/17/21 11:11	09/17/21 15:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/17/21 11:11	09/17/21 15:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/17/21 11:11	09/17/21 15:49	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 12:17	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	131	mg/L	10.0	10.0	1		09/15/21 18:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.8	mg/L	1.0	0.60	1		09/15/21 05:52	16887-00-6	
Fluoride	0.099J	mg/L	0.10	0.050	1		09/15/21 05:52	16984-48-8	
Sulfate	11.9	mg/L	1.0	0.50	1		09/15/21 05:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

Sample: DGWA-70A		Lab ID: 92560138003		Collected: 09/09/21 14:56		Received: 09/10/21 17:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/13/21 08:33		
pH	5.50	Std. Units			1		09/13/21 08:33		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	5.3	mg/L	1.0	0.12	1	09/17/21 11:09	09/17/21 19:00	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0015J	mg/L	0.0030	0.00078	1	09/17/21 11:11	09/17/21 16:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/17/21 11:11	09/17/21 16:11	7440-38-2	
Barium	0.038	mg/L	0.0050	0.00067	1	09/17/21 11:11	09/17/21 16:11	7440-39-3	
Beryllium	0.000089J	mg/L	0.00050	0.000054	1	09/17/21 11:11	09/17/21 16:11	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/17/21 11:11	09/17/21 16:11	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/17/21 11:11	09/17/21 16:11	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/17/21 11:11	09/17/21 16:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/17/21 11:11	09/17/21 16:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/17/21 11:11	09/17/21 16:11	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/17/21 11:11	09/17/21 16:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/17/21 11:11	09/17/21 16:11	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/17/21 11:11	09/17/21 16:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/17/21 11:11	09/17/21 16:11	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/24/21 09:45	09/27/21 15:38	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	53.0	mg/L	10.0	10.0	1		09/15/21 18:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		09/15/21 06:07	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/15/21 06:07	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/15/21 06:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 646610	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560138001

METHOD BLANK: 3391819 Matrix: Water
Associated Lab Samples: 92560138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/21 14:48	

LABORATORY CONTROL SAMPLE: 3391820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391821 3391822

Parameter	Units	92558259010		3391821		3391822		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.					
Calcium	mg/L	1.4	1	1	1	2.5	2.5	106	109	75-125	1	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 648035 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92560138002, 92560138003

METHOD BLANK: 3398813 Matrix: Water
Associated Lab Samples: 92560138002, 92560138003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/17/21 18:21	

LABORATORY CONTROL SAMPLE: 3398814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398815 3398816

Parameter	Units	3398815		3398816		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	18.3	1	1	18.8	19.3	57	102	75-125	2	20 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 646612 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560138001

METHOD BLANK: 3391827 Matrix: Water
Associated Lab Samples: 92560138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/14/21 17:25	
Arsenic	mg/L	ND	0.0050	0.0011	09/14/21 17:25	
Barium	mg/L	ND	0.0050	0.00067	09/14/21 17:25	
Beryllium	mg/L	ND	0.00050	0.000054	09/14/21 17:25	
Boron	mg/L	ND	0.040	0.0086	09/14/21 17:25	
Cadmium	mg/L	ND	0.00050	0.00011	09/14/21 17:25	
Chromium	mg/L	ND	0.0050	0.0011	09/14/21 17:25	
Cobalt	mg/L	ND	0.0050	0.00039	09/14/21 17:25	
Lead	mg/L	ND	0.0010	0.00089	09/14/21 17:25	
Lithium	mg/L	ND	0.030	0.00073	09/14/21 17:25	
Molybdenum	mg/L	ND	0.010	0.00074	09/14/21 17:25	
Selenium	mg/L	ND	0.0050	0.0014	09/14/21 17:25	
Thallium	mg/L	ND	0.0010	0.00018	09/14/21 17:25	

LABORATORY CONTROL SAMPLE: 3391828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.094	94	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391829 3391830

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92559417001	Result	Conc.	Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

Parameter	Units	3391829		3391830		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92559417001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Barium	mg/L	0.028	0.1	0.1	0.13	0.13	98	99	75-125	0	20	
Beryllium	mg/L	0.00016J	0.1	0.1	0.097	0.099	97	98	75-125	2	20	
Boron	mg/L	1.2	1	1	2.3	2.5	92	116	75-125	10	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Lithium	mg/L	0.0014J	0.1	0.1	0.099	0.10	98	102	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	1	20	
Selenium	mg/L	0.021	0.1	0.1	0.12	0.12	100	101	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 648036 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560138002, 92560138003

METHOD BLANK: 3398822 Matrix: Water
Associated Lab Samples: 92560138002, 92560138003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/17/21 15:37	
Arsenic	mg/L	ND	0.0050	0.0011	09/17/21 15:37	
Barium	mg/L	ND	0.0050	0.00067	09/17/21 15:37	
Beryllium	mg/L	ND	0.00050	0.000054	09/17/21 15:37	
Boron	mg/L	ND	0.040	0.0086	09/17/21 15:37	
Cadmium	mg/L	ND	0.00050	0.00011	09/17/21 15:37	
Chromium	mg/L	ND	0.0050	0.0011	09/17/21 15:37	
Cobalt	mg/L	ND	0.0050	0.00039	09/17/21 15:37	
Lead	mg/L	ND	0.0010	0.00089	09/17/21 15:37	
Lithium	mg/L	ND	0.030	0.00073	09/17/21 15:37	
Molybdenum	mg/L	ND	0.010	0.00074	09/17/21 15:37	
Selenium	mg/L	ND	0.0050	0.0014	09/17/21 15:37	
Thallium	mg/L	ND	0.0010	0.00018	09/17/21 15:37	

LABORATORY CONTROL SAMPLE: 3398823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.096	96	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398824 3398825

Parameter	Units	92560138002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	2	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

Parameter	Units	3398824		3398825		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92560138002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.099	0.1	0.1	0.21	0.20	114	102	75-125	6	20		
Beryllium	mg/L	ND	0.1	0.1	0.091	0.096	91	96	75-125	5	20		
Boron	mg/L	0.065	1	1	0.97	1.0	91	97	75-125	6	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	3	20		
Cobalt	mg/L	0.0064	0.1	0.1	0.11	0.10	105	98	75-125	7	20		
Lead	mg/L	ND	0.1	0.1	0.099	0.099	99	98	75-125	0	20		
Lithium	mg/L	0.0091J	0.1	0.1	0.10	0.11	94	99	75-125	5	20		
Molybdenum	mg/L	0.025	0.1	0.1	0.13	0.12	101	99	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.093	0.095	92	95	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

QC Batch: 648337

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560138001, 92560138002

METHOD BLANK: 3400307

Matrix: Water

Associated Lab Samples: 92560138001, 92560138002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/21/21 12:04	

LABORATORY CONTROL SAMPLE: 3400308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400309 3400310

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result	% Rec	Result	% Rec	Result				
Mercury	mg/L	ND	0.0025	0.0025	0.0026	0.0024	103	96	75-125	7	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 649458	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
Associated Lab Samples: 92560138003	Laboratory: Pace Analytical Services - Peachtree Corners, GA

METHOD BLANK: 3406292 Matrix: Water
Associated Lab Samples: 92560138003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/27/21 15:32	

LABORATORY CONTROL SAMPLE: 3406293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0028	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406294 3406295

Parameter	Units	3406294		3406295		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560138003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0027	0.0027	108	105	75-125	3	20

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 647027 Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92560138001, 92560138002, 92560138003

METHOD BLANK: 3393790 Matrix: Water
Associated Lab Samples: 92560138001, 92560138002, 92560138003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/15/21 18:56	

LABORATORY CONTROL SAMPLE: 3393791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	90-111	

SAMPLE DUPLICATE: 3393792

Parameter	Units	92560138001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	75.0	78.0	4	10	

SAMPLE DUPLICATE: 3393793

Parameter	Units	92560281005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	139	4	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 646605 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92560138001

METHOD BLANK: 3391813 Matrix: Water
Associated Lab Samples: 92560138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/13/21 00:59	
Fluoride	mg/L	ND	0.10	0.050	09/13/21 00:59	
Sulfate	mg/L	ND	1.0	0.50	09/13/21 00:59	

LABORATORY CONTROL SAMPLE: 3391814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.8	96	90-110	
Fluoride	mg/L	2.5	2.4	98	90-110	
Sulfate	mg/L	50	49.2	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391815 3391816

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560365001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	8.8	50	50	50	60.2	60.8	103	104	90-110	1	10	
Fluoride	mg/L	0.12	2.5	2.5	2.5	2.7	2.8	104	105	90-110	1	10	
Sulfate	mg/L	11.1	50	50	50	63.3	63.9	104	106	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391817 3391818

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560722009 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	186	50	50	50	233	234	94	96	90-110	0	10	
Fluoride	mg/L	0.24	2.5	2.5	2.5	2.9	2.9	107	108	90-110	1	10	
Sulfate	mg/L	168	50	50	50	189	190	41	43	90-110	1	10 M1	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

QC Batch: 647162 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92560138002, 92560138003

METHOD BLANK: 3394748 Matrix: Water
Associated Lab Samples: 92560138002, 92560138003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/14/21 22:53	
Fluoride	mg/L	ND	0.10	0.050	09/14/21 22:53	
Sulfate	mg/L	ND	1.0	0.50	09/14/21 22:53	

LABORATORY CONTROL SAMPLE: 3394749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.4	101	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394750 3394751

Parameter	Units	92560938001		3394750		3394751		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Chloride	mg/L	3.0	50	50	58.4	61.9	111	118	90-110	6	10 M1
Fluoride	mg/L	0.091J	2.5	2.5	3.4	3.5	131	134	90-110	2	10 M1
Sulfate	mg/L	33.4	50	50	88.5	91.8	110	117	90-110	4	10 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394752 3394753

Parameter	Units	92560676003		3394752		3394753		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Chloride	mg/L	146	50	50	196	198	99	105	90-110	1	10
Fluoride	mg/L	0.29	2.5	2.5	4.9	4.8	184	179	90-110	2	10 M1
Sulfate	mg/L	140	50	50	193	195	105	109	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394754 3394755

Parameter	Units	92560676001		3394754		3394755		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Chloride	mg/L	4.9	50	50	62.8	64.2	116	119	90-110	2	10 M1
Fluoride	mg/L	0.40	2.5	2.5	3.5	3.6	124	127	90-110	2	10 M1
Sulfate	mg/L	3.8	50	50	62.4	63.7	117	120	90-110	2	10 M1

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QUALIFIERS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92560138

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92560138

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560138001	DGWA-71				
92560138002	DGWA-53				
92560138003	DGWA-70A				
92560138001	DGWA-71	EPA 3010A	646610	EPA 6010D	646635
92560138002	DGWA-53	EPA 3010A	648035	EPA 6010D	648116
92560138003	DGWA-70A	EPA 3010A	648035	EPA 6010D	648116
92560138001	DGWA-71	EPA 3005A	646612	EPA 6020B	646637
92560138002	DGWA-53	EPA 3005A	648036	EPA 6020B	648158
92560138003	DGWA-70A	EPA 3005A	648036	EPA 6020B	648158
92560138001	DGWA-71	EPA 7470A	648337	EPA 7470A	648433
92560138002	DGWA-53	EPA 7470A	648337	EPA 7470A	648433
92560138003	DGWA-70A	EPA 7470A	649458	EPA 7470A	649537
92560138001	DGWA-71	SM 2540C-2011	647027		
92560138002	DGWA-53	SM 2540C-2011	647027		
92560138003	DGWA-70A	SM 2540C-2011	647027		
92560138001	DGWA-71	EPA 300.0 Rev 2.1 1993	646605		
92560138002	DGWA-53	EPA 300.0 Rev 2.1 1993	647162		
92560138003	DGWA-70A	EPA 300.0 Rev 2.1 1993	647162		


REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt	Client Name: <u>GA Power</u>	Project #:	WO# : 92560138
	Courier: <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> Other:		

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/9/21
 Biological Tissue Frozen? Yes No N/A LOV

Packing Material: Bubble Wrap Bubble Bags None Other
 Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 2.6 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.5

USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY _____ Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

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

Project #

WO# : 92560138

PM: NMG

Due Date: 09/23/21

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

CLIENT: GR-GA Power

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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11	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

pH Adjustment Log for Preserved Samples

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

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

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt	Client Name: <u>Georgia Power</u>	Project #: <div style="border: 1px solid black; width: 150px; height: 40px;"></div>
-------------------------------	-----------------------------------	---

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 9/10/21

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 230 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 3.4 Correction Factor: Add/Subtract (°C) ± 0.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	<u>WT</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

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

Project #

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		✓	✓			✓																							
2		✓	✓			✓																							
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12																													

pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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

October 22, 2021

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

RE: Project: MCDONOUGH UPGRADIENT RADS
Pace Project No.: 92560136

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 09, 2021 and September 10, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92560136001	DGWA-71	Water	09/08/21 14:40	09/09/21 08:45
92560136002	DGWA-53	Water	09/09/21 12:29	09/10/21 17:40
92560136003	DGWA-70A	Water	09/09/21 14:56	09/10/21 17:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92560136001	DGWA-71	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92560136002	DGWA-53	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92560136003	DGWA-70A	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Sample: DGWA-71 **Lab ID: 92560136001** Collected: 09/08/21 14:40 Received: 09/09/21 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0510 ± 0.152 (0.378) C:99% T:NA	pCi/L	10/06/21 12:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.185 ± 0.324 (0.789) C:67% T:102%	pCi/L	10/04/21 15:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.0510 ± 0.476 (1.17)	pCi/L	10/07/21 15:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Sample: DGWA-53 **Lab ID: 92560136002** Collected: 09/09/21 12:29 Received: 09/10/21 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.42 ± 0.444 (0.373) C:94% T:NA	pCi/L	10/06/21 08:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.30 ± 0.523 (0.809) C:66% T:86%	pCi/L	10/04/21 14:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.72 ± 0.967 (1.18)	pCi/L	10/06/21 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Sample: DGWA-70A **Lab ID: 92560136003** Collected: 09/09/21 14:56 Received: 09/10/21 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	-0.0648 ± 0.150 (0.456) C:97% T:NA	pCi/L	10/06/21 08:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.779 ± 0.425 (0.759) C:67% T:90%	pCi/L	10/04/21 14:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.779 ± 0.575 (1.22)	pCi/L	10/06/21 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

QC Batch: 465345

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560136001

METHOD BLANK: 2247073

Matrix: Water

Associated Lab Samples: 92560136001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.306 ± 0.283 (0.572) C:72% T:95%	pCi/L	10/04/21 11:58	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

QC Batch: 465347

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560136001

METHOD BLANK: 2247077

Matrix: Water

Associated Lab Samples: 92560136001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0279 ± 0.217 (0.589) C:92% T:NA	pCi/L	10/06/21 12:00	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

QC Batch: 465343

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560136002, 92560136003

METHOD BLANK: 2247069

Matrix: Water

Associated Lab Samples: 92560136002, 92560136003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.209 ± 0.287 (0.612) C:69% T:89%	pCi/L	10/04/21 11:58	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

QC Batch: 465344

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560136002, 92560136003

METHOD BLANK: 2247072

Matrix: Water

Associated Lab Samples: 92560136002, 92560136003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00717 ± 0.168 (0.443) C:96% T:NA	pCi/L	10/06/21 08:19	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92560136

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560136001	DGWA-71	EPA 9315	465347		
92560136002	DGWA-53	EPA 9315	465344		
92560136003	DGWA-70A	EPA 9315	465344		
92560136001	DGWA-71	EPA 9320	465345		
92560136002	DGWA-53	EPA 9320	465343		
92560136003	DGWA-70A	EPA 9320	465343		
92560136001	DGWA-71	Total Radium Calculation	467213		
92560136002	DGWA-53	Total Radium Calculation	467011		
92560136003	DGWA-70A	Total Radium Calculation	467011		

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project **WO# : 92560136**

Courier: Commercial Fed Ex Pace UPS USPS Other: Client



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/9/21 LOJ

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 2.6 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.5

USDA Regulated Soil (N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.07

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

WO# : 92560136

PM: NMG

Due Date: 09/30/21

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

CLIENT: GA-GA Power

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGfU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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12																													

pH Adjustment Log for Preserved Samples

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

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

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt	Client Name: <u>Georgia Power</u>	Project #: <div style="border: 1px solid black; width: 150px; height: 40px;"></div>
-------------------------------	-----------------------------------	---

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 9/10/21

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 230 Type of Ice: Wet Blue None

Cooler Temp: 3.4 Correction Factor: Add/Subtract (°C) ± 0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No
 Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix:	<u>WT</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

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

Project #

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		✓	✓			✓																							
2		✓	✓			✓																							
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pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately

Section A Required Client Information: Georgia Power - Coal Combustion Residuals
 Company: 2480 Meiner Road
 Address: Atlanta, GA 30339
 Email: jbraham@southenco.com
 Phone: (404) 506-7239
 Fax: (404) 506-7239
 Requested Due Date: 10 Day TAT

Section B Requested Project Information: Report To: Joui Abraham
 Copy To: Golder
 Purchase Order #: Plant McDonough Upgradient Wells
 Project Name: Project # 166949621

Section C Invoice Information: Attention: scservices@southenco.com
 Company Name: Pace Project Manager
 Address: Kevin Herring
 Pace Quote
 Pace Profile #

Regulatory Agency: GA
 State / Location: GA

ITEM #	MATRIX	CODE	DATE	TIME	# OF CONTAINER	Preservatives							Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
						H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other						
3	DGWA-53	WT	9/9/2021	12:29	5	2	3											
5	DGWA-70A	WT	9/9/2021	14:56	5	2	3											
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

ADDITIONAL COMMENTS: REMUNISHED BY / AFFILIATION: JWA / SouthCo
 DATE: 9/10/21
 TIME: 1:40
 ACCEPTED BY / AFFILIATION: Kevin Herring
 DATE: 9/10/21
 TIME: 1:40
 DATE Signed: 9/10/21

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-226
Analyst: CLA
Date: 9/28/2021
Worklist: 62851
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247077
MB concentration:	-0.028
M/B Counting Uncertainty:	0.217
MB MDC:	0.589
MB Numerical Performance Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	Y	N
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.508
Target Conc. (pCi/L, g, F):	4.792	4.734
Uncertainty (Calculated):	0.058	0.057
Result (pCi/L, g, F):	4.037	4.418
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.623	0.646
Numerical Performance Indicator:	-2.37	-0.95
Percent Recovery:	84.25%	93.33%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	Sample I.D.:	92560765014	92560765014DUP
Duplicate Sample I.D.:	LCS62851	LCS62851	LCS62851
Duplicate Result (pCi/L, g, F):	4.037	4.037	4.037
Sample Result Counting Uncertainty (pCi/L, g, F):	0.623	0.623	0.623
Sample Duplicate Result (pCi/L, g, F):	4.418	4.418	4.418
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.646	0.646	0.646
Are sample and/or duplicate results below RL?	NO	NO	NO
Duplicate Numerical Performance Indicator:	-0.832	-0.832	-0.832
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	10.22%	10.22%	10.22%
Duplicate Status vs Numerical Indicator:	N/A	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass	Pass
% RPD Limit:	25%	25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

L/MDCs N/A

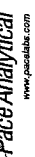
10/7/21
DW

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MS Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result:</p> <p>Sample Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Result:</p> <p>Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator:</p> <p>MSD Numerical Performance Indicator:</p> <p>MS Percent Recovery:</p> <p>MSD Percent Recovery:</p> <p>MS Status vs Numerical Indicator:</p> <p>MSD Status vs Numerical Indicator:</p> <p>MS Status vs Recovery:</p> <p>MSD Status vs Recovery:</p> <p>MS/MSD Upper % Recovery Limits:</p> <p>MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Sample Matrix Spike Result:</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>Duplicate Numerical Performance Indicator:</p> <p>(Based on the Percent Recoveries) MS/MSD Duplicate RPD:</p> <p>MS/MSD Duplicate Status vs Numerical Indicator:</p> <p>MS/MSD Duplicate Status vs RPD:</p> <p>% RPD Limit:</p>

10/17/21

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JC2
Date: 10/1/2021
Worklist: 62848
Matrix: WT

Method Blank Assessment

MB Sample ID: 2247069
MB concentration: 0.209
MB 2 Sigma CSU: 0.287
MB MDC: 0.612
MB Numerical Performance Indicator: 1.43
MB Status vs Numerical Indicator: Pass
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date:	LCS/2	Y or N?	Y
10/4/2021	LCS62848		
21-029	21-029		
37-973	37-973		
0.10	0.10		
0.807	0.807		
4.703	4.703		
0.230	0.230		
3.772	4.931		
0.892	1.094		
-1.98	0.45		
80.20%	105.45%		
Pass	N/A		
135%	Pass		
60%	60%		

Decay Corrected Spike Concentration (pCi/mL):
Volume Used (mL):
Aliquot Volume (L, g, F):
Target Conc. (pCi/L, g, F):
Uncertainty (Calculated):
Result (pCi/L, g, F):
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):
Numerical Performance Indicator:
Percent Recovery:
Status vs Numerical Indicator:
Upper % Recovery Limits:
Lower % Recovery Limits:

Duplicate Sample Assessment

Sample I.D.:
Duplicate Sample I.D.:
Sample Result (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):
Sample Result 2 Sigma CSU (pCi/L, g, F):
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Are sample and/or duplicate results below RL?
Duplicate Numerical Performance Indicator:
Duplicate (Percent Recoveries) Duplicate RPD:
Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:
% RPD Limit:

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
MS Spike Uncertainty (calculated):
MSD Spike Uncertainty (calculated):
Sample Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:
MS/MSD Upper % Recovery Limits:
MS/MSD Lower % Recovery Limits:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
Duplicate (Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

10521

10/1/21

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/1/2021
Worklist: 62850
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247073
MB concentration:	0.306
MB 2 Sigma CSU:	0.283
MB MDC:	0.572
MB Numerical Performance Indicator:	2.12
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS62850	YCS62850
Count Date:	10/4/2021	10/4/2021
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.973	37.973
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.816
Target Conc. (pCi/L, g, F):	4.716	4.653
Uncertainty (Calculated):	0.231	0.228
Result (pCi/L, g, F):	5.361	4.280
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.173	0.992
Numerical Performance Indicator:	113.68%	-0.72
Percent Recovery:	N/A	91.98%
Status vs Numerical Indicator:	Pass	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS62850
Duplicate Sample I.D.:	LCS62850
Sample Result (pCi/L, g, F):	5.361
Sample Duplicate Result (pCi/L, g, F):	1.173
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.280
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.992
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	1.380
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.11%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

10/5/21

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Relatio
CMM*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/28/2021
Worklist: 62849
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247072
MB concentration:	0.007
M/B Counting Uncertainty:	0.168
MB MDC:	0.443
MB Numerical Performance Indicator:	0.08
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

LCS/D (Y or N)?	LCS/D (Y or N)?	
	LCS62849	LCS62849
Count Date:	10/6/2021	10/6/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Alliquot Volume (L, g, F):	0.502	0.502
Target Conc. (pCi/L, g, F):	4.779	4.791
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.249	5.218
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.691	0.720
Numerical Performance Indicator:	1.33	1.16
Percent Recovery:	109.83%	108.93%
Status vs Numerical Indicator:	Pass	N/A
Upper % Recovery Limits:	125%	Pass
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	92560766017
Duplicate Sample I.D.:	92560766017DUP
Sample Result (pCi/L, g, F):	0.383
Sample Duplicate Result (pCi/L, g, F):	0.227
Sample Result Counting Uncertainty (pCi/L, g, F):	0.691
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.174
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.199
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.060
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.82%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch cannot be re-prepped due to unacceptable precision. N/A

10/10/21
SAM 12/10/21

10/10/21
SAM 12/10/21

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D.</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):</p> <p>Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D. Sample MS I.D. Sample MSD I.D.</p> <p>Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:</p>

September 28, 2021

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

RE: Project: MCDONOUGH
Pace Project No.: 92561195

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 10, 2021 and September 14, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH

Pace Project No.: 92561195

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001

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SAMPLE SUMMARY

Project: MCDONOUGH

Pace Project No.: 92561195

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92561195001	B-100	Water	09/13/21 16:55	09/14/21 09:35
92560768001	B-62	Water	09/09/21 15:45	09/10/21 17:40

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH

Pace Project No.: 92561195

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92561195001	B-100	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92560768001	B-62	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH
Pace Project No.: 92561195

Sample: B-100		Lab ID: 92561195001		Collected: 09/13/21 16:55		Received: 09/14/21 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/14/21 16:42		
pH	5.27	Std. Units			1		09/14/21 16:42		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	51.5	mg/L	1.0	0.12	1	09/23/21 10:02	09/23/21 19:51	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/21/21 12:35	09/22/21 19:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/21/21 12:35	09/22/21 19:34	7440-38-2	
Barium	0.021	mg/L	0.0050	0.00067	1	09/21/21 12:35	09/22/21 19:34	7440-39-3	
Beryllium	0.00053	mg/L	0.00050	0.000054	1	09/21/21 12:35	09/22/21 19:34	7440-41-7	
Boron	0.24	mg/L	0.040	0.0086	1	09/21/21 12:35	09/22/21 19:34	7440-42-8	
Cadmium	0.00029J	mg/L	0.00050	0.00011	1	09/21/21 12:35	09/22/21 19:34	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/21/21 12:35	09/22/21 19:34	7440-47-3	
Cobalt	0.035	mg/L	0.0050	0.00039	1	09/21/21 12:35	09/22/21 19:34	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/21/21 12:35	09/22/21 19:34	7439-92-1	
Lithium	0.0022J	mg/L	0.030	0.00073	1	09/21/21 12:35	09/22/21 19:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/21/21 12:35	09/22/21 19:34	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/21/21 12:35	09/22/21 19:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/21/21 12:35	09/22/21 19:34	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/24/21 09:45	09/27/21 17:42	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	636	mg/L	20.0	20.0	1		09/20/21 16:36		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	11.1	mg/L	1.0	0.60	1		09/15/21 21:55	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/15/21 21:55	16984-48-8	
Sulfate	351	mg/L	8.0	4.0	8		09/16/21 03:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH
Pace Project No.: 92561195

Sample: B-62		Lab ID: 92560768001		Collected: 09/09/21 15:45		Received: 09/10/21 17:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/13/21 08:41		
pH	6.31	Std. Units			1		09/13/21 08:41		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	29.2	mg/L	1.0	0.12	1	09/20/21 09:45	09/20/21 17:33	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/20/21 09:45	09/22/21 11:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/20/21 09:45	09/22/21 11:15	7440-38-2	
Barium	0.021	mg/L	0.0050	0.00067	1	09/20/21 09:45	09/22/21 11:15	7440-39-3	
Beryllium	0.00014J	mg/L	0.00050	0.000054	1	09/20/21 09:45	09/22/21 11:15	7440-41-7	
Boron	0.068	mg/L	0.040	0.0086	1	09/20/21 09:45	09/22/21 11:15	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/20/21 09:45	09/22/21 11:15	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/20/21 09:45	09/22/21 11:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/20/21 09:45	09/22/21 11:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/20/21 09:45	09/22/21 11:15	7439-92-1	
Lithium	0.0094J	mg/L	0.030	0.00073	1	09/20/21 09:45	09/22/21 11:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/20/21 09:45	09/22/21 11:15	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/20/21 09:45	09/22/21 11:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/20/21 09:45	09/22/21 11:15	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 12:20	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	174	mg/L	10.0	10.0	1		09/15/21 18:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.8	mg/L	1.0	0.60	1		09/15/21 06:38	16887-00-6	
Fluoride	0.14	mg/L	0.10	0.050	1		09/15/21 06:38	16984-48-8	
Sulfate	49.2	mg/L	1.0	0.50	1		09/15/21 06:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH

Pace Project No.: 92561195

QC Batch: 648325

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560768001

METHOD BLANK: 3400203

Matrix: Water

Associated Lab Samples: 92560768001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/20/21 17:23	

LABORATORY CONTROL SAMPLE: 3400204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400205 3400206

Parameter	Units	3400205		3400206		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560774001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	42.0	1	1	44.1	42.4	202	31	75-125	4	20 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 648974	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561195001

METHOD BLANK: 3403796 Matrix: Water

Associated Lab Samples: 92561195001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/23/21 17:54	

LABORATORY CONTROL SAMPLE: 3403797

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3403798 3403799

Parameter	Units	92560768003		3403798		3403799		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	42.1		1	1	41.6	40.7	-42	-139	75-125	2	20	M1

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 648326 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560768001

METHOD BLANK: 3400210 Matrix: Water
Associated Lab Samples: 92560768001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/22/21 11:04	
Arsenic	mg/L	ND	0.0050	0.0011	09/22/21 11:04	
Barium	mg/L	ND	0.0050	0.00067	09/22/21 11:04	
Beryllium	mg/L	ND	0.00050	0.000054	09/22/21 11:04	
Boron	mg/L	ND	0.040	0.0086	09/22/21 11:04	
Cadmium	mg/L	ND	0.00050	0.00011	09/22/21 11:04	
Chromium	mg/L	ND	0.0050	0.0011	09/22/21 11:04	
Cobalt	mg/L	ND	0.0050	0.00039	09/22/21 11:04	
Lead	mg/L	ND	0.0010	0.00089	09/22/21 11:04	
Lithium	mg/L	ND	0.030	0.00073	09/22/21 11:04	
Molybdenum	mg/L	ND	0.010	0.00074	09/22/21 11:04	
Selenium	mg/L	ND	0.0050	0.0014	09/22/21 11:04	
Thallium	mg/L	ND	0.0010	0.00018	09/22/21 11:04	

LABORATORY CONTROL SAMPLE: 3400211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.11	106	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Boron	mg/L	1	1.1	113	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	108	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400212 3400213

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560774001	Result	Conc.	Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	105	105	75-125	0	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	102	105	75-125	3	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH

Pace Project No.: 92561195

Parameter	Units	3400212		3400213		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560774001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.022	0.1	0.1	0.13	0.13	104	103	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20		
Boron	mg/L	0.51	1	1	1.6	1.6	110	109	75-125	1	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20		
Cobalt	mg/L	0.0048J	0.1	0.1	0.11	0.11	101	102	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	1	20		
Lithium	mg/L	0.024J	0.1	0.1	0.12	0.12	99	99	75-125	0	20		
Molybdenum	mg/L	0.0023J	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Selenium	mg/L	0.0031J	0.1	0.1	0.11	0.11	104	106	75-125	2	20		
Thallium	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 648523 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561195001

METHOD BLANK: 3401252 Matrix: Water
Associated Lab Samples: 92561195001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/22/21 18:13	
Arsenic	mg/L	ND	0.0050	0.0011	09/22/21 18:13	
Barium	mg/L	ND	0.0050	0.00067	09/22/21 18:13	
Beryllium	mg/L	ND	0.00050	0.000054	09/22/21 18:13	
Boron	mg/L	ND	0.040	0.0086	09/22/21 18:13	
Cadmium	mg/L	ND	0.00050	0.00011	09/22/21 18:13	
Chromium	mg/L	ND	0.0050	0.0011	09/22/21 18:13	
Cobalt	mg/L	ND	0.0050	0.00039	09/22/21 18:13	
Lead	mg/L	ND	0.0010	0.00089	09/22/21 18:13	
Lithium	mg/L	ND	0.030	0.00073	09/22/21 18:13	
Molybdenum	mg/L	ND	0.010	0.00074	09/22/21 18:13	
Selenium	mg/L	ND	0.0050	0.0014	09/22/21 18:13	
Thallium	mg/L	ND	0.0010	0.00018	09/22/21 18:13	

LABORATORY CONTROL SAMPLE: 3401253

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.11	109	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.11	109	80-120	
Cobalt	mg/L	0.1	0.11	108	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.095	95	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3401254 3401255

Parameter	Units	92560774020 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	107	75-125	1	20	
Arsenic	mg/L	0.0016J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH

Pace Project No.: 92561195

Parameter	Units	3401254		3401255		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92560774020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.021	0.1	0.1	0.13	0.13	113	113	75-125	0	20		
Beryllium	mg/L	0.0090	0.1	0.1	0.10	0.10	92	94	75-125	2	20		
Boron	mg/L	0.16	1	1	1.2	1.2	99	102	75-125	3	20		
Cadmium	mg/L	0.0014	0.1	0.1	0.10	0.10	101	100	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.11	0.11	109	109	75-125	0	20		
Cobalt	mg/L	0.23	0.1	0.1	0.34	0.32	107	94	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Lithium	mg/L	0.053	0.1	0.1	0.15	0.14	95	90	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	103	105	75-125	2	20		
Selenium	mg/L	0.0035J	0.1	0.1	0.10	0.10	100	97	75-125	2	20		
Thallium	mg/L	0.00036J	0.1	0.1	0.097	0.097	97	96	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 648337	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560768001

METHOD BLANK: 3400307 Matrix: Water
Associated Lab Samples: 92560768001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/21/21 12:04	

LABORATORY CONTROL SAMPLE: 3400308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400309 3400310

Parameter	Units	3400309		3400310		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561283001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0026	0.0024	103	96	75-125	7	20

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 649459 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92561195001

METHOD BLANK: 3406298 Matrix: Water
Associated Lab Samples: 92561195001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/27/21 16:51	

LABORATORY CONTROL SAMPLE: 3406299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0027	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406300 3406301

Parameter	Units	3406300		3406301		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	92560774017 ND	0.0025	0.0025	0.0026	100	103	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH

Pace Project No.: 92561195

QC Batch: 647027

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560768001

METHOD BLANK: 3393790

Matrix: Water

Associated Lab Samples: 92560768001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/15/21 18:56	

LABORATORY CONTROL SAMPLE: 3393791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	90-111	

SAMPLE DUPLICATE: 3393792

Parameter	Units	92560138001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	75.0	78.0	4	10	

SAMPLE DUPLICATE: 3393793

Parameter	Units	92560281005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	139	4	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH

Pace Project No.: 92561195

QC Batch: 648323

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561195001

METHOD BLANK: 3400167

Matrix: Water

Associated Lab Samples: 92561195001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/20/21 16:33	

LABORATORY CONTROL SAMPLE: 3400168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	90-111	

SAMPLE DUPLICATE: 3400169

Parameter	Units	92560963001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	139	127	9	10	

SAMPLE DUPLICATE: 3400170

Parameter	Units	92560768008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	296	295	0	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 647162 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92560768001

METHOD BLANK: 3394748 Matrix: Water
Associated Lab Samples: 92560768001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/14/21 22:53	
Fluoride	mg/L	ND	0.10	0.050	09/14/21 22:53	
Sulfate	mg/L	ND	1.0	0.50	09/14/21 22:53	

LABORATORY CONTROL SAMPLE: 3394749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.4	101	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394750 3394751

Parameter	Units	92560938001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	3.0	50	50	58.4	61.9	111	118	90-110	6	10	M1	
Fluoride	mg/L	0.091J	2.5	2.5	3.4	3.5	131	134	90-110	2	10	M1	
Sulfate	mg/L	33.4	50	50	88.5	91.8	110	117	90-110	4	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394752 3394753

Parameter	Units	92560676003		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	146	50	50	196	198	99	105	90-110	1	10		
Fluoride	mg/L	0.29	2.5	2.5	4.9	4.8	184	179	90-110	2	10	M1	
Sulfate	mg/L	140	50	50	193	195	105	109	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394754 3394755

Parameter	Units	92560676001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	4.9	50	50	62.8	64.2	116	119	90-110	2	10	M1	
Fluoride	mg/L	0.40	2.5	2.5	3.5	3.6	124	127	90-110	2	10	M1	
Sulfate	mg/L	3.8	50	50	62.4	63.7	117	120	90-110	2	10	M1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH
Pace Project No.: 92561195

QC Batch: 647237 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561195001

METHOD BLANK: 3394951 Matrix: Water
Associated Lab Samples: 92561195001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/15/21 13:41	
Fluoride	mg/L	ND	0.10	0.050	09/15/21 13:41	
Sulfate	mg/L	ND	1.0	0.50	09/15/21 13:41	

LABORATORY CONTROL SAMPLE: 3394952

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	46.9	94	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	48.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394953 3394954

Parameter	Units	92560774021		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	10.9	50	50	62.5	63.0	103	104	90-110	1	10		
Fluoride	mg/L	0.47	2.5	2.5	3.3	3.3	112	112	90-110	0	10	M1	
Sulfate	mg/L	272	50	50	315	313	87	82	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394955 3394956

Parameter	Units	92560768007		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	8.7	50	50	59.6	60.9	102	104	90-110	2	10		
Fluoride	mg/L	0.051J	2.5	2.5	2.6	2.7	103	105	90-110	2	10		
Sulfate	mg/L	174	50	50	217	219	88	91	90-110	1	10	M1	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH

Pace Project No.: 92561195

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH

Pace Project No.: 92561195

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560768001	B-62				
92561195001	B-100				
92560768001	B-62	EPA 3010A	648325	EPA 6010D	648333
92561195001	B-100	EPA 3010A	648974	EPA 6010D	649029
92560768001	B-62	EPA 3005A	648326	EPA 6020B	648331
92561195001	B-100	EPA 3005A	648523	EPA 6020B	648596
92560768001	B-62	EPA 7470A	648337	EPA 7470A	648433
92561195001	B-100	EPA 7470A	649459	EPA 7470A	649538
92560768001	B-62	SM 2540C-2011	647027		
92561195001	B-100	SM 2540C-2011	648323		
92560768001	B-62	EPA 300.0 Rev 2.1 1993	647162		
92561195001	B-100	EPA 300.0 Rev 2.1 1993	647237		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #

WO# : 92561195



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 9/10/20

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 230 Type of Ice: Wet Blue None

Cooler Temp: 3.4 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.5

USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

Field Data Required? Yes No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Georgia Power - Coal Combustion Residuals
 2480 Marner Road
 Atlanta, GA 30339
 Email: jbrahman@southernco.com
 Phone: (404) 506-7239
 Requested Due Date: 10 Day TAT

Section B Required Project Information: Report To: Jolu Abraham
 Copy To: Golder
 Purchase Order #: Plant McDonough B-62 and B-100
 Project Name: Pace Project Manager: Kevin Herring
 Project #: 166849621
 Pace Profile #:

Section C Invoice Information: Attention: seainvoices@southernco.com
 Company Name:
 Address:
 Pace Quote:
 State / Location: GA

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test	Requested Analysis Filled (Y/N)	Residual Chlorine (Y/N)	pH = 6.31
							Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3				
1	B-62	WT	9/9/2021	15:45		5										
2		G				2										
3						3										
4																
5																
6																
7																
8																
9																
10																

ADDITIONAL COMMENTS: Aw 999 - Ren

REINQUISHED BY / AFFILIATION: Aw 999 - Ren

DATE: 9/10/2021

TIME: 17:30

ACCEPTED BY / AFFILIATION: *[Signature]*

DATE: 9/10/2021

TIME: 17:40

TEMP in C: 3.5

Received on Ice (Y/N): Y

Custody Sealed Cooler (Y/N): N

Samples Intact (Y/N): Y

jude Waguespack / Golder

DATE Signed:



Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta ~~Kernersville~~

Sample Condition Upon Receipt

Client Name:

Project #:

WO# : 92561195

PM: NMG Due Date: 09/24/21
 CLIENT: GA-GA Power

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/14/21 KPW

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: THR214 Type of Ice: Wet Blue None

Cooler Temp: 3.3 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.2

USDA Regulated Soil N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4. 10 Day TAT
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

B-100 present, even though it is crossed out on the COC.

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

B-100 on separate project w/ B-62
New COC's received

Person contacted: Daniela Herrera Date/Time: 9/15/21 0901

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
 Required Client Information:
 Company: Georgia Power - Coal Combustion Residuals
 Address: 2480 Manor Road
 Atlanta, GA 30339
 Email: jbrahnam@southemco.com
 Phone: (404) 506-7239
 Requested Due Date: 10 Day TAT

Section B
 Required Project Information:
 Report To: Jolu Abraham
 Copy To: Golder
 Purchase Order #:
 Project Name: Plant McDonough B-62 and B-100
 Project #: 168849821
 Requested Analysis Filtered (Y/N)

Section C
 Invoice Information:
 Attention: scsinvoices@southemco.com
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager: Kevin Herring
 Pace Profile #:
 State / Location: GA

ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	pH = 5.27
									H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol					
1			WT	G	9/13/2021	16:55		5	2	3									
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION: *Aw 999 - men* DATE: 9/14/2021 TIME: 17:305

ACCEPTED BY / AFFILIATION: *[Signature]* DATE: 9/14/21 TIME: 4:05

TEMP in C: 3.2

Received on Ice (Y/N): Y

Custody Sealed Cooler (Y/N): N

Samples Intact (Y/N): Y

jude Waguespack/ Golder

DATE Signed: _____

November 04, 2021

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

RE: Project: MCDONOUGH RADS
Pace Project No.: 92561190

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 10, 2021 and September 14, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH RADS
Pace Project No.: 92561190

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92561190001	B-100	Water	09/13/21 16:55	09/14/21 09:35
92560765001	B-62	Water	09/09/21 15:45	09/10/21 17:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH RADS

Pace Project No.: 92561190

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92561190001	B-100	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92560765001	B-62	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

Sample: B-100 **Lab ID: 92561190001** Collected: 09/13/21 16:55 Received: 09/14/21 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.116 ± 0.212 (0.482) C:96% T:NA	pCi/L	10/06/21 12:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.658 ± 0.401 (0.741) C:62% T:99%	pCi/L	10/04/21 15:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.774 ± 0.613 (1.22)	pCi/L	10/07/21 15:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

Sample: B-62 **Lab ID: 92560765001** Collected: 09/09/21 15:45 Received: 09/10/21 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.757 ± 0.323 (0.388) C:93% T:NA	pCi/L	10/06/21 08:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.946 ± 0.465 (0.793) C:64% T:86%	pCi/L	10/04/21 14:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.70 ± 0.788 (1.18)	pCi/L	10/07/21 15:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 466957

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2255015

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0260 ± 0.142 (0.353) C:102% T:NA	pCi/L	10/19/21 08:55	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465345

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561190001

METHOD BLANK: 2247073

Matrix: Water

Associated Lab Samples: 92561190001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.306 ± 0.283 (0.572) C:72% T:95%	pCi/L	10/04/21 11:58	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465341

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2247067

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.554 ± 0.366 (0.696) C:72% T:88%	pCi/L	09/30/21 11:24	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 466410

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2252279

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.420 ± 0.367 (0.738) C:65% T:90%	pCi/L	10/07/21 11:22	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465348

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2247079

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.625 ± 0.317 (0.544) C:74% T:91%	pCi/L	10/06/21 11:18	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465347

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561190001

METHOD BLANK: 2247077

Matrix: Water

Associated Lab Samples: 92561190001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0279 ± 0.217 (0.589) C:92% T:NA	pCi/L	10/06/21 12:00	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465350

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2247083

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0502 ± 0.146 (0.360) C:88% T:NA	pCi/L	10/07/21 08:30	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465343

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560765001

METHOD BLANK: 2247069

Matrix: Water

Associated Lab Samples: 92560765001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.209 ± 0.287 (0.612) C:69% T:89%	pCi/L	10/04/21 11:58	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 466264

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2251638

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.284 ± 0.229 (0.421) C:95% T:NA	pCi/L	10/08/21 08:00	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465344

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560765001

METHOD BLANK: 2247072

Matrix: Water

Associated Lab Samples: 92560765001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00717 ± 0.168 (0.443) C:96% T:NA	pCi/L	10/06/21 08:19	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH RADS

Pace Project No.: 92561190

QC Batch: 465342

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2247068

Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.189 ± 0.181 (0.337) C:97% T:NA	pCi/L	10/06/21 08:11	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH RADS

Pace Project No.: 92561190

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH RADS

Pace Project No.: 92561190

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560765001	B-62	EPA 9315	465344		
92561190001	B-100	EPA 9315	465347		
92560765001	B-62	EPA 9320	465343		
92561190001	B-100	EPA 9320	465345		
92560765001	B-62	Total Radium Calculation	467213		
92561190001	B-100	Total Radium Calculation	467213		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #

WO#: 92561190



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *MT 9/10/20*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: *230* Type of Ice: Wet Blue None

Cooler Temp: *3.4* Correction Factor: Add/Subtract (°C) *± 0.1*

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *3.5*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <i>WT</i>	9.
-Includes Date/Time/ID/Analysis Matrix:	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)
Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
Page 1 of 2
Issuing Authority:
Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO#: 92561190

PM: NMG

Due Date: 10/01/21

CLIENT: GA-GA Power

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/14/21 KPW

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID: THR214 Type of Ice: Water Blue None

Cooler Temp: 3.3 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.2

USDA Regulated Soil N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4. 10 Day TAT
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

B-100 present, even though it is crossed out on the COC.

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

B-100 on separate project w/ B-62
New COC's received

Person contacted: Daniela Herrera Date/Time: 9/15/21 0901

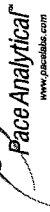
Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/1/2021
Worklist: 62850
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247073
MB concentration:	0.306
MB 2 Sigma CSU:	0.283
MB MDC:	0.572
MB Numerical Performance Indicator:	2.12
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS62850	Y
Count Date:	10/4/2021	LCS62850
Spike I.D.:	21-029	10/4/2021
Decay Corrected Spike Concentration (pCi/mL):	37.973	21-029
Volume Used (mL):	0.10	37.973
Aliquot Volume (L, g, F):	0.805	0.10
Target Conc. (pCi/L, g, F):	4.716	0.816
Uncertainty (Calculated):	0.231	4.653
Result (pCi/L, g, F):	5.361	0.228
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.173	4.280
Numerical Performance Indicator:	1.06	0.992
Percent Recovery:	113.68%	-0.72
Status vs Numerical Indicator:	N/A	91.98%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	135%	Pass
Lower % Recovery Limits:	60%	135%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS62850
Duplicate Sample I.D.:	LCS62850
Sample Result (pCi/L, g, F):	5.361
Sample Duplicate Result (pCi/L, g, F):	1.173
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.280
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.992
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	1.380
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.11%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

10/5/21

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Relatio
CMM*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-226
Analyst: CLA
Date: 9/28/2021
Worklist: 62851
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247077
MB concentration:	-0.028
M/B Counting Uncertainty:	0.217
MB MDC:	0.589
MB Numerical Performance Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS62851	YCS62851
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.508
Target Conc. (pCi/L, g, F):	4.792	4.734
Uncertainty (Calculated):	0.058	0.057
Result (pCi/L, g, F):	4.037	4.418
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.623	0.646
Numerical Performance Indicator:	-2.37	-0.95
Percent Recovery:	84.25%	93.33%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:	92560765014
Duplicate Sample I.D.:	92560765014DUP
Sample Result (pCi/L, g, F):	0.428
Sample Result Counting Uncertainty (pCi/L, g, F):	0.225
Sample Duplicate Result (pCi/L, g, F):	0.178
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.185
Are sample and/or duplicate results below RL?	See Below
Duplicate Numerical Performance Indicator:	1.678 OK
Duplicate Status vs Numerical Indicator:	82.59%
Duplicate Status vs RPD:	N/A
% RPD Limit:	Fail***
	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample Matrix Spike Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result: Sample Numerical Performance Indicator: MS Numerical Performance Indicator: MSD Numerical Performance Indicator:		
MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:		
MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

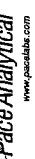
***Batch must be re-prepared due to unacceptable precision.

L/MDCs N/A

10/7/21
DW

10/17/21

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JC2
Date: 10/1/2021
Worklist: 62848
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247069
MB Concentration:	0.209
MB 2 Sigma CSU:	0.287
MB MDC:	0.612
MB Numerical Performance Indicator:	1.43
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS62848	LCS/D62848
Count Date:	10/4/2021	10/4/2021
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.973	37.973
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.807	0.812
Target Conc. (pCi/L, g, F):	4.703	4.676
Uncertainty (Calculated):	0.230	0.229
Result (pCi/L, g, F):	3.772	4.931
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.892	1.094
Numerical Performance Indicator:	-1.98	0.45
Percent Recovery:	80.20%	105.45%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS62848
Duplicate Sample I.D.:	LCS/D62848
Sample Result (pCi/L, g, F):	3.772
Sample Duplicate Result (pCi/L, g, F):	0.892
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.931
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.094
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.609
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	27.20%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

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Handwritten initials/signature

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/28/2021
Worklist: 62849
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247072
MB concentration:	0.007
M/B Counting Uncertainty:	0.168
MB MDC:	0.443
MB Numerical Performance Indicator:	0.08
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

LCS/D (Y or N)?	LCS/D (Y or N)?	
	LCS62849	LCS62849
Count Date:	10/6/2021	10/6/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.502	0.502
Target Conc. (pCi/L, g, F):	4.779	4.791
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.249	5.218
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.691	0.720
Numerical Performance Indicator:	1.33	1.16
Percent Recovery:	109.83%	108.93%
Status vs Numerical Indicator:	N/A	N/A
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	92560766017
Duplicate Sample I.D.:	92560766017DUP
Sample Result (pCi/L, g, F):	0.383
Sample Duplicate Result (pCi/L, g, F):	0.227
Sample Result Counting Uncertainty (pCi/L, g, F):	0.691
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.174
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.199
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.060
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.82%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

*** Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

**** Batch cannot be re-prepped due to unacceptable precision. N/A
SAM 10/10/21

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):</p> <p>Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D. Sample MS I.D. Sample MSD I.D.:</p> <p>Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:</p>

12/10/21
SAM 10/10/21

October 07, 2021

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

RE: Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

Dear Joju Abraham:


Enclosed are the analytical results for sample(s) received by the laboratory between September 16, 2021 and September 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92561637001	B-105D	Water	09/15/21 15:10	09/16/21 09:06
92561637002	B-112D	Water	09/16/21 12:13	09/17/21 17:06
92561637003	B-113D	Water	09/17/21 15:19	09/17/21 17:06
92561637004	EB-6	Water	09/17/21 14:55	09/17/21 17:06

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92561637001	B-105D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561637002	B-112D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561637003	B-113D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92561637004	EB-6	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

Sample: B-105D		Lab ID: 92561637001		Collected: 09/15/21 15:10		Received: 09/16/21 09:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/16/21 11:16		
pH	6.38	Std. Units			1		09/16/21 11:16		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	72.7	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 18:33	7440-70-2	M1
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0082	mg/L	0.0030	0.00078	1	09/24/21 08:24	09/24/21 17:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 17:59	7440-38-2	
Barium	0.037	mg/L	0.0050	0.00067	1	09/24/21 08:24	09/24/21 17:59	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/24/21 08:24	09/24/21 17:59	7440-41-7	
Boron	0.76	mg/L	0.040	0.0086	1	09/24/21 08:24	09/24/21 17:59	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/24/21 08:24	09/24/21 17:59	7440-43-9	
Chromium	0.0012J	mg/L	0.0050	0.0011	1	09/24/21 08:24	09/24/21 17:59	7440-47-3	
Cobalt	0.0065	mg/L	0.0050	0.00039	1	09/24/21 08:24	09/24/21 17:59	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/24/21 08:24	09/24/21 17:59	7439-92-1	
Lithium	0.014J	mg/L	0.030	0.00073	1	09/24/21 08:24	09/24/21 17:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/24/21 08:24	09/24/21 17:59	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/24/21 08:24	09/24/21 17:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/24/21 08:24	09/24/21 17:59	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:30	09/28/21 19:46	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	455	mg/L	10.0	10.0	1		09/21/21 19:08		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	17.4	mg/L	1.0	0.60	1		09/18/21 02:49	16887-00-6	
Fluoride	0.078J	mg/L	0.10	0.050	1		09/18/21 02:49	16984-48-8	
Sulfate	240	mg/L	5.0	2.5	5		09/18/21 12:50	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

Sample: B-112D		Lab ID: 92561637002		Collected: 09/16/21 12:13		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:51		
pH	6.74	Std. Units			1		09/20/21 14:51		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	28.4	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 19:45	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 15:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:55	7440-38-2	
Barium	0.0032J	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 15:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 15:55	7440-41-7	
Boron	0.27	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 15:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 15:55	7440-43-9	
Chromium	0.0014J	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 15:55	7440-47-3	
Cobalt	0.00054J	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 15:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 15:55	7439-92-1	
Lithium	0.0038J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 15:55	7439-93-2	
Molybdenum	0.032	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 15:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 15:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 15:55	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:30	09/28/21 19:57	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	162	mg/L	10.0	10.0	1		09/23/21 20:02		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	2.7	mg/L	1.0	0.60	1		09/21/21 18:35	16887-00-6	
Fluoride	0.34	mg/L	0.10	0.050	1		09/21/21 18:35	16984-48-8	
Sulfate	21.2	mg/L	1.0	0.50	1		09/21/21 18:35	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

Sample: B-113D		Lab ID: 92561637003		Collected: 09/17/21 15:19		Received: 09/17/21 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/20/21 14:51		
pH	7.97	Std. Units			1		09/20/21 14:51		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	44.1	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 19:50	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 16:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 16:01	7440-38-2	
Barium	0.0048J	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 16:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 16:01	7440-41-7	
Boron	0.089	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 16:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 16:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 16:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 16:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 16:01	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 16:01	7439-93-2	
Molybdenum	0.074	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 16:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 16:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 16:01	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:30	09/28/21 20:00	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	329	mg/L	10.0	10.0	1		09/23/21 20:02		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	48.8	mg/L	1.0	0.60	1		09/21/21 18:51	16887-00-6	
Fluoride	0.87	mg/L	0.10	0.050	1		09/21/21 18:51	16984-48-8	
Sulfate	89.1	mg/L	1.0	0.50	1		09/21/21 18:51	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

Sample: EB-6		Lab ID: 92561637004		Collected: 09/17/21 14:55		Received: 09/17/21 17:06		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 19:55	7440-70-2		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	09/27/21 12:10	09/28/21 16:18	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 16:18	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	09/27/21 12:10	09/28/21 16:18	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	09/27/21 12:10	09/28/21 16:18	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	09/27/21 12:10	09/28/21 16:18	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/27/21 12:10	09/28/21 16:18	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	09/27/21 12:10	09/28/21 16:18	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	09/27/21 12:10	09/28/21 16:18	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	09/27/21 12:10	09/28/21 16:18	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	09/27/21 12:10	09/28/21 16:18	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	09/27/21 12:10	09/28/21 16:18	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	09/27/21 12:10	09/28/21 16:18	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	09/27/21 12:10	09/28/21 16:18	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	09/28/21 11:30	09/28/21 20:03	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/23/21 20:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/21/21 19:07	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/21/21 19:07	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/21/21 19:07	14808-79-8		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

QC Batch:	650016	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561637001, 92561637002, 92561637003, 92561637004

METHOD BLANK: 3409429 Matrix: Water
Associated Lab Samples: 92561637001, 92561637002, 92561637003, 92561637004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/30/21 18:01	

LABORATORY CONTROL SAMPLE: 3409430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409431 3409432

Parameter	Units	92561637001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	72.7	1	1	72.0	73.0	-71	25	75-125	1	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

QC Batch: 649183 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561637001

METHOD BLANK: 3405029 Matrix: Water
Associated Lab Samples: 92561637001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/24/21 15:43	
Arsenic	mg/L	ND	0.0050	0.0011	09/24/21 15:43	
Barium	mg/L	ND	0.0050	0.00067	09/24/21 15:43	
Beryllium	mg/L	ND	0.00050	0.000054	09/24/21 15:43	
Boron	mg/L	ND	0.040	0.0086	09/24/21 15:43	
Cadmium	mg/L	ND	0.00050	0.00011	09/24/21 15:43	
Chromium	mg/L	ND	0.0050	0.0011	09/24/21 15:43	
Cobalt	mg/L	ND	0.0050	0.00039	09/24/21 15:43	
Lead	mg/L	ND	0.0010	0.00089	09/24/21 15:43	
Lithium	mg/L	ND	0.030	0.00073	09/24/21 15:43	
Molybdenum	mg/L	ND	0.010	0.00074	09/24/21 15:43	
Selenium	mg/L	ND	0.0050	0.0014	09/24/21 15:43	
Thallium	mg/L	ND	0.0010	0.00018	09/24/21 15:43	

LABORATORY CONTROL SAMPLE: 3405030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405031 3405032

Parameter	Units	92560768019 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	
Arsenic	mg/L	0.0018J	0.1	0.1	0.098	0.098	96	96	75-125	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

Parameter	Units	3405031		3405032		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560768019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.016	0.1	0.1	0.12	0.12	105	104	75-125	1	20		
Beryllium	mg/L	0.011	0.1	0.1	0.094	0.092	82	80	75-125	2	20		
Boron	mg/L	0.61	1	1	1.4	1.4	83	77	75-125	4	20		
Cadmium	mg/L	0.00035J	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20		
Cobalt	mg/L	0.28	0.1	0.1	0.37	0.36	91	82	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	3	20		
Lithium	mg/L	0.085	0.1	0.1	0.16	0.16	78	72	75-125	4	20	M1	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Selenium	mg/L	0.0041J	0.1	0.1	0.10	0.099	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

QC Batch: 649484 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92561637002, 92561637003, 92561637004

METHOD BLANK: 3406420 Matrix: Water
Associated Lab Samples: 92561637002, 92561637003, 92561637004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/28/21 15:09	
Arsenic	mg/L	ND	0.0050	0.0011	09/28/21 15:09	
Barium	mg/L	ND	0.0050	0.00067	09/28/21 15:09	
Beryllium	mg/L	ND	0.00050	0.000054	09/28/21 15:09	
Boron	mg/L	ND	0.040	0.0086	09/28/21 15:09	
Cadmium	mg/L	ND	0.00050	0.00011	09/28/21 15:09	
Chromium	mg/L	ND	0.0050	0.0011	09/28/21 15:09	
Cobalt	mg/L	ND	0.0050	0.00039	09/28/21 15:09	
Lead	mg/L	ND	0.0010	0.00089	09/28/21 15:09	
Lithium	mg/L	ND	0.030	0.00073	09/28/21 15:09	
Molybdenum	mg/L	ND	0.010	0.00074	09/28/21 15:09	
Selenium	mg/L	ND	0.0050	0.0014	09/28/21 15:09	
Thallium	mg/L	ND	0.0010	0.00018	09/28/21 15:09	

LABORATORY CONTROL SAMPLE: 3406421

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.096	96	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.093	93	80-120	
Beryllium	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.093	93	80-120	
Lithium	mg/L	0.1	0.094	94	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406422 3406423

Parameter	Units	92562762002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

Parameter	Units	92562762002		3406422		3406423		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Barium	mg/L	138 ug/L	0.1	0.1	0.23	0.24	94	105	75-125	4	20			
Beryllium	mg/L	ND	0.1	0.1	0.092	0.093	92	93	75-125	1	20			
Boron	mg/L	163 ug/L	1	1	1.1	1.1	97	98	75-125	1	20			
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20			
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	98	101	75-125	3	20			
Cobalt	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20			
Lead	mg/L	ND	0.1	0.1	0.089	0.088	89	88	75-125	1	20			
Lithium	mg/L	ND	0.1	0.1	0.098	0.10	93	95	75-125	2	20			
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	102	102	75-125	0	20			
Selenium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	3	20			
Thallium	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

QC Batch: 649668 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92561637001, 92561637002, 92561637003, 92561637004

METHOD BLANK: 3407115 Matrix: Water
Associated Lab Samples: 92561637001, 92561637002, 92561637003, 92561637004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/28/21 19:41	

LABORATORY CONTROL SAMPLE: 3407116

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407117 3407118

Parameter	Units	3407117		3407118		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0025	98	99	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

QC Batch: 648470	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561637001

METHOD BLANK: 3400865 Matrix: Water

Associated Lab Samples: 92561637001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/21/21 19:07	

LABORATORY CONTROL SAMPLE: 3400866

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	400	100	90-111	

SAMPLE DUPLICATE: 3400867

Parameter	Units	92562042001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	74.0	5	10	

SAMPLE DUPLICATE: 3400868

Parameter	Units	92560768028 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

QC Batch: 649122

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92561637002, 92561637003, 92561637004

METHOD BLANK: 3404908

Matrix: Water

Associated Lab Samples: 92561637002, 92561637003, 92561637004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/23/21 20:00	

LABORATORY CONTROL SAMPLE: 3404909

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	397	99	90-111	

SAMPLE DUPLICATE: 3404910

Parameter	Units	92562006012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	644	678	5	10	

SAMPLE DUPLICATE: 3404911

Parameter	Units	92561303008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	113	127	12	10	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

QC Batch: 647979 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561637001

METHOD BLANK: 3398609 Matrix: Water
Associated Lab Samples: 92561637001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/17/21 23:38	
Fluoride	mg/L	ND	0.10	0.050	09/17/21 23:38	
Sulfate	mg/L	ND	1.0	0.50	09/17/21 23:38	

LABORATORY CONTROL SAMPLE: 3398610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.7	97	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	52.1	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398611 3398612

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561816013	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	11900	50	50	50	12800	13000	1830	2190	90-110	1	10	M1
Fluoride	mg/L	3.6	2.5	2.5	2.5	4.3	21.0	29	698	90-110	132	10	M1,R1
Sulfate	mg/L	8660	50	50	50	9380	9600	1430	1880	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398613 3398614

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560768026	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	29.9	50	50	50	65.4	66.1	71	72	90-110	1	10	M1
Fluoride	mg/L	0.098J	2.5	2.5	2.5	2.8	2.8	109	109	90-110	0	10	
Sulfate	mg/L	325	50	50	50	365	368	81	86	90-110	1	10	M1

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

QC Batch: 648429 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561637002, 92561637003, 92561637004

METHOD BLANK: 3400731 Matrix: Water
Associated Lab Samples: 92561637002, 92561637003, 92561637004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/21/21 14:57	
Fluoride	mg/L	ND	0.10	0.050	09/21/21 14:57	
Sulfate	mg/L	ND	1.0	0.50	09/21/21 14:57	

LABORATORY CONTROL SAMPLE: 3400732

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.1	102	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	52.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400733 3400734

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561303004	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	5.6	50	50	56.6	56.8	102	103	90-110	0	10		
Fluoride	mg/L	0.084J	2.5	2.5	3.0	3.0	118	118	90-110	0	10	M1	
Sulfate	mg/L	95.0	50	50	129	129	67	68	90-110	0	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400735 3400736

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92561637004	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	ND	50	50	50.3	50.7	101	101	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	97	98	90-110	1	10		
Sulfate	mg/L	ND	50	50	52.1	52.5	104	105	90-110	1	10		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH AP-1 ASSESSMENT
Pace Project No.: 92561637

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1 ASSESSMENT

Pace Project No.: 92561637

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92561637001	B-105D				
92561637002	B-112D				
92561637003	B-113D				
92561637001	B-105D	EPA 3010A	650016	EPA 6010D	650179
92561637002	B-112D	EPA 3010A	650016	EPA 6010D	650179
92561637003	B-113D	EPA 3010A	650016	EPA 6010D	650179
92561637004	EB-6	EPA 3010A	650016	EPA 6010D	650179
92561637001	B-105D	EPA 3005A	649183	EPA 6020B	649262
92561637002	B-112D	EPA 3005A	649484	EPA 6020B	649562
92561637003	B-113D	EPA 3005A	649484	EPA 6020B	649562
92561637004	EB-6	EPA 3005A	649484	EPA 6020B	649562
92561637001	B-105D	EPA 7470A	649668	EPA 7470A	649676
92561637002	B-112D	EPA 7470A	649668	EPA 7470A	649676
92561637003	B-113D	EPA 7470A	649668	EPA 7470A	649676
92561637004	EB-6	EPA 7470A	649668	EPA 7470A	649676
92561637001	B-105D	SM 2540C-2011	648470		
92561637002	B-112D	SM 2540C-2011	649122		
92561637003	B-113D	SM 2540C-2011	649122		
92561637004	EB-6	SM 2540C-2011	649122		
92561637001	B-105D	EPA 300.0 Rev 2.1 1993	647979		
92561637002	B-112D	EPA 300.0 Rev 2.1 1993	648429		
92561637003	B-113D	EPA 300.0 Rev 2.1 1993	648429		
92561637004	EB-6	EPA 300.0 Rev 2.1 1993	648429		

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
 Upon Receipt

Client Name:
Georgia Power

Project #: **WO# : 92561637**



Courier: Commercial Fed Ex UPS USPS Client
 Pace Other:

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *MT 9/16/24*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?
 Yes No N/A

Thermometer: IR Gun ID: *214* Type of Ice: Wet Blue None

Cooler Temp: *3.2* Correction Factor: *+0.1*
 Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *3.1*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>WT</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
 Page 2 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

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

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

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

Project #

WO# : 92561637

PM: NMG

Due Date: 09/30/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3M-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (p>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG9A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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



Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: G A Power

Project #:

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/17/20
COF

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Cooler Temp: 2.0 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.0

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
 Page 2 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

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

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

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

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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11	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

pH Adjustment Log for Preserved Samples

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

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

October 29, 2021

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

RE: Project: MCDONOUGH AP-1 ASSESS RADS
Pace Project No.: 92561607

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 16, 2021 and September 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 ASSESS RADs
Pace Project No.: 92561607

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1 ASSESS RADS
Pace Project No.: 92561607

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92561607001	B-105D	Water	09/15/21 15:10	09/16/21 09:06
92561607002	B-112D	Water	09/16/21 12:13	09/17/21 17:06
92561607003	B-113D	Water	09/17/21 15:19	09/17/21 17:06
92561607004	EB-6	Water	09/17/21 14:55	09/17/21 17:06

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92561607001	B-105D	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561607002	B-112D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561607003	B-113D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92561607004	EB-6	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

Sample: B-105D **Lab ID: 92561607001** Collected: 09/15/21 15:10 Received: 09/16/21 09:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.392 ± 0.242 (0.368) C:97% T:NA	pCi/L	10/07/21 08:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.62 ± 0.566 (0.774) C:59% T:84%	pCi/L	10/06/21 11:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.01 ± 0.808 (1.14)	pCi/L	10/07/21 15:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: B-112D Lab ID: 92561607002 Collected: 09/16/21 12:13 Received: 09/17/21 17:06 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.241 ± 0.169 (0.299) C:94% T:NA	pCi/L	10/19/21 08:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.180 ± 0.383 (0.918) C:74% T:86%	pCi/L	10/14/21 11:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.241 ± 0.552 (1.22)	pCi/L	10/20/21 17:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

Sample: B-113D **Lab ID: 92561607003** Collected: 09/17/21 15:19 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.280 ± 0.202 (0.381) C:94% T:NA	pCi/L	10/19/21 08:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.803 ± 0.446 (0.815) C:77% T:83%	pCi/L	10/14/21 11:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.08 ± 0.648 (1.20)	pCi/L	10/20/21 17:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

Sample: EB-6 **Lab ID: 92561607004** Collected: 09/17/21 14:55 Received: 09/17/21 17:06 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	-0.0114 ± 0.175 (0.445) C:95% T:NA	pCi/L	10/19/21 08:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.975 ± 0.467 (0.818) C:78% T:88%	pCi/L	10/14/21 11:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.975 ± 0.642 (1.26)	pCi/L	10/20/21 17:24	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

QC Batch:	467255	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92561607002, 92561607003, 92561607004

METHOD BLANK: 2256295 Matrix: Water

Associated Lab Samples: 92561607002, 92561607003, 92561607004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.151 ± 0.301 (0.746) C:75% T:86%	pCi/L	10/14/21 11:15	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

QC Batch:	466957	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92561607002, 92561607003, 92561607004

METHOD BLANK: 2255015 Matrix: Water

Associated Lab Samples: 92561607002, 92561607003, 92561607004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0260 ± 0.142 (0.353) C:102% T:NA	pCi/L	10/19/21 08:55	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

QC Batch: 465348

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561607001

METHOD BLANK: 2247079

Matrix: Water

Associated Lab Samples: 92561607001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.625 ± 0.317 (0.544) C:74% T:91%	pCi/L	10/06/21 11:18	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS RADS

Pace Project No.: 92561607

QC Batch: 465350

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561607001

METHOD BLANK: 2247083

Matrix: Water

Associated Lab Samples: 92561607001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0502 ± 0.146 (0.360) C:88% T:NA	pCi/L	10/07/21 08:30	

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QUALIFIERS

Project: MCDONOUGH AP-1 ASSESS RADS
Pace Project No.: 92561607

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1 ASSESS RADS
Pace Project No.: 92561607

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92561607001	B-105D	EPA 9315	465350		
92561607002	B-112D	EPA 9315	466957		
92561607003	B-113D	EPA 9315	466957		
92561607004	EB-6	EPA 9315	466957		
92561607001	B-105D	EPA 9320	465348		
92561607002	B-112D	EPA 9320	467255		
92561607003	B-113D	EPA 9320	467255		
92561607004	EB-6	EPA 9320	467255		
92561607001	B-105D	Total Radium Calculation	467224		
92561607002	B-112D	Total Radium Calculation	469112		
92561607003	B-113D	Total Radium Calculation	469112		
92561607004	EB-6	Total Radium Calculation	469112		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

WO# : 92561607



Courier: Commercial Fed Ex UPS USPS Client Pace Other:

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *MT 9/16/24*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 3.2 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.1

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	<i>WT</i>	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
 Page 2 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

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

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

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

Project #

W0# : 92561607

PM: NMG

Due Date: 10/07/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1		✓	✓			✓																								
2																														
3																														
4																														
5																														
6																														
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pH Adjustment Log for Preserved Samples

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

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



Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt	Client Name: <u>G A Power</u>	Project #:
Courier: <input type="checkbox"/> Commercial <input type="checkbox"/> Fed Ex <input type="checkbox"/> Pace <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Client	

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/17/20
COF

Packing Material: Bubble Wrap Bubble Bags None Other
Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Biological Tissue Frozen? Yes No N/A

Cooler Temp: 2.0 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.0

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)

Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020

Page 2 of 2

Issuing Authority:
Pace Carolinas Quality Office

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

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

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

Project #

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Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGfU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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12	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

pH Adjustment Log for Preserved Samples

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

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Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020
 Page 2 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

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

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

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

Project #

<div style="font-size: 2em; font-weight: bold;"> </div>

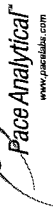
Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A[DG3A]-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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pH Adjustment Log for Preserved Samples

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

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Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/1/2021
Worklist: 62852
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247079
MB concentration:	0.625
MB 2 Sigma CSU:	0.317
MB MDC:	0.544
MB Numerical Performance Indicator:	3.86
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date:	10/6/2021	LCSD62852	10/6/2021
Spike I.D.:	21-029		21-029
Decay Corrected Spike Concentration (pCi/mL):	37.949		37.949
Volume Used (mL):	0.20		0.20
Aliquot Volume (L, g, F):	0.809		0.809
Target Conc. (pCi/L, g, F):	9.379		9.379
Uncertainty (Calculated):	0.460		0.460
Result (pCi/L, g, F):	8.389		7.162
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.704		1.451
Numerical Performance Indicator:	-1.07		-2.86
Percent Recovery:	89.73%		76.36%
Status vs Numerical Indicator:	N/A		N/A
Status vs Recovery:	Pass		Pass
Upper % Recovery Limits:	135%		135%
Lower % Recovery Limits:	60%		60%

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.	
Sample I.D.:	LCSD62852		
Duplicate Sample I.D.:	LCSD62852		
Sample Result (pCi/L, g, F):	6.389		
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.704		
Sample Duplicate Result (pCi/L, g, F):	7.162		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.451		
Are sample and/or duplicate results below RL?	NO		
Duplicate Numerical Performance Indicator:	1.075		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	16.10%		
Duplicate Status vs Numerical Indicator:	Pass		
Duplicate Status vs RPD:	Pass		
% RPD Limit:	36%		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Initial MW

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 10/14/2021
Worklist: 63017
Matrix: DW

Method Blank Assessment	
MB Sample ID	2255015
MB concentration:	0.026
MIB Counting Uncertainty:	0.142
MB MDC:	0.353
MB Numerical Performance Indicator:	0.36
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?		Y
	LCS63017	LCS63017	
Count Date:	10/19/2021	10/19/2021	
Spike I.D.:	19-033	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033	
Volume Used (mL):	0.10	0.10	
Alliquot Volume (L, g, F):	0.503	0.502	
Target Conc. (pCi/L, g, F):	4.780	4.792	
Uncertainty (Calculated):	0.057	0.058	
Result (pCi/L, g, F):	5.814	5.134	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.601	0.572	
Numerical Performance Indicator:	3.36	1.17	
Percent Recovery:	121.64%	107.13%	
Status vs Numerical Indicator:	N/A	N/A	
Status vs Recovery:	Pass	Pass	
Upper % Recovery Limit:	125%	125%	
Lower % Recovery Limit:	75%	75%	

Duplicate Sample Assessment	LCS/D (Y or N)?		Y
	LCS63017	LCS63017	
Sample I.D.:	92561311006	92561311006DUP	
Duplicate Sample I.D.:	92561311006	92561311006DUP	
Sample Result (pCi/L, g, F):	5.814	0.126	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.601	0.134	
Sample Duplicate Result (pCi/L, g, F):	5.134	0.107	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.572	0.111	
Are sample and/or duplicate results below RL?	NO	See Below #	
Duplicate Numerical Performance Indicator:	1.607	0.214	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.68%	16.30%	
Duplicate Status vs Numerical Indicator:	N/A	N/A	
Duplicate Status vs RPD:	Pass	Pass	
% RPD Limit:	25%	25%	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

10/20/2021

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MS Status vs Recovery: MS/MSD Upper % Recovery Limit: MS/MSD Lower % Recovery Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

10/20/2021

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/12/2021
Worklist: 63069
Matrix: WT



Method Blank Assessment	
MB Sample ID	2256295
MB concentration:	-0.151
M/B 2 Sigma CSU:	0.301
MB MDC:	0.746
MB Numerical Performance Indicator:	-0.98
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS2 (Y or N)?		Y
	LCS63069	LCS263069	
Count Date:	10/14/2021	10/14/2021	
Spike I.D.:	21-029	21-029	
Decay Corrected Spike Concentration (pCi/mL):	37.849	37.849	
Volume Used (mL):	0.10	0.10	
Aliquot Volume (L, g, F):	0.807	0.821	
Target Conc. (pCi/L, g, F):	4.691	4.612	
Uncertainty (Calculated):	0.230	0.226	
Result (pCi/L, g, F):	4.670	4.581	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.058	1.052	
Numerical Performance Indicator:	-0.04	-0.06	
Percent Recovery:	99.54%	99.33%	
Status vs Numerical Indicator:	N/A	N/A	
Status vs Recovery:	Pass	Pass	
Upper % Recovery Limits:	135%	135%	
Lower % Recovery Limits:	60%	60%	

Duplicate Sample Assessment	LCS2 (Y or N)?		Y
	LCS63069	LCS263069	
Sample I.D.:			
Duplicate Sample I.D.:			
Sample Result (pCi/L, g, F):	4.670		
Sample Duplicate Result (pCi/L, g, F):	1.058		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.581		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.052		
Are sample and/or duplicate results below RL?	NO		
Duplicate Numerical Performance Indicator:	0.117		
Duplicate Numerical Performance Indicator:	0.21%		
Duplicate Status vs Numerical Indicator:	Pass		
Duplicate Status vs RPD:	Pass		
% RPD Limit:	36%		

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Sample Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature and date: 10/15/21

Quality Control Sample Performance Assessment

Analyst *Must Manually Enter All Fields Highlighted in Yellow.*

Test: Ra-226
Analyst: CLA
Date: 9/30/2021
Worklist: 62853
Matrix: DW



Method Blank Assessment	
MB Sample ID	2247083
MB concentration:	0.050
MB Counting Uncertainty:	0.146
MB MDC:	0.360
MB Numerical Performance Indicator:	0.67
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS62853	LCS062853
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Alliquot Volume (L, g, F):	0.505	0.519
Target Conc. (pCi/L, g, F):	4.761	4.633
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	4.725	4.672
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.695	0.664
Numerical Performance Indicator:	-0.10	0.11
Percent Recovery:	99.25%	100.82%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
Sample I.D.:	LCS62853	LCS062853
Duplicate Sample I.D.:	92560765020	92560765020DUP
Sample Result (pCi/L, g, F):	4.725	1.170
Sample Result Counting Uncertainty (pCi/L, g, F):	0.695	0.367
Sample Duplicate Result (pCi/L, g, F):	4.672	1.156
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.664	0.354
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	0.109	0.052
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	1.57%	1.15%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample I.D.</p> <p>Sample MS I.D.</p> <p>Sample MSD I.D.</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MS Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result:</p> <p>Sample Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Result:</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator:</p> <p>MSD Numerical Performance Indicator:</p> <p>MS Percent Recovery:</p> <p>MSD Percent Recovery:</p> <p>MS Status vs Numerical Indicator:</p> <p>MSD Status vs Numerical Indicator:</p> <p>MS Status vs Recovery:</p> <p>MSD Status vs Recovery:</p> <p>MS/MSD Upper % Recovery Limits:</p> <p>MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.</p> <p>Sample MS I.D.</p> <p>Sample MSD I.D.</p> <p>Sample Matrix Spike Result:</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):</p> <p>Duplicate Numerical Performance Indicator:</p> <p>(Based on the Percent Recoveries) MS/MSD Duplicate RPD:</p> <p>MS/MSD Duplicate Status vs Numerical Indicator:</p> <p>MS/MSD Duplicate Status vs RPD:</p> <p>% RPD Limit:</p>

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

OK
10/12/21
10/12/21

VAM 10/17/21

October 22, 2021

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

RE: Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 09, 2021 and September 10, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001

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SAMPLE SUMMARY

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92560139001	B-117D	Water	09/08/21 16:15	09/09/21 08:45
92560139002	B-118	Water	09/08/21 13:35	09/09/21 08:45
92560139003	B-119D	Water	09/08/21 15:17	09/09/21 08:45
92560139004	B-116D	Water	09/09/21 13:53	09/10/21 17:40

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92560139001	B-117D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92560139002	B-118	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92560139003	B-119D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92560139004	B-116D	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

Sample: B-117D		Lab ID: 92560139001		Collected: 09/08/21 16:15		Received: 09/09/21 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/09/21 10:18		
pH	6.00	Std. Units			1		09/09/21 10:18		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	11.3	mg/L	1.0	0.12	1	09/11/21 09:00	09/13/21 16:48	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/11/21 09:00	09/14/21 19:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:14	7440-38-2	
Barium	0.048	mg/L	0.0050	0.00067	1	09/11/21 09:00	09/14/21 19:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/21 09:00	09/14/21 19:14	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/11/21 09:00	09/14/21 19:14	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/21 09:00	09/14/21 19:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:14	7440-47-3	
Cobalt	0.00043J	mg/L	0.0050	0.00039	1	09/11/21 09:00	09/14/21 19:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/11/21 09:00	09/14/21 19:14	7439-92-1	
Lithium	0.0069J	mg/L	0.030	0.00073	1	09/11/21 09:00	09/14/21 19:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/21 09:00	09/14/21 19:14	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/21 09:00	09/14/21 19:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/21 09:00	09/14/21 19:14	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 11:48	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	152	mg/L	10.0	10.0	1		09/15/21 18:56		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.0	mg/L	1.0	0.60	1		09/13/21 00:45	16887-00-6	
Fluoride	0.058J	mg/L	0.10	0.050	1		09/13/21 00:45	16984-48-8	
Sulfate	31.1	mg/L	1.0	0.50	1		09/13/21 00:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

Sample: B-118		Lab ID: 92560139002		Collected: 09/08/21 13:35		Received: 09/09/21 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/09/21 10:18		
pH	6.01	Std. Units			1		09/09/21 10:18		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	5.0	mg/L	1.0	0.12	1	09/11/21 09:00	09/13/21 16:53	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/11/21 09:00	09/14/21 19:19	7440-36-0	
Arsenic	0.0011J	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:19	7440-38-2	
Barium	0.021	mg/L	0.0050	0.00067	1	09/11/21 09:00	09/14/21 19:19	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/21 09:00	09/14/21 19:19	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/11/21 09:00	09/14/21 19:19	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/21 09:00	09/14/21 19:19	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/21 09:00	09/14/21 19:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/11/21 09:00	09/14/21 19:19	7439-92-1	
Lithium	0.0028J	mg/L	0.030	0.00073	1	09/11/21 09:00	09/14/21 19:19	7439-93-2	
Molybdenum	0.0056J	mg/L	0.010	0.00074	1	09/11/21 09:00	09/14/21 19:19	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/21 09:00	09/14/21 19:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/21 09:00	09/14/21 19:19	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 11:51	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	65.0	mg/L	10.0	10.0	1		09/15/21 18:56		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.0	mg/L	1.0	0.60	1		09/13/21 01:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/13/21 01:00	16984-48-8	
Sulfate	0.99J	mg/L	1.0	0.50	1		09/13/21 01:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

Sample: B-119D		Lab ID: 92560139003		Collected: 09/08/21 15:17		Received: 09/09/21 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/09/21 10:19		
pH	6.88	Std. Units			1		09/09/21 10:19		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	20.2	mg/L	1.0	0.12	1	09/11/21 09:00	09/13/21 16:57	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00087J	mg/L	0.0030	0.00078	1	09/11/21 09:00	09/14/21 19:25	7440-36-0	
Arsenic	0.0014J	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:25	7440-38-2	
Barium	0.0080	mg/L	0.0050	0.00067	1	09/11/21 09:00	09/14/21 19:25	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/21 09:00	09/14/21 19:25	7440-41-7	
Boron	0.018J	mg/L	0.040	0.0086	1	09/11/21 09:00	09/14/21 19:25	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/21 09:00	09/14/21 19:25	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/21 09:00	09/14/21 19:25	7440-47-3	
Cobalt	0.00077J	mg/L	0.0050	0.00039	1	09/11/21 09:00	09/14/21 19:25	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/11/21 09:00	09/14/21 19:25	7439-92-1	
Lithium	0.0028J	mg/L	0.030	0.00073	1	09/11/21 09:00	09/14/21 19:25	7439-93-2	
Molybdenum	0.022	mg/L	0.010	0.00074	1	09/11/21 09:00	09/14/21 19:25	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/21 09:00	09/14/21 19:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/21 09:00	09/14/21 19:25	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 11:59	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	191	mg/L	10.0	10.0	1		09/15/21 18:56		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.5	mg/L	1.0	0.60	1		09/13/21 01:16	16887-00-6	
Fluoride	0.16	mg/L	0.10	0.050	1		09/13/21 01:16	16984-48-8	
Sulfate	76.2	mg/L	1.0	0.50	1		09/13/21 01:16	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

Sample: B-116D		Lab ID: 92560139004		Collected: 09/09/21 13:53		Received: 09/10/21 17:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/13/21 08:34		
pH	6.02	Std. Units			1		09/13/21 08:34		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	9.9	mg/L	1.0	0.12	1	09/17/21 11:09	09/17/21 19:05	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/17/21 11:11	09/17/21 16:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/17/21 11:11	09/17/21 16:17	7440-38-2	
Barium	0.017	mg/L	0.0050	0.00067	1	09/17/21 11:11	09/17/21 16:17	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/17/21 11:11	09/17/21 16:17	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/17/21 11:11	09/17/21 16:17	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/17/21 11:11	09/17/21 16:17	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/17/21 11:11	09/17/21 16:17	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/17/21 11:11	09/17/21 16:17	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/17/21 11:11	09/17/21 16:17	7439-92-1	
Lithium	0.0055J	mg/L	0.030	0.00073	1	09/17/21 11:11	09/17/21 16:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/17/21 11:11	09/17/21 16:17	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/17/21 11:11	09/17/21 16:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/17/21 11:11	09/17/21 16:17	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	09/21/21 07:00	09/21/21 12:01	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	93.0	mg/L	10.0	10.0	1		09/15/21 18:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.7	mg/L	1.0	0.60	1		09/15/21 06:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/15/21 06:23	16984-48-8	
Sulfate	0.73J	mg/L	1.0	0.50	1		09/15/21 06:23	14808-79-8	

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

QC Batch: 646610

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560139001, 92560139002, 92560139003

METHOD BLANK: 3391819

Matrix: Water

Associated Lab Samples: 92560139001, 92560139002, 92560139003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/21 14:48	

LABORATORY CONTROL SAMPLE: 3391820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391821 3391822

Parameter	Units	92558259010		3391821		3391822		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Calcium	mg/L	1.4	1	1	1	2.5	2.5	106	109	75-125	1	20

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

QC Batch: 648035

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560139004

METHOD BLANK: 3398813

Matrix: Water

Associated Lab Samples: 92560139004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/17/21 18:21	

LABORATORY CONTROL SAMPLE: 3398814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398815 3398816

Parameter	Units	3398815		3398816		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	18.3	1	1	18.8	19.3	57	102	75-125	2	20 M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

QC Batch: 646612 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92560139001, 92560139002, 92560139003

METHOD BLANK: 3391827 Matrix: Water
Associated Lab Samples: 92560139001, 92560139002, 92560139003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/14/21 17:25	
Arsenic	mg/L	ND	0.0050	0.0011	09/14/21 17:25	
Barium	mg/L	ND	0.0050	0.00067	09/14/21 17:25	
Beryllium	mg/L	ND	0.00050	0.000054	09/14/21 17:25	
Boron	mg/L	ND	0.040	0.0086	09/14/21 17:25	
Cadmium	mg/L	ND	0.00050	0.00011	09/14/21 17:25	
Chromium	mg/L	ND	0.0050	0.0011	09/14/21 17:25	
Cobalt	mg/L	ND	0.0050	0.00039	09/14/21 17:25	
Lead	mg/L	ND	0.0010	0.00089	09/14/21 17:25	
Lithium	mg/L	ND	0.030	0.00073	09/14/21 17:25	
Molybdenum	mg/L	ND	0.010	0.00074	09/14/21 17:25	
Selenium	mg/L	ND	0.0050	0.0014	09/14/21 17:25	
Thallium	mg/L	ND	0.0010	0.00018	09/14/21 17:25	

LABORATORY CONTROL SAMPLE: 3391828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.094	94	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391829 3391830

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92559417001	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391829		3391830		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92559417001 Result	MS Spike Conc.	MSD Spike Conc.									
Barium	mg/L	0.028	0.1	0.1	0.13	0.13	98	99	75-125	0	20		
Beryllium	mg/L	0.00016J	0.1	0.1	0.097	0.099	97	98	75-125	2	20		
Boron	mg/L	1.2	1	1	2.3	2.5	92	116	75-125	10	20		
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	0	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20		
Lithium	mg/L	0.0014J	0.1	0.1	0.099	0.10	98	102	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	1	20		
Selenium	mg/L	0.021	0.1	0.1	0.12	0.12	100	101	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

QC Batch: 648036 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560139004

METHOD BLANK: 3398822 Matrix: Water
Associated Lab Samples: 92560139004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/17/21 15:37	
Arsenic	mg/L	ND	0.0050	0.0011	09/17/21 15:37	
Barium	mg/L	ND	0.0050	0.00067	09/17/21 15:37	
Beryllium	mg/L	ND	0.00050	0.000054	09/17/21 15:37	
Boron	mg/L	ND	0.040	0.0086	09/17/21 15:37	
Cadmium	mg/L	ND	0.00050	0.00011	09/17/21 15:37	
Chromium	mg/L	ND	0.0050	0.0011	09/17/21 15:37	
Cobalt	mg/L	ND	0.0050	0.00039	09/17/21 15:37	
Lead	mg/L	ND	0.0010	0.00089	09/17/21 15:37	
Lithium	mg/L	ND	0.030	0.00073	09/17/21 15:37	
Molybdenum	mg/L	ND	0.010	0.00074	09/17/21 15:37	
Selenium	mg/L	ND	0.0050	0.0014	09/17/21 15:37	
Thallium	mg/L	ND	0.0010	0.00018	09/17/21 15:37	

LABORATORY CONTROL SAMPLE: 3398823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.096	96	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398824 3398825

Parameter	Units	92560138002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	2	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

Parameter	Units	3398824		3398825		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92560138002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.099	0.1	0.1	0.21	0.20	114	102	75-125	6	20		
Beryllium	mg/L	ND	0.1	0.1	0.091	0.096	91	96	75-125	5	20		
Boron	mg/L	0.065	1	1	0.97	1.0	91	97	75-125	6	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	3	20		
Cobalt	mg/L	0.0064	0.1	0.1	0.11	0.10	105	98	75-125	7	20		
Lead	mg/L	ND	0.1	0.1	0.099	0.099	99	98	75-125	0	20		
Lithium	mg/L	0.0091J	0.1	0.1	0.10	0.11	94	99	75-125	5	20		
Molybdenum	mg/L	0.025	0.1	0.1	0.13	0.12	101	99	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.093	0.095	92	95	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

QC Batch: 648334	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92560139001, 92560139002, 92560139003, 92560139004

METHOD BLANK: 3400299 Matrix: Water

Associated Lab Samples: 92560139001, 92560139002, 92560139003, 92560139004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	09/21/21 10:38	

LABORATORY CONTROL SAMPLE: 3400300

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400301 3400302

Parameter	Units	3400301		3400302		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0024	0.0023	92	91	75-125	2	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

QC Batch: 647027 Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92560139001, 92560139002, 92560139003, 92560139004

METHOD BLANK: 3393790 Matrix: Water
Associated Lab Samples: 92560139001, 92560139002, 92560139003, 92560139004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/15/21 18:56	

LABORATORY CONTROL SAMPLE: 3393791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	90-111	

SAMPLE DUPLICATE: 3393792

Parameter	Units	92560138001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	75.0	78.0	4	10	

SAMPLE DUPLICATE: 3393793

Parameter	Units	92560281005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	139	4	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

QC Batch:	646662	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92560139001, 92560139002, 92560139003		

METHOD BLANK: 3391993 Matrix: Water
Associated Lab Samples: 92560139001, 92560139002, 92560139003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/12/21 19:51	
Fluoride	mg/L	ND	0.10	0.050	09/12/21 19:51	
Sulfate	mg/L	ND	1.0	0.50	09/12/21 19:51	

LABORATORY CONTROL SAMPLE: 3391994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.4	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391995 3391996

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560743001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	298	50	50	50	346	344	96	91	90-110	1	10	
Fluoride	mg/L	13.7	2.5	2.5	2.5	21.8	21.5	326	310	90-110	2	10 M1	
Sulfate	mg/L	702	50	50	50	717	721	28	36	90-110	1	10 M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3391997 3391998

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92560743011 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	66.1	50	50	50	144	145	156	158	90-110	1	10 M1	
Fluoride	mg/L	3.4	2.5	2.5	2.5	1.4	1.4	-81	-79	90-110	4	10 M1	
Sulfate	mg/L	82.0	50	50	50	131	131	98	98	90-110	0	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

QC Batch: 647162 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92560139004

METHOD BLANK: 3394748 Matrix: Water
Associated Lab Samples: 92560139004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/14/21 22:53	
Fluoride	mg/L	ND	0.10	0.050	09/14/21 22:53	
Sulfate	mg/L	ND	1.0	0.50	09/14/21 22:53	

LABORATORY CONTROL SAMPLE: 3394749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.4	101	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394750 3394751

Parameter	Units	92560938001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	3.0	50	50	58.4	61.9	111	118	90-110	6	10	M1	
Fluoride	mg/L	0.091J	2.5	2.5	3.4	3.5	131	134	90-110	2	10	M1	
Sulfate	mg/L	33.4	50	50	88.5	91.8	110	117	90-110	4	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394752 3394753

Parameter	Units	92560676003		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	146	50	50	196	198	99	105	90-110	1	10		
Fluoride	mg/L	0.29	2.5	2.5	4.9	4.8	184	179	90-110	2	10	M1	
Sulfate	mg/L	140	50	50	193	195	105	109	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3394754 3394755

Parameter	Units	92560676001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	4.9	50	50	62.8	64.2	116	119	90-110	2	10	M1	
Fluoride	mg/L	0.40	2.5	2.5	3.5	3.6	124	127	90-110	2	10	M1	
Sulfate	mg/L	3.8	50	50	62.4	63.7	117	120	90-110	2	10	M1	

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QUALIFIERS

Project: MCDONOUGH PIEZOMETERS

Pace Project No.: 92560139

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH PIEZOMETERS
Pace Project No.: 92560139

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560139001	B-117D				
92560139002	B-118				
92560139003	B-119D				
92560139004	B-116D				
92560139001	B-117D	EPA 3010A	646610	EPA 6010D	646635
92560139002	B-118	EPA 3010A	646610	EPA 6010D	646635
92560139003	B-119D	EPA 3010A	646610	EPA 6010D	646635
92560139004	B-116D	EPA 3010A	648035	EPA 6010D	648116
92560139001	B-117D	EPA 3005A	646612	EPA 6020B	646637
92560139002	B-118	EPA 3005A	646612	EPA 6020B	646637
92560139003	B-119D	EPA 3005A	646612	EPA 6020B	646637
92560139004	B-116D	EPA 3005A	648036	EPA 6020B	648158
92560139001	B-117D	EPA 7470A	648334	EPA 7470A	648431
92560139002	B-118	EPA 7470A	648334	EPA 7470A	648431
92560139003	B-119D	EPA 7470A	648334	EPA 7470A	648431
92560139004	B-116D	EPA 7470A	648334	EPA 7470A	648431
92560139001	B-117D	SM 2540C-2011	647027		
92560139002	B-118	SM 2540C-2011	647027		
92560139003	B-119D	SM 2540C-2011	647027		
92560139004	B-116D	SM 2540C-2011	647027		
92560139001	B-117D	EPA 300.0 Rev 2.1 1993	646662		
92560139002	B-118	EPA 300.0 Rev 2.1 1993	646662		
92560139003	B-119D	EPA 300.0 Rev 2.1 1993	646662		
92560139004	B-116D	EPA 300.0 Rev 2.1 1993	647162		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92560139**

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/9/24
Car

Packing Material: Bubble Wrap Bubble Bags None Other
Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Biological Tissue Frozen? Yes No N/A

Cooler Temp: 2.6 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.5

USDA Regulated Soil (N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

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

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

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

Project # **WO# : 92560139**

PM: NMG

Due Date: 09/23/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		1	1																										
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pH Adjustment Log for Preserved Samples

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

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



Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

[Empty box for Project #]

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 9/10/21

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 230 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 3.4 Correction Factor: +0.1
Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

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

Project #

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP9A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		✓	✓			✓																		✓					
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pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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

October 22, 2021

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

RE: Project: MCDONOUGH PIEZOMETERS RADS
Pace Project No.: 92560137

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 09, 2021 and September 10, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH PIEZOMETERS RADS
Pace Project No.: 92560137

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92560137001	B-117D	Water	09/08/21 16:15	09/09/21 08:45
92560137002	B-118	Water	09/08/21 13:35	09/09/21 08:45
92560137003	B-119D	Water	09/08/21 15:17	09/09/21 08:45
92560137004	B-116D	Water	09/09/21 13:53	09/10/21 17:40

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92560137001	B-117D	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92560137002	B-118	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92560137003	B-119D	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92560137004	B-116D	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

Sample: B-117D **Lab ID: 92560137001** Collected: 09/08/21 16:15 Received: 09/09/21 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.124 ± 0.226 (0.514) C:95% T:NA	pCi/L	10/06/21 12:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.571 ± 0.456 (0.906) C:67% T:87%	pCi/L	10/04/21 15:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.695 ± 0.682 (1.42)	pCi/L	10/07/21 15:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

Sample: B-118 **Lab ID: 92560137002** Collected: 09/08/21 13:35 Received: 09/09/21 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	-0.0218 ± 0.176 (0.498) C:96% T:NA	pCi/L	10/06/21 12:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0324 ± 0.341 (0.790) C:65% T:94%	pCi/L	10/04/21 15:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.0324 ± 0.517 (1.29)	pCi/L	10/07/21 15:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

Sample: B-119D **Lab ID: 92560137003** Collected: 09/08/21 15:17 Received: 09/09/21 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	-0.0190 ± 0.153 (0.445) C:92% T:NA	pCi/L	10/06/21 12:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.168 ± 0.399 (0.887) C:67% T:88%	pCi/L	10/04/21 15:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.168 ± 0.552 (1.33)	pCi/L	10/07/21 15:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

Sample: B-116D **Lab ID: 92560137004** Collected: 09/09/21 13:53 Received: 09/10/21 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.388 ± 0.259 (0.447) C:100% T:NA	pCi/L	10/06/21 08:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.499 ± 0.409 (0.817) C:64% T:91%	pCi/L	10/04/21 14:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.887 ± 0.668 (1.26)	pCi/L	10/06/21 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

QC Batch:	465345	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92560137001, 92560137002, 92560137003

METHOD BLANK: 2247073 Matrix: Water

Associated Lab Samples: 92560137001, 92560137002, 92560137003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.306 ± 0.283 (0.572) C:72% T:95%	pCi/L	10/04/21 11:58	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

QC Batch: 465347

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560137001, 92560137002, 92560137003

METHOD BLANK: 2247077

Matrix: Water

Associated Lab Samples: 92560137001, 92560137002, 92560137003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0279 ± 0.217 (0.589) C:92% T:NA	pCi/L	10/06/21 12:00	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

QC Batch: 465343

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560137004

METHOD BLANK: 2247069

Matrix: Water

Associated Lab Samples: 92560137004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.209 ± 0.287 (0.612) C:69% T:89%	pCi/L	10/04/21 11:58	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

QC Batch: 465344

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92560137004

METHOD BLANK: 2247072

Matrix: Water

Associated Lab Samples: 92560137004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00717 ± 0.168 (0.443) C:96% T:NA	pCi/L	10/06/21 08:19	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH PIEZOMETERS RADS

Pace Project No.: 92560137

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH PIEZOMETERS RADS
Pace Project No.: 92560137

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560137001	B-117D	EPA 9315	465347		
92560137002	B-118	EPA 9315	465347		
92560137003	B-119D	EPA 9315	465347		
92560137004	B-116D	EPA 9315	465344		
92560137001	B-117D	EPA 9320	465345		
92560137002	B-118	EPA 9320	465345		
92560137003	B-119D	EPA 9320	465345		
92560137004	B-116D	EPA 9320	465343		
92560137001	B-117D	Total Radium Calculation	467213		
92560137002	B-118	Total Radium Calculation	467213		
92560137003	B-119D	Total Radium Calculation	467213		
92560137004	B-116D	Total Radium Calculation	467011		

REPORT OF LABORATORY ANALYSIS

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

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

GA Tower

Project #:

WO# : 92560137

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *9/16/24*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 2.6 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	<i>W</i>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 2 of 2
Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

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

Project #

WO# : 92560137

PM: NMG

Due Date: 09/30/21

CLIENT: GA-GA Power

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		✓	✓			✓																							
2		✓	✓			✓																							
3		✓	✓			✓																							
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12																													

pH Adjustment Log for Preserved Samples

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

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



Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

[Empty box for Project #]

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 9/10/21

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 230 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 3.4 Correction Factor: ± 0.1
Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.07

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

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

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

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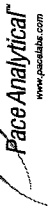
Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP9A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1																														
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pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JC2
Date: 10/1/2021
Worklist: 62848
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247069
MB Concentration:	0.209
MB 2 Sigma CSU:	0.287
MB MDC:	0.612
MB Numerical Performance Indicator:	1.43
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS62848	LCS062848
Count Date:	10/4/2021	10/4/2021
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.973	37.973
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.807	0.812
Target Conc. (pCi/L, g, F):	4.703	4.676
Uncertainty (Calculated):	0.230	0.229
Result (pCi/L, g, F):	3.772	4.931
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.892	1.094
Numerical Performance Indicator:	-1.98	0.45
Percent Recovery:	80.20%	105.45%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS62848
Duplicate Sample I.D.:	LCS062848
Sample Result (pCi/L, g, F):	3.772
Sample Duplicate Result (pCi/L, g, F):	0.892
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.931
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.094
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.609
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	27.20%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

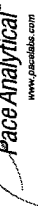
Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

10/1/2021
JC2

JL
10/5/21

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/1/2021
Worklist: 62850
Matrix: WT

Method Blank Assessment	
MB Sample ID	2247073
MB concentration:	0.306
MB 2 Sigma CSU:	0.283
MB MDC:	0.572
MB Numerical Performance Indicator:	2.12
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS62850	Y
Count Date:	10/4/2021	LCS62850
Spike I.D.:	21-029	10/4/2021
Decay Corrected Spike Concentration (pCi/mL):	37.973	21-029
Volume Used (mL):	0.10	37.973
Aliquot Volume (L, g, F):	0.805	0.10
Target Conc. (pCi/L, g, F):	4.716	0.816
Uncertainty (Calculated):	0.231	4.653
Result (pCi/L, g, F):	5.361	0.228
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.173	4.280
Numerical Performance Indicator:	1.06	0.992
Percent Recovery:	113.68%	-0.72
Status vs Numerical Indicator:	N/A	91.98%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	135%	Pass
Lower % Recovery Limits:	60%	135%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS62850
Duplicate Sample I.D.:	LCS62850
Sample Result (pCi/L, g, F):	5.361
Sample Duplicate Result (pCi/L, g, F):	1.173
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.280
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.992
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	1.380
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.11%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

10/5/21

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Relatio
CMM*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/28/2021
Worklist: 62849
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247072
MB concentration:	0.007
M/B Counting Uncertainty:	0.168
MB MDC:	0.443
MB Numerical Performance Indicator:	0.08
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

LCS/D (Y or N)?	LCS/D (Y or N)?	
	LCS62849	LCS62849
Count Date:	10/6/2021	10/6/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Alliquot Volume (L, g, F):	0.502	0.502
Target Conc. (pCi/L, g, F):	4.779	4.791
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.249	5.218
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.691	0.720
Numerical Performance Indicator:	1.33	1.16
Percent Recovery:	109.83%	108.93%
Status vs Numerical Indicator:	Pass	N/A
Upper % Recovery Limits:	125%	Pass
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	92560766017
Duplicate Sample I.D.:	92560766017DUP
Sample Result (pCi/L, g, F):	0.383
Sample Duplicate Result (pCi/L, g, F):	0.227
Sample Result Counting Uncertainty (pCi/L, g, F):	0.691
Sample Duplicate Result (pCi/L, g, F):	0.174
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.199
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.060
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.82%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

*** Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

**** Batch cannot be re-prepped due to unacceptable precision. N/A
11/10/21
SAM 12/10/21

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D.</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):</p> <p>Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D. Sample MS I.D. Sample MSD I.D.</p> <p>Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:</p>

12/10/21
SAM 12/10/21

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: CLA
Date: 9/28/2021
Worklist: 62851
Matrix: DW

Method Blank Assessment	
MB Sample ID	2247077
MB concentration:	-0.028
M/B Counting Uncertainty:	0.217
MB MDC:	0.589
MB Numerical Performance Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	Y	N
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.508
Target Conc. (pCi/L, g, F):	4.792	4.734
Uncertainty (Calculated):	0.058	0.057
Result (pCi/L, g, F):	4.037	4.418
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.623	0.646
Numerical Performance Indicator:	-2.37	-0.95
Percent Recovery:	84.25%	93.33%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:	92560765014
Duplicate Sample I.D.:	92560765014DUP
Sample Result (pCi/L, g, F):	0.428
Sample Result Counting Uncertainty (pCi/L, g, F):	0.225
Sample Duplicate Result (pCi/L, g, F):	0.178
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.185
Are sample and/or duplicate results below RL?	See Below
Duplicate Numerical Performance Indicator:	1.678 OK
Duplicate Status vs Numerical Indicator:	82.59%
Duplicate Status vs RPD:	N/A
% RPD Limit:	Fail***
	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample Matrix Spike Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator:		
MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

L/MDCs N/A

10/7/21
DW

10/17/21

September 14, 2021

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

Dear Kelley Sharpe:

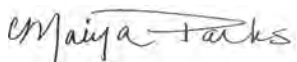
Enclosed are the analytical results for sample(s) received by the laboratory on September 08, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Maiya Parks
maiya.parks@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Ben Hodges, Georgia Power
Warren Johnson, ARCADIS - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559814

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559814

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92559814001	UT-1_US	Water	09/07/21 17:00	09/08/21 12:45
92559814002	UT02	Water	09/07/21 16:52	09/08/21 12:45
92559814003	UT03	Water	09/07/21 16:44	09/08/21 12:45
92559814004	UT01_DS	Water	09/07/21 16:33	09/08/21 12:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559814

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92559814001	UT-1_US	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559814002	UT02	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559814003	UT03	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559814004	UT01_DS	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

Sample: UT-1_US	Lab ID: 92559814001	Collected: 09/07/21 17:00	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.2	mg/L	0.20	1	09/09/21 11:55	09/09/21 18:36	7440-09-7	
Sodium	13.3	mg/L	1.0	1	09/09/21 11:55	09/09/21 18:36	7440-23-5	
Calcium	16.3	mg/L	1.0	1	09/09/21 11:55	09/09/21 18:36	7440-70-2	
Magnesium	3.3	mg/L	0.050	1	09/09/21 11:55	09/09/21 18:36	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 21:50	7440-38-2	
Boron	0.041	mg/L	0.040	1	09/09/21 11:50	09/09/21 21:50	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	09/09/21 11:50	09/09/21 21:50	7439-98-7	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	117	mg/L	10.0	1		09/09/21 19:53		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	60.1	mg/L	5.0	1		09/10/21 14:05		
Alkalinity, Total as CaCO ₃	60.1	mg/L	5.0	1		09/10/21 14:05		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	13.3	mg/L	1.0	1		09/09/21 19:48	16887-00-6	
Fluoride	0.34	mg/L	0.10	1		09/09/21 19:48	16984-48-8	
Sulfate	13.2	mg/L	1.0	1		09/09/21 19:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

Sample: UT02	Lab ID: 92559814002	Collected: 09/07/21 16:52	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.2	mg/L	0.20	1	09/09/21 11:55	09/09/21 18:41	7440-09-7	
Sodium	13.4	mg/L	1.0	1	09/09/21 11:55	09/09/21 18:41	7440-23-5	
Calcium	17.3	mg/L	1.0	1	09/09/21 11:55	09/09/21 18:41	7440-70-2	
Magnesium	3.6	mg/L	0.050	1	09/09/21 11:55	09/09/21 18:41	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 21:56	7440-38-2	
Boron	0.081	mg/L	0.040	1	09/09/21 11:50	09/09/21 21:56	7440-42-8	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	120	mg/L	10.0	1		09/09/21 19:53		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	62.5	mg/L	5.0	1		09/10/21 15:14		
Alkalinity, Total as CaCO ₃	62.5	mg/L	5.0	1		09/10/21 15:14		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	13.1	mg/L	1.0	1		09/09/21 21:24	16887-00-6	
Fluoride	0.32	mg/L	0.10	1		09/09/21 21:24	16984-48-8	
Sulfate	15.2	mg/L	1.0	1		09/09/21 21:24	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

Sample: UT03	Lab ID: 92559814003	Collected: 09/07/21 16:44		Received: 09/08/21 12:45		Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.2	mg/L	0.20	1	09/09/21 11:55	09/09/21 18:55	7440-09-7	
Sodium	13.2	mg/L	1.0	1	09/09/21 11:55	09/09/21 18:55	7440-23-5	
Calcium	17.4	mg/L	1.0	1	09/09/21 11:55	09/09/21 18:55	7440-70-2	
Magnesium	3.5	mg/L	0.050	1	09/09/21 11:55	09/09/21 18:55	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:01	7440-38-2	
Boron	0.088	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:01	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	09/09/21 11:50	09/09/21 22:01	7439-98-7	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	72.0	mg/L	10.0	1		09/09/21 19:53		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	60.6	mg/L	5.0	1		09/10/21 15:21		
Alkalinity, Total as CaCO ₃	60.6	mg/L	5.0	1		09/10/21 15:21		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	12.9	mg/L	1.0	1		09/09/21 21:44	16887-00-6	
Fluoride	0.32	mg/L	0.10	1		09/09/21 21:44	16984-48-8	
Sulfate	15.1	mg/L	1.0	1		09/09/21 21:44	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559814

Sample: UT01_DS		Lab ID: 92559814004		Collected: 09/07/21 16:33	Received: 09/08/21 12:45	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	3.5	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:00	7440-09-7	
Sodium	13.4	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:00	7440-23-5	
Calcium	18.5	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:00	7440-70-2	
Magnesium	3.9	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:00	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:07	7440-38-2	
Boron	0.13	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:07	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	09/09/21 11:50	09/09/21 22:07	7439-98-7	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	130	mg/L	10.0	1		09/09/21 19:53		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO ₃)	62.2	mg/L	5.0	1		09/10/21 15:38		
Alkalinity, Total as CaCO ₃	62.2	mg/L	5.0	1		09/10/21 15:38		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	12.7	mg/L	1.0	1		09/09/21 22:05	16887-00-6	
Fluoride	0.31	mg/L	0.10	1		09/09/21 22:05	16984-48-8	
Sulfate	16.7	mg/L	1.0	1		09/09/21 22:05	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

QC Batch: 645863 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

METHOD BLANK: 3387833 Matrix: Water
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	09/09/21 16:55	
Magnesium	mg/L	ND	0.050	09/09/21 16:55	
Potassium	mg/L	ND	0.20	09/09/21 16:55	
Sodium	mg/L	ND	1.0	09/09/21 16:55	

LABORATORY CONTROL SAMPLE: 3387834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.1	105	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3387835 3387836

Parameter	Units	92558259003 Result	MS Spike Conc.	MSD Spike Conc.	3387835		3387836		% Rec Limits	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec			
Calcium	mg/L	11.0	1	1	12.0	12.1	103	112	75-125	1	20
Magnesium	mg/L	36.1	1	1	37.0	36.6	92	43	75-125	1	20 M1
Potassium	mg/L	6.1	1	1	7.1	7.0	102	90	75-125	2	20
Sodium	mg/L	24.9	1	1	25.9	25.3	101	40	75-125	2	20 M1

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

QC Batch: 645868 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

METHOD BLANK: 3387883 Matrix: Water
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	09/09/21 20:18	
Boron	mg/L	ND	0.040	09/09/21 20:18	
Molybdenum	mg/L	ND	0.010	09/09/21 20:18	

LABORATORY CONTROL SAMPLE: 3387884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.95	95	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3387885 3387886

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92558259007	Result	Spike Conc.	Spike Conc.								
Arsenic	mg/L	0.0013J	0.1	0.1	0.098	0.098	97	97	75-125	0	20		
Boron	mg/L	6.1	1	1	7.4	7.1	131	100	75-125	4	20	M1	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	110	106	75-125	4	20		

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

QC Batch: 646143 Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

METHOD BLANK: 3389158 Matrix: Water
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	09/09/21 19:50	

LABORATORY CONTROL SAMPLE: 3389159

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	90-111	

SAMPLE DUPLICATE: 3389160

Parameter	Units	92560175001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	106000	138000	26	10	D6

SAMPLE DUPLICATE: 3389161

Parameter	Units	92559795003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	43.0	114	90	10	D6

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

QC Batch: 646357 Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

METHOD BLANK: 3390316 Matrix: Water
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	5.0	09/10/21 13:46	
Alkalinity, Bicarbonate (CaCO ₃)	mg/L	ND	5.0	09/10/21 13:46	

LABORATORY CONTROL SAMPLE: 3390317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	52.2	104	80-120	

LABORATORY CONTROL SAMPLE: 3390318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	51.6	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3390319 3390320

Parameter	Units	3390319		3390320		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result							
Alkalinity, Total as CaCO ₃	mg/L	60.1	50	50	109	111	98	101	80-120	2	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3390321 3390322

Parameter	Units	3390321		3390322		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result							
Alkalinity, Total as CaCO ₃	mg/L	26.4	50	50	77.2	78.1	102	103	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559814

QC Batch: 646085 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

METHOD BLANK: 3388761 Matrix: Water
Associated Lab Samples: 92559814001, 92559814002, 92559814003, 92559814004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/09/21 17:24	
Fluoride	mg/L	ND	0.10	09/09/21 17:24	
Sulfate	mg/L	ND	1.0	09/09/21 17:24	

LABORATORY CONTROL SAMPLE: 3388762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.8	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3388763 3388764

Parameter	Units	92559773002		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	34.7	50	50	87.2	87.7	105	106	90-110	1	10		
Fluoride	mg/L	0.61	2.5	2.5	3.3	3.3	107	106	90-110	1	10		
Sulfate	mg/L	135	50	50	184	184	98	99	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3388765 3388766

Parameter	Units	92559852002		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	9.7	50	50	62.5	63.9	106	108	90-110	2	10		
Fluoride	mg/L	0.14	2.5	2.5	2.7	2.8	102	105	90-110	3	10		
Sulfate	mg/L	6.4	50	50	61.0	62.2	109	112	90-110	2	10 M1		

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559814

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559814

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92559814001	UT-1_US	EPA 3010A	645863	EPA 6010D	646176
92559814002	UT02	EPA 3010A	645863	EPA 6010D	646176
92559814003	UT03	EPA 3010A	645863	EPA 6010D	646176
92559814004	UT01_DS	EPA 3010A	645863	EPA 6010D	646176
92559814001	UT-1_US	EPA 3005A	645868	EPA 6020B	646190
92559814002	UT02	EPA 3005A	645868	EPA 6020B	646190
92559814003	UT03	EPA 3005A	645868	EPA 6020B	646190
92559814004	UT01_DS	EPA 3005A	645868	EPA 6020B	646190
92559814001	UT-1_US	SM 2540C-2011	646143		
92559814002	UT02	SM 2540C-2011	646143		
92559814003	UT03	SM 2540C-2011	646143		
92559814004	UT01_DS	SM 2540C-2011	646143		
92559814001	UT-1_US	SM 2320B-2011	646357		
92559814002	UT02	SM 2320B-2011	646357		
92559814003	UT03	SM 2320B-2011	646357		
92559814004	UT01_DS	SM 2320B-2011	646357		
92559814001	UT-1_US	EPA 300.0 Rev 2.1 1993	646085		
92559814002	UT02	EPA 300.0 Rev 2.1 1993	646085		
92559814003	UT03	EPA 300.0 Rev 2.1 1993	646085		
92559814004	UT01_DS	EPA 300.0 Rev 2.1 1993	646085		

REPORT OF LABORATORY ANALYSIS

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Document Name: **Sample Condition Upon Receipt (SCUR)** Document Revised: October 28, 2020
 Page 1 of 2
 Document No.: **F-CAR-CS-033-Rev.07** Issuing Authority: **Pace Carolinas Quality Office**

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Arcadis

Project #: **WO#: 92559814**
 PM: MP Due Date: 09/15/21
 CLIENT: GA-ArcadAt1

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/8/21
COV

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 3.8 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.7

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY _____ Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.07

Issuing Authority:
Pace Carolinas Quality Office

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

Proj

WO# : 92559814

Due Date: 09/15/21

PM: MP

CLIENT: GA-ArcadAtl

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1		2																												
2		2																												
3		2																												
4		2																												
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

September 17, 2021

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

Dear Kelley Sharpe:

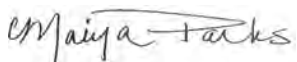
Enclosed are the analytical results for sample(s) received by the laboratory on September 08, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Maiya Parks
maiya.parks@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Ben Hodges, Georgia Power
Warren Johnson, ARCADIS - Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92559852001	CR+0.4	Water	09/07/21 14:56	09/08/21 12:45
92559852002	CR+0.2	Water	09/07/21 15:03	09/08/21 12:45
92559852003	CR-0.1	Water	09/07/21 15:08	09/08/21 12:45
92559852004	DW_DS	Water	09/07/21 15:10	09/08/21 12:45
92559852005	DW_US	Water	09/07/21 15:18	09/08/21 12:45
92559852006	CR-0.2	Water	09/07/21 15:23	09/08/21 12:45
92559852007	CR-0.5	Water	09/07/21 15:29	09/08/21 12:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92559852001	CR+0.4	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559852002	CR+0.2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559852003	CR-0.1	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559852004	DW_DS	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559852005	DW_US	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559852006	CR-0.2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92559852007	CR-0.5	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

Sample: CR+0.4	Lab ID: 92559852001	Collected: 09/07/21 14:56	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.4	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:05	7440-09-7	
Sodium	10.0	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:05	7440-23-5	
Calcium	6.7	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:05	7440-70-2	
Magnesium	2.9	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:05	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:13	7440-38-2	
Boron	ND	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:13	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:13	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	09/09/21 11:50	09/09/21 22:13	7439-98-7	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	77.0	mg/L	10.0	1		09/09/21 19:53		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	26.6	mg/L	5.0	1		09/10/21 15:45		
Alkalinity, Total as CaCO ₃	26.6	mg/L	5.0	1		09/10/21 15:45		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.9	mg/L	1.0	1		09/09/21 22:25	16887-00-6	
Fluoride	0.14	mg/L	0.10	1		09/09/21 22:25	16984-48-8	
Sulfate	7.0	mg/L	1.0	1		09/09/21 22:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Sample: CR+0.2	Lab ID: 92559852002	Collected: 09/07/21 15:03	Received: 09/08/21 12:45	Matrix: Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	3.3	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:09	7440-09-7		
Sodium	9.9	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:09	7440-23-5		
Calcium	6.6	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:09	7440-70-2		
Magnesium	2.7	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:09	7439-95-4		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:19	7440-38-2		
Boron	ND	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:19	7440-42-8		
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:19	7440-48-4		
Molybdenum	ND	mg/L	0.010	1	09/09/21 11:50	09/09/21 22:19	7439-98-7		
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	73.0	mg/L	10.0	1		09/09/21 19:53			
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO ₃)	26.9	mg/L	5.0	1		09/10/21 15:50			
Alkalinity, Total as CaCO ₃	26.9	mg/L	5.0	1		09/10/21 15:50			
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.7	mg/L	1.0	1		09/09/21 22:45	16887-00-6		
Fluoride	0.14	mg/L	0.10	1		09/09/21 22:45	16984-48-8		
Sulfate	6.4	mg/L	1.0	1		09/09/21 22:45	14808-79-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

Sample: CR-0.1		Lab ID: 92559852003		Collected: 09/07/21 15:08	Received: 09/08/21 12:45	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	3.2	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:14	7440-09-7	
Sodium	9.4	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:14	7440-23-5	
Calcium	6.6	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:14	7440-70-2	
Magnesium	2.7	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:14	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:36	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:36	7440-48-4	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	78.0	mg/L	10.0	1		09/09/21 19:54		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO ₃)	26.8	mg/L	5.0	1		09/10/21 15:56		
Alkalinity, Total as CaCO ₃	26.8	mg/L	5.0	1		09/10/21 15:56		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	9.8	mg/L	1.0	1		09/09/21 23:51	16887-00-6	
Fluoride	0.14	mg/L	0.10	1		09/09/21 23:51	16984-48-8	
Sulfate	8.0	mg/L	1.0	1		09/09/21 23:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

Sample: DW_DS	Lab ID: 92559852004	Collected: 09/07/21 15:10	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.2	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:19	7440-09-7	
Sodium	9.6	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:19	7440-23-5	
Calcium	7.3	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:19	7440-70-2	
Magnesium	2.9	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:19	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:41	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:41	7440-48-4	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	83.0	mg/L	10.0	1		09/09/21 19:54		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	26.4	mg/L	5.0	1		09/10/21 16:02		
Alkalinity, Total as CaCO ₃	26.4	mg/L	5.0	1		09/10/21 16:02		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.8	mg/L	1.0	1		09/10/21 00:16	16887-00-6	
Fluoride	0.14	mg/L	0.10	1		09/10/21 00:16	16984-48-8	
Sulfate	10.4	mg/L	1.0	1		09/10/21 00:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Sample: DW_US	Lab ID: 92559852005	Collected: 09/07/21 15:18	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.4	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:24	7440-09-7	
Sodium	10.1	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:24	7440-23-5	
Calcium	6.7	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:24	7440-70-2	
Magnesium	2.8	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:24	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	0.073	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:47	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:47	7440-48-4	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	82.0	mg/L	10.0	1		09/09/21 19:54		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	28.0	mg/L	5.0	1		09/10/21 16:27		
Alkalinity, Total as CaCO ₃	28.0	mg/L	5.0	1		09/10/21 16:27		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.9	mg/L	1.0	1		09/10/21 01:37	16887-00-6	
Fluoride	0.14	mg/L	0.10	1		09/10/21 01:37	16984-48-8	
Sulfate	6.5	mg/L	1.0	1		09/10/21 01:37	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Sample: CR-0.2	Lab ID: 92559852006	Collected: 09/07/21 15:23	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.3	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:28	7440-09-7	
Sodium	9.7	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:28	7440-23-5	
Calcium	6.6	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:28	7440-70-2	
Magnesium	2.8	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:28	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:53	7440-38-2	
Boron	0.046	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:53	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:53	7440-48-4	
Selenium	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:53	7782-49-2	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	77.0	mg/L	10.0	1		09/13/21 17:34		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	27.5	mg/L	5.0	1		09/10/21 16:33		
Alkalinity, Total as CaCO ₃	27.5	mg/L	5.0	1		09/10/21 16:33		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.8	mg/L	1.0	1		09/10/21 01:53	16887-00-6	
Fluoride	0.13	mg/L	0.10	1		09/10/21 01:53	16984-48-8	
Sulfate	7.3	mg/L	1.0	1		09/10/21 01:53	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

Sample: CR-0.5	Lab ID: 92559852007	Collected: 09/07/21 15:29	Received: 09/08/21 12:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.1	mg/L	0.20	1	09/09/21 11:55	09/09/21 19:33	7440-09-7	
Sodium	9.2	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:33	7440-23-5	
Calcium	6.5	mg/L	1.0	1	09/09/21 11:55	09/09/21 19:33	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	09/09/21 11:55	09/09/21 19:33	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:59	7440-38-2	
Boron	ND	mg/L	0.040	1	09/09/21 11:50	09/09/21 22:59	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:59	7440-48-4	
Selenium	ND	mg/L	0.0050	1	09/09/21 11:50	09/09/21 22:59	7782-49-2	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	75.0	mg/L	10.0	1		09/13/21 17:34		
2320B Alkalinity								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	27.1	mg/L	5.0	1		09/10/21 16:48		
Alkalinity, Total as CaCO ₃	27.1	mg/L	5.0	1		09/10/21 16:48		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.6	mg/L	1.0	1		09/10/21 02:09	16887-00-6	
Fluoride	0.14	mg/L	0.10	1		09/10/21 02:09	16984-48-8	
Sulfate	6.3	mg/L	1.0	1		09/10/21 02:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

QC Batch: 645863 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

METHOD BLANK: 3387833 Matrix: Water
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	09/09/21 16:55	
Magnesium	mg/L	ND	0.050	09/09/21 16:55	
Potassium	mg/L	ND	0.20	09/09/21 16:55	
Sodium	mg/L	ND	1.0	09/09/21 16:55	

LABORATORY CONTROL SAMPLE: 3387834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.1	105	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3387835 3387836

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92558259003 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	11.0	1	1	12.0	12.1	103	112	75-125	1	20
Magnesium	mg/L	36.1	1	1	37.0	36.6	92	43	75-125	1	20 M1
Potassium	mg/L	6.1	1	1	7.1	7.0	102	90	75-125	2	20
Sodium	mg/L	24.9	1	1	25.9	25.3	101	40	75-125	2	20 M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

QC Batch:	645868	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

METHOD BLANK: 3387883 Matrix: Water
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	09/09/21 20:18	
Boron	mg/L	ND	0.040	09/09/21 20:18	
Cobalt	mg/L	ND	0.0050	09/09/21 20:18	
Molybdenum	mg/L	ND	0.010	09/09/21 20:18	
Selenium	mg/L	ND	0.0050	09/09/21 20:18	

LABORATORY CONTROL SAMPLE: 3387884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3387885 3387886

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92558259007 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	0.0013J	0.1	0.1	0.098	0.098	97	97	75-125	0	20
Boron	mg/L	6.1	1	1	7.4	7.1	131	100	75-125	4	20 M1
Cobalt	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	110	106	75-125	4	20
Selenium	mg/L	0.060	0.1	0.1	0.15	0.16	92	95	75-125	2	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

QC Batch: 646143 Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005

METHOD BLANK: 3389158 Matrix: Water
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	09/09/21 19:50	

LABORATORY CONTROL SAMPLE: 3389159

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	90-111	

SAMPLE DUPLICATE: 3389160

Parameter	Units	92560175001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	106000	138000	26	10	D6

SAMPLE DUPLICATE: 3389161

Parameter	Units	92559795003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	43.0	114	90	10	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

QC Batch: 646764 Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92559852006, 92559852007

METHOD BLANK: 3392639 Matrix: Water

Associated Lab Samples: 92559852006, 92559852007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	09/13/21 17:34	

LABORATORY CONTROL SAMPLE: 3392640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	410	102	90-111	

SAMPLE DUPLICATE: 3392641

Parameter	Units	92560619001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	506	546	8	10	

SAMPLE DUPLICATE: 3392642

Parameter	Units	92560079008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	70.0	91.0	26	10	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92559852

QC Batch: 646357 Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

METHOD BLANK: 3390316 Matrix: Water
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	09/10/21 13:46	
Alkalinity, Bicarbonate (CaCO3)	mg/L	ND	5.0	09/10/21 13:46	

LABORATORY CONTROL SAMPLE: 3390317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

LABORATORY CONTROL SAMPLE: 3390318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.6	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3390319 3390320

Parameter	Units	3390319		3390320		% Rec Limits	RPD	Max RPD	Qual		
		92559814001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result					MSD Result	
Alkalinity, Total as CaCO3	mg/L	60.1	50	50	109	111	98	101	80-120	2	25

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3390321 3390322

Parameter	Units	3390321		3390322		% Rec Limits	RPD	Max RPD	Qual		
		92559852004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result					MSD Result	
Alkalinity, Total as CaCO3	mg/L	26.4	50	50	77.2	78.1	102	103	80-120	1	25

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

QC Batch:	646085	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

METHOD BLANK: 3388761 Matrix: Water
Associated Lab Samples: 92559852001, 92559852002, 92559852003, 92559852004, 92559852005, 92559852006, 92559852007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/09/21 17:24	
Fluoride	mg/L	ND	0.10	09/09/21 17:24	
Sulfate	mg/L	ND	1.0	09/09/21 17:24	

LABORATORY CONTROL SAMPLE: 3388762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.8	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3388763 3388764

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92559773002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	34.7	50	50	87.2	87.7	105	106	90-110	1	10		
Fluoride	mg/L	0.61	2.5	2.5	3.3	3.3	107	106	90-110	1	10		
Sulfate	mg/L	135	50	50	184	184	98	99	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3388765 3388766

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92559852002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	9.7	50	50	62.5	63.9	106	108	90-110	2	10		
Fluoride	mg/L	0.14	2.5	2.5	2.7	2.8	102	105	90-110	3	10		
Sulfate	mg/L	6.4	50	50	61.0	62.2	109	112	90-110	2	10 M1		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92559852

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92559852001	CR+0.4	EPA 3010A	645863	EPA 6010D	646176
92559852002	CR+0.2	EPA 3010A	645863	EPA 6010D	646176
92559852003	CR-0.1	EPA 3010A	645863	EPA 6010D	646176
92559852004	DW_DS	EPA 3010A	645863	EPA 6010D	646176
92559852005	DW_US	EPA 3010A	645863	EPA 6010D	646176
92559852006	CR-0.2	EPA 3010A	645863	EPA 6010D	646176
92559852007	CR-0.5	EPA 3010A	645863	EPA 6010D	646176
92559852001	CR+0.4	EPA 3005A	645868	EPA 6020B	646190
92559852002	CR+0.2	EPA 3005A	645868	EPA 6020B	646190
92559852003	CR-0.1	EPA 3005A	645868	EPA 6020B	646190
92559852004	DW_DS	EPA 3005A	645868	EPA 6020B	646190
92559852005	DW_US	EPA 3005A	645868	EPA 6020B	646190
92559852006	CR-0.2	EPA 3005A	645868	EPA 6020B	646190
92559852007	CR-0.5	EPA 3005A	645868	EPA 6020B	646190
92559852001	CR+0.4	SM 2540C-2011	646143		
92559852002	CR+0.2	SM 2540C-2011	646143		
92559852003	CR-0.1	SM 2540C-2011	646143		
92559852004	DW_DS	SM 2540C-2011	646143		
92559852005	DW_US	SM 2540C-2011	646143		
92559852006	CR-0.2	SM 2540C-2011	646764		
92559852007	CR-0.5	SM 2540C-2011	646764		
92559852001	CR+0.4	SM 2320B-2011	646357		
92559852002	CR+0.2	SM 2320B-2011	646357		
92559852003	CR-0.1	SM 2320B-2011	646357		
92559852004	DW_DS	SM 2320B-2011	646357		
92559852005	DW_US	SM 2320B-2011	646357		
92559852006	CR-0.2	SM 2320B-2011	646357		
92559852007	CR-0.5	SM 2320B-2011	646357		
92559852001	CR+0.4	EPA 300.0 Rev 2.1 1993	646085		
92559852002	CR+0.2	EPA 300.0 Rev 2.1 1993	646085		
92559852003	CR-0.1	EPA 300.0 Rev 2.1 1993	646085		
92559852004	DW_DS	EPA 300.0 Rev 2.1 1993	646085		
92559852005	DW_US	EPA 300.0 Rev 2.1 1993	646085		
92559852006	CR-0.2	EPA 300.0 Rev 2.1 1993	646085		
92559852007	CR-0.5	EPA 300.0 Rev 2.1 1993	646085		

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020
Page 1 of 2

Document No.:
F-CAR-CS-033-Rev.07

Issuing Authority:
Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name:

Project #:

WO#: 92559852

PM: MP

Due Date: 09/15/21

CLIENT: GA-ArcadAt1

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 9/13/21 [Signature]

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 1.6 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Comments/Discrepancy:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	W	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.07

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

WO# : 92559852

PM: MP

Due Date: 09/15/21

CLIENT: GA-ArcadAt I

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1	2																												
2	2																												
3	2																												
4	2																												
5	2																												
6	2																												
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

APPENDIX B

Analytical Results
January 2022

March 03, 2022

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

RE: Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 20, 2022 and January 28, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA
- Pace Analytical Services - Minneapolis

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company

Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064

Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
Please Note: Applicable air certifications are denoted with an asterisk ().

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

Pace Analytical Services Peachtree Corners
South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583603001	DGWA-70A	Water	01/18/22 16:35	01/20/22 08:45
92583603002	DGWA-71	Water	01/18/22 16:25	01/20/22 08:45
92583603003	DGWA-53	Water	01/28/22 10:09	01/28/22 15:32

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583603001	DGWA-70A	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583603002	DGWA-71	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583603003	DGWA-53	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA
PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Sample: DGWA-70A		Lab ID: 92583603001		Collected: 01/18/22 16:35		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:59		
pH	5.50	Std. Units			1		01/20/22 13:59		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	1.7	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 16:06	7440-09-7	
Sodium	3.5	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 16:06	7440-23-5	
Calcium	6.1	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 16:06	7440-70-2	
Magnesium	2.4	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 16:06	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:20	7440-36-0	
Arsenic	0.0046J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:20	7440-38-2	
Barium	0.043	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:20	7440-39-3	
Beryllium	0.000092J	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:20	7440-41-7	
Boron	0.024J	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:20	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:20	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:20	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:20	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:20	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/02/22 08:00	02/02/22 13:10	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	54.0	mg/L	10.0	10.0	1		01/25/22 16:17		
2320B Alkalinity									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	27.0	mg/L	5.0	1.8	1		01/26/22 15:08		
Alkalinity,Bicarbonate (CaCO ₃)	27.0	mg/L	5.0	1.8	1		01/26/22 15:08		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 15:08		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		01/21/22 19:56	16887-00-6	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Sample: DGWA-70A		Lab ID: 92583603001		Collected: 01/18/22 16:35	Received: 01/20/22 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 19:56	16984-48-8	M1
Sulfate	ND	mg/L	1.0	0.50	1		01/21/22 19:56	14808-79-8	M1

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Sample: DGWA-71		Lab ID: 92583603002		Collected: 01/18/22 16:25		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:59		
pH	5.51	Std. Units			1		01/20/22 13:59		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	0.66	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 16:11	7440-09-7	
Sodium	9.1	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 16:11	7440-23-5	
Calcium	6.6	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 16:11	7440-70-2	
Magnesium	0.93	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 16:11	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:26	7440-36-0	
Arsenic	0.0054	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:26	7440-38-2	
Barium	0.029	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:26	7440-39-3	
Beryllium	0.00012J	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:26	7440-41-7	
Boron	0.015J	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:26	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:26	7439-92-1	
Lithium	0.0013J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00015J	mg/L	0.00020	0.00013	1	02/02/22 08:00	02/02/22 13:13	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	76.0	mg/L	10.0	10.0	1		01/25/22 16:17		
2320B Alkalinity									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	22.5	mg/L	5.0	1.8	1		01/26/22 15:12		
Alkalinity,Bicarbonate (CaCO ₃)	22.5	mg/L	5.0	1.8	1		01/26/22 15:12		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 15:12		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	5.9	mg/L	1.0	0.60	1		01/21/22 21:06	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Sample: DGWA-71 **Lab ID: 92583603002** Collected: 01/18/22 16:25 Received: 01/20/22 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 21:06	16984-48-8	
Sulfate	6.3	mg/L	1.0	0.50	1		01/21/22 21:06	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

Sample: DGWA-53		Lab ID: 92583603003		Collected: 01/28/22 10:09		Received: 01/28/22 15:32		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/28/22 16:15		
pH	6.35	Std. Units			1		01/28/22 16:15		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	4.2	mg/L	0.20	0.15	1	02/02/22 14:04	02/04/22 00:40	7440-09-7	
Magnesium	6.9	mg/L	0.050	0.012	1	02/02/22 14:04	02/04/22 00:40	7439-95-4	
Sodium	8.9	mg/L	1.0	0.58	1	02/02/22 14:04	02/04/22 14:03	7440-23-5	
Calcium	19.5	mg/L	1.0	0.12	1	02/02/22 14:04	02/04/22 14:03	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/22 09:47	02/01/22 16:34	7440-36-0	
Arsenic	0.0024J	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 16:34	7440-38-2	
Barium	0.068	mg/L	0.0050	0.00067	1	02/01/22 09:47	02/01/22 16:34	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/22 09:47	02/01/22 16:34	7440-41-7	
Boron	0.062	mg/L	0.040	0.0086	1	02/01/22 09:47	02/01/22 16:34	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/22 09:47	02/01/22 16:34	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 16:34	7440-47-3	
Cobalt	0.014	mg/L	0.0050	0.00039	1	02/01/22 09:47	02/01/22 16:34	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/22 09:47	02/01/22 16:34	7439-92-1	
Lithium	0.0091J	mg/L	0.030	0.00073	1	02/01/22 09:47	02/01/22 16:34	7439-93-2	
Molybdenum	0.026	mg/L	0.010	0.00074	1	02/01/22 09:47	02/01/22 16:34	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/22 09:47	02/01/22 16:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/22 09:47	02/01/22 16:34	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/02/22 08:00	02/02/22 13:16	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	155	mg/L	10.0	10.0	1		02/03/22 12:41		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	82.9	mg/L	5.0	1.8	1		02/02/22 22:05		
Alkalinity,Bicarbonate (CaCO ₃)	82.9	mg/L	5.0	1.8	1		02/02/22 22:05		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		02/02/22 22:05		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.8	mg/L	1.0	0.60	1		02/04/22 18:01	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Sample: DGWA-53 **Lab ID: 92583603003** Collected: 01/28/22 10:09 Received: 01/28/22 15:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.080J	mg/L	0.10	0.050	1		02/04/22 18:01	16984-48-8	
Sulfate	13.1	mg/L	1.0	0.50	1		02/04/22 18:01	14808-79-8	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 673587	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583603001, 92583603002

METHOD BLANK: 3525717 Matrix: Water

Associated Lab Samples: 92583603001, 92583603002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/25/22 14:07	
Magnesium	mg/L	ND	0.050	0.012	01/25/22 14:07	
Potassium	mg/L	ND	0.20	0.15	01/25/22 14:07	
Sodium	mg/L	ND	1.0	0.58	01/25/22 14:07	

LABORATORY CONTROL SAMPLE: 3525718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	106	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525719 3525720

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	10.7	1	1	11.9	11.8	118	113	75-125	0	20
Magnesium	mg/L	3.8	1	1	4.9	4.9	108	109	75-125	0	20
Potassium	mg/L	2.5	1	1	3.6	3.7	111	114	75-125	1	20
Sodium	mg/L	8.2	1	1	9.1	9.3	91	106	75-125	2	20

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 675554 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583603003

METHOD BLANK: 3535646 Matrix: Water
Associated Lab Samples: 92583603003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/03/22 22:50	
Magnesium	mg/L	ND	0.050	0.012	02/03/22 22:50	
Potassium	mg/L	ND	0.20	0.15	02/03/22 22:50	
Sodium	mg/L	ND	1.0	0.58	02/03/22 22:50	

LABORATORY CONTROL SAMPLE: 3535647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	112	80-120	
Potassium	mg/L	1	1.0	104	80-120	
Sodium	mg/L	1	1.2	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3535648 3535649

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583955009	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	163	1	1	175	172	1180	964	75-125	1	20 M1
Magnesium	mg/L	27.8	1	1	30.1	30.0	226	216	75-125	0	20 M1
Potassium	mg/L	8.7	1	1	10.4	10.3	170	157	75-125	1	20 M1
Sodium	mg/L	19.7	1	1	23.0	22.8	331	308	75-125	1	20 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 673617 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583603001, 92583603002

METHOD BLANK: 3525846 Matrix: Water
Associated Lab Samples: 92583603001, 92583603002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	01/25/22 18:39	
Arsenic	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Barium	mg/L	ND	0.0050	0.00067	01/25/22 18:39	
Beryllium	mg/L	ND	0.00050	0.000054	01/25/22 18:39	
Boron	mg/L	ND	0.040	0.0086	01/25/22 18:39	
Cadmium	mg/L	ND	0.00050	0.00011	01/25/22 18:39	
Chromium	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Cobalt	mg/L	ND	0.0050	0.00039	01/25/22 18:39	
Lead	mg/L	ND	0.0010	0.00089	01/25/22 18:39	
Lithium	mg/L	ND	0.030	0.00073	01/25/22 18:39	
Molybdenum	mg/L	ND	0.010	0.00074	01/25/22 18:39	
Selenium	mg/L	ND	0.0050	0.0014	01/25/22 18:39	
Thallium	mg/L	ND	0.0010	0.00018	01/25/22 18:39	

LABORATORY CONTROL SAMPLE: 3525847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525848 3525849

Parameter	Units	92583585002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Parameter	Units	3525848		3525849		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.047	0.1	0.1	0.15	0.15	102	107	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.092	98	92	75-125	6	20		
Boron	mg/L	ND	1	1	0.99	0.91	99	90	75-125	9	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	99	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20		
Lithium	mg/L	0.0085J	0.1	0.1	0.11	0.10	98	95	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 675122 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583603003

METHOD BLANK: 3533656 Matrix: Water
Associated Lab Samples: 92583603003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/01/22 13:34	
Arsenic	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Barium	mg/L	ND	0.0050	0.00067	02/01/22 13:34	
Beryllium	mg/L	ND	0.00050	0.000054	02/01/22 13:34	
Boron	mg/L	ND	0.040	0.0086	02/01/22 13:34	
Cadmium	mg/L	ND	0.00050	0.00011	02/01/22 13:34	
Chromium	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Cobalt	mg/L	ND	0.0050	0.00039	02/01/22 13:34	
Lead	mg/L	ND	0.0010	0.00089	02/01/22 13:34	
Lithium	mg/L	ND	0.030	0.00073	02/01/22 13:34	
Molybdenum	mg/L	ND	0.010	0.00074	02/01/22 13:34	
Selenium	mg/L	ND	0.0050	0.0014	02/01/22 13:34	
Thallium	mg/L	ND	0.0010	0.00018	02/01/22 13:34	

LABORATORY CONTROL SAMPLE: 3533657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	115	80-120	
Cadmium	mg/L	0.1	0.11	106	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	110	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3533658 3533659

Parameter	Units	92585102002 Result	MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
			Conc.	Spike Conc.	Result	Result							
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	108	75-125	1	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Parameter	Units	3533658		3533659		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92585102002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Barium	mg/L	23.1 ug/L	0.1	0.1	0.13	0.13	107	105	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20	
Boron	mg/L	ND	1	1	1.1	1.1	113	109	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	105	108	75-125	3	20	
Chromium	mg/L	47.0 ug/L	0.1	0.1	0.15	0.16	107	112	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	105	109	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	109	106	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

QC Batch: 675274

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583603001, 92583603002, 92583603003

METHOD BLANK: 3534212

Matrix: Water

Associated Lab Samples: 92583603001, 92583603002, 92583603003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/02/22 12:18	

LABORATORY CONTROL SAMPLE: 3534213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3534214 3534215

Parameter	Units	3534214		3534215		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Mercury	mg/L	0.50 ug/L	0.0025	0.0025	0.0027	0.0025	89	80	75-125	9	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 673706 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583603001, 92583603002

METHOD BLANK: 3526393 Matrix: Water
Associated Lab Samples: 92583603001, 92583603002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/25/22 16:16	

LABORATORY CONTROL SAMPLE: 3526394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3526395

Parameter	Units	92583263001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	308	310	1	25	

SAMPLE DUPLICATE: 3526396

Parameter	Units	92583585002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	123	5	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 675783 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583603003

METHOD BLANK: 3536822 Matrix: Water
Associated Lab Samples: 92583603003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/03/22 12:37	

LABORATORY CONTROL SAMPLE: 3536823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	376	94	80-120	

SAMPLE DUPLICATE: 3536824

Parameter	Units	92584785018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	274	288	5	25	

SAMPLE DUPLICATE: 3536825

Parameter	Units	92583603003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	155	146	6	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 795578 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92583603001, 92583603002

METHOD BLANK: 4230575 Matrix: Water
Associated Lab Samples: 92583603001, 92583603002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	

LABORATORY CONTROL SAMPLE & LCSD: 4230576 4230577

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	42.1	42.3	105	106	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230578 4230579

Parameter	Units	10595480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	21.7	40	40	61.1	59.0	99	93	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230580 4230581

Parameter	Units	92583585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	51.0	40	40	91.2	91.1	100	100	80-120	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 796923	Analysis Method: SM 2320B
QC Batch Method: SM 2320B	Analysis Description: 2320B Alkalinity
	Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92583603003

METHOD BLANK: 4235799 Matrix: Water
Associated Lab Samples: 92583603003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	5.0	1.8	02/02/22 21:34	
Alkalinity,Bicarbonate (CaCO ₃)	mg/L	ND	5.0	1.8	02/02/22 21:34	
Alkalinity,Carbonate (CaCO ₃)	mg/L	ND	5.0	1.8	02/02/22 21:34	

LABORATORY CONTROL SAMPLE & LCSD: 4235800 4235801

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	40	42.2	42.3	105	106	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4235802 4235803

Parameter	Units	92583953027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO ₃	mg/L	5.3	40	40	43.7	43.4	96	95	80-120	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 673024 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583603001, 92583603002

METHOD BLANK: 3522867 Matrix: Water
Associated Lab Samples: 92583603001, 92583603002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/21/22 19:29	
Fluoride	mg/L	ND	0.10	0.050	01/21/22 19:29	
Sulfate	mg/L	ND	1.0	0.50	01/21/22 19:29	

LABORATORY CONTROL SAMPLE: 3522868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.5	101	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.8	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522869 3522870

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583603001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	1.9	50	50	59.6	60.4	115	117	90-110	1	10	M1	
Fluoride	mg/L	ND	2.5	2.5	2.9	2.9	114	115	90-110	1	10	M1	
Sulfate	mg/L	ND	50	50	57.2	57.9	114	116	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522871 3522872

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583486008	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	9.5	50	50	65.5	65.6	112	112	90-110	0	10	M1	
Fluoride	mg/L	ND	2.5	2.5	3.2	3.2	126	125	90-110	1	10	M1	
Sulfate	mg/L	65.6	50	50	104	101	77	70	90-110	3	10	M1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT
Pace Project No.: 92583603

QC Batch: 675484 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583603003

METHOD BLANK: 3535178 Matrix: Water
Associated Lab Samples: 92583603003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/04/22 12:13	
Fluoride	mg/L	ND	0.10	0.050	02/04/22 12:13	
Sulfate	mg/L	ND	1.0	0.50	02/04/22 12:13	

LABORATORY CONTROL SAMPLE: 3535179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.4	101	90-110	
Fluoride	mg/L	2.5	2.5	98	90-110	
Sulfate	mg/L	50	49.3	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3535180 3535181

Parameter	Units	92585451002		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	65.5	50	50	50	101	102	71	74	90-110	1	10	M1
Fluoride	mg/L	0.46	2.5	2.5	2.5	2.9	2.9	97	97	90-110	0	10	
Sulfate	mg/L	122	50	50	50	169	170	94	96	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3535182 3535183

Parameter	Units	92584785016		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	4.9	50	50	50	57.1	56.8	104	104	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	2.5	100	100	90-110	0	10	
Sulfate	mg/L	89.9	50	50	50	117	117	54	55	90-110	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92583603

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583603001	DGWA-70A				
92583603002	DGWA-71				
92583603003	DGWA-53				
92583603001	DGWA-70A	EPA 3010A	673587	EPA 6010D	673656
92583603002	DGWA-71	EPA 3010A	673587	EPA 6010D	673656
92583603003	DGWA-53	EPA 3010A	675554	EPA 6010D	675629
92583603001	DGWA-70A	EPA 3005A	673617	EPA 6020B	673660
92583603002	DGWA-71	EPA 3005A	673617	EPA 6020B	673660
92583603003	DGWA-53	EPA 3005A	675122	EPA 6020B	675233
92583603001	DGWA-70A	EPA 7470A	675274	EPA 7470A	675501
92583603002	DGWA-71	EPA 7470A	675274	EPA 7470A	675501
92583603003	DGWA-53	EPA 7470A	675274	EPA 7470A	675501
92583603001	DGWA-70A	SM 2540C-2015	673706		
92583603002	DGWA-71	SM 2540C-2015	673706		
92583603003	DGWA-53	SM 2540C-2015	675783		
92583603001	DGWA-70A	SM 2320B	795578		
92583603002	DGWA-71	SM 2320B	795578		
92583603003	DGWA-53	SM 2320B	796923		
92583603001	DGWA-70A	EPA 300.0 Rev 2.1 1993	673024		
92583603002	DGWA-71	EPA 300.0 Rev 2.1 1993	673024		
92583603003	DGWA-53	EPA 300.0 Rev 2.1 1993	675484		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name: GA Power CCR

Project #: **WO# : 92583603**

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/23
COH

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.6/20/33 Correction Factor: 4.1
Add/Subtract (°) +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.4 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION


Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name:
Georgia Power

Project:

WO#: 92583603

Courier:
 Commercial
 Fed Ex
 UPS
 USPS
 Other: _____
 Client
 Pace

PM: NMG
 Due Date: 02/03/22
 CLIENT: GA-GA Power

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: UV 1-29-2

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 914
 Wet Blue None

Yes No N/A

Cooler Temp: 2.8 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 2.9

Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

March 15, 2022

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

RE: Project: MCDONOUGH UPGRADIENT RAD
Pace Project No.: 92583500

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 20, 2022 and January 28, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
Karim Minkara, Golder Associates - Atlanta
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Lacy Smith, ERM

Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT RAD
Pace Project No.: 92583500

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583500001	DGWA-70A	Water	01/18/22 16:35	01/20/22 08:45
92583500002	DGWA-71	Water	01/18/22 16:25	01/20/22 08:45
92583500003	DGWA-53	Water	01/28/22 10:09	01/28/22 15:32

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583500001	DGWA-70A	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583500002	DGWA-71	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583500003	DGWA-53	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWA-70A Lab ID: 92583500001 Collected: 01/18/22 16:35 Received: 01/20/22 08:45 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0285 ± 0.0770 (0.187) C:95% T:NA	pCi/L	02/14/22 09:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.23 ± 0.537 (0.892) C:69% T:78%	pCi/L	02/03/22 10:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.26 ± 0.614 (1.08)	pCi/L	02/17/22 07:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

Sample: DGWA-71 **Lab ID: 92583500002** Collected: 01/18/22 16:25 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.125 ± 0.0993 (0.171) C:93% T:NA	pCi/L	02/14/22 09:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.604 ± 0.414 (0.798) C:73% T:79%	pCi/L	02/03/22 10:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.729 ± 0.513 (0.969)	pCi/L	02/17/22 07:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

Sample: DGWA-53 **Lab ID: 92583500003** Collected: 01/28/22 10:09 Received: 01/28/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.925 ± 0.262 (0.175) C:96% T:NA	pCi/L	03/08/22 08:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.17 ± 0.441 (0.661) C:83% T:91%	pCi/L	03/07/22 15:13	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.10 ± 0.703 (0.836)	pCi/L	03/13/22 14:43	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

QC Batch: 480682

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583500001, 92583500002

METHOD BLANK: 2322658

Matrix: Water

Associated Lab Samples: 92583500001, 92583500002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.570 ± 0.392 (0.745) C:71% T:72%	pCi/L	02/03/22 10:11	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

QC Batch: 486611	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583500003

METHOD BLANK: 2353259 Matrix: Water

Associated Lab Samples: 92583500003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0325 ± 0.0552 (0.191) C:101% T:NA	pCi/L	03/08/22 08:21	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

QC Batch: 480871

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583500001, 92583500002

METHOD BLANK: 2323618

Matrix: Water

Associated Lab Samples: 92583500001, 92583500002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.165 ± 0.131 (0.240) C:84% T:NA	pCi/L	02/14/22 09:25	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

QC Batch: 486656

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583500003

METHOD BLANK: 2353491

Matrix: Water

Associated Lab Samples: 92583500003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.534 ± 0.356 (0.681) C:77% T:89%	pCi/L	03/07/22 11:50	

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

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QUALIFIERS

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH UPGRADIENT RAD

Pace Project No.: 92583500

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583500001	DGWA-70A	EPA 9315	480871		
92583500002	DGWA-71	EPA 9315	480871		
92583500003	DGWA-53	EPA 9315	486611		
92583500001	DGWA-70A	EPA 9320	480682		
92583500002	DGWA-71	EPA 9320	480682		
92583500003	DGWA-53	EPA 9320	486656		
92583500001	DGWA-70A	Total Radium Calculation	484431		
92583500002	DGWA-71	Total Radium Calculation	484431		
92583500003	DGWA-53	Total Radium Calculation	489943		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power CCR

WO#: **92583603**



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/23
COE

Packing Material: Bubble Wrap Bubble Bags None Other
 Thermometer: Wet Blue None

Biological Tissue Frozen? Yes No N/A

Cooler Temp: 5.6/20/33 Correction Factor: 4.4 Add/Subtract (%): +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION


Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power

Project:

WO#: 92583603

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

PM: NMG Due Date: 02/03/22
 CLIENT: GA-GA Power

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: UV 1-29-2

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 914 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 2.8 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 2.9

Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/3/2022
Worklist: 64792
Matrix: DW



Method Blank Assessment	
MB Sample ID	2323618
MB Concentration:	0.165
MB Counting Uncertainty:	0.128
MB MDC:	0.240
MB Numerical Performance Indicator:	2.52
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS64792	LCS64792
Count Date:	2/14/2022	2/14/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.520	0.512
Target Conc. (pCi/L, g, F):	4.619	4.693
Uncertainty (Calculated):	0.055	0.056
Result (pCi/L, g, F):	5.157	4.566
LCSD Counting Uncertainty (pCi/L, g, F):	0.513	0.481
Numerical Performance Indicator:	2.04	-0.56
Percent Recovery:	111.66%	97.07%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCSD (Y or N)?	
	LCS64792	LCS64792
Sample I.D.:	92583570002	92583570002DUP
Duplicate Sample I.D.:	92583570002DUP	92583570002DUP
Sample Result (pCi/L, g, F):	0.033	0.033
Sample Result Counting Uncertainty (pCi/L, g, F):	0.116	0.116
Sample Duplicate Result (pCi/L, g, F):	0.106	0.106
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.084	0.084
Are sample and/or duplicate results below RL?	NO	NO
Duplicate Numerical Performance Indicator:	1.675	1.675
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	13.98%	105.06%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail
% RPD Limit:	25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

results < mdc, N/A 2/21/22

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample ID:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MS Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result:</p> <p>Sample Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator:</p> <p>MSD Numerical Performance Indicator:</p> <p>MS Percent Recovery:</p> <p>MSD Percent Recovery:</p> <p>MS Status vs Numerical Indicator:</p> <p>MSD Status vs Numerical Indicator:</p> <p>MS Status vs Recovery:</p> <p>MSD Status vs Recovery:</p> <p>MS/MSD Upper % Recovery Limits:</p> <p>MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>Duplicate Numerical Performance Indicator:</p> <p>(Based on the Percent Recoveries) MS/MSD Duplicate RPD:</p> <p>MS/MSD Duplicate Status vs Numerical Indicator:</p> <p>MS/MSD Duplicate Status vs RPD:</p> <p>% RPD Limit:</p>

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 2/11/2022
Worklist: 64779
Matrix: WT

Method Blank Assessment	
MB Sample ID	2322658
MB concentration:	0.570
MB 2 Sigma CSU:	0.392
MB MDC:	0.745
MB Numerical Performance Indicator:	2.85
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD64779	LCSD64779
Count Date:	2/3/2022	
Spike ID:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.476	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	4.488	
Uncertainty (Calculated):	0.220	
Result (pCi/L, g, F):	4.867	
LCSD 2 Sigma CSU (pCi/L, g, F):	1.075	
Numerical Performance Indicator:	0.68	
Percent Recovery:	108/45%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	60%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample ID: Duplicate Sample ID: Sample Result (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: %RPD Limit:	See Below ##

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:	1/11/2022 92583991001 92583991002 92583991003 21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):	36.752 0.20 0.20 9.084 0.808 9.103 0.445 0.446	
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result:	0.351 11.356	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:	2.218 10.605 2.096 1.792 1.194 123.05% 114.53% Pass Pass Pass Pass 135% 60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: %RPD Limit:	92583991001 92583991002 92583991003 11.356 2.218 10.605 2.096 0.483 7.17% Pass Pass 36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/11/2022 VAL

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JC2
Date: 3/1/2022
Worklist: 65294
Matrix: DW

Method Blank Assessment	
MB Sample ID	2353259
MB concentration:	-0.033
M/B Counting Uncertainty:	0.055
MB MDC:	0.191
MB Numerical Performance Indicator:	-1.16
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS/D (Y or N)?	Y
Count Date:		LCS/D65294	3/8/2022
Spike I.D.:		19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):		24.029	24.029
Volume Used (mL):		0.10	0.10
Aliquot Volume (L, g, F):		0.503	0.506
Target Conc. (pCi/L, g, F):		4.777	4.752
Uncertainty (Calculated):		0.057	0.057
Result (pCi/L, g, F):		4.910	4.441
LCS/LCSD Counting Uncertainty (pCi/L, g, F):		0.508	0.466
Numerical Performance Indicator:		0.51	-1.30
Percent Recovery:		102.79%	93.46%
Status vs Numerical Indicator:		N/A	N/A
Status vs Recovery:		Pass	Pass
Upper % Recovery Limits:		125%	125%
Lower % Recovery Limits:		75%	75%

Duplicate Sample Assessment		LCS/D65294	92587080025
Sample I.D.:		LCS65294	92587080025
Duplicate Sample I.D.:		LCS65294	92587080025DUP
Sample Result (pCi/L, g, F):		4.910	0.708
Sample Result Counting Uncertainty (pCi/L, g, F):		0.508	0.212
Sample Duplicate Result (pCi/L, g, F):		4.441	0.789
Sample Duplicate Counting Uncertainty (pCi/L, g, F):		0.466	0.203
Are sample and/or duplicate results below RL?		NO	See Below ##
Duplicate Numerical Performance Indicator:		1.334	-0.540
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:		9.51%	10.80%
Duplicate Status vs Numerical Indicator:		N/A	N/A
Duplicate Status vs RPD:		Pass	Pass
% RPD Limit:		25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
Spike Volume Used in MSD (mL):			
MS Aliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Result:			
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JSM
Date: 3/3/2022
Worklist: 65309
Matrix: **WT**

Method Blank Assessment	
MB Sample ID	2353491
MB concentration:	0.534
MB 2 Sigma CSU:	0.356
MB MDC:	0.681
MB Numerical Performance Indicator:	2.94
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	Y
LCS65309	LCS65309
Count Date:	3/7/2022
Spike I.D.:	21-029
Decay Corrected Spike Concentration (pCi/mL):	36.090
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.810
Target Conc. (pCi/L, g, F):	4.454
Uncertainty (Calculated):	0.218
Result (pCi/L, g, F):	4.392
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.963
Numerical Performance Indicator:	-0.12
Percent Recovery:	98.60%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS65309
Duplicate Sample I.D.:	LCS65309
Sample Result (pCi/L, g, F):	4.392
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.963
Sample Duplicate Result (pCi/L, g, F):	4.287
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.935
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.153
Duplicate Numerical Performance Indicator:	3.03%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD 1	
MS/MSD 2	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MS Spike Uncertainty (calculated):	
MSD Spike Uncertainty (calculated):	
Sample Result:	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	
MS/MSD Upper % Recovery Limits:	
MS/MSD Lower % Recovery Limits:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Matrix Spike Duplicate Numerical Performance Indicator:	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

March 03, 2022

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

RE: Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 20, 2022 and January 26, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA
- Pace Analytical Services - Minneapolis

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company

Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064

Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
Please Note: Applicable air certifications are denoted with an asterisk ().

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Pace Analytical Services Peachtree Corners

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583600001	DGWC-40	Water	01/19/22 12:30	01/20/22 08:45
92583600002	DGWC-67	Water	01/19/22 14:52	01/20/22 08:45
92583600003	DUP-1	Water	01/19/22 00:00	01/20/22 08:45
92583600004	DGWC-39	Water	01/20/22 11:28	01/21/22 15:32
92583600005	DGWC-37	Water	01/21/22 09:37	01/21/22 15:32
92583600006	DGWC-38	Water	01/21/22 11:03	01/21/22 15:32
92583600007	DUP-3	Water	01/21/22 00:00	01/21/22 15:32
92583600008	DGWC-68A	Water	01/25/22 15:25	01/26/22 08:51
92583600009	DGWC-69	Water	01/25/22 12:37	01/26/22 08:51

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583600001	DGWC-40	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
92583600002	DGWC-67	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
92583600003	DUP-1	SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
92583600004	DGWC-39	SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
92583600005	DGWC-37	EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
92583600006	DGWC-38	EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583600007	DUP-3	EPA 6010D	DRB	4	PASI-GA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583600008	DGWC-68A	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583600009	DGWC-69	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-40		Lab ID: 92583600001		Collected: 01/19/22 12:30		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:55		
pH	4.66	Std. Units			1		01/20/22 13:55		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	5.9	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:52	7440-09-7	
Sodium	19.9	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:52	7440-23-5	
Calcium	44.7	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:52	7440-70-2	
Magnesium	19.9	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:52	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:02	7440-36-0	
Arsenic	0.0030J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:02	7440-38-2	
Barium	0.018	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:02	7440-39-3	
Beryllium	0.0034	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:02	7440-41-7	
Boron	0.82	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:02	7440-42-8	
Cadmium	0.00085	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:02	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:02	7440-47-3	
Cobalt	0.042	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:02	7439-92-1	
Lithium	0.0024J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:02	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:02	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 11:37	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	336	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1.8	1		01/26/22 16:56		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 16:56		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 16:56		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	16.5	mg/L	1.0	0.60	1		01/21/22 18:47	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-40		Lab ID: 92583600001		Collected: 01/19/22 12:30		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	0.12	mg/L	0.10	0.050	1		01/21/22 18:47	16984-48-8	
Sulfate	177	mg/L	4.0	2.0	4		01/22/22 04:06	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-67	Lab ID: 92583600002	Collected: 01/19/22 14:52	Received: 01/20/22 08:45	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:56		
pH	6.21	Std. Units			1		01/20/22 13:56		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	3.9	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:57	7440-09-7	
Sodium	11.3	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:57	7440-23-5	
Calcium	48.8	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:57	7440-70-2	
Magnesium	19.2	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:57	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:08	7440-36-0	
Arsenic	0.0033J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:08	7440-38-2	
Barium	0.091	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:08	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:08	7440-41-7	
Boron	4.1	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:08	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:08	7440-47-3	
Cobalt	0.0011J	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:08	7439-92-1	
Lithium	0.0046J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:08	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:08	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 11:53	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	272	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	91.5	mg/L	5.0	1.8	1		01/26/22 15:42		
Alkalinity, Bicarbonate (CaCO ₃)	91.5	mg/L	5.0	1.8	1		01/26/22 15:42		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 15:42		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.3	mg/L	1.0	0.60	1		01/21/22 19:01	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-67 **Lab ID: 92583600002** Collected: 01/19/22 14:52 Received: 01/20/22 08:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 19:01	16984-48-8	
Sulfate	97.2	mg/L	2.0	1.0	2		01/22/22 04:21	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DUP-1 **Lab ID: 92583600003** Collected: 01/19/22 00:00 Received: 01/20/22 08:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	4.0	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 16:02	7440-09-7	
Sodium	10.9	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 16:02	7440-23-5	
Calcium	48.0	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 16:02	7440-70-2	
Magnesium	18.8	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 16:02	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:14	7440-36-0	
Arsenic	0.0032J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:14	7440-38-2	
Barium	0.095	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:14	7440-41-7	
Boron	4.5	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:14	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:14	7440-47-3	
Cobalt	0.0012J	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:14	7439-92-1	
Lithium	0.0049J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:14	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:14	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 11:56	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	272	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	91.4	mg/L	5.0	1.8	1		01/26/22 15:49		
Alkalinity,Bicarbonate (CaCO3)	91.4	mg/L	5.0	1.8	1		01/26/22 15:49		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 15:49		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.3	mg/L	1.0	0.60	1		01/21/22 19:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 19:15	16984-48-8	
Sulfate	95.3	mg/L	2.0	1.0	2		01/22/22 04:36	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-39		Lab ID: 92583600004		Collected: 01/20/22 11:28		Received: 01/21/22 15:32		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/24/22 10:00		
pH	6.52	Std. Units			1		01/24/22 10:00		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	96.2	mg/L	1.0	0.12	1	01/25/22 13:29	01/26/22 14:12	7440-70-2	
Magnesium	24.0	mg/L	0.050	0.012	1	01/25/22 13:29	01/26/22 14:12	7439-95-4	
Potassium	2.8	mg/L	0.20	0.15	1	01/25/22 13:29	01/25/22 22:24	7440-09-7	
Sodium	13.9	mg/L	1.0	0.58	1	01/25/22 13:29	01/25/22 22:24	7440-23-5	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 21:02	7440-36-0	
Arsenic	0.0019J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/26/22 19:10	7440-38-2	
Barium	0.093	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 21:02	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 21:02	7440-41-7	
Boron	2.8	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 21:02	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 21:02	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:02	7440-47-3	
Cobalt	0.0061	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 21:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 21:02	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 21:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 21:02	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 21:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 21:02	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 11:58	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	416	mg/L	10.0	10.0	1		01/26/22 17:46		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	229	mg/L	5.0	1.8	1		01/26/22 14:35		
Alkalinity,Bicarbonate (CaCO ₃)	229	mg/L	5.0	1.8	1		01/26/22 14:35		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 14:35		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.0	mg/L	1.0	0.60	1		01/25/22 22:53	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-39 **Lab ID: 92583600004** Collected: 01/20/22 11:28 Received: 01/21/22 15:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.10	mg/L	0.10	0.050	1		01/25/22 22:53	16984-48-8	
Sulfate	123	mg/L	3.0	1.5	3		01/26/22 12:28	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-37		Lab ID: 92583600005		Collected: 01/21/22 09:37		Received: 01/21/22 15:32		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/24/22 10:00		
pH	6.31	Std. Units			1		01/24/22 10:00		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	4.1	mg/L	0.20	0.15	1	01/25/22 13:29	01/25/22 22:38	7440-09-7	
Sodium	11.1	mg/L	1.0	0.58	1	01/25/22 13:29	01/25/22 22:38	7440-23-5	
Calcium	64.4	mg/L	1.0	0.12	1	01/25/22 13:29	01/25/22 22:38	7440-70-2	
Magnesium	13.9	mg/L	0.050	0.012	1	01/25/22 13:29	01/25/22 22:38	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 21:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:08	7440-38-2	
Barium	0.085	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 21:08	7440-39-3	
Beryllium	0.000059J	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 21:08	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 21:08	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 21:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 21:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 21:08	7439-92-1	
Lithium	0.0020J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 21:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 21:08	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 21:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 21:08	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:01	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	316	mg/L	10.0	10.0	1		01/28/22 10:31		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	128	mg/L	5.0	1.8	1		01/26/22 14:41		
Alkalinity,Bicarbonate (CaCO3)	128	mg/L	5.0	1.8	1		01/26/22 14:41		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 14:41		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.7	mg/L	1.0	0.60	1		01/25/22 23:06	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-37 **Lab ID: 92583600005** Collected: 01/21/22 09:37 Received: 01/21/22 15:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.053J	mg/L	0.10	0.050	1		01/25/22 23:06	16984-48-8	
Sulfate	89.8	mg/L	1.0	0.50	1		01/25/22 23:06	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-38		Lab ID: 92583600006		Collected: 01/21/22 11:03		Received: 01/21/22 15:32		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/24/22 10:01		
pH	6.08	Std. Units			1		01/24/22 10:01		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	4.5	mg/L	0.20	0.15	1	01/25/22 13:29	01/25/22 22:43	7440-09-7	
Sodium	12.4	mg/L	1.0	0.58	1	01/25/22 13:29	01/25/22 22:43	7440-23-5	
Calcium	91.0	mg/L	1.0	0.12	1	01/25/22 13:29	01/25/22 22:43	7440-70-2	
Magnesium	27.3	mg/L	0.050	0.012	1	01/25/22 13:29	01/25/22 22:43	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 21:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:14	7440-38-2	
Barium	0.031	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 21:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 21:14	7440-41-7	
Boron	2.8	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 21:14	7440-42-8	
Cadmium	0.00020J	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 21:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:14	7440-47-3	
Cobalt	0.0017J	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 21:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 21:14	7439-92-1	
Lithium	0.0025J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 21:14	7439-93-2	
Molybdenum	0.0013J	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 21:14	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 21:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 21:14	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:04	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	482	mg/L	10.0	10.0	1		01/28/22 10:31		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	94.0	mg/L	5.0	1.8	1		01/26/22 14:46		
Alkalinity,Bicarbonate (CaCO ₃)	94.0	mg/L	5.0	1.8	1		01/26/22 14:46		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 14:46		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.5	mg/L	1.0	0.60	1		01/26/22 02:22	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-38 **Lab ID: 92583600006** Collected: 01/21/22 11:03 Received: 01/21/22 15:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.10	mg/L	0.10	0.050	1		01/26/22 02:22	16984-48-8	
Sulfate	188	mg/L	5.0	2.5	5		01/26/22 12:42	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DUP-3 **Lab ID: 92583600007** Collected: 01/21/22 00:00 Received: 01/21/22 15:32 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	4.7	mg/L	0.20	0.15	1	01/25/22 13:29	01/25/22 22:53	7440-09-7	
Sodium	12.6	mg/L	1.0	0.58	1	01/25/22 13:29	01/25/22 22:53	7440-23-5	
Calcium	95.8	mg/L	1.0	0.12	1	01/25/22 13:29	01/25/22 22:53	7440-70-2	
Magnesium	28.0	mg/L	0.050	0.012	1	01/25/22 13:29	01/25/22 22:53	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 21:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:26	7440-38-2	
Barium	0.030	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 21:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 21:26	7440-41-7	
Boron	2.8	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 21:26	7440-42-8	
Cadmium	0.00018J	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 21:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 21:26	7440-47-3	
Cobalt	0.0015J	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 21:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 21:26	7439-92-1	
Lithium	0.0025J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 21:26	7439-93-2	
Molybdenum	0.0013J	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 21:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 21:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 21:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:06	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	473	mg/L	10.0	10.0	1		01/28/22 10:31		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	94.2	mg/L	5.0	1.8	1		01/26/22 15:00		
Alkalinity, Bicarbonate (CaCO ₃)	94.2	mg/L	5.0	1.8	1		01/26/22 15:00		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.4	mg/L	1.0	0.60	1		01/26/22 02:36	16887-00-6	
Fluoride	0.062J	mg/L	0.10	0.050	1		01/26/22 02:36	16984-48-8	
Sulfate	206	mg/L	5.0	2.5	5		01/26/22 12:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-68A	Lab ID: 92583600008	Collected: 01/25/22 15:25	Received: 01/26/22 08:51	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/26/22 09:50		
pH	6.53	Std. Units			1		01/26/22 09:50		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	4.5	mg/L	0.20	0.15	1	01/31/22 13:48	01/31/22 18:31	7440-09-7	
Sodium	11.1	mg/L	1.0	0.58	1	01/31/22 13:48	01/31/22 18:31	7440-23-5	
Calcium	60.4	mg/L	1.0	0.12	1	01/31/22 13:48	01/31/22 18:31	7440-70-2	
Magnesium	19.9	mg/L	0.050	0.012	1	01/31/22 13:48	02/01/22 13:18	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/22 09:47	02/01/22 14:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 14:21	7440-38-2	
Barium	0.10	mg/L	0.0050	0.00067	1	02/01/22 09:47	02/01/22 14:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/22 09:47	02/01/22 14:21	7440-41-7	
Boron	2.2	mg/L	0.040	0.0086	1	02/01/22 09:47	02/01/22 14:21	7440-42-8	
Cadmium	0.00035J	mg/L	0.00050	0.00011	1	02/01/22 09:47	02/01/22 14:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 14:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/22 09:47	02/01/22 14:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/22 09:47	02/01/22 14:21	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/01/22 09:47	02/01/22 14:21	7439-93-2	
Molybdenum	0.23	mg/L	0.010	0.00074	1	02/01/22 09:47	02/01/22 14:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/22 09:47	02/01/22 14:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/22 09:47	02/01/22 14:21	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:09	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	259	mg/L	10.0	10.0	1		01/31/22 19:11		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	192	mg/L	5.0	1.8	1		02/02/22 14:56		
Alkalinity,Bicarbonate (CaCO ₃)	192	mg/L	5.0	1.8	1		02/02/22 14:56		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		02/02/22 14:56		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.8	mg/L	1.0	0.60	1		01/28/22 03:06	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-68A **Lab ID: 92583600008** Collected: 01/25/22 15:25 Received: 01/26/22 08:51 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.067J	mg/L	0.10	0.050	1		01/28/22 03:06	16984-48-8	
Sulfate	36.3	mg/L	1.0	0.50	1		01/28/22 03:06	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Sample: DGWC-69		Lab ID: 92583600009		Collected: 01/25/22 12:37		Received: 01/26/22 08:51		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/26/22 09:50		
pH	6.02	Std. Units			1		01/26/22 09:50		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.6	mg/L	0.20	0.15	1	01/31/22 13:48	01/31/22 18:36	7440-09-7	
Sodium	10.8	mg/L	1.0	0.58	1	01/31/22 13:48	01/31/22 18:36	7440-23-5	
Calcium	9.2	mg/L	1.0	0.12	1	01/31/22 13:48	01/31/22 18:36	7440-70-2	
Magnesium	2.4	mg/L	0.050	0.012	1	01/31/22 13:48	02/01/22 13:22	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/22 09:47	02/01/22 14:27	7440-36-0	
Arsenic	0.028	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 14:27	7440-38-2	
Barium	0.049	mg/L	0.0050	0.00067	1	02/01/22 09:47	02/01/22 14:27	7440-39-3	
Beryllium	0.000059J	mg/L	0.00050	0.000054	1	02/01/22 09:47	02/01/22 14:27	7440-41-7	
Boron	0.035J	mg/L	0.040	0.0086	1	02/01/22 09:47	02/01/22 14:27	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/22 09:47	02/01/22 14:27	7440-43-9	
Chromium	0.0013J	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 14:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/22 09:47	02/01/22 14:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/22 09:47	02/01/22 14:27	7439-92-1	
Lithium	0.0026J	mg/L	0.030	0.00073	1	02/01/22 09:47	02/01/22 14:27	7439-93-2	
Molybdenum	0.0057J	mg/L	0.010	0.00074	1	02/01/22 09:47	02/01/22 14:27	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/22 09:47	02/01/22 14:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/22 09:47	02/01/22 14:27	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:11	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	84.0	mg/L	10.0	10.0	1		01/31/22 19:11		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	37.9	mg/L	5.0	1.8	1		02/02/22 15:20		
Alkalinity,Bicarbonate (CaCO ₃)	37.9	mg/L	5.0	1.8	1		02/02/22 15:20		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		02/02/22 15:20		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.4	mg/L	1.0	0.60	1		01/28/22 03:20	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Sample: DGWC-69 **Lab ID: 92583600009** Collected: 01/25/22 12:37 Received: 01/26/22 08:51 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.054J	mg/L	0.10	0.050	1		01/28/22 03:20	16984-48-8	
Sulfate	7.1	mg/L	1.0	0.50	1		01/28/22 03:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 673587 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600001, 92583600002, 92583600003

METHOD BLANK: 3525717 Matrix: Water

Associated Lab Samples: 92583600001, 92583600002, 92583600003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/25/22 14:07	
Magnesium	mg/L	ND	0.050	0.012	01/25/22 14:07	
Potassium	mg/L	ND	0.20	0.15	01/25/22 14:07	
Sodium	mg/L	ND	1.0	0.58	01/25/22 14:07	

LABORATORY CONTROL SAMPLE: 3525718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	106	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525719 3525720

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	10.7	1	1	11.9	11.8	118	113	75-125	0	20
Magnesium	mg/L	3.8	1	1	4.9	4.9	108	109	75-125	0	20
Potassium	mg/L	2.5	1	1	3.6	3.7	111	114	75-125	1	20
Sodium	mg/L	8.2	1	1	9.1	9.3	91	106	75-125	2	20

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 673704 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600004, 92583600005, 92583600006, 92583600007

METHOD BLANK: 3526379 Matrix: Water
Associated Lab Samples: 92583600004, 92583600005, 92583600006, 92583600007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/25/22 20:59	
Magnesium	mg/L	ND	0.050	0.012	01/25/22 20:59	
Potassium	mg/L	ND	0.20	0.15	01/25/22 20:59	
Sodium	mg/L	ND	1.0	0.58	01/25/22 20:59	

LABORATORY CONTROL SAMPLE: 3526380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.1	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3526381 3526382

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92584176001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	17.8	1	1	18.4	19.1	61	127	75-125	4	20
Magnesium	mg/L	5.0	1	1	6.0	6.2	94	114	75-125	3	20
Potassium	mg/L	1.7	1	1	2.7	2.8	105	114	75-125	3	20
Sodium	mg/L	4.3	1	1	5.3	5.5	100	123	75-125	4	20

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 674955 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600008, 92583600009

METHOD BLANK: 3532830 Matrix: Water

Associated Lab Samples: 92583600008, 92583600009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/31/22 17:28	
Magnesium	mg/L	ND	0.050	0.012	01/31/22 17:28	
Potassium	mg/L	ND	0.20	0.15	01/31/22 17:28	
Sodium	mg/L	ND	1.0	0.58	01/31/22 17:28	

LABORATORY CONTROL SAMPLE: 3532831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Magnesium	mg/L	1	1.2	116	80-120	
Potassium	mg/L	1	0.96	96	80-120	
Sodium	mg/L	1	1.2	120	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3532832 3532833

Parameter	Units	92582988004 Result	MS Spike Conc.	MSD Spike Conc.	3532832		3532833		% Rec Limits	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec			
Calcium	mg/L	17900 ug/L	1	1	19.3	18.8	143	94	75-125	3	20 M1
Magnesium	mg/L	7710 ug/L	1	1	9.0	9.0	128	127	75-125	0	20 M1
Potassium	mg/L	3020 ug/L	1	1	4.2	4.0	119	103	75-125	4	20
Sodium	mg/L	37000 ug/L	1	1	39.0	37.9	193	89	75-125	3	20 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 673617 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583600001, 92583600002, 92583600003, 92583600004, 92583600005, 92583600006, 92583600007

METHOD BLANK: 3525846 Matrix: Water
Associated Lab Samples: 92583600001, 92583600002, 92583600003, 92583600004, 92583600005, 92583600006, 92583600007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	01/25/22 18:39	
Arsenic	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Barium	mg/L	ND	0.0050	0.00067	01/25/22 18:39	
Beryllium	mg/L	ND	0.00050	0.000054	01/25/22 18:39	
Boron	mg/L	ND	0.040	0.0086	01/25/22 18:39	
Cadmium	mg/L	ND	0.00050	0.00011	01/25/22 18:39	
Chromium	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Cobalt	mg/L	ND	0.0050	0.00039	01/25/22 18:39	
Lead	mg/L	ND	0.0010	0.00089	01/25/22 18:39	
Lithium	mg/L	ND	0.030	0.00073	01/25/22 18:39	
Molybdenum	mg/L	ND	0.010	0.00074	01/25/22 18:39	
Selenium	mg/L	ND	0.0050	0.0014	01/25/22 18:39	
Thallium	mg/L	ND	0.0010	0.00018	01/25/22 18:39	

LABORATORY CONTROL SAMPLE: 3525847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525848 3525849

Parameter	Units	92583585002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Parameter	Units	3525848		3525849		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.047	0.1	0.1	0.15	0.15	102	107	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.092	98	92	75-125	6	20		
Boron	mg/L	ND	1	1	0.99	0.91	99	90	75-125	9	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	99	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20		
Lithium	mg/L	0.0085J	0.1	0.1	0.11	0.10	98	95	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 675122 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600008, 92583600009

METHOD BLANK: 3533656 Matrix: Water
Associated Lab Samples: 92583600008, 92583600009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/01/22 13:34	
Arsenic	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Barium	mg/L	ND	0.0050	0.00067	02/01/22 13:34	
Beryllium	mg/L	ND	0.00050	0.000054	02/01/22 13:34	
Boron	mg/L	ND	0.040	0.0086	02/01/22 13:34	
Cadmium	mg/L	ND	0.00050	0.00011	02/01/22 13:34	
Chromium	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Cobalt	mg/L	ND	0.0050	0.00039	02/01/22 13:34	
Lead	mg/L	ND	0.0010	0.00089	02/01/22 13:34	
Lithium	mg/L	ND	0.030	0.00073	02/01/22 13:34	
Molybdenum	mg/L	ND	0.010	0.00074	02/01/22 13:34	
Selenium	mg/L	ND	0.0050	0.0014	02/01/22 13:34	
Thallium	mg/L	ND	0.0010	0.00018	02/01/22 13:34	

LABORATORY CONTROL SAMPLE: 3533657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	115	80-120	
Cadmium	mg/L	0.1	0.11	106	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	110	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3533658 3533659

Parameter	Units	92585102002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	108	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Parameter	Units	3533658		3533659		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92585102002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	23.1 ug/L	0.1	0.1	0.13	0.13	107	105	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20		
Boron	mg/L	ND	1	1	1.1	1.1	113	109	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	105	108	75-125	3	20		
Chromium	mg/L	47.0 ug/L	0.1	0.1	0.15	0.16	107	112	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	105	109	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	109	106	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

QC Batch:	674969	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600001, 92583600002, 92583600003, 92583600004, 92583600005, 92583600006, 92583600007, 92583600008, 92583600009

METHOD BLANK: 3532919 Matrix: Water

Associated Lab Samples: 92583600001, 92583600002, 92583600003, 92583600004, 92583600005, 92583600006, 92583600007, 92583600008, 92583600009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/01/22 11:32	

LABORATORY CONTROL SAMPLE: 3532920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3532921 3532922

Parameter	Units	92583600001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0022	0.0022	89	90	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 673706 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583600001, 92583600002, 92583600003

METHOD BLANK: 3526393 Matrix: Water
Associated Lab Samples: 92583600001, 92583600002, 92583600003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/25/22 16:16	

LABORATORY CONTROL SAMPLE: 3526394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3526395

Parameter	Units	92583263001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	308	310	1	25	

SAMPLE DUPLICATE: 3526396

Parameter	Units	92583585002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	123	5	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 674001	Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600004

METHOD BLANK: 3527668 Matrix: Water

Associated Lab Samples: 92583600004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/26/22 17:40	

LABORATORY CONTROL SAMPLE: 3527669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	377	94	80-120	

SAMPLE DUPLICATE: 3527670

Parameter	Units	92583746001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	214	215	0	25	

SAMPLE DUPLICATE: 3527671

Parameter	Units	92583955001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	177	164	8	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

QC Batch: 674255

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600005, 92583600006, 92583600007

METHOD BLANK: 3528806

Matrix: Water

Associated Lab Samples: 92583600005, 92583600006, 92583600007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/28/22 10:29	

LABORATORY CONTROL SAMPLE: 3528807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	385	96	80-120	

SAMPLE DUPLICATE: 3528809

Parameter	Units	92584530001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1740	1870	7	25	

SAMPLE DUPLICATE: 3530611

Parameter	Units	92583953011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1520	1540	1	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 674961	Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583600008, 92583600009

METHOD BLANK: 3532863 Matrix: Water
Associated Lab Samples: 92583600008, 92583600009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/31/22 19:09	

LABORATORY CONTROL SAMPLE: 3532864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3532865

Parameter	Units	92583955011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	502	526	5	25	

SAMPLE DUPLICATE: 3532866

Parameter	Units	92583953014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	426	422	1	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 795578 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92583600001, 92583600002, 92583600003, 92583600004, 92583600005, 92583600006, 92583600007

METHOD BLANK: 4230575 Matrix: Water
Associated Lab Samples: 92583600001, 92583600002, 92583600003, 92583600004, 92583600005, 92583600006, 92583600007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	

LABORATORY CONTROL SAMPLE & LCSD: 4230576 4230577

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	42.1	42.3	105	106	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230578 4230579

Parameter	Units	10595480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	21.7	40	40	61.1	59.0	99	93	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230580 4230581

Parameter	Units	92583585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	51.0	40	40	91.2	91.1	100	100	80-120	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 796618 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92583600008, 92583600009

METHOD BLANK: 4234697 Matrix: Water

Associated Lab Samples: 92583600008, 92583600009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	02/02/22 14:45	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	02/02/22 14:45	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	02/02/22 14:45	

LABORATORY CONTROL SAMPLE & LCSD: 4234698

4234699

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	42.0	42.0	105	105	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4234700

4234701

Parameter	Units	92583600008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	192	40	40	232	232	99	100	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4234702

4234703

Parameter	Units	10595445007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	490	40	40	529	530	98	99	80-120	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

QC Batch: 673020	Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993	Analysis Description: 300.0 IC Anions
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583600001, 92583600002, 92583600003

METHOD BLANK: 3522860 Matrix: Water

Associated Lab Samples: 92583600001, 92583600002, 92583600003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/21/22 12:31	
Fluoride	mg/L	ND	0.10	0.050	01/21/22 12:31	
Sulfate	mg/L	ND	1.0	0.50	01/21/22 12:31	

LABORATORY CONTROL SAMPLE: 3522861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522862 3522863

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583627001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	5.0	50	50	50	60.6	61.4	111	113	90-110	1	10 M1	
Fluoride	mg/L	0.063J	2.5	2.5	2.5	2.6	2.7	102	104	90-110	2	10	
Sulfate	mg/L	5.0	50	50	50	60.3	61.5	111	113	90-110	2	10 M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522864 3522865

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	2.6	50	50	50	58.3	58.5	111	112	90-110	0	10 M1	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	2.7	105	107	90-110	2	10	
Sulfate	mg/L	0.73J	50	50	50	55.9	56.1	110	111	90-110	0	10 M1	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 673556 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92583600004, 92583600005, 92583600006, 92583600007

METHOD BLANK: 3525649 Matrix: Water
Associated Lab Samples: 92583600004, 92583600005, 92583600006, 92583600007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/25/22 21:01	
Fluoride	mg/L	ND	0.10	0.050	01/25/22 21:01	
Sulfate	mg/L	ND	1.0	0.50	01/25/22 21:01	

LABORATORY CONTROL SAMPLE: 3525650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.4	105	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525651 3525652

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583957002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	5.7	50	50	57.7	57.3	104	103	90-110	1	10		
Fluoride	mg/L	0.11	2.5	2.5	2.5	2.5	95	96	90-110	1	10		
Sulfate	mg/L	50.2	50	50	89.5	89.3	79	78	90-110	0	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525653 3525654

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583957003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	11.3	50	50	101	94.6	179	167	90-110	7	10	M1	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	98	97	90-110	1	10		
Sulfate	mg/L	344	50	50	92.4	91.3	-504	-506	90-110	1	10	M1	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

QC Batch: 674218 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583600008, 92583600009

METHOD BLANK: 3528694 Matrix: Water

Associated Lab Samples: 92583600008, 92583600009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/27/22 20:50	
Fluoride	mg/L	ND	0.10	0.050	01/27/22 20:50	
Sulfate	mg/L	ND	1.0	0.50	01/27/22 20:50	

LABORATORY CONTROL SAMPLE: 3528695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.3	103	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	49.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528696 3528697

Parameter	Units	92584437011		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	10.0	50	50	50	61.4	61.5	103	103	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	2.7	106	108	90-110	2	10	
Sulfate	mg/L	5.0	50	50	50	55.8	55.3	102	101	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528698 3528699

Parameter	Units	92584543005		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	7.8	50	50	50	59.0	60.6	102	106	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.4	2.5	95	99	90-110	4	10	
Sulfate	mg/L	4.7	50	50	50	54.8	57.0	100	105	90-110	4	10	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1
Pace Project No.: 92583600

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583600001	DGWC-40				
92583600002	DGWC-67				
92583600004	DGWC-39				
92583600005	DGWC-37				
92583600006	DGWC-38				
92583600008	DGWC-68A				
92583600009	DGWC-69				
92583600001	DGWC-40	EPA 3010A	673587	EPA 6010D	673656
92583600002	DGWC-67	EPA 3010A	673587	EPA 6010D	673656
92583600003	DUP-1	EPA 3010A	673587	EPA 6010D	673656
92583600004	DGWC-39	EPA 3010A	673704	EPA 6010D	673782
92583600005	DGWC-37	EPA 3010A	673704	EPA 6010D	673782
92583600006	DGWC-38	EPA 3010A	673704	EPA 6010D	673782
92583600007	DUP-3	EPA 3010A	673704	EPA 6010D	673782
92583600008	DGWC-68A	EPA 3010A	674955	EPA 6010D	675033
92583600009	DGWC-69	EPA 3010A	674955	EPA 6010D	675033
92583600001	DGWC-40	EPA 3005A	673617	EPA 6020B	673660
92583600002	DGWC-67	EPA 3005A	673617	EPA 6020B	673660
92583600003	DUP-1	EPA 3005A	673617	EPA 6020B	673660
92583600004	DGWC-39	EPA 3005A	673617	EPA 6020B	673660
92583600005	DGWC-37	EPA 3005A	673617	EPA 6020B	673660
92583600006	DGWC-38	EPA 3005A	673617	EPA 6020B	673660
92583600007	DUP-3	EPA 3005A	673617	EPA 6020B	673660
92583600008	DGWC-68A	EPA 3005A	675122	EPA 6020B	675233
92583600009	DGWC-69	EPA 3005A	675122	EPA 6020B	675233
92583600001	DGWC-40	EPA 7470A	674969	EPA 7470A	675136
92583600002	DGWC-67	EPA 7470A	674969	EPA 7470A	675136
92583600003	DUP-1	EPA 7470A	674969	EPA 7470A	675136
92583600004	DGWC-39	EPA 7470A	674969	EPA 7470A	675136
92583600005	DGWC-37	EPA 7470A	674969	EPA 7470A	675136
92583600006	DGWC-38	EPA 7470A	674969	EPA 7470A	675136
92583600007	DUP-3	EPA 7470A	674969	EPA 7470A	675136
92583600008	DGWC-68A	EPA 7470A	674969	EPA 7470A	675136
92583600009	DGWC-69	EPA 7470A	674969	EPA 7470A	675136
92583600001	DGWC-40	SM 2540C-2015	673706		
92583600002	DGWC-67	SM 2540C-2015	673706		
92583600003	DUP-1	SM 2540C-2015	673706		
92583600004	DGWC-39	SM 2540C-2015	674001		
92583600005	DGWC-37	SM 2540C-2015	674255		
92583600006	DGWC-38	SM 2540C-2015	674255		
92583600007	DUP-3	SM 2540C-2015	674255		
92583600008	DGWC-68A	SM 2540C-2015	674961		
92583600009	DGWC-69	SM 2540C-2015	674961		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1

Pace Project No.: 92583600

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583600001	DGWC-40	SM 2320B	795578		
92583600002	DGWC-67	SM 2320B	795578		
92583600003	DUP-1	SM 2320B	795578		
92583600004	DGWC-39	SM 2320B	795578		
92583600005	DGWC-37	SM 2320B	795578		
92583600006	DGWC-38	SM 2320B	795578		
92583600007	DUP-3	SM 2320B	795578		
92583600008	DGWC-68A	SM 2320B	796618		
92583600009	DGWC-69	SM 2320B	796618		
92583600001	DGWC-40	EPA 300.0 Rev 2.1 1993	673020		
92583600002	DGWC-67	EPA 300.0 Rev 2.1 1993	673020		
92583600003	DUP-1	EPA 300.0 Rev 2.1 1993	673020		
92583600004	DGWC-39	EPA 300.0 Rev 2.1 1993	673556		
92583600005	DGWC-37	EPA 300.0 Rev 2.1 1993	673556		
92583600006	DGWC-38	EPA 300.0 Rev 2.1 1993	673556		
92583600007	DUP-3	EPA 300.0 Rev 2.1 1993	673556		
92583600008	DGWC-68A	EPA 300.0 Rev 2.1 1993	674218		
92583600009	DGWC-69	EPA 300.0 Rev 2.1 1993	674218		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power CCR Project #:

WO#: 92583600



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/22
COH

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.6/20/3.3 Correction Factor: +0.1
4.4 Add/Subtract (5)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>	.
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #: **WO# : 92583600**

Courier: Commercial Fed Ex Pace UPS USPS Other: Client

PM: NMG Due Date: 02/03/22
CLIENT: GA-GA Power

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MP 1/21/22

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Cooler Temp: 3.7 Correction Factor: ± 0.2
Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.9

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No


Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92583600**

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

PM: NMG Due Date: 02/03/22
CLIENT: GA-GA Power

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/25/22
LOH

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 3.0 Correction Factor: Add/Subtract (°C) +0.1
3.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):
USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

March 08, 2022

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

RE: Project: MCDONOUGH AP-1 RAD
Pace Project No.: 92583567

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 20, 2022 and January 26, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM

Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583567001	DGWC-40	Water	01/19/22 12:30	01/20/22 08:45
92583567002	DGWC-67	Water	01/19/22 14:52	01/20/22 08:45
92583567003	DUP-1	Water	01/19/22 00:00	01/20/22 08:45
92583567004	DGWC-39	Water	01/20/22 11:28	01/21/22 15:32
92583567005	DGWC-37	Water	01/21/22 09:37	01/21/22 15:32
92583567006	DGWC-38	Water	01/21/22 11:03	01/21/22 15:32
92583567007	DUP-3	Water	01/21/22 00:00	01/21/22 15:32
92583567008	DGWC-68A	Water	01/25/22 15:25	01/26/22 08:51
92583567009	DGWC-69	Water	01/25/22 12:37	01/26/22 08:51

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1 RAD
Pace Project No.: 92583567

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583567001	DGWC-40	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567002	DGWC-67	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567003	DUP-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567004	DGWC-39	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567005	DGWC-37	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567006	DGWC-38	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567007	DUP-3	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567008	DGWC-68A	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583567009	DGWC-69	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DGWC-40 **Lab ID: 92583567001** Collected: 01/19/22 12:30 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.123 ± 0.124 (0.244) C:78% T:NA	pCi/L	02/14/22 09:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.58 ± 0.607 (0.931) C:67% T:73%	pCi/L	02/03/22 10:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.70 ± 0.731 (1.18)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-67 Lab ID: 92583567002 Collected: 01/19/22 14:52 Received: 01/20/22 08:45 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.177 ± 0.119 (0.182) C:81% T:NA	pCi/L	02/14/22 09:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.676 ± 0.428 (0.805) C:72% T:77%	pCi/L	02/03/22 10:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.853 ± 0.547 (0.987)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DUP-1 **Lab ID: 92583567003** Collected: 01/19/22 00:00 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.209 ± 0.124 (0.182) C:86% T:NA	pCi/L	02/14/22 09:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.03 ± 0.485 (0.821) C:70% T:77%	pCi/L	02/03/22 10:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.24 ± 0.609 (1.00)	pCi/L	02/17/22 07:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DGWC-39 **Lab ID: 92583567004** Collected: 01/20/22 11:28 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.172 ± 0.125 (0.213) C:83% T:NA	pCi/L	02/14/22 09:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.207 ± 0.250 (0.631) C:97% T:74%	pCi/L	02/18/22 11:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.172 ± 0.375 (0.844)	pCi/L	02/21/22 10:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DGWC-37 **Lab ID: 92583567005** Collected: 01/21/22 09:37 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.100 ± 0.111 (0.226) C:81% T:NA	pCi/L	02/14/22 09:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.243 ± 0.272 (0.568) C:92% T:78%	pCi/L	02/18/22 11:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.343 ± 0.383 (0.794)	pCi/L	02/21/22 10:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DGWC-38 **Lab ID: 92583567006** Collected: 01/21/22 11:03 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0873 ± 0.0893 (0.169) C:87% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.0214 ± 0.335 (0.792) C:69% T:82%	pCi/L	02/14/22 16:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.0873 ± 0.424 (0.961)	pCi/L	02/17/22 07:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DUP-3 **Lab ID: 92583567007** Collected: 01/21/22 00:00 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0679 ± 0.0868 (0.181) C:91% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.229 ± 0.323 (0.828) C:57% T:89%	pCi/L	02/14/22 16:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.0679 ± 0.410 (1.01)	pCi/L	02/17/22 07:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-68A Lab ID: 92583567008 Collected: 01/25/22 15:25 Received: 01/26/22 08:51 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.189 ± 0.147 (0.241) C:93% T:NA	pCi/L	02/16/22 10:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.134 ± 0.451 (1.01) C:75% T:85%	pCi/L	02/14/22 16:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.323 ± 0.598 (1.25)	pCi/L	02/17/22 13:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

Sample: DGWC-69 **Lab ID: 92583567009** Collected: 01/25/22 12:37 Received: 01/26/22 08:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.713 ± 0.267 (0.254) C:93% T:NA	pCi/L	02/16/22 10:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.121 ± 0.512 (1.15) C:69% T:86%	pCi/L	02/14/22 16:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.834 ± 0.779 (1.40)	pCi/L	02/17/22 13:33	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

QC Batch: 481463

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583567008, 92583567009

METHOD BLANK: 2326512

Matrix: Water

Associated Lab Samples: 92583567008, 92583567009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00174 ± 0.0889 (0.253) C:96% T:NA	pCi/L	02/16/22 10:30	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

QC Batch: 482061

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583567004, 92583567005, 92583567006, 92583567007, 92583567008, 92583567009

METHOD BLANK: 2330295

Matrix: Water

Associated Lab Samples: 92583567004, 92583567005, 92583567006, 92583567007, 92583567008, 92583567009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.129 ± 0.257 (0.566) C:88% T:86%	pCi/L	02/14/22 12:35	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

QC Batch: 480682

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583567001, 92583567002, 92583567003

METHOD BLANK: 2322658

Matrix: Water

Associated Lab Samples: 92583567001, 92583567002, 92583567003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.570 ± 0.392 (0.745) C:71% T:72%	pCi/L	02/03/22 10:11	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

QC Batch: 480871

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583567001, 92583567002, 92583567003, 92583567004, 92583567005, 92583567006, 92583567007

METHOD BLANK: 2323618

Matrix: Water

Associated Lab Samples: 92583567001, 92583567002, 92583567003, 92583567004, 92583567005, 92583567006, 92583567007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.165 ± 0.131 (0.240) C:84% T:NA	pCi/L	02/14/22 09:25	

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

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QUALIFIERS

Project: MCDONOUGH AP-1 RAD

Pace Project No.: 92583567

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1 RAD
Pace Project No.: 92583567

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583567001	DGWC-40	EPA 9315	480871		
92583567002	DGWC-67	EPA 9315	480871		
92583567003	DUP-1	EPA 9315	480871		
92583567004	DGWC-39	EPA 9315	480871		
92583567005	DGWC-37	EPA 9315	480871		
92583567006	DGWC-38	EPA 9315	480871		
92583567007	DUP-3	EPA 9315	480871		
92583567008	DGWC-68A	EPA 9315	481463		
92583567009	DGWC-69	EPA 9315	481463		
92583567001	DGWC-40	EPA 9320	480682		
92583567002	DGWC-67	EPA 9320	480682		
92583567003	DUP-1	EPA 9320	480682		
92583567004	DGWC-39	EPA 9320	482061		
92583567005	DGWC-37	EPA 9320	482061		
92583567006	DGWC-38	EPA 9320	482061		
92583567007	DUP-3	EPA 9320	482061		
92583567008	DGWC-68A	EPA 9320	482061		
92583567009	DGWC-69	EPA 9320	482061		
92583567001	DGWC-40	Total Radium Calculation	484431		
92583567002	DGWC-67	Total Radium Calculation	484431		
92583567003	DUP-1	Total Radium Calculation	484431		
92583567004	DGWC-39	Total Radium Calculation	485106		
92583567005	DGWC-37	Total Radium Calculation	485106		
92583567006	DGWC-38	Total Radium Calculation	484431		
92583567007	DUP-3	Total Radium Calculation	484431		
92583567008	DGWC-68A	Total Radium Calculation	484619		
92583567009	DGWC-69	Total Radium Calculation	484619		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power CCR

Project #:

WO#: **92583600**



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/22
(JH)

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.6/20/33 Correction Factor: +0.1
4.4 Add/Subtract (5)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #: **WO# : 92583600**

Courier: Commercial Fed Ex Pace UPS USPS Other: Client

PM: NMG Due Date: 02/03/22
CLIENT: GA-GA Power

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MP 1/21/22

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Cooler Temp: 3.7 Correction Factor: ± 0.2
Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.9

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No


Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92583600**

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

PM: NMG Due Date: 02/03/22
CLIENT: GA-GA Power

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/25/22
LOH

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 3.0 Correction Factor: Add/Subtract (°C) +0.1
3.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): _____
USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/3/2022
Worklist: 64792
Matrix: DW



Method Blank Assessment	
MB Sample ID	2323618
MB Concentration:	0.165
MB Counting Uncertainty:	0.128
MB MDC:	0.240
MB Numerical Performance Indicator:	2.52
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?		Y
	LCS64792	LCS64792	
Count Date:	2/14/2022	2/14/2022	LCS64792
Spike I.D.:	19-033	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030	24.030
Volume Used (mL):	0.10	0.10	0.10
Aliquot Volume (L, g, F):	0.520	0.512	0.512
Target Conc. (pCi/L, g, F):	4.619	4.693	4.693
Uncertainty (Calculated):	0.055	0.056	0.056
Result (pCi/L, g, F):	5.157	4.566	4.566
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.513	0.481	0.481
Numerical Performance Indicator:	2.04	-0.56	-0.56
Percent Recovery:	111.66%	97.07%	97.07%
Status vs Numerical Indicator:	N/A	N/A	N/A
Status vs Recovery:	Pass	Pass	Pass
Upper % Recovery Limits:	125%	125%	125%
Lower % Recovery Limits:	75%	75%	75%

Duplicate Sample Assessment	LCSD (Y or N)?		Y
	LCS64792	LCS64792	
Sample I.D.:	LCS64792	92583570002	92583570002
Duplicate Sample I.D.:	LCS64792	92583570002DUP	92583570002DUP
Sample Result (pCi/L, g, F):	5.157	0.033	0.033
Sample Result Counting Uncertainty (pCi/L, g, F):	0.513	0.116	0.116
Sample Duplicate Result (pCi/L, g, F):	4.556	0.106	0.106
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.481	0.084	0.084
Are sample and/or duplicate results below RL?	NO	See Below #	See Below #
Duplicate Numerical Performance Indicator:	1.675	-1.001	-1.001
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	13.98%	105.06%	105.06%
Duplicate Status vs Numerical Indicator:	N/A	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail	Fail
% RPD Limit:	25%	25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

results < mdc, N/A
Nuz 2/22/22

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample ID: Sample MS I.D.: Sample MSD I.D.: Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 2/11/2022
Worklist: 64779
Matrix: WT

MB Sample ID	2322658
MB concentration:	0.570
MB 2 Sigma CSU:	0.392
MB MDC:	0.745
MB Numerical Performance Indicator:	2.85
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS64779	LCS64779
Count Date:	2/3/2022	
Spike ID:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.476	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	4.488	
Uncertainty (Calculated):	0.220	
Result (pCi/L, g, F):	4.867	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.075	
Numerical Performance Indicator:	0.68	
Status vs Numerical Indicator:	108/45%	
Status vs Recovery:	N/A	
Upper % Recovery Limits:	Pass	
Lower % Recovery Limits:	135%	
	60%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	1/11/2022	
Sample I.D.:	92583991001	
Sample MS I.D.:	92583991002	
Sample MSD I.D.:	92583991003	
Spike I.D.:	21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.752	
Spike Volume Used in MS (mL):	0.20	
MS Aliquot (L, g, F):	0.20	
MS Target Conc. (pCi/L, g, F):	9.084	
MSD Aliquot (L, g, F):	0.808	
MSD Target Conc. (pCi/L, g, F):	9.103	
MS Spike Uncertainty (calculated):	0.445	
MSD Spike Uncertainty (calculated):	0.446	
Sample Result:	0.179	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.351	
Sample Matrix Spike Result:	11.356	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.218	
Sample Matrix Spike Duplicate Result:	10.605	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	2.096	
MS Numerical Performance Indicator:	1.792	
MSD Numerical Performance Indicator:	1.194	
MS Percent Recovery:	123.05%	
MSD Percent Recovery:	114.53%	
MS Status vs Numerical Indicator:	Pass	
MSD Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

Duplicate Sample Assessment	Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:	92583991001
Duplicate Sample I.D.:	92583991002
Sample Result (pCi/L, g, F):	11.356
Sample Duplicate Result (pCi/L, g, F):	2.218
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	10.605
Are sample and/or duplicate results below RL?	2.096
Duplicate Numerical Performance Indicator:	0.483
Duplicate RPD:	7.17%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/11/2022 VAL

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: VAL
Date: 2/10/2022
Worklist: 64947
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2330295
MB concentration:	0.129
MB 2 Sigma CSU:	0.257
MB MDC:	0.566
MB Numerical Performance Indicator:	0.99
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS/D (Y or N)?
Count Date:	2/14/2022	Y
Spike ID:	LCS64947	
Decay Corrected Spike Concentration (pCi/mL):	21-029	
Volume Used (mL):	36.340	
Alliquot Volume (L, g, F):	0.10	
Target Conc. (pCi/L, g, F):	0.805	
Uncertainty (Calculated):	4.514	
Result (pCi/L, g, F):	0.221	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	4.495	
Numerical Performance Indicator:	1.026	
Percent Recovery:	-0.03	
Status vs Numerical Indicator:	99.59%	
Status vs Recovery:	N/A	
Upper % Recovery Limits:	Pass	
Lower % Recovery Limits:	135%	
	60%	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
Spike Volume Used in MSD (mL):			
MS Alliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Alliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result:			
Sample Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Result:			
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Duplicate Sample Assessment	
Sample I.D.:	LCS64947
Duplicate Sample I.D.:	LCS064947
Sample Result (pCi/L, g, F):	4.495
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.026
Sample Duplicate Result (pCi/L, g, F):	5.185
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.194
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.859
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	14.46%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Matrix Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

M 2/15/22

2/10/22

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/13/2022
Worklist: 64894
Matrix: DW

Method Blank Assessment	
MB Sample ID	2326512
MB concentration:	0.002
MB Counting Uncertainty:	0.089
MB MDC:	0.253
MB Numerical Performance Indicator:	0.04
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS64894	LCS64894
Count Date:	2/16/2022	2/16/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.508
Target Conc. (pCi/L, g, F):	4.690	4.732
Uncertainty (Calculated):	0.056	0.057
Result (pCi/L, g, F):	4.731	5.146
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.601	0.615
Numerical Performance Indicator:	0.13	1.31
Percent Recovery:	100.88%	108.75%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
	LCS64894	LCS64894
Sample I.D.:	92583952001	92583952001DUP
Duplicate Sample I.D.:	92583952001	92583952001DUP
Sample Result (pCi/L, g, F):	0.601	0.266
Sample Duplicate Result (pCi/L, g, F):	5.146	0.721
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.615	0.272
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	-0.947	0.760
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.51%	18.57%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten: 2/17/22
LAM 2/17/22

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

March 03, 2022

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

RE: Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 20, 2022 and January 27, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA
- Pace Analytical Services - Minneapolis

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company

Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064

Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
Please Note: Applicable air certifications are denoted with an asterisk ().

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Pace Analytical Services Peachtree Corners
South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583590001	B-105D	Water	01/19/22 16:24	01/20/22 08:45
92583590002	B-112D	Water	01/19/22 11:07	01/20/22 08:45
92583590003	B-113D	Water	01/26/22 10:35	01/27/22 08:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583590001	B-105D	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583590002	B-112D	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583590003	B-113D	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA
PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Sample: B-105D		Lab ID: 92583590001		Collected: 01/19/22 16:24		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:49		
pH	6.62	Std. Units			1		01/20/22 13:49		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	8.6	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:43	7440-09-7	
Sodium	19.2	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:43	7440-23-5	
Calcium	74.2	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:43	7440-70-2	
Magnesium	26.7	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:43	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 19:50	7440-36-0	
Arsenic	0.0051	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:50	7440-38-2	
Barium	0.040	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 19:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 19:50	7440-41-7	
Boron	0.88	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 19:50	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 19:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:50	7440-47-3	
Cobalt	0.0060	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 19:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 19:50	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 19:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 19:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 19:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 19:50	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:14	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	453	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	38.4	mg/L	5.0	1.8	1		01/26/22 15:26		
Alkalinity,Bicarbonate (CaCO ₃)	38.4	mg/L	5.0	1.8	1		01/26/22 15:26		
Alkalinity,Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 15:26		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	16.3	mg/L	1.0	0.60	1		01/21/22 18:19	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sample: B-105D									
Lab ID: 92583590001									
Collected: 01/19/22 16:24									
Received: 01/20/22 08:45									
Matrix: Water									
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.058J	mg/L	0.10	0.050	1		01/21/22 18:19	16984-48-8	
Sulfate	220	mg/L	5.0	2.5	5		01/22/22 03:52	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Sample: B-112D		Lab ID: 92583590002		Collected: 01/19/22 11:07		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:49		
pH	6.74	Std. Units			1		01/20/22 13:49		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.5	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:47	7440-09-7	
Sodium	12.9	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:47	7440-23-5	
Calcium	24.1	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:47	7440-70-2	
Magnesium	7.6	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:47	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 19:56	7440-36-0	
Arsenic	0.0050	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:56	7440-38-2	
Barium	0.0034J	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 19:56	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 19:56	7440-41-7	
Boron	0.31	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 19:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 19:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 19:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 19:56	7439-92-1	
Lithium	0.0044J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 19:56	7439-93-2	
Molybdenum	0.032	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 19:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 19:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 19:56	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:17	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	167	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	117	mg/L	5.0	1.8	1		01/26/22 15:31		
Alkalinity, Bicarbonate (CaCO ₃)	117	mg/L	5.0	1.8	1		01/26/22 15:31		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 15:31		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.5	mg/L	1.0	0.60	1		01/21/22 18:33	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Sample: B-112D		Lab ID: 92583590002		Collected: 01/19/22 11:07		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	0.25	mg/L	0.10	0.050	1		01/21/22 18:33	16984-48-8	
Sulfate	18.4	mg/L	1.0	0.50	1		01/21/22 18:33	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

Sample: B-113D	Lab ID: 92583590003	Collected: 01/26/22 10:35		Received: 01/27/22 08:50		Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/27/22 10:22		
pH	7.66	Std. Units			1		01/27/22 10:22		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	10.5	mg/L	0.20	0.15	1	02/02/22 14:04	02/03/22 23:24	7440-09-7	
Calcium	48.4	mg/L	1.0	0.12	1	02/02/22 14:04	02/03/22 23:24	7440-70-2	
Magnesium	7.2	mg/L	0.050	0.012	1	02/02/22 14:04	02/03/22 23:24	7439-95-4	
Sodium	29.1	mg/L	1.0	0.58	1	02/02/22 14:04	02/04/22 13:02	7440-23-5	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/22 09:47	02/01/22 16:28	7440-36-0	
Arsenic	0.0018J	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 16:28	7440-38-2	
Barium	0.0051	mg/L	0.0050	0.00067	1	02/01/22 09:47	02/01/22 16:28	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/22 09:47	02/01/22 16:28	7440-41-7	
Boron	0.12	mg/L	0.040	0.0086	1	02/01/22 09:47	02/01/22 16:28	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/22 09:47	02/01/22 16:28	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 16:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/22 09:47	02/01/22 16:28	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/22 09:47	02/01/22 16:28	7439-92-1	
Lithium	0.014J	mg/L	0.030	0.00073	1	02/01/22 09:47	02/01/22 16:28	7439-93-2	
Molybdenum	0.074	mg/L	0.010	0.00074	1	02/01/22 09:47	02/01/22 16:28	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/22 09:47	02/01/22 16:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/22 09:47	02/01/22 16:28	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 12:25	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	234	mg/L	10.0	10.0	1		02/01/22 14:08		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	125	mg/L	5.0	1.8	1		02/02/22 23:06		
Alkalinity, Bicarbonate (CaCO ₃)	125	mg/L	5.0	1.8	1		02/02/22 23:06		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		02/02/22 23:06		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	19.8	mg/L	1.0	0.60	1		01/29/22 15:32	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Sample: B-113D **Lab ID: 92583590003** Collected: 01/26/22 10:35 Received: 01/27/22 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.74	mg/L	0.10	0.050	1		01/29/22 15:32	16984-48-8	
Sulfate	55.5	mg/L	1.0	0.50	1		01/29/22 15:32	14808-79-8	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 673587	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583590001, 92583590002

METHOD BLANK: 3525717 Matrix: Water

Associated Lab Samples: 92583590001, 92583590002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/25/22 14:07	
Magnesium	mg/L	ND	0.050	0.012	01/25/22 14:07	
Potassium	mg/L	ND	0.20	0.15	01/25/22 14:07	
Sodium	mg/L	ND	1.0	0.58	01/25/22 14:07	

LABORATORY CONTROL SAMPLE: 3525718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	106	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525719 3525720

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	10.7	1	1	11.9	11.8	118	113	75-125	0	20
Magnesium	mg/L	3.8	1	1	4.9	4.9	108	109	75-125	0	20
Potassium	mg/L	2.5	1	1	3.6	3.7	111	114	75-125	1	20
Sodium	mg/L	8.2	1	1	9.1	9.3	91	106	75-125	2	20

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 675554	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583590003

METHOD BLANK: 3535646 Matrix: Water
Associated Lab Samples: 92583590003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/03/22 22:50	
Magnesium	mg/L	ND	0.050	0.012	02/03/22 22:50	
Potassium	mg/L	ND	0.20	0.15	02/03/22 22:50	
Sodium	mg/L	ND	1.0	0.58	02/03/22 22:50	

LABORATORY CONTROL SAMPLE: 3535647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	112	80-120	
Potassium	mg/L	1	1.0	104	80-120	
Sodium	mg/L	1	1.2	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3535648 3535649

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583955009	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	163	1	1	175	172	1180	964	75-125	1	20 M1
Magnesium	mg/L	27.8	1	1	30.1	30.0	226	216	75-125	0	20 M1
Potassium	mg/L	8.7	1	1	10.4	10.3	170	157	75-125	1	20 M1
Sodium	mg/L	19.7	1	1	23.0	22.8	331	308	75-125	1	20 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 673617 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583590001, 92583590002

METHOD BLANK: 3525846 Matrix: Water
Associated Lab Samples: 92583590001, 92583590002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	01/25/22 18:39	
Arsenic	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Barium	mg/L	ND	0.0050	0.00067	01/25/22 18:39	
Beryllium	mg/L	ND	0.00050	0.000054	01/25/22 18:39	
Boron	mg/L	ND	0.040	0.0086	01/25/22 18:39	
Cadmium	mg/L	ND	0.00050	0.00011	01/25/22 18:39	
Chromium	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Cobalt	mg/L	ND	0.0050	0.00039	01/25/22 18:39	
Lead	mg/L	ND	0.0010	0.00089	01/25/22 18:39	
Lithium	mg/L	ND	0.030	0.00073	01/25/22 18:39	
Molybdenum	mg/L	ND	0.010	0.00074	01/25/22 18:39	
Selenium	mg/L	ND	0.0050	0.0014	01/25/22 18:39	
Thallium	mg/L	ND	0.0010	0.00018	01/25/22 18:39	

LABORATORY CONTROL SAMPLE: 3525847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525848 3525849

Parameter	Units	92583585002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.1	0.11	108	108	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Parameter	Units	3525848		3525849		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.047	0.1	0.1	0.15	0.15	102	107	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.092	98	92	75-125	6	20		
Boron	mg/L	ND	1	1	0.99	0.91	99	90	75-125	9	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	99	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20		
Lithium	mg/L	0.0085J	0.1	0.1	0.11	0.10	98	95	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 675122 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583590003

METHOD BLANK: 3533656 Matrix: Water
Associated Lab Samples: 92583590003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/01/22 13:34	
Arsenic	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Barium	mg/L	ND	0.0050	0.00067	02/01/22 13:34	
Beryllium	mg/L	ND	0.00050	0.000054	02/01/22 13:34	
Boron	mg/L	ND	0.040	0.0086	02/01/22 13:34	
Cadmium	mg/L	ND	0.00050	0.00011	02/01/22 13:34	
Chromium	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Cobalt	mg/L	ND	0.0050	0.00039	02/01/22 13:34	
Lead	mg/L	ND	0.0010	0.00089	02/01/22 13:34	
Lithium	mg/L	ND	0.030	0.00073	02/01/22 13:34	
Molybdenum	mg/L	ND	0.010	0.00074	02/01/22 13:34	
Selenium	mg/L	ND	0.0050	0.0014	02/01/22 13:34	
Thallium	mg/L	ND	0.0010	0.00018	02/01/22 13:34	

LABORATORY CONTROL SAMPLE: 3533657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	115	80-120	
Cadmium	mg/L	0.1	0.11	106	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	110	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3533658 3533659

Parameter	Units	92585102002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	108	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Parameter	Units	3533658		3533659		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92585102002 Result	MS Spike Conc.	MSD Spike Conc.									
Barium	mg/L	23.1 ug/L	0.1	0.1	0.13	0.13	107	105	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20		
Boron	mg/L	ND	1	1	1.1	1.1	113	109	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	105	108	75-125	3	20		
Chromium	mg/L	47.0 ug/L	0.1	0.1	0.15	0.16	107	112	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	105	109	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	109	106	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 674969 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583590001, 92583590002, 92583590003

METHOD BLANK: 3532919 Matrix: Water
Associated Lab Samples: 92583590001, 92583590002, 92583590003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/01/22 11:32	

LABORATORY CONTROL SAMPLE: 3532920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3532921 3532922

Parameter	Units	3532921		3532922		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0022	0.0022	89	90	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

QC Batch: 673706	Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583590001, 92583590002

METHOD BLANK: 3526393 Matrix: Water

Associated Lab Samples: 92583590001, 92583590002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/25/22 16:16	

LABORATORY CONTROL SAMPLE: 3526394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3526395

Parameter	Units	92583263001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	308	310	1	25	

SAMPLE DUPLICATE: 3526396

Parameter	Units	92583585002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	123	5	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

QC Batch: 675202	Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583590003

METHOD BLANK: 3533883 Matrix: Water

Associated Lab Samples: 92583590003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/01/22 14:06	

LABORATORY CONTROL SAMPLE: 3533884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3533885

Parameter	Units	92584543008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	57.0	52.0	9	25	

SAMPLE DUPLICATE: 3533886

Parameter	Units	92585000001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	56.0	66.0	16	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 795578 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92583590001, 92583590002

METHOD BLANK: 4230575 Matrix: Water
Associated Lab Samples: 92583590001, 92583590002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	

LABORATORY CONTROL SAMPLE & LCSD: 4230576 4230577

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	42.1	42.3	105	106	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230578 4230579

Parameter	Units	10595480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	21.7	40	40	61.1	59.0	99	93	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230580 4230581

Parameter	Units	92583585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	51.0	40	40	91.2	91.1	100	100	80-120	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 796922	Analysis Method: SM 2320B
QC Batch Method: SM 2320B	Analysis Description: 2320B Alkalinity
	Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92583590003

METHOD BLANK: 4235794 Matrix: Water
Associated Lab Samples: 92583590003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	5.0	1.8	02/02/22 21:14	
Alkalinity,Bicarbonate (CaCO ₃)	mg/L	ND	5.0	1.8	02/02/22 21:14	
Alkalinity,Carbonate (CaCO ₃)	mg/L	ND	5.0	1.8	02/02/22 21:14	

LABORATORY CONTROL SAMPLE & LCSD: 4235795 4235796

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	40	42.2	42.2	106	105	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4235797 4235798

Parameter	Units	10596266001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO ₃	mg/L	20.9	40	40	60.9	60.9	100	100	80-120	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 673020 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583590001, 92583590002

METHOD BLANK: 3522860 Matrix: Water

Associated Lab Samples: 92583590001, 92583590002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/21/22 12:31	
Fluoride	mg/L	ND	0.10	0.050	01/21/22 12:31	
Sulfate	mg/L	ND	1.0	0.50	01/21/22 12:31	

LABORATORY CONTROL SAMPLE: 3522861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522862 3522863

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583627001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	5.0	50	50	50	60.6	61.4	111	113	90-110	1	10 M1	
Fluoride	mg/L	0.063J	2.5	2.5	2.5	2.6	2.7	102	104	90-110	2	10	
Sulfate	mg/L	5.0	50	50	50	60.3	61.5	111	113	90-110	2	10 M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522864 3522865

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	2.6	50	50	50	58.3	58.5	111	112	90-110	0	10 M1	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	2.7	105	107	90-110	2	10	
Sulfate	mg/L	0.73J	50	50	50	55.9	56.1	110	111	90-110	0	10 M1	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1 ASSESS.
Pace Project No.: 92583590

QC Batch: 674479	Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993	Analysis Description: 300.0 IC Anions
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583590003

METHOD BLANK: 3530364 Matrix: Water
Associated Lab Samples: 92583590003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/29/22 12:30	
Fluoride	mg/L	ND	0.10	0.050	01/29/22 12:30	
Sulfate	mg/L	ND	1.0	0.50	01/29/22 12:30	

LABORATORY CONTROL SAMPLE: 3530365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.2	102	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3530366 3530367

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92584825001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	1.7	50	50	52.4	53.7	101	104	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	99	90-110	3	10		
Sulfate	mg/L	1.1	50	50	51.5	53.1	101	104	90-110	3	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3530368 3530369

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583953028 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	ND	50	50	51.7	51.3	103	103	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.7	2.4	109	96	90-110	12	10	R1	
Sulfate	mg/L	ND	50	50	51.5	50.7	103	101	90-110	2	10		

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QUALIFIERS

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1 ASSESS.

Pace Project No.: 92583590

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583590001	B-105D				
92583590002	B-112D				
92583590003	B-113D				
92583590001	B-105D	EPA 3010A	673587	EPA 6010D	673656
92583590002	B-112D	EPA 3010A	673587	EPA 6010D	673656
92583590003	B-113D	EPA 3010A	675554	EPA 6010D	675629
92583590001	B-105D	EPA 3005A	673617	EPA 6020B	673660
92583590002	B-112D	EPA 3005A	673617	EPA 6020B	673660
92583590003	B-113D	EPA 3005A	675122	EPA 6020B	675233
92583590001	B-105D	EPA 7470A	674969	EPA 7470A	675136
92583590002	B-112D	EPA 7470A	674969	EPA 7470A	675136
92583590003	B-113D	EPA 7470A	674969	EPA 7470A	675136
92583590001	B-105D	SM 2540C-2015	673706		
92583590002	B-112D	SM 2540C-2015	673706		
92583590003	B-113D	SM 2540C-2015	675202		
92583590001	B-105D	SM 2320B	795578		
92583590002	B-112D	SM 2320B	795578		
92583590003	B-113D	SM 2320B	796922		
92583590001	B-105D	EPA 300.0 Rev 2.1 1993	673020		
92583590002	B-112D	EPA 300.0 Rev 2.1 1993	673020		
92583590003	B-113D	EPA 300.0 Rev 2.1 1993	674479		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name:

GA Power CR

Project #:

WO# : 92583590

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other:



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/23
CR

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?
 Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.6/20/3.3 Correction Factor: 5 Add/Subtract +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.4 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92583590**

PM: NMG Due Date: 02/03/22
CLIENT: GA-GA Power

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 1/27/22

Packing Material: Bubble Wrap Bubble Bags None Other
Thermometer: IR Gun ID: 084 Type of Ice: Wet Blue None

Biological Tissue Frozen? Yes No N/A

Cooler Temp: 4.0 Correction Factor: ±0.2
Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.2

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

March 08, 2022

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

RE: Project: MCDONOUGH AP-1 ASSESS. RAD
Pace Project No.: 92583570

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 20, 2022 and January 27, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM

Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1 ASSESS. RAD
Pace Project No.: 92583570

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583570001	B-105D	Water	01/19/22 16:24	01/20/22 08:45
92583570002	B-112D	Water	01/19/22 11:07	01/20/22 08:45
92583570003	B-113D	Water	01/26/22 10:35	01/27/22 08:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583570001	B-105D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583570002	B-112D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583570003	B-113D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

Sample: B-105D **Lab ID: 92583570001** Collected: 01/19/22 16:24 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.399 ± 0.162 (0.146) C:83% T:NA	pCi/L	02/14/22 09:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	2.05 ± 0.598 (0.706) C:77% T:83%	pCi/L	02/03/22 10:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.45 ± 0.760 (0.852)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

Sample: B-112D **Lab ID: 92583570002** Collected: 01/19/22 11:07 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0331 ± 0.116 (0.283) C:91% T:NA	pCi/L	02/14/22 09:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.705 ± 0.456 (0.876) C:73% T:78%	pCi/L	02/03/22 10:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.738 ± 0.572 (1.16)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

Sample: B-113D **Lab ID: 92583570003** Collected: 01/26/22 10:35 Received: 01/27/22 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.241 ± 0.198 (0.371) C:94% T:NA	pCi/L	02/16/22 09:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.355 ± 0.305 (0.609) C:85% T:85%	pCi/L	02/15/22 15:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.596 ± 0.503 (0.980)	pCi/L	02/21/22 10:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

QC Batch: 482065

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583570003

METHOD BLANK: 2330297

Matrix: Water

Associated Lab Samples: 92583570003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.298 ± 0.301 (0.619) C:86% T:84%	pCi/L	02/15/22 15:27	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

QC Batch: 480682

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583570001, 92583570002

METHOD BLANK: 2322658

Matrix: Water

Associated Lab Samples: 92583570001, 92583570002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.570 ± 0.392 (0.745) C:71% T:72%	pCi/L	02/03/22 10:11	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

QC Batch: 480871

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583570001, 92583570002

METHOD BLANK: 2323618

Matrix: Water

Associated Lab Samples: 92583570001, 92583570002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.165 ± 0.131 (0.240) C:84% T:NA	pCi/L	02/14/22 09:25	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

QC Batch: 481462

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583570003

METHOD BLANK: 2326510

Matrix: Water

Associated Lab Samples: 92583570003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0222 ± 0.102 (0.264) C:95% T:NA	pCi/L	02/16/22 08:33	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH AP-1 ASSESS. RAD
Pace Project No.: 92583570

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1 ASSESS. RAD

Pace Project No.: 92583570

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583570001	B-105D	EPA 9315	480871		
92583570002	B-112D	EPA 9315	480871		
92583570003	B-113D	EPA 9315	481462		
92583570001	B-105D	EPA 9320	480682		
92583570002	B-112D	EPA 9320	480682		
92583570003	B-113D	EPA 9320	482065		
92583570001	B-105D	Total Radium Calculation	484431		
92583570002	B-112D	Total Radium Calculation	484431		
92583570003	B-113D	Total Radium Calculation	485256		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name: GA Power CR Project #: WO# : 92583590

WO# : 92583590



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/23
CR

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.6/20/3.3 Correction Factor: 5 Add/Subtract (5) +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.4
5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92583590**

PM: NMG Due Date: 02/03/22
CLIENT: GA-GA Power

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 1/27/22

Packing Material: Bubble Wrap Bubble Bags None Other
Thermometer: IR Gun ID: 084 Type of Ice: Wet Blue None

Biological Tissue Frozen? Yes No N/A

Cooler Temp: 4.0 Correction Factor: ±0.2
Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.2

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/3/2022
Worklist: 64792
Matrix: DW



Method Blank Assessment	
MB Sample ID	2323618
MB Concentration:	0.165
MB Counting Uncertainty:	0.128
MB MDC:	0.240
MB Numerical Performance Indicator:	2.52
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS64792	LCS64792
Count Date:	2/14/2022	2/14/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.520	0.512
Target Conc. (pCi/L, g, F):	4.619	4.693
Uncertainty (Calculated):	0.055	0.056
Result (pCi/L, g, F):	5.157	4.566
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.513	0.481
Numerical Performance Indicator:	2.04	-0.56
Percent Recovery:	111.66%	97.07%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample ID: Sample MS I.D.: Sample MSD I.D.: Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment	LCS64792	LCS64792
Sample I.D.:	LCS64792	92583570002
Duplicate Sample I.D.:	LCS64792	92583570002DUP
Sample Result (pCi/L, g, F):	5.157	0.033
Sample Result Counting Uncertainty (pCi/L, g, F):	0.513	0.116
Sample Duplicate Result (pCi/L, g, F):	4.556	0.106
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.481	0.084
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	1.675	-1.001
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	13.98%	105.06%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail
% RPD Limit:	25%	25%

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.
Comments:

***Batch must be re-prepped due to unacceptable precision. results < mdc, N/A N/A 2/2/22

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 2/11/2022
Worklist: 64779
Matrix: WT

Method Blank Assessment	
MB Sample ID	2322658
MB concentration:	0.570
MB 2 Sigma CSU:	0.392
MB MDC:	0.745
MB Numerical Performance Indicator:	2.85
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD64779	LCSD64779
Count Date:	2/3/2022	
Spike ID:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.476	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	4.488	
Uncertainty (Calculated):	0.220	
Result (pCi/L, g, F):	4.867	
LCSD 2 Sigma CSU (pCi/L, g, F):	1.075	
Numerical Performance Indicator:	0.68	
Percent Recovery:	108/45%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	60%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample ID: Duplicate Sample ID: Sample Result (pCi/L, g, F): Sample 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: %RPD Limit:	See Below ##

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:	1/11/2022 92583991001 92583991002 92583991003 21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):	36.752 0.20 0.20 9.084 0.808 9.103 0.445 0.446	
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result:	0.351 11.356	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator:	2.218 10.605 2.096 1.792 1.194	
MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MS Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:	123.05% 114.53% Pass Pass 135% 60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: %RPD Limit:	92583991001 92583991002 92583991003 11.356 2.218 10.605 2.096 0.483 7.17% Pass Pass 36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/12/2022 VAL

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 2/10/2022
Worklist: 64949
Matrix: WT

Method Blank Assessment	
MB Sample ID	2330297
MB concentration:	0.298
MB 2 Sigma CSU:	0.301
MB MDC:	0.619
MB Numerical Performance Indicator:	Pass
MB Status vs. Numerical Indicator:	1.94
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?	Y
Count Date:		LCS64949	
Spike I.D.:	2/15/2022	LCS64949	
Decay Corrected Spike Concentration (pCi/mL):	21-029		21-029
Volume Used (mL):	36.329		36.329
Aliquot Volume (L, g, F):	0.10		0.10
Target Conc. (pCi/L, g, F):	0.807		0.812
Uncertainty (Calculated):	4.500		4.474
Result (pCi/L, g, F):	0.220		0.219
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	3.350		3.636
Numerical Performance Indicator:	0.778		0.835
Percent Recovery:	-2.79		-1.90
Status vs Numerical Indicator:	74.46%		81.27%
Status vs Recovery:	N/A		N/A
Upper % Recovery Limits:	Pass		Pass
Lower % Recovery Limits:	135%		135%
	60%		60%

Duplicate Sample Assessment	
Sample I.D.:	LCS64949
Duplicate Sample I.D.:	LCS64949
Sample Result (pCi/L, g, F):	3.350
Sample Duplicate Result (pCi/L, g, F):	0.778
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	3.636
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.835
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.490
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	8.75%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

OK 2/17/22

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
Spike Volume Used in MSD (mL):			
MS Aliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result:			
Sample Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Result:			
Sample Matrix Spike Duplicate Result:			
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/13/2022
Worklist: 64893
Matrix: DW



Method Blank Assessment	
MB Sample ID	2326510
MB Concentration:	0.022
M/B Counting Uncertainty:	0.102
MB MDC:	0.264
MB Numerical Performance Indicator:	0.43
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS64893	LCSD64893
Count Date:	2/17/2022	2/17/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.511
Target Conc. (pCi/L, g, F):	4.731	4.705
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	5.318	4.917
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.657	0.599
Numerical Performance Indicator:	1.75	0.69
Percent Recovery:	112.42%	104.51%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS64893	
	LCSD64893	92583950001DUP
Sample I.D.:	LCSD64893	92583950001
Duplicate Sample I.D.:	LCSD64893	92583950001DUP
Sample Result (pCi/L, g, F):	5.318	0.508
Sample Result Counting Uncertainty (pCi/L, g, F):	0.657	0.218
Sample Duplicate Result (pCi/L, g, F):	4.917	0.298
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.599	0.194
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	0.884	1.415
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.29%	52.26%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail***
% RPD Limit:	25%	25%

Sample Matrix Spike Control Assessment	MS/MSD	
	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD	
	MS/MSD 1	MS/MSD 2
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

***Batch must be re-prepared due to unacceptable precision N/A

Comments:

***Batch must be re-prepared due to unacceptable precision N/A

JAM 2/17/22

CWW 2/17/22

JAM 2/17/22

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

February 02, 2022

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

RE: Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Dear Joju Abraham:

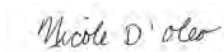
Enclosed are the analytical results for sample(s) received by the laboratory on January 21, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA
- Pace Analytical Services - Minneapolis

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.

Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064

Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
Please Note: Applicable air certifications are denoted with an asterisk ().

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Pace Analytical Services Peachtree Corners
South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583957001	B-62	Water	01/20/22 15:05	01/21/22 15:32
92583957002	DUP-2	Water	01/20/22 00:00	01/21/22 15:32
92583957003	B-100	Water	01/21/22 10:15	01/21/22 15:32

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583957001	B-62	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583957002	DUP-2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583957003	B-100	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Sample: B-62		Lab ID: 92583957001		Collected: 01/20/22 15:05		Received: 01/21/22 15:32		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/24/22 09:50		
pH	6.32	Std. Units			1		01/24/22 09:50		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.8	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 16:30	7440-09-7	
Sodium	10.8	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 16:30	7440-23-5	
Calcium	36.3	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 16:30	7440-70-2	
Magnesium	5.6	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 16:30	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:32	7440-36-0	
Arsenic	0.0033J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:32	7440-38-2	
Barium	0.021	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:32	7440-39-3	
Beryllium	0.00015J	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:32	7440-41-7	
Boron	0.077	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:32	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:32	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:32	7439-92-1	
Lithium	0.0092J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:32	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 10:37	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	187	mg/L	10.0	10.0	1		01/26/22 17:46		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	81.0	mg/L	5.0	1.8	1		01/25/22 17:38		
Alkalinity, Bicarbonate (CaCO ₃)	81.0	mg/L	5.0	1.8	1		01/25/22 17:38		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/25/22 17:38		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.6	mg/L	1.0	0.60	1		01/25/22 20:47	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

Sample: B-62 **Lab ID: 92583957001** Collected: 01/20/22 15:05 Received: 01/21/22 15:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.099J	mg/L	0.10	0.050	1		01/25/22 20:47	16984-48-8	
Sulfate	50.3	mg/L	1.0	0.50	1		01/25/22 20:47	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Sample: DUP-2		Lab ID: 92583957002		Collected: 01/20/22 00:00		Received: 01/21/22 15:32		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.6	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 16:35	7440-09-7		
Sodium	10.9	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 16:35	7440-23-5		
Calcium	35.3	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 16:35	7440-70-2		
Magnesium	5.6	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 16:35	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:38	7440-36-0		
Arsenic	0.0026J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:38	7440-38-2		
Barium	0.022	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:38	7440-39-3		
Beryllium	0.00015J	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:38	7440-41-7		
Boron	0.077	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:38	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:38	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:38	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:38	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:38	7439-92-1		
Lithium	0.0090J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:38	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:38	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:38	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:38	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 10:39	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	191	mg/L	10.0	10.0	1		01/26/22 17:46			
2320B Alkalinity		Analytical Method: SM 2320B Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO ₃	82.4	mg/L	5.0	1.8	1		01/25/22 17:43			
Alkalinity, Bicarbonate (CaCO ₃)	82.4	mg/L	5.0	1.8	1		01/25/22 17:43			
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/25/22 17:43			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	5.7	mg/L	1.0	0.60	1		01/25/22 21:57	16887-00-6		
Fluoride	0.11	mg/L	0.10	0.050	1		01/25/22 21:57	16984-48-8		
Sulfate	50.2	mg/L	1.0	0.50	1		01/25/22 21:57	14808-79-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Sample: B-100		Lab ID: 92583957003		Collected: 01/21/22 10:15		Received: 01/21/22 15:32		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/24/22 09:51		
pH	5.23	Std. Units			1		01/24/22 09:51		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	1.5	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 16:40	7440-09-7	
Sodium	28.3	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 16:40	7440-23-5	
Calcium	49.9	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 16:40	7440-70-2	
Magnesium	49.7	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 16:40	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 20:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:44	7440-38-2	
Barium	0.023	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 20:44	7440-39-3	
Beryllium	0.00053	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 20:44	7440-41-7	
Boron	0.24	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 20:44	7440-42-8	
Cadmium	0.00059	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 20:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 20:44	7440-47-3	
Cobalt	0.034	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 20:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 20:44	7439-92-1	
Lithium	0.0021J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 20:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 20:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 20:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 20:44	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/31/22 15:00	02/01/22 10:42	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	638	mg/L	20.0	20.0	1		01/28/22 10:30		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	32.2	mg/L	5.0	1.8	1		01/25/22 17:47		
Alkalinity,Bicarbonate (CaCO3)	32.2	mg/L	5.0	1.8	1		01/25/22 17:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/25/22 17:47		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	11.3	mg/L	1.0	0.60	1		01/25/22 22:39	16887-00-6	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

Sample: B-100		Lab ID: 92583957003		Collected: 01/21/22 10:15	Received: 01/21/22 15:32	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		01/25/22 22:39	16984-48-8	
Sulfate	344	mg/L	8.0	4.0	8		01/26/22 12:13	14808-79-8	M1

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

QC Batch: 673587 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583957001, 92583957002, 92583957003

METHOD BLANK: 3525717 Matrix: Water
Associated Lab Samples: 92583957001, 92583957002, 92583957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/25/22 14:07	
Magnesium	mg/L	ND	0.050	0.012	01/25/22 14:07	
Potassium	mg/L	ND	0.20	0.15	01/25/22 14:07	
Sodium	mg/L	ND	1.0	0.58	01/25/22 14:07	

LABORATORY CONTROL SAMPLE: 3525718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	106	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525719 3525720

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	10.7	1	1	11.9	11.8	118	113	75-125	0	20
Magnesium	mg/L	3.8	1	1	4.9	4.9	108	109	75-125	0	20
Potassium	mg/L	2.5	1	1	3.6	3.7	111	114	75-125	1	20
Sodium	mg/L	8.2	1	1	9.1	9.3	91	106	75-125	2	20

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

QC Batch: 673617 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583957001, 92583957002, 92583957003

METHOD BLANK: 3525846 Matrix: Water
Associated Lab Samples: 92583957001, 92583957002, 92583957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	01/25/22 18:39	
Arsenic	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Barium	mg/L	ND	0.0050	0.00067	01/25/22 18:39	
Beryllium	mg/L	ND	0.00050	0.000054	01/25/22 18:39	
Boron	mg/L	ND	0.040	0.0086	01/25/22 18:39	
Cadmium	mg/L	ND	0.00050	0.00011	01/25/22 18:39	
Chromium	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Cobalt	mg/L	ND	0.0050	0.00039	01/25/22 18:39	
Lead	mg/L	ND	0.0010	0.00089	01/25/22 18:39	
Lithium	mg/L	ND	0.030	0.00073	01/25/22 18:39	
Molybdenum	mg/L	ND	0.010	0.00074	01/25/22 18:39	
Selenium	mg/L	ND	0.0050	0.0014	01/25/22 18:39	
Thallium	mg/L	ND	0.0010	0.00018	01/25/22 18:39	

LABORATORY CONTROL SAMPLE: 3525847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525848 3525849

Parameter	Units	92583585002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525848		3525849		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92583585002 Result	MS Spike Conc.	MSD Spike Conc.									
Barium	mg/L	0.047	0.1	0.1	0.15	0.15	102	107	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.092	98	92	75-125	6	20		
Boron	mg/L	ND	1	1	0.99	0.91	99	90	75-125	9	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	99	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20		
Lithium	mg/L	0.0085J	0.1	0.1	0.11	0.10	98	95	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

QC Batch: 674967	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583957001, 92583957002, 92583957003

METHOD BLANK: 3532893 Matrix: Water

Associated Lab Samples: 92583957001, 92583957002, 92583957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/01/22 10:19	

LABORATORY CONTROL SAMPLE: 3532894

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3532895 3532896

Parameter	Units	3532895		3532896		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0021	0.0024	85	96	75-125	13	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

QC Batch: 674001

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583957001, 92583957002

METHOD BLANK: 3527668

Matrix: Water

Associated Lab Samples: 92583957001, 92583957002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/26/22 17:40	

LABORATORY CONTROL SAMPLE: 3527669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	377	94	80-120	

SAMPLE DUPLICATE: 3527670

Parameter	Units	92583746001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	214	215	0	25	

SAMPLE DUPLICATE: 3527671

Parameter	Units	92583955001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	177	164	8	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

QC Batch: 674255

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583957003

METHOD BLANK: 3528806

Matrix: Water

Associated Lab Samples: 92583957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/28/22 10:29	

LABORATORY CONTROL SAMPLE: 3528807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	385	96	80-120	

SAMPLE DUPLICATE: 3528809

Parameter	Units	92584530001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1740	1870	7	25	

SAMPLE DUPLICATE: 3530611

Parameter	Units	92583953011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1520	1540	1	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

QC Batch: 795302 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92583957001, 92583957002, 92583957003

METHOD BLANK: 4229437 Matrix: Water
Associated Lab Samples: 92583957001, 92583957002, 92583957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	01/25/22 15:45	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	01/25/22 15:45	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	01/25/22 15:45	

LABORATORY CONTROL SAMPLE & LCSD: 4229438 4229439

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	% Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	40.6	43.0	102	108	90-110	6	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4229440 4229441

Parameter	Units	10595205001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	24.5	40	40	57.6	55.0	83	76	80-120	5	20	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4229637 4229638

Parameter	Units	10594190002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	330	40	40	368	367	94	92	80-120	0	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

QC Batch: 673554 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583957001

METHOD BLANK: 3525639 Matrix: Water

Associated Lab Samples: 92583957001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/25/22 13:04	
Fluoride	mg/L	ND	0.10	0.050	01/25/22 13:04	
Sulfate	mg/L	ND	1.0	0.50	01/25/22 13:04	

LABORATORY CONTROL SAMPLE: 3525640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	51.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525641 3525642

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583953001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	2.0	50	50	53.1	53.7	102	103	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	97	90-110	0	10		
Sulfate	mg/L	101	50	50	145	146	89	91	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525643 3525644

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583953001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	2.0	50	50	50.2	52.2	96	101	90-110	4	10		
Fluoride	mg/L	ND	2.5	2.5	2.2	2.6	88	102	90-110	15	10	M1, R1	
Sulfate	mg/L	101	50	50	49.6	48.9	-102	-104	90-110	1	10	M1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

QC Batch: 673556 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92583957002, 92583957003

METHOD BLANK: 3525649 Matrix: Water
Associated Lab Samples: 92583957002, 92583957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/25/22 21:01	
Fluoride	mg/L	ND	0.10	0.050	01/25/22 21:01	
Sulfate	mg/L	ND	1.0	0.50	01/25/22 21:01	

LABORATORY CONTROL SAMPLE: 3525650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.4	105	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525651 3525652

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583957002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	5.7	50	50	57.7	57.3	104	103	90-110	1	10		
Fluoride	mg/L	0.11	2.5	2.5	2.5	2.5	95	96	90-110	1	10		
Sulfate	mg/L	50.2	50	50	89.5	89.3	79	78	90-110	0	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525653 3525654

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583957003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	11.3	50	50	101	94.6	179	167	90-110	7	10	M1	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	98	97	90-110	1	10		
Sulfate	mg/L	344	50	50	92.4	91.3	-504	-506	90-110	1	10	M1	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH AP-1, AP-2, 3/4

Pace Project No.: 92583957

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-1, AP-2, 3/4
Pace Project No.: 92583957

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583957001	B-62				
92583957003	B-100				
92583957001	B-62	EPA 3010A	673587	EPA 6010D	673656
92583957002	DUP-2	EPA 3010A	673587	EPA 6010D	673656
92583957003	B-100	EPA 3010A	673587	EPA 6010D	673656
92583957001	B-62	EPA 3005A	673617	EPA 6020B	673660
92583957002	DUP-2	EPA 3005A	673617	EPA 6020B	673660
92583957003	B-100	EPA 3005A	673617	EPA 6020B	673660
92583957001	B-62	EPA 7470A	674967	EPA 7470A	675135
92583957002	DUP-2	EPA 7470A	674967	EPA 7470A	675135
92583957003	B-100	EPA 7470A	674967	EPA 7470A	675135
92583957001	B-62	SM 2540C-2015	674001		
92583957002	DUP-2	SM 2540C-2015	674001		
92583957003	B-100	SM 2540C-2015	674255		
92583957001	B-62	SM 2320B	795302		
92583957002	DUP-2	SM 2320B	795302		
92583957003	B-100	SM 2320B	795302		
92583957001	B-62	EPA 300.0 Rev 2.1 1993	673554		
92583957002	DUP-2	EPA 300.0 Rev 2.1 1993	673556		
92583957003	B-100	EPA 300.0 Rev 2.1 1993	673556		

REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #: **WO# : 92583957**



Courier: Commercial Fed Ex Pace UPS USPS Other: Client

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: MT 1/21/22

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) ± 0.2

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.9

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)
 Document No.:
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
 Page 2 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

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

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

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

Project # **W0# : 92583957**
 PM: NMG Due Date: 02/04/22
 CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	VJGK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1		2	1																											
2		2	1																											
3		2	1																											
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

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

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

March 02, 2022

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

RE: Project: MCDONOUGH AP-1, AP-2, 3/4 RAD
Pace Project No.: 92583952

Dear Joju Abraham:

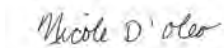
Enclosed are the analytical results for sample(s) received by the laboratory on January 21, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM

Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583952001	B-62	Water	01/20/22 15:05	01/21/22 15:32
92583952002	DUP-2	Water	01/20/22 00:00	01/21/22 15:32
92583952003	B-100	Water	01/21/22 10:12	01/21/22 15:32

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583952001	B-62	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583952002	DUP-2	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583952003	B-100	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Sample: B-62 **Lab ID: 92583952001** Collected: 01/20/22 15:05 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.869 ± 0.295 (0.267) C:94% T:NA	pCi/L	02/16/22 10:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.844 ± 0.453 (0.793) C:68% T:81%	pCi/L	02/14/22 16:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.71 ± 0.748 (1.06)	pCi/L	02/17/22 13:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Sample: DUP-2 **Lab ID: 92583952002** Collected: 01/20/22 00:00 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.493 ± 0.228 (0.284) C:94% T:NA	pCi/L	02/16/22 10:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.244 ± 0.386 (0.837) C:65% T:88%	pCi/L	02/14/22 16:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.737 ± 0.614 (1.12)	pCi/L	02/17/22 13:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Sample: B-100 **Lab ID: 92583952003** Collected: 01/21/22 10:12 Received: 01/21/22 15:32 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0921 ± 0.125 (0.262) C:95% T:NA	pCi/L	02/16/22 10:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.677 ± 0.431 (0.810) C:70% T:85%	pCi/L	02/14/22 16:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.769 ± 0.556 (1.07)	pCi/L	02/17/22 13:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

QC Batch: 481463	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583952001, 92583952002, 92583952003

METHOD BLANK: 2326512 Matrix: Water

Associated Lab Samples: 92583952001, 92583952002, 92583952003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00174 ± 0.0889 (0.253) C:96% T:NA	pCi/L	02/16/22 10:30	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

QC Batch:	482061	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92583952001, 92583952002, 92583952003

METHOD BLANK: 2330295 Matrix: Water

Associated Lab Samples: 92583952001, 92583952002, 92583952003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.129 ± 0.257 (0.566) C:88% T:86%	pCi/L	02/14/22 12:35	

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

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QUALIFIERS

Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: MCDONOUGH AP-1, AP-2, 3/4 RAD

Pace Project No.: 92583952

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583952001	B-62	EPA 9315	481463		
92583952002	DUP-2	EPA 9315	481463		
92583952003	B-100	EPA 9315	481463		
92583952001	B-62	EPA 9320	482061		
92583952002	DUP-2	EPA 9320	482061		
92583952003	B-100	EPA 9320	482061		
92583952001	B-62	Total Radium Calculation	484619		
92583952002	DUP-2	Total Radium Calculation	484619		
92583952003	B-100	Total Radium Calculation	484619		

REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

WO# : 92583952



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *MT 1/21/22*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID: *083* Type of Ice: Wet Blue None

Cooler Temp:

3.7 Correction Factor: Add/Subtract (°C) *± 0.2*

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *3.9*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>WT</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)

Document Revised: November 15, 2021
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.08

Issuing Authority:
Pace Carolinas Quality Office

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

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

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

Project #

WO#: 92583952

PM: NMG

Due Date: 02/11/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9,3-9,7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		2	1																										
2		2	1																										
3		2	1																										
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/13/2022
Worklist: 64894
Matrix: DW

Method Blank Assessment	
MB Sample ID	2326512
MB concentration:	0.002
MB Counting Uncertainty:	0.089
MB MDC:	0.253
MB Numerical Performance Indicator:	0.04
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS64894	LCS64894
Count Date:	2/16/2022	2/16/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.508
Target Conc. (pCi/L, g, F):	4.690	4.732
Uncertainty (Calculated):	0.056	0.057
Result (pCi/L, g, F):	4.731	5.146
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.601	0.615
Numerical Performance Indicator:	0.13	1.31
Percent Recovery:	100.88%	108.75%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
	LCS64894	LCS64894
Sample I.D.:	92583952001	92583952001DUP
Duplicate Sample I.D.:	92583952001	92583952001DUP
Sample Result (pCi/L, g, F):	0.601	0.266
Sample Duplicate Result (pCi/L, g, F):	5.146	0.721
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.615	0.272
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	-0.947	0.760
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.51%	18.57%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten: 2/17/22
LAM 2/17/22

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Gross Alpha and Gross Beta
 Analyst: ERT
 Date: 2/3/2022
 Batch ID: 64897
 Matrix: SL



Method Blank Assessment	
Gross Alpha	Gross Beta
2326583	
MB Sample ID	0.034
MB concentration:	0.105
MB 2 Sigma CSU:	0.237
MB MDC:	0.63
MB Numerical Performance Indicator:	Pass
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment			
LCSD (Y or N)?	N	Gross Alpha	Gross Beta
2/10/2022			
21-047	2/10/2022		
Count Date:	21-015GB		
Spike I.D.:	65.016		
Spike Concentration (pCi/mL):	0.100		
Volume Used (mL):	1.000		
Aliquot Volume (L, g, F):	2.985		
Target Conc. (pCi/L, g, F):	6.502		
Uncertainty (Calculated):	0.031		
Result (pCi/L, g, F):	2.545		
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	6.358		
Numerical Performance Indicator:	1.201		
Percent Recovery:	-0.23		
Status vs Numerical Indicator:	97.79%		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	Pass		
Lower % Recovery Limits:	132.25%		
	45.00%		
	89.14%		

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
30459609001	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	95.621
Sample Duplicate Result (pCi/L, g, F):	19.150
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	352.767
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	105.524
Are sample and/or duplicate results below MDC?	20.766
Duplicate Numerical Performance Indicator:	See Below #
Duplicate RPD:	-0.687
Duplicate Status vs Numerical Indicator:	9.85%
Duplicate Status vs RPD:	Pass
Duplicate Status vs % RPD Limit:	Pass
	28.00%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

OC
alioia

30459609001

Sample Matrix Spike Control Assessment		
Sample Collection Date:	Gross Alpha	Gross Beta
Sample I.D.:	1/11/2022	
Sample MS I.D.:	30459609001	
Sample MSD I.D.:	30459609001MS	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	21-047	21-015GB
Spike Volume Used in MS (mL):	29.847	65.145
Spike Volume Used in MSD (mL):	0.20	0.20
MS Aliquot (L, g, F):	0.048	0.048
MS Target Conc. (pCi/L, g, F):	123.847	270.311
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
Spike uncertainty (calculated):	2.229	1.297
Spike Duplicate uncertainty (calculated):		
Sample Result:	425.473	95.621
Sample Result 2 Sigma CSU (pCi/L, g, F):	82.801	19.150
Sample Matrix Spike Result:	482.860	397.174
Sample Matrix Spike Duplicate Result:	91.726	72.520
MS Numerical Performance Indicator:	-1.054	0.816
MS Numerical Performance Indicator:		
MS Percent Recovery:	46.34%	111.56%
MSD Percent Recovery:		
MS Status vs Numerical Indicator:	Pass	Pass
MSD Status vs Numerical Indicator:	MS Low	Pass
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:	135.00%	130.00%
MS/MSD Lower % Recovery Limits:	55.00%	79.00%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample MS I.D.:
Sample I.D.:	Sample MS I.D.:
Sample Matrix Spike Result:	Sample Matrix Spike Duplicate Result:
Sample Result 2 Sigma CSU (pCi/L, g, F):	Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:	Duplicate Numerical Performance Indicator:
Sample Result 2 Sigma CSU (pCi/L, g, F):	Duplicate Status vs Numerical Indicator:
Duplicate Numerical Performance Indicator:	MS/MSD Duplicate Status vs RPD:
(Based on the MS / MSD Recoveries) MS / MSD Duplicate RPD:	MS/MSD Duplicate Status vs RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	% RPD Limit:

February 02, 2022

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

RE: Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Dear Joju Abraham:

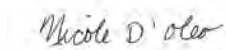
Enclosed are the analytical results for sample(s) received by the laboratory on January 20, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA
- Pace Analytical Services - Minneapolis

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.

Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064

Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
Please Note: Applicable air certifications are denoted with an asterisk ().

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Pace Analytical Services Peachtree Corners

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583585001	B-116D	Water	01/19/22 16:13	01/20/22 08:45
92583585002	B-117D	Water	01/19/22 12:20	01/20/22 08:45
92583585003	B-118	Water	01/19/22 13:44	01/20/22 08:45
92583585004	B-119D	Water	01/19/22 11:42	01/20/22 08:45
92583585005	EB-1	Water	01/19/22 13:25	01/20/22 08:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583585001	B-116D	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583585002	B-117D	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583585003	B-118	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583585004	B-119D	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	KH	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92583585005	EB-1	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	13	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA
PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Sample: B-116D		Lab ID: 92583585001		Collected: 01/19/22 16:13		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:45		
pH	6.04	Std. Units			1		01/20/22 13:45		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.5	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 14:55	7440-09-7	
Sodium	8.2	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 14:55	7440-23-5	
Calcium	10.7	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 14:55	7440-70-2	
Magnesium	3.8	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 14:55	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 18:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 18:51	7440-38-2	
Barium	0.019	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 18:51	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 18:51	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 18:51	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 18:51	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 18:51	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 18:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 18:51	7439-92-1	
Lithium	0.0061J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 18:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 18:51	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 18:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 18:51	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/26/22 14:15	01/27/22 10:30	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	93.0	mg/L	10.0	10.0	1		01/25/22 16:18		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	51.0	mg/L	5.0	1.8	1		01/26/22 16:18		
Alkalinity,Bicarbonate (CaCO3)	51.0	mg/L	5.0	1.8	1		01/26/22 16:18		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 16:18		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.6	mg/L	1.0	0.60	1		01/21/22 16:14	16887-00-6	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Sample: B-116D		Lab ID: 92583585001		Collected: 01/19/22 16:13	Received: 01/20/22 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 16:14	16984-48-8	
Sulfate	0.73J	mg/L	1.0	0.50	1		01/21/22 16:14	14808-79-8	M1

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Sample: B-117D		Lab ID: 92583585002		Collected: 01/19/22 12:20		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:45		
pH	6.02	Std. Units			1		01/20/22 13:45		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.6	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:14	7440-09-7	
Sodium	17.8	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:14	7440-23-5	
Calcium	9.7	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:14	7440-70-2	
Magnesium	1.5	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:14	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 18:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 18:57	7440-38-2	
Barium	0.047	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 18:57	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 18:57	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 18:57	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 18:57	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 18:57	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 18:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 18:57	7439-92-1	
Lithium	0.0085J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 18:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 18:57	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 18:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 18:57	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/26/22 14:15	01/27/22 10:33	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	129	mg/L	10.0	10.0	1		01/25/22 16:18		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO ₃	40.3	mg/L	5.0	1.8	1		01/26/22 16:37		
Alkalinity, Bicarbonate (CaCO ₃)	40.3	mg/L	5.0	1.8	1		01/26/22 16:37		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	1.8	1		01/26/22 16:37		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.0	mg/L	1.0	0.60	1		01/21/22 16:55	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sample: B-117D									
Lab ID: 92583585002									
Collected: 01/19/22 12:20									
Received: 01/20/22 08:45									
Matrix: Water									
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.058J	mg/L	0.10	0.050	1		01/21/22 16:55	16984-48-8	
Sulfate	21.5	mg/L	1.0	0.50	1		01/21/22 16:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Sample: B-118		Lab ID: 92583585003		Collected: 01/19/22 13:44		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:45		
pH	6.01	Std. Units			1		01/20/22 13:45		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.3	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:18	7440-09-7	
Sodium	9.0	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:18	7440-23-5	
Calcium	5.1	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:18	7440-70-2	
Magnesium	2.1	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:18	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0020J	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 19:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:20	7440-38-2	
Barium	0.025	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 19:20	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 19:20	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 19:20	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 19:20	7440-43-9	
Chromium	0.0015J	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 19:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 19:20	7439-92-1	
Lithium	0.0027J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 19:20	7439-93-2	
Molybdenum	0.0056J	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 19:20	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 19:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 19:20	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/26/22 14:15	01/27/22 10:35	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	81.0	mg/L	10.0	10.0	1		01/25/22 16:18		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	36.7	mg/L	5.0	1.8	1		01/26/22 16:42		
Alkalinity,Bicarbonate (CaCO3)	36.7	mg/L	5.0	1.8	1		01/26/22 16:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 16:42		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.8	mg/L	1.0	0.60	1		01/21/22 17:09	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Sample: B-118 **Lab ID: 92583585003** Collected: 01/19/22 13:44 Received: 01/20/22 08:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 17:09	16984-48-8	
Sulfate	1.1	mg/L	1.0	0.50	1		01/21/22 17:09	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Sample: B-119D		Lab ID: 92583585004		Collected: 01/19/22 11:42		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 13:45		
pH	6.61	Std. Units			1		01/20/22 13:45		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.3	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:33	7440-09-7	
Sodium	24.8	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:33	7440-23-5	
Calcium	16.1	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:33	7440-70-2	
Magnesium	4.0	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:33	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0019J	mg/L	0.0030	0.00078	1	01/25/22 09:49	01/25/22 19:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:26	7440-38-2	
Barium	0.0047J	mg/L	0.0050	0.00067	1	01/25/22 09:49	01/25/22 19:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/25/22 09:49	01/25/22 19:26	7440-41-7	
Boron	0.012J	mg/L	0.040	0.0086	1	01/25/22 09:49	01/25/22 19:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/25/22 09:49	01/25/22 19:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/25/22 09:49	01/25/22 19:26	7440-47-3	
Cobalt	0.00066J	mg/L	0.0050	0.00039	1	01/25/22 09:49	01/25/22 19:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/25/22 09:49	01/25/22 19:26	7439-92-1	
Lithium	0.0031J	mg/L	0.030	0.00073	1	01/25/22 09:49	01/25/22 19:26	7439-93-2	
Molybdenum	0.020	mg/L	0.010	0.00074	1	01/25/22 09:49	01/25/22 19:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/25/22 09:49	01/25/22 19:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/25/22 09:49	01/25/22 19:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/26/22 14:15	01/27/22 10:38	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	145	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	66.2	mg/L	5.0	1.8	1		01/26/22 16:47		
Alkalinity,Bicarbonate (CaCO3)	66.2	mg/L	5.0	1.8	1		01/26/22 16:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 16:47		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.8	mg/L	1.0	0.60	1		01/21/22 17:23	16887-00-6	

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Sample: B-119D **Lab ID: 92583585004** Collected: 01/19/22 11:42 Received: 01/20/22 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.099J	mg/L	0.10	0.050	1		01/21/22 17:23	16984-48-8	
Sulfate	31.1	mg/L	1.0	0.50	1		01/21/22 17:23	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Sample: EB-1 **Lab ID: 92583585005** Collected: 01/19/22 13:25 Received: 01/20/22 08:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Potassium	ND	mg/L	0.20	0.15	1	01/25/22 09:10	01/25/22 15:38	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	01/25/22 09:10	01/25/22 15:38	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	01/25/22 09:10	01/25/22 15:38	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	01/25/22 09:10	01/25/22 15:38	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/22 09:47	02/01/22 13:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 13:46	7440-38-2	
Barium	0.00070J	mg/L	0.0050	0.00067	1	02/01/22 09:47	02/01/22 13:46	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/22 09:47	02/01/22 13:46	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/01/22 09:47	02/01/22 13:46	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/22 09:47	02/01/22 13:46	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/22 09:47	02/01/22 13:46	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/22 09:47	02/01/22 13:46	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/22 09:47	02/01/22 13:46	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/01/22 09:47	02/01/22 13:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/22 09:47	02/01/22 13:46	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/22 09:47	02/01/22 13:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/22 09:47	02/01/22 13:46	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	01/26/22 14:15	01/27/22 10:41	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		01/25/22 16:19		
2320B Alkalinity									
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1.8	1		01/26/22 17:15		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 17:15		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1.8	1		01/26/22 17:15		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		01/21/22 18:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		01/21/22 18:05	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		01/21/22 18:05	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

QC Batch:	673587	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

METHOD BLANK: 3525717 Matrix: Water

Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/25/22 14:07	
Magnesium	mg/L	ND	0.050	0.012	01/25/22 14:07	
Potassium	mg/L	ND	0.20	0.15	01/25/22 14:07	
Sodium	mg/L	ND	1.0	0.58	01/25/22 14:07	

LABORATORY CONTROL SAMPLE: 3525718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	106	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525719 3525720

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	10.7	1	1	11.9	11.8	118	113	75-125	0	20
Magnesium	mg/L	3.8	1	1	4.9	4.9	108	109	75-125	0	20
Potassium	mg/L	2.5	1	1	3.6	3.7	111	114	75-125	1	20
Sodium	mg/L	8.2	1	1	9.1	9.3	91	106	75-125	2	20

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

QC Batch: 673617 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004

METHOD BLANK: 3525846 Matrix: Water
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	01/25/22 18:39	
Arsenic	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Barium	mg/L	ND	0.0050	0.00067	01/25/22 18:39	
Beryllium	mg/L	ND	0.00050	0.000054	01/25/22 18:39	
Boron	mg/L	ND	0.040	0.0086	01/25/22 18:39	
Cadmium	mg/L	ND	0.00050	0.00011	01/25/22 18:39	
Chromium	mg/L	ND	0.0050	0.0011	01/25/22 18:39	
Cobalt	mg/L	ND	0.0050	0.00039	01/25/22 18:39	
Lead	mg/L	ND	0.0010	0.00089	01/25/22 18:39	
Lithium	mg/L	ND	0.030	0.00073	01/25/22 18:39	
Molybdenum	mg/L	ND	0.010	0.00074	01/25/22 18:39	
Selenium	mg/L	ND	0.0050	0.0014	01/25/22 18:39	
Thallium	mg/L	ND	0.0010	0.00018	01/25/22 18:39	

LABORATORY CONTROL SAMPLE: 3525847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3525848 3525849

Parameter	Units	92583585002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

Parameter	Units	3525848		3525849		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Barium	mg/L	0.047	0.1	0.1	0.15	0.15	102	107	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.092	98	92	75-125	6	20		
Boron	mg/L	ND	1	1	0.99	0.91	99	90	75-125	9	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	99	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20		
Lithium	mg/L	0.0085J	0.1	0.1	0.11	0.10	98	95	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20		

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

QC Batch: 675122

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583585005

METHOD BLANK: 3533656

Matrix: Water

Associated Lab Samples: 92583585005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/01/22 13:34	
Arsenic	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Barium	mg/L	ND	0.0050	0.00067	02/01/22 13:34	
Beryllium	mg/L	ND	0.00050	0.000054	02/01/22 13:34	
Boron	mg/L	ND	0.040	0.0086	02/01/22 13:34	
Cadmium	mg/L	ND	0.00050	0.00011	02/01/22 13:34	
Chromium	mg/L	ND	0.0050	0.0011	02/01/22 13:34	
Cobalt	mg/L	ND	0.0050	0.00039	02/01/22 13:34	
Lead	mg/L	ND	0.0010	0.00089	02/01/22 13:34	
Lithium	mg/L	ND	0.030	0.00073	02/01/22 13:34	
Molybdenum	mg/L	ND	0.010	0.00074	02/01/22 13:34	
Selenium	mg/L	ND	0.0050	0.0014	02/01/22 13:34	
Thallium	mg/L	ND	0.0010	0.00018	02/01/22 13:34	

LABORATORY CONTROL SAMPLE: 3533657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	115	80-120	
Cadmium	mg/L	0.1	0.11	106	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	110	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3533658 3533659

Parameter	Units	92585102002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	108	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Parameter	Units	3533658		3533659		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Barium	mg/L	23.1 ug/L	0.1	0.1	0.13	0.13	107	105	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20	
Boron	mg/L	ND	1	1	1.1	1.1	113	109	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	105	108	75-125	3	20	
Chromium	mg/L	47.0 ug/L	0.1	0.1	0.15	0.16	107	112	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	105	109	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	109	106	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

QC Batch: 673997 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

METHOD BLANK: 3527642 Matrix: Water
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	01/27/22 10:01	

LABORATORY CONTROL SAMPLE: 3527643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3527644 3527645

Parameter	Units	92583945023		3527645		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Mercury	mg/L	ND	0.0025	0.0025	0.0023	0.0022	92	89	75-125	3	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

QC Batch: 673706 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

METHOD BLANK: 3526393 Matrix: Water
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	01/25/22 16:16	

LABORATORY CONTROL SAMPLE: 3526394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3526395

Parameter	Units	92583263001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	308	310	1	25	

SAMPLE DUPLICATE: 3526396

Parameter	Units	92583585002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	123	5	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

QC Batch: 795578 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

METHOD BLANK: 4230575 Matrix: Water
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	01/26/22 14:12	

LABORATORY CONTROL SAMPLE & LCSD: 4230576 4230577

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	42.1	42.3	105	106	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230578 4230579

Parameter	Units	10595480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	21.7	40	40	61.1	59.0	99	93	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4230580 4230581

Parameter	Units	92583585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	51.0	40	40	91.2	91.1	100	100	80-120	0	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

QC Batch: 673020 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

METHOD BLANK: 3522860 Matrix: Water
Associated Lab Samples: 92583585001, 92583585002, 92583585003, 92583585004, 92583585005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/21/22 12:31	
Fluoride	mg/L	ND	0.10	0.050	01/21/22 12:31	
Sulfate	mg/L	ND	1.0	0.50	01/21/22 12:31	

LABORATORY CONTROL SAMPLE: 3522861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522862 3522863

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583627001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	5.0	50	50	50	60.6	61.4	111	113	90-110	1	10	M1
Fluoride	mg/L	0.063J	2.5	2.5	2.5	2.6	2.7	102	104	90-110	2	10	
Sulfate	mg/L	5.0	50	50	50	60.3	61.5	111	113	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3522864 3522865

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92583585001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	2.6	50	50	50	58.3	58.5	111	112	90-110	0	10	M1
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	2.7	105	107	90-110	2	10	
Sulfate	mg/L	0.73J	50	50	50	55.9	56.1	110	111	90-110	0	10	M1

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92583585

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92583585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583585001	B-116D				
92583585002	B-117D				
92583585003	B-118				
92583585004	B-119D				
92583585001	B-116D	EPA 3010A	673587	EPA 6010D	673656
92583585002	B-117D	EPA 3010A	673587	EPA 6010D	673656
92583585003	B-118	EPA 3010A	673587	EPA 6010D	673656
92583585004	B-119D	EPA 3010A	673587	EPA 6010D	673656
92583585005	EB-1	EPA 3010A	673587	EPA 6010D	673656
92583585001	B-116D	EPA 3005A	673617	EPA 6020B	673660
92583585002	B-117D	EPA 3005A	673617	EPA 6020B	673660
92583585003	B-118	EPA 3005A	673617	EPA 6020B	673660
92583585004	B-119D	EPA 3005A	673617	EPA 6020B	673660
92583585005	EB-1	EPA 3005A	675122	EPA 6020B	675233
92583585001	B-116D	EPA 7470A	673997	EPA 7470A	674181
92583585002	B-117D	EPA 7470A	673997	EPA 7470A	674181
92583585003	B-118	EPA 7470A	673997	EPA 7470A	674181
92583585004	B-119D	EPA 7470A	673997	EPA 7470A	674181
92583585005	EB-1	EPA 7470A	673997	EPA 7470A	674181
92583585001	B-116D	SM 2540C-2015	673706		
92583585002	B-117D	SM 2540C-2015	673706		
92583585003	B-118	SM 2540C-2015	673706		
92583585004	B-119D	SM 2540C-2015	673706		
92583585005	EB-1	SM 2540C-2015	673706		
92583585001	B-116D	SM 2320B	795578		
92583585002	B-117D	SM 2320B	795578		
92583585003	B-118	SM 2320B	795578		
92583585004	B-119D	SM 2320B	795578		
92583585005	EB-1	SM 2320B	795578		
92583585001	B-116D	EPA 300.0 Rev 2.1 1993	673020		
92583585002	B-117D	EPA 300.0 Rev 2.1 1993	673020		
92583585003	B-118	EPA 300.0 Rev 2.1 1993	673020		
92583585004	B-119D	EPA 300.0 Rev 2.1 1993	673020		
92583585005	EB-1	EPA 300.0 Rev 2.1 1993	673020		

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt (SCUR)
 Document No.:
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt: _____ Client Name: GA Power CCR Project #: _____

WO# : 92583585



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/23
CR

Packing Material: Bubble Wrap Bubble Bags None Other
 Thermometer: Wet Blue None

Biological Tissue Frozen?
 Yes No N/A

CO2 Gun ID: 214 Type of Ice: _____
 Cooler Temp: 5.6/20/33 Correction Factor: 40.1
4.4 Add/Subtract (°C)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.7/2.1/3.4/4.5
 USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)

Document No.:
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021

Page 2 of 2

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

W0# : 92583585

PM: NMG

Due Date: 02/03/22

CLIENT: GA-GA Power

Exceptions: VOA, Conform, TOC, Oil and Grease, DRO/8015 (water) DOC, LCRG

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	VJGK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG6U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		2	1																										
2		2	1																										
3		2	1																										
4		2	1																										
5		2	1																										
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

February 08, 2022

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

RE: Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92584718

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 27, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM

Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92584718001	B-90	Water	01/26/22 11:01	01/27/22 08:50
92584718002	B-91	Water	01/26/22 12:00	01/27/22 08:50
92584718003	B-95	Water	01/26/22 13:03	01/27/22 08:50
92584718004	B-96	Water	01/26/22 13:57	01/27/22 08:50
92584718005	B-99	Water	01/26/22 16:36	01/27/22 08:50

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92584718001	B-90	EPA 6020B	CW1	1
92584718002	B-91	EPA 6020B	CW1	1
92584718003	B-95	EPA 6020B	CW1	1
92584718004	B-96	EPA 6020B	CW1	1
92584718005	B-99	EPA 6020B	CW1	1

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Sample: B-90		Lab ID: 92584718001		Collected: 01/26/22 11:01	Received: 01/27/22 08:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/27/22 10:08		
pH	5.45	Std. Units			1		01/27/22 10:08		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	3.2	mg/L	0.040	0.0086	1	02/03/22 13:00	02/03/22 20:55	7440-42-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Sample: B-91		Lab ID: 92584718002		Collected: 01/26/22 12:00	Received: 01/27/22 08:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/27/22 10:08		
pH	5.29	Std. Units			1		01/27/22 10:08		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	3.6	mg/L	0.040	0.0086	1	02/03/22 13:00	02/03/22 21:01	7440-42-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Sample: B-95		Lab ID: 92584718003		Collected: 01/26/22 13:03	Received: 01/27/22 08:50	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/27/22 10:08		
pH	5.33	Std. Units			1		01/27/22 10:08		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	2.0	mg/L	0.040	0.0086	1	02/03/22 13:00	02/03/22 21:07	7440-42-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sample: B-96									
Lab ID: 92584718004									
Collected: 01/26/22 13:57 Received: 01/27/22 08:50 Matrix: Water									
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/27/22 10:08		
pH	5.01	Std. Units			1		01/27/22 10:08		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	3.7	mg/L	0.040	0.0086	1	02/03/22 13:00	02/03/22 21:13	7440-42-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Sample: B-99		Lab ID: 92584718005		Collected: 01/26/22 16:36		Received: 01/27/22 08:50		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/27/22 10:09		
pH	5.67	Std. Units			1		01/27/22 10:09		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	2.7	mg/L	0.040	0.0086	1	02/03/22 13:00	02/03/22 21:19	7440-42-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH SUPPLEMENTAL
Pace Project No.: 92584718

QC Batch: 675834 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584718001, 92584718002, 92584718003, 92584718004, 92584718005

METHOD BLANK: 3537236 Matrix: Water
Associated Lab Samples: 92584718001, 92584718002, 92584718003, 92584718004, 92584718005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0086	02/03/22 20:25	

LABORATORY CONTROL SAMPLE: 3537237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3537238 3537239

Parameter	Units	92583953026		3537239		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Boron	mg/L	0.69	1	1	1.7	1.7	96	102	75-125	4	20

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH SUPPLEMENTAL

Pace Project No.: 92584718

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92584718001	B-90				
92584718002	B-91				
92584718003	B-95				
92584718004	B-96				
92584718005	B-99				
92584718001	B-90	EPA 3005A	675834	EPA 6020B	675916
92584718002	B-91	EPA 3005A	675834	EPA 6020B	675916
92584718003	B-95	EPA 3005A	675834	EPA 6020B	675916
92584718004	B-96	EPA 3005A	675834	EPA 6020B	675916
92584718005	B-99	EPA 3005A	675834	EPA 6020B	675916

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt (SCUR)
 Document No.:
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA power

Project #: **WO# : 92584718**

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: WT 1/27/22

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 4.0 Correction Factor: ±0.2
 Add/Subtract (°C)

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.2

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Bottle Identification Form (BIF)
Document No.:
F-CAR-CS-043-Rev.01

Document Issued: November 15, 2021
Page 1 of 1
Issuing Authority:
Pace Carolinas Quality Office

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

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

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

Project # **W0# : 92584718**

PM: NMG

Due Date: 02/10/22

CLIENT: GA-GA Power

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGfU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U 40 mL Amber Unpreserved vials (N/A)		
	1																													
	2																													
	3																													
	4																													
	5																													
	6																													
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													

pH Adjustment Log for Preserved Samples

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

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

March 02, 2022

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

RE: Project: MCDONOUGH SUPPLEMENTAL RAD
Pace Project No.: 92583576

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 20, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM
Caitlin Tillema, ERM

Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH SUPPLEMENTAL RAD
Pace Project No.: 92583576

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583576001	B-116D	Water	01/19/22 16:13	01/20/22 08:45
92583576002	B-117D	Water	01/19/22 12:20	01/20/22 08:45
92583576003	B-118	Water	01/19/22 13:44	01/20/22 08:45
92583576004	B-119D	Water	01/19/22 11:42	01/20/22 08:45
92583576005	EB-1	Water	01/19/22 13:25	01/20/22 08:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92583576001	B-116D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583576002	B-117D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583576003	B-118	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583576004	B-119D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92583576005	EB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Sample: B-116D **Lab ID: 92583576001** Collected: 01/19/22 16:13 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.103 ± 0.0958 (0.179) C:92% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.934 ± 0.466 (0.815) C:70% T:82%	pCi/L	02/03/22 10:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.04 ± 0.562 (0.994)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Sample: B-117D **Lab ID: 92583576002** Collected: 01/19/22 12:20 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.103 ± 0.100 (0.186) C:82% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0219 ± 0.337 (0.781) C:72% T:79%	pCi/L	02/03/22 10:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.125 ± 0.437 (0.967)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Sample: B-118 **Lab ID: 92583576003** Collected: 01/19/22 13:44 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0637 ± 0.0748 (0.148) C:97% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.768 ± 0.417 (0.744) C:74% T:77%	pCi/L	02/03/22 10:08	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.832 ± 0.492 (0.892)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Sample: B-119D **Lab ID: 92583576004** Collected: 01/19/22 11:42 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0374 ± 0.0744 (0.172) C:86% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.821 ± 0.508 (0.952) C:64% T:76%	pCi/L	02/03/22 10:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.858 ± 0.582 (1.12)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Sample: EB-1 **Lab ID: 92583576005** Collected: 01/19/22 13:25 Received: 01/20/22 08:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0124 ± 0.0871 (0.224) C:92% T:NA	pCi/L	02/14/22 10:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.00 ± 0.567 (1.05) C:61% T:82%	pCi/L	02/03/22 10:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.01 ± 0.654 (1.27)	pCi/L	02/17/22 07:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

QC Batch: 480682

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92583576001, 92583576002, 92583576003, 92583576004, 92583576005

METHOD BLANK: 2322658

Matrix: Water

Associated Lab Samples: 92583576001, 92583576002, 92583576003, 92583576004, 92583576005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.570 ± 0.392 (0.745) C:71% T:72%	pCi/L	02/03/22 10:11	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH SUPPLEMENTAL RAD

Pace Project No.: 92583576

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583576001	B-116D	EPA 9315	480871		
92583576002	B-117D	EPA 9315	480871		
92583576003	B-118	EPA 9315	480871		
92583576004	B-119D	EPA 9315	480871		
92583576005	EB-1	EPA 9315	480871		
92583576001	B-116D	EPA 9320	480682		
92583576002	B-117D	EPA 9320	480682		
92583576003	B-118	EPA 9320	480682		
92583576004	B-119D	EPA 9320	480682		
92583576005	EB-1	EPA 9320	480682		
92583576001	B-116D	Total Radium Calculation	484431		
92583576002	B-117D	Total Radium Calculation	484431		
92583576003	B-118	Total Radium Calculation	484431		
92583576004	B-119D	Total Radium Calculation	484431		
92583576005	EB-1	Total Radium Calculation	484431		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt: _____ Client Name: GA Power CCR Project #: _____

WO# : 92583576



Courier: Commercial Fed Ex UPS USPS client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/22
CR

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: Wet Blue None

Yes No N/A

PHR Gun ID: 214 Type of Ice: _____
Cooler Temp: 5.6/20/3 Correction Factor: Add/Subtract (°S) +0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.4 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers: _____

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)

Document No.:
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
Page 2 of 2

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

WO#: 92583576

PM: NMG

Due Date: 02/10/22

CLIENT: GA-GA Power

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

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		2	1																										
2		2	1																										
3		2	1																										
4		2	1																										
5		2	1																										
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JJY
Date: 2/3/2022
Worklist: 64792
Matrix: DW



Method Blank Assessment	
MB Sample ID	2323618
MB Concentration:	0.165
MB Counting Uncertainty:	0.128
MB MDC:	0.240
MB Numerical Performance Indicator:	2.52
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS64792	LCS64792
Count Date:	2/14/2022	2/14/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.520	0.512
Target Conc. (pCi/L, g, F):	4.619	4.693
Uncertainty (Calculated):	0.055	0.056
Result (pCi/L, g, F):	5.157	4.566
LCSD Counting Uncertainty (pCi/L, g, F):	0.513	0.481
Numerical Performance Indicator:	2.04	-0.56
Percent Recovery:	111.66%	97.07%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCSD (Y or N)?	
	LCS64792	LCS64792
Sample I.D.:	92583570002	92583570002DUP
Duplicate Sample I.D.:	92583570002DUP	92583570002DUP
Sample Result (pCi/L, g, F):	0.033	0.033
Sample Result Counting Uncertainty (pCi/L, g, F):	0.116	0.116
Sample Duplicate Result (pCi/L, g, F):	0.106	0.106
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.084	0.084
Are sample and/or duplicate results below RL?	NO	NO
Duplicate Numerical Performance Indicator:	1.675	1.675
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	13.98%	105.06%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail
% RPD Limit:	25%	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.
Comments:

***Batch must be re-prepped due to unacceptable precision.

results < mdc, N/A 2/21/22

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample ID: Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-228
Analyst: VAL
Date: 2/11/2022
Worklist: 64779
Matrix: WT

Method Blank Assessment	
MB Sample ID	2322658
MB concentration:	0.570
MB 2 Sigma CSU:	0.392
MB MDC:	0.745
MB Numerical Performance Indicator:	2.85
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS64779	LCS64779
Count Date:	2/3/2022	
Spike ID:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.476	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	4.488	
Uncertainty (Calculated):	0.220	
Result (pCi/L, g, F):	4.867	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.075	
Numerical Performance Indicator:	0.68	
Status vs Numerical Indicator:	108/45%	
Status vs Recovery:	N/A	
Upper % Recovery Limits:	Pass	
Lower % Recovery Limits:	135%	
	60%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample ID: Duplicate Sample ID: Sample Result (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: %RPD Limit:	See Below ##

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:	1/11/2022 92583991001 92583991002 92583991003 21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):	36.752 0.20 0.20 9.084 0.808 9.103 0.445 0.446	
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result:	0.351 11.356	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator:	2.218 10.605 2.096 1.792 1.194	
MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:	123.05% 114.53% Pass Pass Pass 135% 60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: %RPD Limit:	92583991001 92583991002 92583991003 11.356 2.218 10.605 2.096 0.483 7.17% Pass Pass 36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/11/2022 VAL

January 31, 2022

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

RE: Project: MCDONOUGH SURFACE WATER
Pace Project No.: 92583499

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 20, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda
Anna Bottum, ERM
Andrea Brazell, ERM
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
J. Shelby Mobley
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Lacy Smith, ERM

Caitlin Tillema, ERM
Christine Weaver, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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SAMPLE SUMMARY

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92583499001	SW-1	Water	01/19/22 15:52	01/20/22 08:45
92583499002	SW-2	Water	01/19/22 15:04	01/20/22 08:45
92583499003	SW-3	Water	01/19/22 14:43	01/20/22 08:45
92583499004	SW-4	Water	01/19/22 14:18	01/20/22 08:45

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92583499001	SW-1	EPA 6020B	CW1	1
92583499002	SW-2	EPA 6020B	CW1	1
92583499003	SW-3	EPA 6020B	CW1	1
92583499004	SW-4	EPA 6020B	CW1	1

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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ANALYTICAL RESULTS

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Sample: SW-1		Lab ID: 92583499001		Collected: 01/19/22 15:52		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 11:25		
pH	6.84	Std. Units			1		01/20/22 11:25		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	0.50	mg/L	0.040	0.0086	1	01/20/22 12:51	01/24/22 14:56	7440-42-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Sample: SW-2		Lab ID: 92583499002		Collected: 01/19/22 15:04		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 11:25		
pH	7.43	Std. Units			1		01/20/22 11:25		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	0.091	mg/L	0.040	0.0086	1	01/26/22 09:56	01/28/22 17:02	7440-42-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Sample: SW-3		Lab ID: 92583499003		Collected: 01/19/22 14:43		Received: 01/20/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 11:25		
pH	7.39	Std. Units			1		01/20/22 11:25		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	0.20	mg/L	0.040	0.0086	1	01/26/22 09:56	01/28/22 17:14	7440-42-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Sample: SW-4		Lab ID: 92583499004		Collected: 01/19/22 14:18	Received: 01/20/22 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		01/20/22 11:25		
pH	7.02	Std. Units			1		01/20/22 11:25		
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Boron	0.55	mg/L	0.040	0.0086	1	01/26/22 09:56	01/28/22 17:19	7440-42-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

QC Batch: 672826

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92583499001

METHOD BLANK: 3521770

Matrix: Water

Associated Lab Samples: 92583499001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0086	01/21/22 15:28	

LABORATORY CONTROL SAMPLE: 3521771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3521772 3521773

Parameter	Units	3521772		3521773		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92583499001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Boron	mg/L	0.50	1	1	1.5	1.5	99	98	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH SURFACE WATER
Pace Project No.: 92583499

QC Batch: 673907 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92583499002, 92583499003, 92583499004

METHOD BLANK: 3527228 Matrix: Water
Associated Lab Samples: 92583499002, 92583499003, 92583499004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0086	01/28/22 14:51	

LABORATORY CONTROL SAMPLE: 3527229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3527230 3527231

Parameter	Units	92583142001		3527231		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Boron	mg/L	ND	1	1	0.93	0.88	93	88	75-125	6	20

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH SURFACE WATER
Pace Project No.: 92583499

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH SURFACE WATER

Pace Project No.: 92583499

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92583499001	SW-1				
92583499002	SW-2				
92583499003	SW-3				
92583499004	SW-4				
92583499001	SW-1	EPA 3005A	672826	EPA 6020B	672836
92583499002	SW-2	EPA 3005A	673907	EPA 6020B	673938
92583499003	SW-3	EPA 3005A	673907	EPA 6020B	673938
92583499004	SW-4	EPA 3005A	673907	EPA 6020B	673938

REPORT OF LABORATORY ANALYSIS

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Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition:
Upon Receipt

Client Name: GA Power CCR Project #:

WO#: **92583499**



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/20/22
CDH

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?
 Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.6/20/23 Correction Factor: +0.1
4.4 Add/Subtract (6)

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.7/2.1/3.4/4.5

USDA Regulated Soil (N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)

Document Revised: November 15, 2021
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.08

Issuing Authority:
Pace Carolinas Quality Office

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

Project #

WO# : 92583499

PM: NMG

Due Date: 02/03/22

CLIENT: GA-GA Power

~~Exceptions: VOA, Coliform, TSS, Oil and Grease, DRG, 2015 (updated) DOC, UHg~~

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGJU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
 Requested Client Information:
 Company: Georgia Power - Coal Combustion Residuals
 Street: 2480 Warner Road
 Atlanta, GA 30339
 Email: jlabraham@southemco.com
 Phone: (404) 506-7239
 Requested Due Date: 10 Day TAT

Section B
 Requested Project Information:
 Report To: Jody Abraham
 Copy To: Odeker
 Purchase Order #:
 Project Name: Plant MacDonough Surface Water Sampling
 Project #: 10044921

Section C
 Invoice Information:
 Address: acshvicks@southemco.com
 Company Name:
 Address:
 POC Name: Nicole Dorio
 POC Phone #:
 Regulatory Agency:
 State / Location: GA

Requester Analysis Filtered (Y/N)

Page 1 of 1

ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION		PRESERVATIVES						ANALYSES TEST	BORON	RESIDUAL CHLORINE (Y/N)	PH
							# OF CONTAINERS	Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol				
1	SM-1	WT	G	G	1/18/2022	15:52		1	1	1								PH = 6.84
2	SM-2	WT	G	G	1/18/2022	15:04		1	1	1								PH = 7.43
3	SM-3	WT	G	G	1/18/2022	14:43		1	1	1								PH = 7.39
4	SM-4	WT	G	G	1/18/2022	14:18		1	1	1								PH = 7.02
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

ADDITIONAL COMMENTS

Requester Analysis Filtered (Y/N)

DATE SIGNED: 1/20/22

TEMP IN C

Received on ice (Y/N)

Custody Sealed Cooler (Y/N)

Samples intact (Y/N)

February 02, 2022

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584522

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

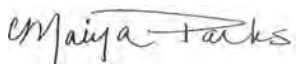
Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Maiya Parks
maiya.parks@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Ben Hodges, Georgia Power
Warren Johnson, ARCADIS - Atlanta
Allison Keefer, Southern Company



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92584522001	UT01_US	Water	01/25/22 12:45	01/26/22 12:35
92584522002	UT02	Water	01/25/22 12:31	01/26/22 12:35
92584522003	UT03	Water	01/25/22 12:25	01/26/22 12:35
92584522004	UT01_DS	Water	01/25/22 12:15	01/26/22 12:35

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92584522001	UT01_US	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584522002	UT02	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584522003	UT03	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584522004	UT01_DS	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

Sample: UT01_US	Lab ID: 92584522001	Collected: 01/25/22 12:45	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.0	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:04	7440-09-7	M1
Sodium	16.3	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:04	7440-23-5	M1
Calcium	16.2	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:04	7440-70-2	M1
Magnesium	3.5	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:04	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/01/22 23:59	7440-38-2	
Boron	0.049	mg/L	0.040	1	01/31/22 11:43	01/31/22 18:15	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	01/31/22 11:43	01/31/22 18:15	7439-98-7	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	118	mg/L	10.0	1		02/01/22 13:53		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	19.3	mg/L	1.0	1		01/27/22 22:14	16887-00-6	
Fluoride	0.20	mg/L	0.10	1		01/27/22 22:14	16984-48-8	
Sulfate	14.7	mg/L	1.0	1		01/27/22 22:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584522

Sample: UT02	Lab ID: 92584522002	Collected: 01/25/22 12:31	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.9	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:32	7440-09-7	
Sodium	16.3	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:32	7440-23-5	
Calcium	16.7	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:32	7440-70-2	
Magnesium	3.6	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:32	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:05	7440-38-2	
Boron	0.067	mg/L	0.040	1	01/31/22 11:43	01/31/22 18:39	7440-42-8	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	114	mg/L	10.0	1		02/01/22 13:53		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	19.1	mg/L	1.0	1		01/27/22 22:28	16887-00-6	
Fluoride	0.18	mg/L	0.10	1		01/27/22 22:28	16984-48-8	
Sulfate	15.7	mg/L	1.0	1		01/27/22 22:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

Sample: UT03	Lab ID: 92584522003	Collected: 01/25/22 12:25	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:37	7440-09-7	
Sodium	15.8	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:37	7440-23-5	
Calcium	16.4	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:37	7440-70-2	
Magnesium	3.4	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:37	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:11	7440-38-2	
Boron	0.076	mg/L	0.040	1	01/31/22 11:43	01/31/22 18:45	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	01/31/22 11:43	02/02/22 00:11	7439-98-7	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	135	mg/L	10.0	1		02/01/22 13:53		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	18.9	mg/L	1.0	1		01/27/22 22:42	16887-00-6	
Fluoride	0.18	mg/L	0.10	1		01/27/22 22:42	16984-48-8	
Sulfate	15.6	mg/L	1.0	1		01/27/22 22:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

Sample: UT01_DS	Lab ID: 92584522004	Collected: 01/25/22 12:15	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:41	7440-09-7	
Sodium	16.0	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:41	7440-23-5	
Calcium	17.0	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:41	7440-70-2	
Magnesium	3.6	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:41	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:17	7440-38-2	
Boron	0.13	mg/L	0.040	1	01/31/22 11:43	01/31/22 18:51	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	01/31/22 11:43	02/02/22 00:17	7439-98-7	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	131	mg/L	10.0	1		02/01/22 13:53		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	18.5	mg/L	1.0	1		01/27/22 22:55	16887-00-6	
Fluoride	0.17	mg/L	0.10	1		01/27/22 22:55	16984-48-8	
Sulfate	17.2	mg/L	1.0	1		01/27/22 22:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584522

QC Batch: 674583 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

METHOD BLANK: 3530749 Matrix: Water
Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	01/28/22 16:50	
Magnesium	mg/L	ND	0.050	01/28/22 16:50	
Potassium	mg/L	ND	0.20	01/28/22 16:50	
Sodium	mg/L	ND	1.0	01/28/22 16:50	

LABORATORY CONTROL SAMPLE: 3530750

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	.95J	95	80-120	
Magnesium	mg/L	1	0.98	98	80-120	
Potassium	mg/L	1	1.0	101	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3530751 3530752

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92584522001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	16.2	1	1	17.1	16.7	86	47	75-125	2	20 M1
Magnesium	mg/L	3.5	1	1	4.4	4.4	89	84	75-125	1	20
Potassium	mg/L	3.0	1	1	3.9	3.7	86	66	75-125	5	20 M1
Sodium	mg/L	16.3	1	1	17.0	16.7	71	33	75-125	2	20 M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

QC Batch: 674904

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

METHOD BLANK: 3532552

Matrix: Water

Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	02/01/22 23:53	
Boron	mg/L	ND	0.040	01/31/22 18:03	
Molybdenum	mg/L	ND	0.010	01/31/22 18:03	

LABORATORY CONTROL SAMPLE: 3532553

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.1	105	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3532554 3532555

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92584522001	Result	Spike Conc.	Spike Conc.								
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	106	106	75-125	0	20		
Boron	mg/L	0.049	1	1	1.1	1.1	100	104	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	101	106	75-125	5	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584522

QC Batch: 675199 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

METHOD BLANK: 3533876 Matrix: Water
Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	02/01/22 13:52	

LABORATORY CONTROL SAMPLE: 3533877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	378	94	80-120	

SAMPLE DUPLICATE: 3533878

Parameter	Units	92583953022 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	256	269	5	25	

SAMPLE DUPLICATE: 3533879

Parameter	Units	92584522003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	135	137	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584522

QC Batch: 674218 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

METHOD BLANK: 3528694 Matrix: Water
Associated Lab Samples: 92584522001, 92584522002, 92584522003, 92584522004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	01/27/22 20:50	
Fluoride	mg/L	ND	0.10	01/27/22 20:50	
Sulfate	mg/L	ND	1.0	01/27/22 20:50	

LABORATORY CONTROL SAMPLE: 3528695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.3	103	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	49.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528696 3528697

Parameter	Units	92584437011		MS Spike Conc.		MSD Spike Conc.		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Conc.	Result	Result						
Chloride	mg/L	10.0	50	50	61.4	61.5	103	103	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	106	108	90-110	2	10		
Sulfate	mg/L	5.0	50	50	55.8	55.3	102	101	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528698 3528699

Parameter	Units	92584543005		MS Spike Conc.		MSD Spike Conc.		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Conc.	Result	Result						
Chloride	mg/L	7.8	50	50	59.0	60.6	102	106	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	95	99	90-110	4	10		
Sulfate	mg/L	4.7	50	50	54.8	57.0	100	105	90-110	4	10		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584522

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584522

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92584522001	UT01_US	EPA 3010A	674583	EPA 6010D	674684
92584522002	UT02	EPA 3010A	674583	EPA 6010D	674684
92584522003	UT03	EPA 3010A	674583	EPA 6010D	674684
92584522004	UT01_DS	EPA 3010A	674583	EPA 6010D	674684
92584522001	UT01_US	EPA 3005A	674904	EPA 6020B	675004
92584522002	UT02	EPA 3005A	674904	EPA 6020B	675004
92584522003	UT03	EPA 3005A	674904	EPA 6020B	675004
92584522004	UT01_DS	EPA 3005A	674904	EPA 6020B	675004
92584522001	UT01_US	SM 2540C-2015	675199		
92584522002	UT02	SM 2540C-2015	675199		
92584522003	UT03	SM 2540C-2015	675199		
92584522004	UT01_DS	SM 2540C-2015	675199		
92584522001	UT01_US	EPA 300.0 Rev 2.1 1993	674218		
92584522002	UT02	EPA 300.0 Rev 2.1 1993	674218		
92584522003	UT03	EPA 300.0 Rev 2.1 1993	674218		
92584522004	UT01_DS	EPA 300.0 Rev 2.1 1993	674218		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Arcadis

Project #:

WO# : 92584522

PM: MP

Due Date: 02/02/22

CLIENT: GA-ArcadAt1

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 1/26/22
car

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 5.8 Correction Factor: Add/Subtract (°C) 40.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.9

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

Comments/Discrepancy:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	<u>W</u>	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)

Document Revised: November 15, 2021
Page 2 of 2

Document No.:
F-CAR-CS-033-Rev.08

Issuing Authority:
Pace Carolinas Quality Office

WO# : 92584522

PM: MP

Due Date: 02/02/22

CLIENT: GA-ArcadAt1

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

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

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

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGfU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-S035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1		2	1																											
2		2	1																											
3		2	1																											
4		2	1																											
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

January 31, 2022

Maiya Parks
Pace Analytical Atlanta

110 Technology Pkwy
Peachtree Corners GA 30092

RE: 92584522

Dear Maiya Parks:

Order No: 2201S76

Analytical Environmental Services, Inc. received 4 samples on 1/27/2022 7:42:00 AM for the analyses presented in following report.

“No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES’s accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/21-06/30/22.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/22 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Paris Masoudi
Project Manager

Client: Pace Analytical Atlanta	Client Sample ID: UT01_US
Project Name: 92584522	Collection Date: 1/25/2022 12:45:00 PM
Lab ID: 2201S76-001	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE								
SM4500-CO2-D								
Bicarbonate Alkalinity	53.7	10.0		mg/L	R476167	1	01/28/2022 15:11	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	53.7	3.00		mg/L	R476167	1	01/28/2022 15:11	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: UT02
Project Name: 92584522	Collection Date: 1/25/2022 12:31:00 PM
Lab ID: 2201S76-002	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	54.6	10.0		mg/L	R476167	1	01/28/2022 15:11	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	54.6	3.00		mg/L	R476167	1	01/28/2022 15:11	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: UT03
Project Name: 92584522	Collection Date: 1/25/2022 12:25:00 PM
Lab ID: 2201S76-003	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	54.2	10.0		mg/L	R476167	1	01/28/2022 15:11	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	54.2	3.00		mg/L	R476167	1	01/28/2022 15:11	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: UT01_DS
Project Name: 92584522	Collection Date: 1/25/2022 12:15:00 PM
Lab ID: 2201S76-004	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	56.0	10.0		mg/L	R476167	1	01/28/2022 15:11	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	56.0	3.00		mg/L	R476167	1	01/28/2022 15:11	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



Pace Analytical Atlanta

SAMPLE/COOLER RECEIPT CHECKLIST

Clear

Save as

1. Client Name: Pace Analytical Atlanta AES Work Order Number: 2201S76

2. Carrier: FedEx UPS USPS Client Courier Other

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
4. Custody seals present on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
5. Custody seals intact on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-8°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 0.7 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____ DS 1/27/22

I certify that I have completed sections 1-15 (dated initials).

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: _____ DS 1/27/22

I certify that I have completed sections 16-27 (dated initials).

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

29. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials).

DS 1/27/22

Client: Pace Analytical Atlanta
 Project Name: 92584522
 Workorder: 2201S76

ANALYTICAL QC SUMMARY REPORT

BatchID: R476167

Sample ID: LCS-R476167	Client ID:	Units: mg/L	Prep Date:	Run No: 476167							
SampleType: LCS	TestCode: Alkalinity by SM2320B	BatchID: R476167	Analysis Date: 01/28/2022	Seq No: 10989463							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)	130.2	3.00	125.0		104	90	110				
------------------------------	-------	------	-------	--	-----	----	-----	--	--	--	--

Sample ID: 2201S46-001CDUP	Client ID:	Units: mg/L	Prep Date:	Run No: 476167							
SampleType: DUP	TestCode: Alkalinity by SM2320B	BatchID: R476167	Analysis Date: 01/28/2022	Seq No: 10989465							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)	26.46	3.00						27.50	3.83	30	
------------------------------	-------	------	--	--	--	--	--	-------	------	----	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report

February 02, 2022

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

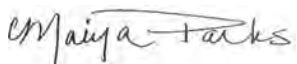
Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Maiya Parks
maiya.parks@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Ben Hodges, Georgia Power
Warren Johnson, ARCADIS - Atlanta
Allison Keefer, Southern Company



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92584543001	CR+0.4 (Mid)	Water	01/25/22 10:45	01/26/22 12:35
92584543002	CR+0.2 (Mid)	Water	01/25/22 10:53	01/26/22 12:35
92584543003	CR-0.1 (Mid)	Water	01/25/22 11:01	01/26/22 12:35
92584543004	DW_DS (Mid)	Water	01/25/22 11:09	01/26/22 12:35
92584543005	DW_US (Mid)	Water	01/25/22 11:15	01/26/22 12:35
92584543006	CR-0.2 (Mid)	Water	01/25/22 11:20	01/26/22 12:35
92584543007	CR-0.5 (Mid)	Water	01/25/22 11:28	01/26/22 12:35
92584543008	CR-0.8 (Mid)	Water	01/25/22 11:38	01/26/22 12:35

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92584543001	CR+0.4 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543002	CR+0.2 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543003	CR-0.1 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543004	DW_DS (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543005	DW_US (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543006	CR-0.2 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543007	CR-0.5 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92584543008	CR-0.8 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Sample: CR+0.4 (Mid)		Lab ID: 92584543001	Collected: 01/25/22 10:45	Received: 01/26/22 12:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:46	7440-09-7	
Sodium	7.7	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:46	7440-23-5	
Calcium	5.3	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:46	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:46	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:23	7440-38-2	
Boron	ND	mg/L	0.040	1	01/31/22 11:43	01/31/22 18:57	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 18:57	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	01/31/22 11:43	02/02/22 00:23	7439-98-7	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	55.0	mg/L	10.0	1		02/01/22 13:54		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	8.1	mg/L	1.0	1		01/27/22 23:37	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/27/22 23:37	16984-48-8	
Sulfate	5.5	mg/L	1.0	1		01/27/22 23:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Sample: CR+0.2 (Mid)	Lab ID: 92584543002	Collected: 01/25/22 10:53		Received: 01/26/22 12:35		Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:51	7440-09-7	
Sodium	8.9	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:51	7440-23-5	
Calcium	7.8	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:51	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:51	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	0.062	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:15	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:15	7440-48-4	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	63.0	mg/L	10.0	1		02/01/22 13:54		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	10.0	mg/L	1.0	1		01/27/22 23:51	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/27/22 23:51	16984-48-8	
Sulfate	9.3	mg/L	1.0	1		01/27/22 23:51	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

Sample: CR-0.1 (Mid)	Lab ID: 92584543003	Collected: 01/25/22 11:01		Received: 01/26/22 12:35		Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.1	mg/L	0.20	1	01/28/22 12:43	01/28/22 17:56	7440-09-7	
Sodium	8.3	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:56	7440-23-5	
Calcium	6.0	mg/L	1.0	1	01/28/22 12:43	01/28/22 17:56	7440-70-2	
Magnesium	2.3	mg/L	0.050	1	01/28/22 12:43	01/28/22 17:56	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:21	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:21	7440-48-4	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	65.0	mg/L	10.0	1		02/01/22 13:54		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.5	mg/L	1.0	1		01/28/22 00:05	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/28/22 00:05	16984-48-8	
Sulfate	7.0	mg/L	1.0	1		01/28/22 00:05	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Sample: DW_DS (Mid)	Lab ID: 92584543004	Collected: 01/25/22 11:09	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	3.7	mg/L	0.20	1	01/28/22 12:43	01/28/22 18:01	7440-09-7	
Sodium	10.7	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:01	7440-23-5	
Calcium	7.7	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:01	7440-70-2	
Magnesium	2.9	mg/L	0.050	1	01/28/22 12:43	01/28/22 18:01	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	0.070	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:27	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:27	7440-48-4	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	83.0	mg/L	10.0	1		02/01/22 13:54		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	11.4	mg/L	1.0	1		01/28/22 00:19	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/28/22 00:19	16984-48-8	
Sulfate	10.4	mg/L	1.0	1		01/28/22 00:19	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Sample: DW_US (Mid)	Lab ID: 92584543005	Collected: 01/25/22 11:15	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 18:15	7440-09-7	
Sodium	7.4	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:15	7440-23-5	
Calcium	5.1	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:15	7440-70-2	
Magnesium	1.9	mg/L	0.050	1	01/28/22 12:43	01/28/22 18:15	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:33	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:33	7440-48-4	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	59.0	mg/L	10.0	1		02/01/22 13:54		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	7.8	mg/L	1.0	1		01/28/22 00:33	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/28/22 00:33	16984-48-8	
Sulfate	4.7	mg/L	1.0	1		01/28/22 00:33	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

Sample: CR-0.2 (Mid)	Lab ID: 92584543006	Collected: 01/25/22 11:20	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 18:20	7440-09-7	
Sodium	7.4	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:20	7440-23-5	
Calcium	5.1	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:20	7440-70-2	
Magnesium	1.9	mg/L	0.050	1	01/28/22 12:43	01/28/22 18:20	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:29	7440-38-2	
Boron	ND	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:39	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:39	7440-48-4	
Selenium	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:39	7782-49-2	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	61.0	mg/L	10.0	1		02/01/22 14:02		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	7.9	mg/L	1.0	1		01/28/22 01:15	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/28/22 01:15	16984-48-8	
Sulfate	4.7	mg/L	1.0	1		01/28/22 01:15	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Sample: CR-0.5 (Mid)	Lab ID: 92584543007	Collected: 01/25/22 11:28	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	01/28/22 12:43	01/28/22 18:24	7440-09-7	
Sodium	7.5	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:24	7440-23-5	
Calcium	6.6	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:24	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	01/28/22 12:43	01/28/22 18:24	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:35	7440-38-2	
Boron	0.046	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:45	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:45	7440-48-4	
Selenium	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:45	7782-49-2	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	59.0	mg/L	10.0	1		02/01/22 14:03		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	8.2	mg/L	1.0	1		01/28/22 01:29	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/28/22 01:29	16984-48-8	
Sulfate	9.3	mg/L	1.0	1		01/28/22 01:29	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Sample: CR-0.8 (Mid)	Lab ID: 92584543008	Collected: 01/25/22 11:38	Received: 01/26/22 12:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.9	mg/L	0.20	1	01/28/22 12:43	01/28/22 18:29	7440-09-7	
Sodium	7.3	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:29	7440-23-5	
Calcium	5.4	mg/L	1.0	1	01/28/22 12:43	01/28/22 18:29	7440-70-2	
Magnesium	1.9	mg/L	0.050	1	01/28/22 12:43	01/28/22 18:29	7439-95-4	
6020 MET ICPMS								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	01/31/22 11:43	02/02/22 00:41	7440-38-2	
Boron	ND	mg/L	0.040	1	01/31/22 11:43	01/31/22 19:51	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:51	7440-48-4	
Selenium	ND	mg/L	0.0050	1	01/31/22 11:43	01/31/22 19:51	7782-49-2	
2540C Total Dissolved Solids								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	57.0	mg/L	10.0	1		02/01/22 14:07		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	8.0	mg/L	1.0	1		01/28/22 01:43	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/28/22 01:43	16984-48-8	
Sulfate	4.6	mg/L	1.0	1		01/28/22 01:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

QC Batch: 674583 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007, 92584543008

METHOD BLANK: 3530749 Matrix: Water
Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007, 92584543008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	01/28/22 16:50	
Magnesium	mg/L	ND	0.050	01/28/22 16:50	
Potassium	mg/L	ND	0.20	01/28/22 16:50	
Sodium	mg/L	ND	1.0	01/28/22 16:50	

LABORATORY CONTROL SAMPLE: 3530750

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	.95J	95	80-120	
Magnesium	mg/L	1	0.98	98	80-120	
Potassium	mg/L	1	1.0	101	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3530751 3530752

Parameter	Units	92584522001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Calcium	mg/L	16.2	1	1	17.1	16.7	86	47	75-125	2	20	M1	
Magnesium	mg/L	3.5	1	1	4.4	4.4	89	84	75-125	1	20		
Potassium	mg/L	3.0	1	1	3.9	3.7	86	66	75-125	5	20	M1	
Sodium	mg/L	16.3	1	1	17.0	16.7	71	33	75-125	2	20	M1	

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

QC Batch:	674904	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007, 92584543008

METHOD BLANK:	3532552	Matrix:	Water
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Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007, 92584543008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	02/01/22 23:53	
Boron	mg/L	ND	0.040	01/31/22 18:03	
Cobalt	mg/L	ND	0.0050	01/31/22 18:03	
Molybdenum	mg/L	ND	0.010	01/31/22 18:03	
Selenium	mg/L	ND	0.0050	01/31/22 18:03	

LABORATORY CONTROL SAMPLE: 3532553

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cobalt	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3532554 3532555

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92584522001 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	106	106	75-125	0	20
Boron	mg/L	0.049	1	1	1.1	1.1	100	104	75-125	3	20
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	108	110	75-125	2	20
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	101	106	75-125	5	20
Selenium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

QC Batch:	675199	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007

METHOD BLANK: 3533876 Matrix: Water

Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	02/01/22 13:52	

LABORATORY CONTROL SAMPLE: 3533877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	378	94	80-120	

SAMPLE DUPLICATE: 3533878

Parameter	Units	92583953022 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	256	269	5	25	

SAMPLE DUPLICATE: 3533879

Parameter	Units	92584522003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	135	137	1	25	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

QC Batch: 675202 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92584543008

METHOD BLANK: 3533883 Matrix: Water
Associated Lab Samples: 92584543008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	02/01/22 14:06	

LABORATORY CONTROL SAMPLE: 3533884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3533885

Parameter	Units	92584543008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	57.0	52.0	9	25	

SAMPLE DUPLICATE: 3533886

Parameter	Units	92585000001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	56.0	66.0	16	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond
Pace Project No.: 92584543

QC Batch: 674218 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007, 92584543008

METHOD BLANK: 3528694 Matrix: Water
Associated Lab Samples: 92584543001, 92584543002, 92584543003, 92584543004, 92584543005, 92584543006, 92584543007, 92584543008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	01/27/22 20:50	
Fluoride	mg/L	ND	0.10	01/27/22 20:50	
Sulfate	mg/L	ND	1.0	01/27/22 20:50	

LABORATORY CONTROL SAMPLE: 3528695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.3	103	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	49.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528696 3528697

Parameter	Units	92584437011		3528697		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	10.0	50	50	61.4	61.5	103	103	90-110	0	10
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	106	108	90-110	2	10
Sulfate	mg/L	5.0	50	50	55.8	55.3	102	101	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528698 3528699

Parameter	Units	92584543005		3528699		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	7.8	50	50	59.0	60.6	102	106	90-110	3	10
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	95	99	90-110	4	10
Sulfate	mg/L	4.7	50	50	54.8	57.0	100	105	90-110	4	10

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92584543

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92584543001	CR+0.4 (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543002	CR+0.2 (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543003	CR-0.1 (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543004	DW_DS (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543005	DW_US (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543006	CR-0.2 (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543007	CR-0.5 (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543008	CR-0.8 (Mid)	EPA 3010A	674583	EPA 6010D	674684
92584543001	CR+0.4 (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543002	CR+0.2 (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543003	CR-0.1 (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543004	DW_DS (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543005	DW_US (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543006	CR-0.2 (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543007	CR-0.5 (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543008	CR-0.8 (Mid)	EPA 3005A	674904	EPA 6020B	675004
92584543001	CR+0.4 (Mid)	SM 2540C-2015	675199		
92584543002	CR+0.2 (Mid)	SM 2540C-2015	675199		
92584543003	CR-0.1 (Mid)	SM 2540C-2015	675199		
92584543004	DW_DS (Mid)	SM 2540C-2015	675199		
92584543005	DW_US (Mid)	SM 2540C-2015	675199		
92584543006	CR-0.2 (Mid)	SM 2540C-2015	675199		
92584543007	CR-0.5 (Mid)	SM 2540C-2015	675199		
92584543008	CR-0.8 (Mid)	SM 2540C-2015	675202		
92584543001	CR+0.4 (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543002	CR+0.2 (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543003	CR-0.1 (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543004	DW_DS (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543005	DW_US (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543006	CR-0.2 (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543007	CR-0.5 (Mid)	EPA 300.0 Rev 2.1 1993	674218		
92584543008	CR-0.8 (Mid)	EPA 300.0 Rev 2.1 1993	674218		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Arcadis

Project #:

WO# : 92584543

PM: MP Due Date: 02/02/22
CLIENT: GA-ArcadAt1

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *1/26/22*
MP

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?
 Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.5 Correction Factor: Add/Subtract (°C) 40.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.8

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <i>PT rec. 00H</i>
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

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

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

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

Project #

WO# : 92584543

PM: MP

CLIENT: GA-ArcadAt

Due Date: 02/02/22

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	2	1																										
2	2	1																										
3	2	1																										
4	2	1																										
5	2	1																										
6	2	1																										
7	2	1																										
8	2	1																										
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 02, 2022

Maiya Parks
Pace Analytical Atlanta

110 Technology Pkwy
Peachtree Corners GA 30092

RE: 92584543

Dear Maiya Parks:

Order No: 2201S79

Analytical Environmental Services, Inc. received 8 samples on 1/27/2022 7:43:00 AM for the analyses presented in following report.

“No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES’s accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/21-06/30/22.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/22 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Paris Masoudi

Paris Masoudi
Project Manager

Client: Pace Analytical Atlanta	Client Sample ID: CR+0.4 MID
Project Name: 92584543	Collection Date: 1/25/2022 10:45:00 AM
Lab ID: 2201S79-001	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE								
SM4500-CO2-D								
Bicarbonate Alkalinity	23.4	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	23.4	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: CR+0.2 MID
Project Name: 92584543	Collection Date: 1/25/2022 10:53:00 AM
Lab ID: 2201S79-002	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE								
SM4500-CO2-D								
Bicarbonate Alkalinity	24.2	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	24.2	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: CR-0.1 MID
Project Name: 92584543	Collection Date: 1/25/2022 11:01:00 AM
Lab ID: 2201S79-003	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE								
SM4500-CO2-D								
Bicarbonate Alkalinity	24.4	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	24.4	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: DW_DS MID
Project Name: 92584543	Collection Date: 1/25/2022 11:09:00 AM
Lab ID: 2201S79-004	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	25.8	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	25.8	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: DW_US MID
Project Name: 92584543	Collection Date: 1/25/2022 11:15:00 AM
Lab ID: 2201S79-005	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	22.4	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	22.4	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: CR-0.2 MID
Project Name: 92584543	Collection Date: 1/25/2022 11:20:00 AM
Lab ID: 2201S79-006	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE								
SM4500-CO2-D								
Bicarbonate Alkalinity	20.4	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	20.4	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: CR-0.5 MID
Project Name: 92584543	Collection Date: 1/25/2022 11:28:00 AM
Lab ID: 2201S79-007	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	23.3	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	23.3	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: Pace Analytical Atlanta	Client Sample ID: CR-0.8MID
Project Name: 92584543	Collection Date: 1/25/2022 11:38:00 AM
Lab ID: 2201S79-008	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE								
SM4500-CO2-D								
Bicarbonate Alkalinity	21.0	10.0		mg/L	R476367	1	02/01/2022 12:43	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	21.0	3.00		mg/L	R476367	1	02/01/2022 12:43	GY

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



SAMPLE/COOLER RECEIPT CHECKLIST

Clear

Save as

1. Client Name: Pace Analytical AES Work Order Number: 2201579

2. Carrier: FedEx Client USPS Courier Other

Table with columns: Question, Yes, No, N/A, Details (damaged, leaking, other), Comments. Rows 3-12 covering shipping conditions, seals, temperature, and TAT.

13. Cooler 1 Temperature 0.7 Cooler 2 Temperature Cooler 3 Temperature Cooler 4 Temperature
14. Cooler 5 Temperature Cooler 6 Temperature Cooler 7 Temperature Cooler 8 Temperature

15. Comments: I certify that I have completed sections 1-15 (dated initials). DS 1/27/22

Table with columns: Question, Yes, No, N/A, Details (incomplete info, illegible, other, samples received), Comments. Rows 16-26 covering container integrity, analyses, and trip blanks.

27. Comments: I certify that I have completed sections 16-27 (dated initials). DS 1/27/22

Table with columns: Question, Yes, No, N/A, Details, Comments. Rows 28-30 covering chemical preservation and pH adjustment.

31. Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and OI & Grease/TPH.
32. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.



Client: Pace Analytical Atlanta
 Project Name: 92584543
 Workorder: 2201S79

ANALYTICAL QC SUMMARY REPORT

BatchID: R476367

Sample ID: LCS-R476367	Client ID:	Units: mg/L	Prep Date:	Run No: 476367							
SampleType: LCS	TestCode: Alkalinity by SM2320B	BatchID: R476367	Analysis Date: 02/01/2022	Seq No: 10996213							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)	126.5	3.00	125.0		101	90	110				
------------------------------	-------	------	-------	--	-----	----	-----	--	--	--	--

Sample ID: 2201U12-001DDUP	Client ID:	Units: mg/L	Prep Date:	Run No: 476367							
SampleType: DUP	TestCode: Alkalinity by SM2320B	BatchID: R476367	Analysis Date: 02/01/2022	Seq No: 10996217							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)	47.21	3.00						43.36	8.49	30	
------------------------------	-------	------	--	--	--	--	--	-------	------	----	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report

APPENDIX B

Analytical Results
June 2022

June 21, 2022

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

RE: Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between June 08, 2022 and June 10, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

cc: Stephen Benda, Southern Company
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
Laura Midkiff, Georgia Power
Karim Minkara, Golder Associates - Atlanta
J. Shelby Mobley, Southern Company
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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SAMPLE SUMMARY

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92608499001	DGWC-121	Water	06/06/22 11:59	06/08/22 10:35
92608499002	B-122D	Water	06/06/22 11:30	06/08/22 10:35
92608499003	DUP-1	Water	06/06/22 00:00	06/08/22 10:35
92608499004	FB-1	Water	06/07/22 16:35	06/08/22 10:35
92608499005	EB-1	Water	06/06/22 12:00	06/08/22 10:35
92608499006	B-123D	Water	06/09/22 17:18	06/10/22 13:12

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92608499001	DGWC-121	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2011	ZMC	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92608499002	B-122D	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2011	ZMC	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92608499003	DUP-1	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2011	ZMC	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92608499004	FB-1	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2011	ZMC	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92608499005	EB-1	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2011	ZMC	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92608499006	B-123D	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2011	ZMC	1
		EPA 300.0 Rev 2.1 1993	JCM	3

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Lab ID	Sample ID	Method	Analysts	Analytes Reported
--------	-----------	--------	----------	-------------------

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Sample: DGWC-121 Lab ID: 92608499001 Collected: 06/06/22 11:59 Received: 06/08/22 10:35 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		06/08/22 12:37		
pH	6.33	Std. Units			1		06/08/22 12:37		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	4.3	mg/L	0.040	0.025	1	06/10/22 11:00	06/10/22 19:16	7439-89-6	
Manganese	1.2	mg/L	0.040	0.0043	1	06/10/22 11:00	06/10/22 19:16	7439-96-5	
Potassium	4.1	mg/L	0.20	0.15	1	06/10/22 11:00	06/10/22 19:16	7440-09-7	
Sodium	11.0	mg/L	1.0	0.58	1	06/10/22 11:00	06/10/22 19:16	7440-23-5	
Calcium	44.1	mg/L	1.0	0.12	1	06/10/22 11:00	06/10/22 19:16	7440-70-2	
Magnesium	12.3	mg/L	0.050	0.012	1	06/10/22 11:00	06/10/22 19:16	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	06/10/22 09:50	06/14/22 21:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	06/10/22 09:50	06/14/22 21:00	7440-38-2	
Barium	0.040	mg/L	0.0050	0.00067	1	06/10/22 09:50	06/14/22 21:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	06/10/22 09:50	06/14/22 21:00	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	06/10/22 09:50	06/14/22 21:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	06/10/22 09:50	06/14/22 21:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	06/10/22 09:50	06/15/22 15:55	7440-47-3	
Cobalt	0.0028J	mg/L	0.0050	0.00039	1	06/10/22 09:50	06/15/22 15:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	06/10/22 09:50	06/14/22 21:00	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00073	1	06/10/22 09:50	06/14/22 21:00	7439-93-2	
Molybdenum	0.00093J	mg/L	0.010	0.00074	1	06/10/22 09:50	06/14/22 21:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	06/10/22 09:50	06/14/22 21:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	06/10/22 09:50	06/14/22 21:00	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	06/20/22 16:00	06/21/22 09:21	7439-97-6	
2320B Alkalinity									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	113	mg/L	5.0	5.0	1		06/10/22 17:45		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/10/22 17:45		
Alkalinity, Total as CaCO3	113	mg/L	5.0	5.0	1		06/10/22 17:45		
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville									
Total Dissolved Solids	270	mg/L	25.0	25.0	1		06/10/22 15:26		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Sample: DGWC-121 **Lab ID: 92608499001** Collected: 06/06/22 11:59 Received: 06/08/22 10:35 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.7	mg/L	1.0	0.60	1		06/13/22 00:30	16887-00-6	
Fluoride	0.056J	mg/L	0.10	0.050	1		06/13/22 00:30	16984-48-8	
Sulfate	83.9	mg/L	1.0	0.50	1		06/13/22 00:30	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Sample: B-122D		Lab ID: 92608499002		Collected: 06/06/22 11:30		Received: 06/08/22 10:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		06/08/22 12:37		
pH	6.02	Std. Units			1		06/08/22 12:37		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	10.9	mg/L	0.040	0.025	1	06/10/22 11:00	06/10/22 19:21	7439-89-6	
Manganese	3.2	mg/L	0.040	0.0043	1	06/10/22 11:00	06/10/22 19:21	7439-96-5	
Potassium	3.5	mg/L	0.20	0.15	1	06/10/22 11:00	06/10/22 19:21	7440-09-7	
Sodium	25.4	mg/L	1.0	0.58	1	06/10/22 11:00	06/10/22 19:21	7440-23-5	
Calcium	48.3	mg/L	1.0	0.12	1	06/10/22 11:00	06/10/22 19:21	7440-70-2	
Magnesium	8.6	mg/L	0.050	0.012	1	06/10/22 11:00	06/10/22 19:21	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	06/10/22 09:50	06/14/22 21:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	06/10/22 09:50	06/14/22 21:06	7440-38-2	
Barium	0.039	mg/L	0.0050	0.00067	1	06/10/22 09:50	06/14/22 21:06	7440-39-3	
Beryllium	0.00024J	mg/L	0.00050	0.000054	1	06/10/22 09:50	06/14/22 21:06	7440-41-7	
Boron	0.20	mg/L	0.040	0.0086	1	06/10/22 09:50	06/14/22 21:06	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	06/10/22 09:50	06/14/22 21:06	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	06/10/22 09:50	06/15/22 16:01	7440-47-3	
Cobalt	0.0060	mg/L	0.0050	0.00039	1	06/10/22 09:50	06/15/22 16:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	06/10/22 09:50	06/14/22 21:06	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00073	1	06/10/22 09:50	06/14/22 21:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	06/10/22 09:50	06/14/22 21:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	06/10/22 09:50	06/14/22 21:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	06/10/22 09:50	06/14/22 21:06	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	06/20/22 16:00	06/21/22 09:23	7439-97-6	
2320B Alkalinity									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO ₃)	117	mg/L	5.0	5.0	1		06/10/22 17:55		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/10/22 17:55		
Alkalinity, Total as CaCO ₃	117	mg/L	5.0	5.0	1		06/10/22 17:55		
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville									
Total Dissolved Solids	307	mg/L	25.0	25.0	1		06/10/22 15:26		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Sample: B-122D **Lab ID: 92608499002** Collected: 06/06/22 11:30 Received: 06/08/22 10:35 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	18.4	mg/L	1.0	0.60	1		06/13/22 00:45	16887-00-6	
Fluoride	0.20	mg/L	0.10	0.050	1		06/13/22 00:45	16984-48-8	
Sulfate	97.7	mg/L	1.0	0.50	1		06/13/22 00:45	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Sample: DUP-1		Lab ID: 92608499003		Collected: 06/06/22 00:00	Received: 06/08/22 10:35	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Iron	3.9	mg/L	0.040	0.025	1	06/10/22 11:00	06/10/22 19:25	7439-89-6	
Manganese	1.2	mg/L	0.040	0.0043	1	06/10/22 11:00	06/10/22 19:25	7439-96-5	
Potassium	3.8	mg/L	0.20	0.15	1	06/10/22 11:00	06/10/22 19:25	7440-09-7	
Sodium	10.2	mg/L	1.0	0.58	1	06/10/22 11:00	06/10/22 19:25	7440-23-5	
Calcium	41.0	mg/L	1.0	0.12	1	06/10/22 11:00	06/10/22 19:25	7440-70-2	
Magnesium	11.3	mg/L	0.050	0.012	1	06/10/22 11:00	06/10/22 19:25	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00078	1	06/10/22 09:50	06/14/22 21:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	06/10/22 09:50	06/14/22 21:12	7440-38-2	
Barium	0.043	mg/L	0.0050	0.00067	1	06/10/22 09:50	06/14/22 21:12	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	06/10/22 09:50	06/14/22 21:12	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	06/10/22 09:50	06/14/22 21:12	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	06/10/22 09:50	06/14/22 21:12	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	06/10/22 09:50	06/15/22 16:07	7440-47-3	
Cobalt	0.0030J	mg/L	0.0050	0.00039	1	06/10/22 09:50	06/15/22 16:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	06/10/22 09:50	06/14/22 21:12	7439-92-1	
Lithium	0.014J	mg/L	0.030	0.00073	1	06/10/22 09:50	06/14/22 21:12	7439-93-2	
Molybdenum	0.00096J	mg/L	0.010	0.00074	1	06/10/22 09:50	06/14/22 21:12	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	06/10/22 09:50	06/14/22 21:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	06/10/22 09:50	06/14/22 21:12	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	06/20/22 16:00	06/21/22 09:26	7439-97-6	
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Bicarbonate (CaCO ₃)	110	mg/L	5.0	5.0	1		06/10/22 18:05		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/10/22 18:05		
Alkalinity, Total as CaCO ₃	110	mg/L	5.0	5.0	1		06/10/22 18:05		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	275	mg/L	25.0	25.0	1		06/10/22 15:26		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	4.7	mg/L	1.0	0.60	1		06/13/22 01:01	16887-00-6	
Fluoride	0.058J	mg/L	0.10	0.050	1		06/13/22 01:01	16984-48-8	
Sulfate	84.0	mg/L	1.0	0.50	1		06/13/22 01:01	14808-79-8	

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Sample: FB-1 **Lab ID: 92608499004** Collected: 06/07/22 16:35 Received: 06/08/22 10:35 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	ND	mg/L	0.040	0.025	1	06/10/22 11:00	06/10/22 19:39	7439-89-6	
Manganese	ND	mg/L	0.040	0.0043	1	06/10/22 11:00	06/10/22 19:39	7439-96-5	
Potassium	ND	mg/L	0.20	0.15	1	06/10/22 11:00	06/10/22 19:39	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	06/10/22 11:00	06/10/22 19:39	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	06/10/22 11:00	06/10/22 19:39	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	06/10/22 11:00	06/10/22 19:39	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	06/10/22 09:50	06/14/22 21:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	06/10/22 09:50	06/14/22 21:18	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	06/10/22 09:50	06/14/22 21:18	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	06/10/22 09:50	06/14/22 21:18	7440-41-7	
Boron	0.015J	mg/L	0.040	0.0086	1	06/10/22 09:50	06/14/22 21:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	06/10/22 09:50	06/14/22 21:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	06/10/22 09:50	06/15/22 16:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	06/10/22 09:50	06/15/22 16:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	06/10/22 09:50	06/14/22 21:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	06/10/22 09:50	06/14/22 21:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	06/10/22 09:50	06/14/22 21:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	06/10/22 09:50	06/14/22 21:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	06/10/22 09:50	06/14/22 21:18	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	06/20/22 16:00	06/21/22 09:29	7439-97-6	
2320B Alkalinity									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/10/22 19:46		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/10/22 19:46		
Alkalinity, Total as CaCO ₃	ND	mg/L	5.0	5.0	1		06/10/22 19:46		
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		06/10/22 15:28		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		06/13/22 01:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/13/22 01:17	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		06/13/22 01:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Sample: EB-1		Lab ID: 92608499005		Collected: 06/06/22 12:00	Received: 06/08/22 10:35	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	06/10/22 11:00	06/10/22 19:44	7439-89-6		
Manganese	ND	mg/L	0.040	0.0043	1	06/10/22 11:00	06/10/22 19:44	7439-96-5		
Potassium	ND	mg/L	0.20	0.15	1	06/10/22 11:00	06/10/22 19:44	7440-09-7		
Sodium	ND	mg/L	1.0	0.58	1	06/10/22 11:00	06/10/22 19:44	7440-23-5		
Calcium	ND	mg/L	1.0	0.12	1	06/10/22 11:00	06/10/22 19:44	7440-70-2		
Magnesium	ND	mg/L	0.050	0.012	1	06/10/22 11:00	06/10/22 19:44	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	06/10/22 09:50	06/14/22 21:24	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0022	1	06/10/22 09:50	06/14/22 21:24	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	06/10/22 09:50	06/14/22 21:24	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	06/10/22 09:50	06/14/22 21:24	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	06/10/22 09:50	06/14/22 21:24	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	06/10/22 09:50	06/14/22 21:24	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	06/10/22 09:50	06/15/22 16:19	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	06/10/22 09:50	06/15/22 16:19	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	06/10/22 09:50	06/14/22 21:24	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	06/10/22 09:50	06/14/22 21:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	06/10/22 09:50	06/14/22 21:24	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	06/10/22 09:50	06/14/22 21:24	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	06/10/22 09:50	06/14/22 21:24	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	06/20/22 16:00	06/21/22 09:31	7439-97-6		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/10/22 18:14			
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/10/22 18:14			
Alkalinity, Total as CaCO ₃	ND	mg/L	5.0	5.0	1		06/10/22 18:14			
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		06/10/22 15:26			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		06/13/22 02:05	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		06/13/22 02:05	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		06/13/22 02:05	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND

Sample Project No.: 92608499

Sample: B-123D		Lab ID: 92608499006		Collected: 06/09/22 17:18		Received: 06/10/22 13:12		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		06/10/22 15:04		
pH	6.48	Std. Units			1		06/10/22 15:04		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	24.2	mg/L	0.040	0.025	1	06/14/22 10:36	06/14/22 20:58	7439-89-6	
Manganese	8.9	mg/L	0.040	0.0043	1	06/14/22 10:36	06/14/22 20:58	7439-96-5	
Potassium	10.9	mg/L	0.20	0.15	1	06/14/22 10:36	06/14/22 20:58	7440-09-7	BC
Sodium	35.2	mg/L	1.0	0.58	1	06/14/22 10:36	06/14/22 20:58	7440-23-5	
Calcium	90.4	mg/L	1.0	0.12	1	06/14/22 10:36	06/14/22 20:58	7440-70-2	
Magnesium	15.4	mg/L	0.050	0.012	1	06/14/22 10:36	06/14/22 20:58	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	06/16/22 11:03	06/18/22 10:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	06/16/22 11:03	06/18/22 10:39	7440-38-2	
Barium	0.028	mg/L	0.0050	0.00067	1	06/16/22 11:03	06/18/22 10:39	7440-39-3	
Beryllium	0.0020	mg/L	0.00050	0.000054	1	06/16/22 11:03	06/18/22 10:39	7440-41-7	
Boron	0.55	mg/L	0.040	0.0086	1	06/16/22 11:03	06/18/22 10:39	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	06/16/22 11:03	06/18/22 10:39	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	06/16/22 11:03	06/18/22 10:39	7440-47-3	
Cobalt	0.068	mg/L	0.0050	0.00039	1	06/16/22 11:03	06/18/22 10:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	06/16/22 11:03	06/18/22 10:39	7439-92-1	
Lithium	0.031	mg/L	0.030	0.00073	1	06/16/22 11:03	06/18/22 10:39	7439-93-2	
Molybdenum	0.0017J	mg/L	0.010	0.00074	1	06/16/22 11:03	06/18/22 10:39	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	06/16/22 11:03	06/18/22 10:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	06/16/22 11:03	06/18/22 10:39	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	06/20/22 16:00	06/21/22 09:34	7439-97-6	
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO ₃)	65.7	mg/L	5.0	5.0	1		06/16/22 13:21		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	5.0	5.0	1		06/16/22 13:21		
Alkalinity, Total as CaCO ₃	65.7	mg/L	5.0	5.0	1		06/16/22 13:21		
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Asheville									
Total Dissolved Solids	602	mg/L	50.0	50.0	1		06/15/22 15:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Sample: B-123D **Lab ID: 92608499006** Collected: 06/09/22 17:18 Received: 06/10/22 13:12 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	13.2	mg/L	1.0	0.60	1		06/14/22 10:19	16887-00-6	
Fluoride	0.48	mg/L	0.10	0.050	1		06/14/22 10:19	16984-48-8	
Sulfate	175	mg/L	7.0	3.5	7		06/14/22 15:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 703611 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

METHOD BLANK: 3671695 Matrix: Water
Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	06/10/22 18:47	
Iron	mg/L	ND	0.040	0.025	06/10/22 18:47	
Magnesium	mg/L	ND	0.050	0.012	06/10/22 18:47	
Manganese	mg/L	ND	0.040	0.0043	06/10/22 18:47	
Potassium	mg/L	ND	0.20	0.15	06/10/22 18:47	
Sodium	mg/L	ND	1.0	0.58	06/10/22 18:47	

LABORATORY CONTROL SAMPLE: 3671696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	
Iron	mg/L	1	1.0	104	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Manganese	mg/L	1	1.0	105	80-120	
Potassium	mg/L	1	1.1	111	80-120	
Sodium	mg/L	1	1.1	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671697 3671698

Parameter	Units	3671697		3671698		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608822001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	53500 ug/L	1	1	57.2	55.6	373	206	75-125	3	20 M1
Iron	mg/L	2720 ug/L	1	1	4.0	3.8	131	112	75-125	5	20 M1
Magnesium	mg/L	11400 ug/L	1	1	13.0	12.6	160	120	75-125	3	20 M1
Manganese	mg/L	61.8 ug/L	1	1	1.1	1.0	101	95	75-125	6	20
Potassium	mg/L	4880 ug/L	1	1	6.1	5.9	118	104	75-125	2	20
Sodium	mg/L	22700 ug/L	1	1	24.9	24.2	219	154	75-125	3	20 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

QC Batch: 704300

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92608499006

METHOD BLANK: 3675119

Matrix: Water

Associated Lab Samples: 92608499006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	06/14/22 19:23	
Iron	mg/L	ND	0.040	0.025	06/14/22 19:23	
Magnesium	mg/L	ND	0.050	0.012	06/14/22 19:23	
Manganese	mg/L	ND	0.040	0.0043	06/14/22 19:23	
Potassium	mg/L	ND	0.20	0.15	06/16/22 10:47	
Sodium	mg/L	ND	1.0	0.58	06/14/22 19:23	

LABORATORY CONTROL SAMPLE: 3675120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	
Iron	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Manganese	mg/L	1	1.0	104	80-120	
Potassium	mg/L	1	1.0	100	80-120	
Sodium	mg/L	1	1.1	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3675121 3675122

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92609119001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	24000 ug/L	1	1	25.2	25.5	117	148	75-125	1	20 M1
Iron	mg/L	422 ug/L	1	1	1.5	2.0	109	161	75-125	29	20 M1,R1
Magnesium	mg/L	8010 ug/L	1	1	9.1	9.3	112	125	75-125	1	20
Manganese	mg/L	81.3 ug/L	1	1	1.1	1.1	101	103	75-125	1	20
Potassium	mg/L	2870 ug/L	1	1	3.9	4.0	104	111	75-125	2	20
Sodium	mg/L	9260 ug/L	1	1	10.4	10.5	111	121	75-125	1	20

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 703475 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

METHOD BLANK: 3671195 Matrix: Water
Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	06/14/22 19:31	
Arsenic	mg/L	0.0031J	0.0050	0.0022	06/14/22 19:31	
Barium	mg/L	ND	0.0050	0.00067	06/14/22 19:31	
Beryllium	mg/L	ND	0.00050	0.000054	06/14/22 19:31	
Boron	mg/L	ND	0.040	0.0086	06/14/22 19:31	
Cadmium	mg/L	ND	0.00050	0.00011	06/14/22 19:31	
Chromium	mg/L	ND	0.0050	0.0011	06/15/22 14:04	
Cobalt	mg/L	ND	0.0050	0.00039	06/15/22 14:04	
Lead	mg/L	ND	0.0010	0.00089	06/14/22 19:31	
Lithium	mg/L	ND	0.030	0.00073	06/14/22 19:31	
Molybdenum	mg/L	ND	0.010	0.00074	06/14/22 19:31	
Selenium	mg/L	ND	0.0050	0.0014	06/14/22 19:31	
Thallium	mg/L	ND	0.0010	0.00018	06/14/22 19:31	

LABORATORY CONTROL SAMPLE: 3671196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	110	80-120	
Arsenic	mg/L	0.1	0.11	109	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.11	108	80-120	
Boron	mg/L	1	0.93	93	80-120	
Cadmium	mg/L	0.1	0.10	104	80-120	
Chromium	mg/L	0.1	0.11	106	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lead	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.11	110	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671197 3671198

Parameter	Units	92608455001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.1	0.11	109	108	75-125	1	20	
Arsenic	mg/L	21.7 ug/L	0.1	0.1	0.12	0.12	102	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671197		3671198		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608455001 Result	MS Spike Conc.	MSD Spike Conc.									
Barium	mg/L	365 ug/L	0.1	0.1	0.43	0.44	68	75	75-125	2	20	M1	
Beryllium	mg/L	ND	0.1	0.1	0.087	0.090	87	90	75-125	3	20		
Boron	mg/L	ND	1	1	0.90	0.93	89	92	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20		
Cobalt	mg/L	40.2 ug/L	0.1	0.1	0.13	0.13	90	93	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Lithium	mg/L	186 ug/L	0.1	0.1	0.26	0.28	78	90	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	106	106	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	96	95	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 704902 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92608499006

METHOD BLANK: 3678021 Matrix: Water
Associated Lab Samples: 92608499006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	06/16/22 17:47	
Arsenic	mg/L	0.0036J	0.0050	0.0022	06/16/22 17:47	
Barium	mg/L	ND	0.0050	0.00067	06/16/22 17:47	
Beryllium	mg/L	ND	0.00050	0.000054	06/16/22 17:47	
Boron	mg/L	0.0090J	0.040	0.0086	06/16/22 17:47	
Cadmium	mg/L	ND	0.00050	0.00011	06/16/22 17:47	
Chromium	mg/L	ND	0.0050	0.0011	06/16/22 17:47	
Cobalt	mg/L	ND	0.0050	0.00039	06/16/22 17:47	
Lead	mg/L	ND	0.0010	0.00089	06/16/22 17:47	
Lithium	mg/L	ND	0.030	0.00073	06/16/22 17:47	
Molybdenum	mg/L	ND	0.010	0.00074	06/16/22 17:47	
Selenium	mg/L	ND	0.0050	0.0014	06/16/22 17:47	
Thallium	mg/L	ND	0.0010	0.00018	06/16/22 17:47	

LABORATORY CONTROL SAMPLE: 3678022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3678023 3678024

Parameter	Units	92607331013 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	109	106	75-125	3	20	
Arsenic	mg/L	7.3 ug/L	0.1	0.1	0.11	0.11	101	99	75-125	2	20	

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

Parameter	Units	92607331013		3678023		3678024		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Barium	mg/L	23.7 ug/L	0.1	0.1	0.13	0.12	103	101	75-125	2	20			
Beryllium	mg/L	ND	0.1	0.1	0.096	0.092	95	92	75-125	4	20			
Boron	mg/L	ND	1	1	1.0	0.96	96	92	75-125	4	20			
Cadmium	mg/L	1.0 ug/L	0.1	0.1	0.10	0.098	99	97	75-125	2	20			
Chromium	mg/L	7.8 ug/L	0.1	0.1	0.11	0.11	105	104	75-125	1	20			
Cobalt	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	2	20			
Lead	mg/L	ND	0.1	0.1	0.098	0.097	98	96	75-125	2	20			
Lithium	mg/L	ND	0.1	0.1	0.097	0.095	94	91	75-125	3	20			
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	107	106	75-125	1	20			
Selenium	mg/L	ND	0.1	0.1	0.099	0.099	99	98	75-125	1	20			
Thallium	mg/L	ND	0.1	0.1	0.10	0.098	100	97	75-125	2	20			

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

QC Batch:	705643	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005, 92608499006

METHOD BLANK: 3681813 Matrix: Water

Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005, 92608499006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	06/21/22 08:44	

LABORATORY CONTROL SAMPLE: 3681814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3681815 3681816

Parameter	Units	3681815		3681816		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.54 ug/L	0.0025	0.0025	0.0028	0.0028	90	89	75-125	1	20

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 703445 Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

METHOD BLANK: 3670973 Matrix: Water
Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/10/22 15:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/10/22 15:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/10/22 15:57	

LABORATORY CONTROL SAMPLE: 3670974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.3	103	80-120	

LABORATORY CONTROL SAMPLE: 3670975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3670976 3670977

Parameter	Units	92608636004		3670976		3670977		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Alkalinity, Total as CaCO3	mg/L	104	50	50	50	153	156	99	104	80-120	2	25

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3670978 3670979

Parameter	Units	92608443007		3670978		3670979		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Alkalinity, Total as CaCO3	mg/L	271	50	50	50	282	270	22	-1	80-120	4	25 M1

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 704687 Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608499006

METHOD BLANK: 3677119 Matrix: Water
Associated Lab Samples: 92608499006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	

LABORATORY CONTROL SAMPLE: 3677120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

LABORATORY CONTROL SAMPLE: 3677121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677122 3677123

Parameter	Units	3677122		3677123		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Alkalinity, Total as CaCO3	mg/L	118	50	50	168	166	101	98	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677124 3677125

Parameter	Units	3677124		3677125		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92609055032 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Alkalinity, Total as CaCO3	mg/L	58.7	50	50	115	115	112	112	80-120	0	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

QC Batch:	703670	Analysis Method:	SM 2540C-2011
QC Batch Method:	SM 2540C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

METHOD BLANK: 3672024 Matrix: Water

Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004, 92608499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/10/22 15:25	

LABORATORY CONTROL SAMPLE: 3672025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	248	99	90-110	

SAMPLE DUPLICATE: 3672026

Parameter	Units	92608690001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	39.0	48.0	21	25	

SAMPLE DUPLICATE: 3672027

Parameter	Units	92608443007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	724	724	0	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 704499	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608499006

METHOD BLANK: 3676294 Matrix: Water
Associated Lab Samples: 92608499006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/15/22 15:21	

LABORATORY CONTROL SAMPLE: 3676295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	260	104	90-110	

SAMPLE DUPLICATE: 3676296

Parameter	Units	92608499006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	602	596	1	25	

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

QC Batch: 703503 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004

METHOD BLANK: 3671431 Matrix: Water
 Associated Lab Samples: 92608499001, 92608499002, 92608499003, 92608499004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/12/22 17:35	
Fluoride	mg/L	ND	0.10	0.050	06/12/22 17:35	
Sulfate	mg/L	ND	1.0	0.50	06/12/22 17:35	

LABORATORY CONTROL SAMPLE: 3671432

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.2	106	90-110	
Fluoride	mg/L	2.5	2.6	105	90-110	
Sulfate	mg/L	50	52.1	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671433 3671434

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608242001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	20.8	50	50	71.3	71.4	101	101	90-110	0	10		
Fluoride	mg/L	9.1	2.5	2.5	9.7	9.9	22	29	90-110	2	10	M1	
Sulfate	mg/L	617	50	50	623	643	13	53	90-110	3	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671435 3671436

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608298001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	10.0	50	50	60.4	61.0	101	102	90-110	1	10		
Fluoride	mg/L	0.14	2.5	2.5	2.5	2.6	95	97	90-110	2	10		
Sulfate	mg/L	12.0	50	50	62.0	62.5	100	101	90-110	1	10		

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 703506 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608499005

METHOD BLANK: 3671443 Matrix: Water
Associated Lab Samples: 92608499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/13/22 01:33	
Fluoride	mg/L	ND	0.10	0.050	06/13/22 01:33	
Sulfate	mg/L	ND	1.0	0.50	06/13/22 01:33	

LABORATORY CONTROL SAMPLE: 3671444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.7	107	90-110	
Fluoride	mg/L	2.5	2.5	101	90-110	
Sulfate	mg/L	50	52.3	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671445 3671446

Parameter	Units	92608499005		3671445		3671446		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	ND	ND	50	50	50.6	51.1	101	102	90-110	1	10	
Fluoride	mg/L	ND	ND	2.5	2.5	2.3	2.3	92	92	90-110	0	10	
Sulfate	mg/L	ND	ND	50	50	50.0	50.5	100	101	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3671447 3671448

Parameter	Units	92608422005		3671447		3671448		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	84.5	ND	50	50	126	125	82	81	90-110	0	10 M1	
Fluoride	mg/L	ND	ND	2.5	2.5	2.4	2.5	95	97	90-110	1	10	
Sulfate	mg/L	ND	ND	50	50	50.9	51.1	101	101	90-110	0	10	

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QUALITY CONTROL DATA

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

QC Batch: 704146 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608499006

METHOD BLANK: 3674655 Matrix: Water
Associated Lab Samples: 92608499006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/14/22 07:09	
Fluoride	mg/L	ND	0.10	0.050	06/14/22 07:09	
Sulfate	mg/L	ND	1.0	0.50	06/14/22 07:09	

LABORATORY CONTROL SAMPLE: 3674656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.1	108	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674657 3674658

Parameter	Units	92608869024		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	7260	50	50	7230	7340	-53	157	90-110	1	10	M1	
Fluoride	mg/L	ND	2.5	2.5	5.7J	5.5J	32	24	90-110		10	D3,M1	
Sulfate	mg/L	950	50	50	977	990	55	80	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674766 3674767

Parameter	Units	92608137004		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	13.8	50	50	65.3	65.6	103	103	90-110	0	10		
Fluoride	mg/L	0.15	2.5	2.5	2.6	2.7	100	101	90-110	1	10		
Sulfate	mg/L	11.6	50	50	62.5	63.0	102	103	90-110	1	10		

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QUALIFIERS

Project: MCDONOUGH BACKGROUND

Pace Project No.: 92608499

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH BACKGROUND
Pace Project No.: 92608499

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608499001	DGWC-121				
92608499002	B-122D				
92608499006	B-123D				
92608499001	DGWC-121	EPA 3010A	703611	EPA 6010D	703726
92608499002	B-122D	EPA 3010A	703611	EPA 6010D	703726
92608499003	DUP-1	EPA 3010A	703611	EPA 6010D	703726
92608499004	FB-1	EPA 3010A	703611	EPA 6010D	703726
92608499005	EB-1	EPA 3010A	703611	EPA 6010D	703726
92608499006	B-123D	EPA 3010A	704300	EPA 6010D	704368
92608499001	DGWC-121	EPA 3005A	703475	EPA 6020B	703757
92608499002	B-122D	EPA 3005A	703475	EPA 6020B	703757
92608499003	DUP-1	EPA 3005A	703475	EPA 6020B	703757
92608499004	FB-1	EPA 3005A	703475	EPA 6020B	703757
92608499005	EB-1	EPA 3005A	703475	EPA 6020B	703757
92608499006	B-123D	EPA 3005A	704902	EPA 6020B	705008
92608499001	DGWC-121	EPA 7470A	705643	EPA 7470A	705689
92608499002	B-122D	EPA 7470A	705643	EPA 7470A	705689
92608499003	DUP-1	EPA 7470A	705643	EPA 7470A	705689
92608499004	FB-1	EPA 7470A	705643	EPA 7470A	705689
92608499005	EB-1	EPA 7470A	705643	EPA 7470A	705689
92608499006	B-123D	EPA 7470A	705643	EPA 7470A	705689
92608499001	DGWC-121	SM 2320B-2011	703445		
92608499002	B-122D	SM 2320B-2011	703445		
92608499003	DUP-1	SM 2320B-2011	703445		
92608499004	FB-1	SM 2320B-2011	703445		
92608499005	EB-1	SM 2320B-2011	703445		
92608499006	B-123D	SM 2320B-2011	704687		
92608499001	DGWC-121	SM 2540C-2011	703670		
92608499002	B-122D	SM 2540C-2011	703670		
92608499003	DUP-1	SM 2540C-2011	703670		
92608499004	FB-1	SM 2540C-2011	703670		
92608499005	EB-1	SM 2540C-2011	703670		
92608499006	B-123D	SM 2540C-2011	704499		
92608499001	DGWC-121	EPA 300.0 Rev 2.1 1993	703503		
92608499002	B-122D	EPA 300.0 Rev 2.1 1993	703503		
92608499003	DUP-1	EPA 300.0 Rev 2.1 1993	703503		
92608499004	FB-1	EPA 300.0 Rev 2.1 1993	703503		
92608499005	EB-1	EPA 300.0 Rev 2.1 1993	703506		
92608499006	B-123D	EPA 300.0 Rev 2.1 1993	704146		

REPORT OF LABORATORY ANALYSIS

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DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: SA Power

Project #: WO#: 92608499



Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

Custody Seal Present? Yes NO Seals Intact? Yes No

Date/Initials Person Examining Contents: 6/8/22 RMT

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Cooler Temp: 3.2 Correction Factor: Add/Subtract (°C) +0.2

Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.4

USDA Regulated Soil (N/A, water sample) Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	W		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

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

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

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

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92608499

PM: NMG

Due Date: 06/22/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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pH Adjustment Log for Preserved Samples

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

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



Document Name:
Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
 Page 1 of 2
 Issuing Authority:
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

GA Power

Project #:

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *RE 10/10/21*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 1.1 Correction Factor: Add/Subtract (°C) +1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.2

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Includes Date/Time/ID/Analysis Matrix: <i>WTI</i>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

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

Project #

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

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

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
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BPIN

pH Adjustment Log for Preserved Samples

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

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



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: Georgia Power - Coal Combustion Residuals
Address: 2480 Manor Road
Atlanta, GA 30339
Email: laucke@scouthermoc.com
Phone: (470) 506-7239

Section B

Required Project Information:

Report To: Lauren Coker
Copy To: Golder
Project Name: Plant McDonough Background
Wall Sampling
Purchase Order #: [blank]
Project #: 155449521

Section C

Invoice Information:

Attention: scainves@scouthermoc.com
Address: [blank]
Company Name: [blank]
Pace Guide: [blank]
Pace Project Manager: Nicole D'Olivo
Pace Profile #: [blank]

Page: 1 Of 1

ITEM #	MATRIX	CODE	WT	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test					Residual Chlorine (Y/N)	pH - 6.48		
									H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Y/N	Y/N	Y/N	Y/N	Y/N			Y/N	
1	One Character per box. (A-Z, 0-9, -, /) Sample IDs must be unique				6/10/22	17:18		5	3	3								X	X	X	X	X		
B-123D																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS: JUDE MAGUIRES PARK

RELINQUISHED BY / AFFILIATION: J.M. / Golder
DATE: 6/10/22
TIME: 1312

ACCEPTED BY / AFFILIATION: [Signature]
DATE: 6/10/22
TIME: 1302

TEMP in C: [blank]

Received on Ice (Y/N): [blank]

Custody Sealed Cooler (Y/N): [blank]

Samples Intact (Y/N): [blank]

DATE Signed: 6/10/22

July 25, 2022

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

RE: Project: MCDONOUGH BACKGROUND RAD
Pace Project No.: 92608485

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between June 08, 2022 and June 10, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Stephen Benda, Southern Company
Daniela Herrera, Golder
Ben Hodges, Georgia Power
Kristen Jurinko
Laura Midkiff, Georgia Power
Karim Minkara, Golder Associates - Atlanta
J. Shelby Mobley, Southern Company
Charles Norton, Southern Company
Ms. Lauren Petty, Southern Company
Dawn Prell, Golder Associates Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: MCDONOUGH BACKGROUND RAD
Pace Project No.: 92608485

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92608485001	DGWC-121	Water	06/06/22 11:59	06/08/22 10:35
92608485002	B-122D	Water	06/06/22 11:30	06/08/22 10:35
92608485003	DUP-1	Water	06/06/22 00:00	06/08/22 10:35
92608485004	FB-1	Water	06/07/22 16:35	06/08/22 10:35
92608485005	EB-1	Water	06/06/22 12:00	06/08/22 10:35
92608485006	B-123D	Water	06/09/22 17:18	06/10/22 13:12

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608485001	DGWC-121	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92608485002	B-122D	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92608485003	DUP-1	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92608485004	FB-1	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92608485005	EB-1	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92608485006	B-123D	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-121 Lab ID: 92608485001 Collected: 06/06/22 11:59 Received: 06/08/22 10:35 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	0.000U ± 0.247 (0.554) C:NA T:90%	pCi/L	07/15/22 16:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	1.23 ± 0.503 (0.775) C:65% T:90%	pCi/L	07/08/22 13:01	15262-20-1	B0
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.23 ± 0.560 (0.775)	pCi/L	07/19/22 12:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Sample: B-122D **Lab ID: 92608485002** Collected: 06/06/22 11:30 Received: 06/08/22 10:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	2.29 ± 0.827 (0.733) C:NA T:83%	pCi/L	07/15/22 16:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	10.8 ± 2.22 (0.880) C:59% T:83%	pCi/L	07/08/22 13:01	15262-20-1	B0
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	13.1 ± 2.37 (0.880)	pCi/L	07/19/22 12:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Sample: DUP-1 **Lab ID: 92608485003** Collected: 06/06/22 00:00 Received: 06/08/22 10:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	0.298U ± 0.366 (0.597) C:NA T:91%	pCi/L	07/15/22 16:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	0.809U ± 0.469 (0.854) C:60% T:91%	pCi/L	07/08/22 13:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.11 ± 0.595 (0.854)	pCi/L	07/19/22 12:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Sample: FB-1 **Lab ID: 92608485004** Collected: 06/07/22 16:35 Received: 06/08/22 10:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.000U ± 0.264 (0.593) C:NA T:95%	pCi/L	07/15/22 16:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.26 ± 0.579 (0.974) C:55% T:95%	pCi/L	07/08/22 13:01	15262-20-1	B0
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.26 ± 0.636 (0.974)	pCi/L	07/19/22 12:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EB-1 Lab ID: 92608485005 Collected: 06/06/22 12:00 Received: 06/08/22 10:35 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	0.143U ± 0.218 (0.351) C:NA T:93%	pCi/L	07/15/22 16:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	1.14 ± 0.594 (1.04) C:53% T:93%	pCi/L	07/08/22 13:01	15262-20-1	B0
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.28 ± 0.633 (1.04)	pCi/L	07/19/22 12:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.112U ± 0.346 (0.671) C:NA T:90%	pCi/L	07/15/22 16:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.97 ± 0.695 (0.975) C:53% T:90%	pCi/L	07/08/22 13:01	15262-20-1	B0
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.08 ± 0.776 (0.975)	pCi/L	07/19/22 12:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

QC Batch:	513178	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92608485001, 92608485002, 92608485003, 92608485004, 92608485005, 92608485006

METHOD BLANK: 2487394 Matrix: Water

Associated Lab Samples: 92608485001, 92608485002, 92608485003, 92608485004, 92608485005, 92608485006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	1.66 ± 0.530 (0.650) C:65% T:91%	pCi/L	07/08/22 12:40	B0

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

QC Batch: 513176

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92608485001, 92608485002, 92608485003, 92608485004, 92608485005, 92608485006

METHOD BLANK: 2487389

Matrix: Water

Associated Lab Samples: 92608485001, 92608485002, 92608485003, 92608485004, 92608485005, 92608485006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0531 ± 0.242 (0.493) C:NA T:91%	pCi/L	07/15/22 16:17	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B0 Analyte was detected in an associated blank at a concentration greater than the MDL.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH BACKGROUND RAD

Pace Project No.: 92608485

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608485001	DGWC-121	EPA 903.1	513176		
92608485002	B-122D	EPA 903.1	513176		
92608485003	DUP-1	EPA 903.1	513176		
92608485004	FB-1	EPA 903.1	513176		
92608485005	EB-1	EPA 903.1	513176		
92608485006	B-123D	EPA 903.1	513176		
92608485001	DGWC-121	EPA 904.0	513178		
92608485002	B-122D	EPA 904.0	513178		
92608485003	DUP-1	EPA 904.0	513178		
92608485004	FB-1	EPA 904.0	513178		
92608485005	EB-1	EPA 904.0	513178		
92608485006	B-123D	EPA 904.0	513178		
92608485001	DGWC-121	Total Radium Calculation	519695		
92608485002	B-122D	Total Radium Calculation	519695		
92608485003	DUP-1	Total Radium Calculation	519695		
92608485004	FB-1	Total Radium Calculation	519695		
92608485005	EB-1	Total Radium Calculation	519695		
92608485006	B-123D	Total Radium Calculation	519695		

REPORT OF LABORATORY ANALYSIS

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DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: SA Power

Project #: WO#: 92608485



Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

Custody Seal Present? Yes NO Seals Intact? Yes No

Date/Initials Person Examining Contents: 6/8/22 RBT

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 083 Type of Ice: Wet Blue None

Cooler Temp: 3.2 Correction Factor: Add/Subtract (°C) +0.2

Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.4

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? Yes No

				Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

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

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

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

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92608485

PM: NMG

Due Date: 06/29/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1		2	1																											
2		2	1																											
3		2	1																											
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pH Adjustment Log for Preserved Samples

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

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

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

GA Power

Project #:

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *JRE 10/10/21*

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 1.1 Correction Factor: Add/Subtract (°C) +1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.2

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Includes Date/Time/ID/Analysis Matrix: <i>WTI</i>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

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

Project #

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

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

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Naz2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
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BPIN

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 6/30/2022
Batch ID: 67363
Matrix: DW

Method Blank Assessment	
MB Sample ID	2487389
MB Concentration:	-0.053
M/B Counting Uncertainty:	0.180
MB MDC:	0.493
MB Numerical Performance Indicator:	-0.58
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD67363	LCSD67363
Count Date:	7/15/2022	7/15/2022
Spike I.D.:	21-031	21-031
Spike Concentration (pCi/mL):	39.889	39.889
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.816	0.804
Target Conc. (pCi/L, g, F):	4.887	4.964
Uncertainty (Calculated):	0.230	0.233
Result (pCi/L, g, F):	4.003	4.724
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.827	0.960
Numerical Performance Indicator:	-2.02	-0.48
Percent Recovery:	81.91%	95.17%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment	
Sample I.D.:	LCSD67363
Duplicate Sample I.D.:	LCSD67363
Sample Result (pCi/L, g, F):	4.003
Duplicate Result (pCi/L, g, F):	0.827
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	4.724
Duplicate Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.960
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.115
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	14.98%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	32%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator:		
MS Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample MS I.D.:
Sample MS I.D.:	Sample MSD I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

Amey
GPH
7/15/22

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-228
Analyst: VAL
Date: 7/1/2022
Worklist: 67364
Matrix: WI

Method Blank Assessment	
MB Sample ID	2487394
MB concentration:	1.658
MB 2 Sigma CSU:	0.530
MB MDC:	0.650
MB Numerical Performance Indicator:	6.13
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Fail*

Laboratory Control Sample Assessment	LCSID (Y or N)?	
	LCS67364	LCS67364
Count Date:	7/8/2022	7/8/2022
Spike I.D.:	22-016	22-016
Decay Corrected Spike Concentration (pCi/mL):	35.112	35.112
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.804	0.804
Target Conc. (pCi/L, g, F):	4.302	4.369
Uncertainty (Calculated):	0.211	0.214
Result (pCi/L, g, F):	4.491	4.857
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.981	1.069
Numerical Performance Indicator:	0.37	0.88
Percent Recovery:	104.40%	111.17%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	4.491
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.981
Sample Duplicate Result (pCi/L, g, F):	4.857
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.069
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.495
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	6.29%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MS Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result:</p> <p>Sample Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator:</p> <p>MSD Numerical Performance Indicator:</p> <p>MS Percent Recovery:</p> <p>MSD Percent Recovery:</p> <p>MS Status vs Numerical Indicator:</p> <p>MSD Status vs Numerical Indicator:</p> <p>MS Status vs Recovery:</p> <p>MSD Status vs Recovery:</p> <p>MS/MSD Upper % Recovery Limits:</p> <p>MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Duplicate Numerical Performance Indicator:</p> <p>(Based on the Percent Recoveries) MS/MSD Duplicate RPD:</p> <p>MS/MSD Duplicate Status vs Numerical Indicator:</p> <p>MS/MSD Duplicate Status vs RPD:</p> <p>% RPD Limit:</p>

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments: *if the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

Client's contacted

7/7/15/22

Collin

APPENDIX B

Data Validation Summary
September/October 2021

Quality Control Review of Analytical Data- Ash Pond AP-1 Submitted by Pace Analytical Services, LLC September & October 2021

This narrative presents results of the quality control (QC) data review performed on analytical data submitted by Pace Analytical Services, LLC. for groundwater samples collected at Plant McDonough CCR Ash Pond AP-1 between September 8, 2021 and October 27, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1. In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma- Mass Spectrometry (ICP-MS) (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Inductively Coupled Plasma (ICP) (6010D), Determination of Inorganic Anions By Ion Chromatography (USEPA Method 300.0), Total Dissolved Solids (TDS) (Standard Methods 2540C), Radium-226 (USEPA Method 9315) and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program (CLP) Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0), US EPA Region IV Data Validation Standard Operating Procedures for CLP Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2.0), the National Functional Guidelines for Inorganic Superfund Methods Data Review (November 2020), and US Department of Energy, Evaluation of Radiochemical Data Usability (April 1997). The review included an assessment of the results for completeness, precision (laboratory duplicates, matrix spike/matrix spike duplicates), accuracy (laboratory control samples and matrix spike samples), and blank contamination (including field, equipment and laboratory blanks). Additionally, sample procedures, holding times and chains-of-custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytic methodology, method-specific criteria or professional judgment was used.

DATA QUALITY OBJECTIVES

- Laboratory Precision:** Laboratory goals for precision were met, with the exception of TDS, as described in the qualification section below.
- Field Precision:** Field goals for precision were met.
- Accuracy:** Laboratory goals for accuracy were met, with the exception of fluoride and sulfate.
- Detection Limits and Blanks:** Project goals for detection limits were met. Certain samples were diluted due to elevated concentrations of target analytes. Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization. Detections were found in certain blank results, as described in the qualification sections below.
- Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: All holding time requirements were met in accordance with specific analytical methods.

QUALIFICATIONS

In general, chemical results for the samples collected at the Site were qualified on the basis of precision or accuracy, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the data validation process.

- U** The analyte was not detected above the method detection limit.
- J** The analyte was reported above the method detection limit and below the reporting limit. The concentration reported is an estimated value.

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. Although these qualifications were applied to some data from samples collected at the site and reported in sample delivery groups (SDGs) 92560136, 92560137, 92560138, 92561607, 92561303, 92569178, 92560139, 92561190, 92561195, 92561303, 92561311, 92561607, 92561637, and 92569178, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- The TDS result in sample DGWC-69 from SDG 92561303 was qualified as estimated when the associated lab duplicate exceeded the relative percent difference criteria.
- The fluoride result in sample DGWC-37 from SDG 92561303 was qualified as estimated bias high (J+) when the associated MS/MSD recovery exceeded laboratory criteria.
- The sulfate result in sample DGWC-37 from SDG 92561303 was qualified as estimated bias low (J-) when the associated MS/MSD recovered below laboratory criteria.
- The arsenic result in sample DGWC-68A from SDG 92569178 was qualified as non-detect (U) when the analyte was detected at a similar level in an associated blank sample. As shown in Table 2, if the original sample results were below the reporting limit (RL), the results were qualified as non-detect (U) and the results were raised to the RL. If results were above the RL, the results were qualified U.
- Certain radium-228, and total radium results in SDGs 92561607 and 92561311 were qualified as non-detect (U) when radium-228 was detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the (U) qualification process.
- Certain total radium results in SDGs 92561608 and 92561311 were qualified as estimated biased high (J+) for associated blank contaminations.

Golder reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-1 from September 8, 2021 and October 27, 2021 in accordance with the analytical methods, the laboratory specific QC criteria, and the guidelines. As described above, 100% of the results were acceptable for project use.

REFERENCE

Paar, J.G. & Porterfield, D.R. *Evaluation of Radiochemical Data Usability*. United States Department of Energy, Office of Environmental Restoration and Waste Management, Oak Ridge National Laboratory, April 1997.

USEPA, November 2020, National, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Revision 0.0.

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data By Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy*, Revision 2.0.

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data By Cold Vapor Atomic Absorption*, Revision 2.0.

TABLE 1
Sample Summary Table
SCS Plant McDonough

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses							
						Field pH	Total Metals (SW 6020B)	Calcium (SW 6010D)	Anions (EPA 300.0)	Total Mercury (SW 7470A)	TDS (SM 2540C-2011)	Radium-226 (EPA 9315)	Radium-226 (EPA 9320)
92561637	B-105D	9/8/2021	92561637001	GW	-	X	X	X	X	X	X	-	-
92561637	B-112D	9/9/2021	92561637002	GW	-	X	X	X	X	X	X	-	-
92561637	B-113D	9/9/2021	92561637003	GW	-	X	X	X	X	X	X	-	-
92561637	EB-6	9/8/2021	92561637004	GW	EB (B-113D)	X	X	X	X	X	X	-	-
92561607	B-105D	9/8/2021	92561607001	GW	-	-	-	-	-	-	-	X	X
92561607	B-112D	9/9/2021	92561607002	GW	-	-	-	-	-	-	-	X	X
92561607	B-113D	9/9/2021	92561607003	GW	-	-	-	-	-	-	-	X	X
92561607	EB-6	9/8/2021	92561607004	GW	EB (B-113D)	-	-	-	-	-	-	X	X
92561303	DGWC-40	9/14/2021	92561303001	GW	-	X	X	X	X	X	X	-	-
92561303	FB-4	9/14/2021	92561303002	WQ	FB (DGWC-40)	X	X	X	X	X	X	-	-
92561303	DGWC-38	9/15/2021	92561303003	GW	-	X	X	X	X	X	X	-	-
92561303	DGWC-37	9/16/2021	92561303004	GW	-	X	X	X	X	X	X	-	-
92561303	DGWC-39	9/17/2021	92561303005	GW	-	X	X	X	X	X	X	-	-
92561303	DGWC-67	9/16/2021	92561303006	GW	-	X	X	X	X	X	X	-	-
92561303	DGWC-68A	9/16/2021	92561303007	GW	-	X	X	X	X	X	X	-	-
92561303	DGWC-69	9/16/2021	92561303008	GW	-	X	X	X	X	X	X	-	-
92561303	DUP-6	9/16/2021	92561303009	GW	FD (DGWC-69)	X	X	X	X	X	X	-	-
92569178	DGWC-68A	10/27/2021	92569178001	GW	-	X	X	-	-	-	-	-	-
92569178	DUP-1	10/27/2021	92569178002	GW	FD (DGWC-68A)	X	X	-	-	-	-	-	-
92569178	FB-1	10/27/2021	92569178003	WQ	FB (DGWC-68A)	X	X	-	-	-	-	-	-
92569178	EB-1	10/27/2021	92569178004	WQ	EB (DGWC-68A)	X	X	-	-	-	-	-	-
92561311	DGWC-40	9/14/2021	92561311001	GW	-	-	-	-	-	-	-	X	X
92561311	FB-4	9/14/2021	92561311002	GW	FB (DGWC-40)	-	-	-	-	-	-	X	X
92561311	DGWC-38	9/15/2021	92561311003	GW	-	-	-	-	-	-	-	X	X
92561311	DGWC-37	9/16/2021	92561311004	GW	-	-	-	-	-	-	-	X	X
92561311	DGWC-39	9/17/2021	92561311005	GW	-	-	-	-	-	-	-	X	X
92561311	DGWC-67	9/16/2021	92561311006	GW	-	-	-	-	-	-	-	X	X
92561311	DGWC-68A	9/16/2021	92561311007	GW	-	-	-	-	-	-	-	X	X
92561311	DGWC-69	9/16/2021	92561311008	GW	-	-	-	-	-	-	-	X	X
92561311	DUP-6	9/16/2021	92561311009	GW	FD (DGWC-69)	X	X	-	-	-	-	-	-
92561195	B-100	9/13/2021	92561195001	GW	-	X	X	X	X	X	X	-	-
92561195	B-62	9/9/2021	92560768001	GW	-	X	X	X	X	X	X	-	-
92561190	B-100	9/13/2021	92561190001	GW	-	-	-	-	-	-	-	X	X
92561190	B-62	9/9/2021	92560765001	GW	-	-	-	-	-	-	-	X	X
92560138	DGWA-71	9/8/2021	92560138001	GW	-	X	X	X	X	X	X	-	-
92560138	DGWA-53	9/9/2021	92560138002	GW	-	X	X	X	X	X	X	-	-
92560138	DGWA-70A	9/9/2021	92560138003	GW	-	X	X	X	X	X	X	-	-
92560136	DGWA-71	9/8/2021	92560136001	GW	-	-	-	-	-	-	-	X	X
92560136	DGWA-53	9/9/2021	92560136002	GW	-	-	-	-	-	-	-	X	X
92560136	DGWA-70A	9/9/2021	92560136003	GW	-	-	-	-	-	-	-	X	X
92560139	B-117D	9/8/2021	92560139001	GW	-	X	X	X	X	X	X	-	-
92560139	B-118	9/8/2021	92560139002	GW	-	X	X	X	X	X	X	-	-
92560139	B-119D	9/8/2021	92560139003	GW	-	X	X	X	X	X	X	-	-
92560139	B-116D	9/9/2021	92560139004	GW	-	X	X	X	X	X	X	-	-
92560137	B-117D	9/8/2021	92560137001	GW	-	-	-	-	-	-	-	X	X
92560137	B-118	9/8/2021	92560137002	GW	-	-	-	-	-	-	-	X	X
92560137	B-119D	9/8/2021	92560137003	GW	-	-	-	-	-	-	-	X	X
92560137	B-116D	9/9/2021	92560137004	GW	-	-	-	-	-	-	-	X	X

Abbreviations:

- SDG- Sample Delivery Group
- QC - Quality Control
- SM - Standard Method
- SW - Solid Waste
- GW - Groundwater
- WQ - Water quality control
- TDS - Total dissolved solids

TABLE 2
Qualifier Summary Table
SCS Plant McDonough

SDG	Sample Name	Constituent	New Result	New RL or MDC	Qualifier	Reason
92561607	B-105D	Radium-228	-	1.62	U	Method blank detection
92561608	B-105D	Total Radium	-	-	J+	Method blank detection
92561607	B-113D	Radium-228	-	0.803	U	Equipment blank detection
92561303	DGWC-37	Fluoride	-	-	J+	MS/MSD outside acceptance criteria
92561303	DGWC-37	Sulfate	-	-	J-	MS/MSD outside acceptance criteria
92561303	DGWC-69	TDS	-	-	J	Lab duplicate outside acceptance criteria
92569178	DGWC-68A	Arsenic	0.005	-	U	Method, equipment, and field blank contamination
92561311	DGWC-40	Radium-228	-	1.61	U	Method and field blank detection
92561311	DGWC-40	Total Radium	-	1.8	U	Method and field blank detection
92561311	DGWC-38	Radium-228	-	1.83	U	Field blank detection
92561311	DGWC-38	Total Radium	-	-	J+	Field blank detection

Abbreviations:

RL : Reporting limit

MDC : Minimum detectable concentration

SDG : Sample delivery group

Qualifier

U: Non-detect

J+: estimated, bias high

J-: estimated, bias low

APPENDIX B

Data Validation Summary
January 2022

**Quality Control Review of Analytical Data- Ash Pond AP-1
Submitted by Pace Analytical Services, LLC
January & June 2022**

This narrative presents results of the quality control (QC) data review performed on analytical data submitted by Pace Analytical Services, LLC. for groundwater samples collected at Plant McDonough CCR Ash Pond AP-1 between January 18, 2022 and June 6, 2022. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1. In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Groundwater samples were also analyzed for alkalinity. Test methods included Inductively Coupled Plasma- Mass Spectrometry (ICP-MS) (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Inductively Coupled Plasma (ICP) (6010D), Determination of Inorganic Anions By Ion Chromatography (USEPA Method 300.0), Total Dissolved Solids (TDS) (Standard Methods 2540C), Radium-226 (USEPA Method 9315) and Radium-228 (USEPA Method 9320). Additional surface water samples were collected and analyzed for USEPA Method 6020B, 6010D, 300.0, TDS, Standard Methods 4500-CO2 Carbon Dioxide (Bicarbonate Alkalinity) and Alkalinity by Titration through Standard Method 2320B (SM2320B).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program (CLP) Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0), US EPA Region IV Data Validation Standard Operating Procedures for CLP Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2.0), the National Functional Guidelines for Inorganic Superfund Methods Data Review (November 2020), and US Department of Energy, Evaluation of Radiochemical Data Usability (April 1997). The review included an assessment of the results for completeness, precision (laboratory duplicates, matrix spike/matrix spike duplicates), accuracy (laboratory control samples and matrix spike samples), and blank contamination (including field, equipment and laboratory blanks). Additionally, sample procedures, holding times and chains-of-custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytic methodology, method-specific criteria or professional judgment was used.

DATA QUALITY OBJECTIVES

- Laboratory Precision:** Laboratory goals for precision were met, with the exception of radium-226 and total radium, as described in the qualification section below.
- Field Precision:** Field goals for precision were met.
- Accuracy:** Laboratory goals for accuracy were met, with the exception of chloride, potassium and sulfate.
- Detection Limits and Blanks:** Project goals for detection limits were met. Certain samples were diluted due to elevated concentrations of target analytes. Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was

evaluated by the data user in the context of site-wide characterization. Detections were found in certain blank results, as described in the qualification sections below.

Completeness: There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: All holding time requirements were met in accordance with specific analytical methods.

QUALIFICATIONS

In general, chemical results for the samples collected at the Site were qualified on the basis of precision or accuracy, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory.

- U** The analyte was not detected above the method detection limit.
- J** The analyte was reported above the method detection limit and below the reporting limit. The concentration reported is an estimated value.

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. Although these qualifications were applied to some data from samples collected at the site and reported in sample delivery groups (SDGs) 92583500, 92583567, 92583570, 92583576, 92583585, 92583590, 92583600, 92583603, 92583952, 92583957, 92584522, 92584543, and 92608499, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- Radium-226 and total radium results in sample B-112D from SDG 92583570 were qualified as estimated when the associated lab duplicate exceeded the relative percent difference criteria.
- Certain chloride and sulfate results in samples from SDGs 92583603, 92583585 and 92583957 were qualified as estimated bias high (J+) when the associated MS/MSD recovery exceeded laboratory criteria.
- Certain sulfate and potassium results in samples from SDGs 92583957 and 92584522 were qualified as estimated bias low (J-) when the associated MS/MSD recovered below laboratory criteria.

Golder reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-1 from January 18, 2022 and June 6, 2022 in accordance with the analytical methods, the laboratory specific QC criteria, and the guidelines. As described above, 100% of the results were acceptable for project use.

REFERENCE

Paar, J.G. & Porterfield, D.R. *Evaluation of Radiochemical Data Usability*. United States Department of Energy, Office of Environmental Restoration and Waste Management, Oak Ridge National Laboratory, April 1997.

USEPA, November 2020, National, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Revision 0.0.

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data By Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy*, Revision 2.0.

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data By Cold Vapor Atomic Absorption*, Revision 2.0.

TABLE 1
Sample Summary Table
SCS Plant McDonough

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses									
						Field pH	Total Metals (SW 6020B)	Metals (SW 6010D)	Anions (EPA 300.0)	Total Mercury (SW 7470A)	TDS (SM 2540C-2011)	Alkalinity (SM 2320B)	Bicarbonate Alkalinity (SM4500-CO2-D)	Radium-226 (EPA 9315)	Radium-228 (EPA 9320)
92583603	DGWA-70A	1/18/2022	92583603001	WG	-	X	X	X	X	X	X	X	-	-	-
92583603	DGWA-71	1/18/2022	92583603002	WG	-	X	X	X	X	X	X	X	-	-	-
92583603	DGWA-53	1/28/2022	92583603003	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-40	1/19/2022	92583600001	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-67	1/19/2022	92583600002	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DUP-1	1/19/2022	92583600003	WG	FD (DGWC-67)	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-39	1/20/2022	92583600004	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-37	1/21/2022	92583600005	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-38	1/21/2022	92583600006	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DUP-3	1/21/2022	92583600007	WG	FD (DGWC-38)	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-68A	1/25/2022	92583600008	WG	-	X	X	X	X	X	X	X	-	-	-
92583600	DGWC-69	1/25/2022	92583600009	WG	-	X	X	X	X	X	X	X	-	-	-
92583585	B-116D	1/19/2022	92583585001	WG	-	X	X	X	X	X	X	X	-	-	-
92583585	B-117D	1/19/2022	92583585002	WG	-	X	X	X	X	X	X	X	-	-	-
92583585	B-118	1/19/2022	92583585003	WG	-	X	X	X	X	X	X	X	-	-	-
92583585	B-199D	1/19/2022	92583585004	WG	-	X	X	X	X	X	X	X	-	-	-
92583585	EB-1	1/19/2022	92583585005	WQ	EB (B-117D)	-	X	X	X	X	X	X	-	-	-
92583590	B-105D	1/19/2022	92583590001	WG	-	X	X	X	X	X	X	X	-	-	-
92583590	B-112D	1/19/2022	92583590002	WG	-	X	X	X	X	X	X	X	-	-	-
92583590	B-113D	1/26/2022	92583590003	WG	-	X	X	X	X	X	X	X	-	-	-
92583957	B-62	1/20/2022	92583957001	WG	-	X	X	X	X	X	X	X	-	-	-
92583957	DUP-2	1/20/2022	92583957002	WG	FD (B-62)	X	X	X	X	X	X	X	-	-	-
92583957	B-100	1/21/2022	92583957003	WG	-	X	X	X	X	X	X	X	-	-	-
92583500	DGWA-70A	1/18/2022	92583500001	WG	-	-	-	-	-	-	-	-	-	X	X
92583500	DGWA-71	1/18/2022	92583500002	WG	-	-	-	-	-	-	-	-	-	X	X
92583500	DGWA-53	1/28/2022	92583500003	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-40	1/19/2022	92583567001	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-67	1/19/2022	92583567002	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DUP-1	1/19/2022	92583567003	WG	FD (DGWC-67)	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-39	1/20/2022	92583567004	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-37	1/21/2022	92583567005	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-38	1/21/2022	92583567006	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DUP-3	1/21/2022	92583567007	WG	FD (DGWC-38)	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-68A	1/25/2022	92583567008	WG	-	-	-	-	-	-	-	-	-	X	X
92583567	DGWC-69	1/25/2022	92583567009	WG	-	-	-	-	-	-	-	-	-	X	X
92583576	B-116D	1/19/2022	92583576001	WG	-	-	-	-	-	-	-	-	-	X	X
92583576	B-117D	1/19/2022	92583576002	WG	-	-	-	-	-	-	-	-	-	X	X
92583576	B-118	1/19/2022	92583576003	WG	-	-	-	-	-	-	-	-	-	X	X
92583576	B-119D	1/19/2022	92583576004	WG	-	-	-	-	-	-	-	-	-	X	X
92583576	EB-1	1/19/2022	92583576005	WQ	EB (B-117D)	-	-	-	-	-	-	-	-	X	X
92583570	B-105D	1/19/2022	92583567001	WG	-	-	-	-	-	-	-	-	-	X	X
92583570	B-112D	1/19/2022	92583567002	WG	-	-	-	-	-	-	-	-	-	X	X
92583570	B-113D	1/26/2022	92583567003	WG	-	-	-	-	-	-	-	-	-	X	X
92583952	B-62	1/20/2022	92583952001	WG	-	-	-	-	-	-	-	-	-	X	X
92583952	DUP-2	1/20/2022	92583952002	WG	FD (B-62)	-	-	-	-	-	-	-	-	X	X
92583952	B-100	1/21/2022	92583952003	WG	-	-	-	-	-	-	-	-	-	X	X
92608499	DGWC-121	6/6/2022	92608499001	WG	-	X	X	X	X	X	X	X	-	-	-
92608499	DUP-1	6/6/2022	92608499003	WG	FD (DGWC-121)	X	X	X	X	X	X	X	-	-	-
92584543	CR+0.4 (Mid)	1/25/2022	92584543001	W	-	-	X	X	X	-	X	X	X	-	-
92584543	CR+0.2 (Mid)	1/25/2022	92584543002	W	-	-	X	X	X	-	X	X	X	-	-
92584543	CR-0.1 (Mid)	1/25/2022	92584543003	W	-	-	X	X	X	-	X	X	X	-	-
92584522	UT01_US	1/25/2022	92584522001	W	-	-	X	X	X	-	X	X	X	-	-
92584522	UT01_DS	1/25/2022	92584522004	W	-	-	X	X	X	-	X	X	X	-	-
92584522	UT02	1/25/2022	92584522002	W	-	-	X	X	X	-	X	X	X	-	-
92584522	UT03	1/25/2022	92584522003	W	-	-	X	X	X	-	X	X	X	-	-

Abbreviations:
 SDG- Sample Delivery Group FD - Field Duplicate
 QC - Quality Control TDS - Total dissolved solids
 SM - Standard Method
 SW - Solid Waste
 WG - Groundwater
 WQ - Water quality control
 W- Water

TABLE 2
Qualifier Summary Table
SCS Plant McDonough

SDG	Sample Name	Constituent	New Result	New RL or MDC	Qualifier	Reason
92583603	DGWA-70A	Chloride	-	-	J+	MS/MSD recovered above QC criteria
92583585	B-116D	Chloride	-	-	J+	MS/MSD recovered above QC criteria
92583585	B-116D	Sulfate	-	-	J+	MS/MSD recovered above QC criteria
92583957	B-100	Chloride	-	-	J+	MS/MSD recovered above QC criteria
92583957	DUP-2	Sulfate	-	-	J-	MS/MSD recovered below QC criteria
92583957	B-62	Sulfate	-	-	J-	MS/MSD recovered below QC criteria
92583570	B-112D	Radium-226	-	-	J	Laboratory duplicate exceeded QC limits
92583570	B-112D	Total Radium	-	-	UJ	Laboratory duplicate exceeded QC limits
92584522	UT01_US	Potassium	-	-	J-	MS/MSD recovered below QC criteria

Abbreviations:

RL : Reporting limit

MDC : Minimum detectable concentration

SDG : Sample delivery group

Qualifier

UJ: non-detect, estimated

J: estimated

J+: estimated, bias high

J-: estimated, bias low

APPENDIX B

Laboratory Accreditation



COMMONWEALTH of VIRGINIA
Department of General Services

Division of Consolidated Laboratory Services

*600 North 5th Street
Richmond, Virginia 23219-3691
(804) 648-4480
FAX (804) 692-0416*

06/11/2021

Craig Tronzo
Pace Analytical Services, LLC - Asheville NC
2225 Riverside Drive
Asheville NC 28804

VELAP ID: 460222

Dear Craig Tronzo:

The Division of Consolidated Laboratory Services (DCLS) has accredited Pace Analytical Services, LLC - Asheville NC pursuant to the provisions of 1VAC30-46 and The NELAC Institute (TNI) 2009 Standard. Certificate number 11380 and the corresponding Scope of Accreditation are enclosed. This certificate expires 06/14/2022. The certificate must be conspicuously displayed in the laboratory along with the associated Scope of Accreditation.

Please note that your laboratory is required to notify the Virginia Environmental Laboratory Accreditation Program (VELAP) in writing of any changes in key accreditation criteria within 30 calendar days of the change per 1VAC30-46-90 A. This requirement includes changes in ownership, location, key personnel, and major instrumentation.

To maintain accreditation, the laboratory must continue to comply with 1VAC30-46. This includes ongoing satisfactory proficiency testing. The method checklists used by VELAP in the on-site assessment process are available upon request as a supplement to internal audits.

Please direct all correspondences and questions regarding accreditation to your laboratory's lead assessor, Ila Meyer-Fritzsche, at ila.meyer-fritzsche@dgs.virginia.gov or (804) 648-4480 x306.

Sincerely yours,

Cathy Westerman
Manager, Laboratory Certification Program

Enclosures
cc: Felicia Grogan



**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES**



Certifies that

**VA Laboratory ID#: 460222
Pace Analytical Services, LLC - Asheville NC
2225 Riverside Drive
Asheville, NC 28804**

Owner: PAS PARENT, LLC
Operator: PACE ANALYTICAL SERVICES, LLC
Responsible Official: FELICIA GROGAN

Having met the requirements of 1 VAC 30-46 and
having been found compliant with the 2009 TNI Standard approved by The NELAC Institute
is hereby approved as an

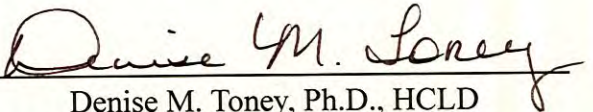
Accredited Environmental Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **June 15, 2021**

Expiration Date: **June 14, 2022**

Certificate # 11380



Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP)
Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation



Commonwealth of Virginia
 Department of General Services
 Division of Consolidated Laboratory Services



Scope of Accreditation

VELAP Certificate No.: 11380

Pace Analytical Services, LLC - Asheville NC
 2225 Riverside Drive
 Asheville, NC 28804

Virginia Laboratory ID: 460222
 Effective Date: June 15, 2021
 Expiration Date: June 14, 2022

DRINKING WATER

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4	COPPER	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1 A + C)	NITRATE AS N	VA
SM 2320 B-2011	ALKALINITY AS CaCO3	VA
SM 9223 COLISURE®	TOTAL COLIFORMS	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4	LEAD	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRITE AS N	VA
SM 9223 COLISURE®	ESCHERICHIA COLI	VA

NON-POTABLE WATER

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1010 B	FLASHPOINT	VA
EPA 160.4	RESIDUE-VOLATILE	VA
EPA 180.1 REV 2	TURBIDITY	VA
EPA 200.7 REV 4.4	ANTIMONY	VA
EPA 200.7 REV 4.4	BARIUM	VA
EPA 200.7 REV 4.4	BORON	VA
EPA 200.7 REV 4.4	CALCIUM	VA
EPA 200.7 REV 4.4	COBALT	VA
EPA 200.7 REV 4.4	IRON	VA
EPA 200.7 REV 4.4	MAGNESIUM	VA
EPA 200.7 REV 4.4	MOLYBDENUM	VA
EPA 200.7 REV 4.4	POTASSIUM	VA
EPA 200.7 REV 4.4	SILICA AS SiO2	VA
EPA 200.7 REV 4.4	SODIUM	VA
EPA 200.7 REV 4.4	TIN	VA
EPA 200.7 REV 4.4	VANADIUM	VA
EPA 200.8 REV 5.4	ALUMINUM	VA
EPA 200.8 REV 5.4	ARSENIC	VA
EPA 200.8 REV 5.4	BERYLLIUM	VA
EPA 200.8 REV 5.4	CHROMIUM	VA
EPA 200.8 REV 5.4	COPPER	VA
EPA 200.8 REV 5.4	MANGANESE	VA
EPA 200.8 REV 5.4	NICKEL	VA
EPA 200.8 REV 5.4	SILVER	VA
EPA 200.8 REV 5.4	VANADIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	BORON	VA
EPA 200.8 REV 5.4 - EXTENDED	IRON	VA
EPA 200.8 REV 5.4 - EXTENDED	POTASSIUM	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 120.1	CONDUCTIVITY	VA
EPA 1631 E	MERCURY	VA
EPA 200.7 REV 4.4	ALUMINUM	VA
EPA 200.7 REV 4.4	ARSENIC	VA
EPA 200.7 REV 4.4	BERYLLIUM	VA
EPA 200.7 REV 4.4	CADMIUM	VA
EPA 200.7 REV 4.4	CHROMIUM	VA
EPA 200.7 REV 4.4	COPPER	VA
EPA 200.7 REV 4.4	LEAD	VA
EPA 200.7 REV 4.4	MANGANESE	VA
EPA 200.7 REV 4.4	NICKEL	VA
EPA 200.7 REV 4.4	SELENIUM	VA
EPA 200.7 REV 4.4	SILVER	VA
EPA 200.7 REV 4.4	THALLIUM	VA
EPA 200.7 REV 4.4	TITANIUM	VA
EPA 200.7 REV 4.4	ZINC	VA
EPA 200.8 REV 5.4	ANTIMONY	VA
EPA 200.8 REV 5.4	BARIUM	VA
EPA 200.8 REV 5.4	CADMIUM	VA
EPA 200.8 REV 5.4	COBALT	VA
EPA 200.8 REV 5.4	LEAD	VA
EPA 200.8 REV 5.4	MOLYBDENUM	VA
EPA 200.8 REV 5.4	SELENIUM	VA
EPA 200.8 REV 5.4	THALLIUM	VA
EPA 200.8 REV 5.4	ZINC	VA
EPA 200.8 REV 5.4 - EXTENDED	CALCIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	MAGNESIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	SODIUM	VA

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.



Commonwealth of Virginia
 Department of General Services
 Division of Consolidated Laboratory Services



Scope of Accreditation

VELAP Certificate No.: 11380

Pace Analytical Services, LLC - Asheville NC
 2225 Riverside Drive
 Asheville, NC 28804

Virginia Laboratory ID: 460222
 Effective Date: June 15, 2021
 Expiration Date: June 14, 2022

NON-POTABLE WATER

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>	<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4 - EXTENDED	TIN	VA	EPA 200.8 REV 5.4 - EXTENDED	TITANIUM	VA
EPA 218.6 REV 3.3	CHROMIUM VI	VA	EPA 245.1 REV 3	MERCURY	VA
EPA 300.0 REV 2.1	BROMIDE	VA	EPA 300.0 REV 2.1	CHLORIDE	VA
EPA 300.0 REV 2.1	FLUORIDE	VA	EPA 300.0 REV 2.1	NITRATE AS N	VA
EPA 300.0 REV 2.1	NITRATE/NITRITE	VA	EPA 300.0 REV 2.1	NITRITE AS N	VA
EPA 300.0 REV 2.1	SULFATE	VA	EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	VA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA	EPA 350.1 REV 2	AMMONIAAS N	VA
EPA 351.2 MINUS EPA 350.1	ORGANIC NITROGEN	VA	EPA 351.2 REV 2 (AS LACHAT 10-107-06-2-D)	KJELDAHL NITROGEN - TOTAL (TKN)	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1 A + C)	NITRATE AS N	VA	EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRATE/NITRITE	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRITE AS N	VA	EPA 365.1 REV 2 (AS LACHAT 10-115-01-1-E)	PHOSPHORUS, TOTAL	VA
EPA 420.4 REV 1 (AS LACHAT 10-210-00-1-X)	TOTAL PHENOLICS	VA	EPA 6010 D	ALUMINUM	VA
EPA 6010 D	ANTIMONY	VA	EPA 6010 D	ARSENIC	VA
EPA 6010 D	BARIUM	VA	EPA 6010 D	BERYLLIUM	VA
EPA 6010 D	BORON	VA	EPA 6010 D	CADMIUM	VA
EPA 6010 D	CALCIUM	VA	EPA 6010 D	CHROMIUM	VA
EPA 6010 D	COBALT	VA	EPA 6010 D	COPPER	VA
EPA 6010 D	IRON	VA	EPA 6010 D	LEAD	VA
EPA 6010 D	LITHIUM	VA	EPA 6010 D	MAGNESIUM	VA
EPA 6010 D	MANGANESE	VA	EPA 6010 D	MOLYBDENUM	VA
EPA 6010 D	NICKEL	VA	EPA 6010 D	POTASSIUM	VA
EPA 6010 D	SELENIUM	VA	EPA 6010 D	SILICA AS SIO2	VA
EPA 6010 D	SILVER	VA	EPA 6010 D	SODIUM	VA
EPA 6010 D	STRONTIUM	VA	EPA 6010 D	THALLIUM	VA
EPA 6010 D	TIN	VA	EPA 6010 D	TITANIUM	VA
EPA 6010 D	VANADIUM	VA	EPA 6010 D	ZINC	VA
EPA 6010 D - EXTENDED	SILICON	VA	EPA 6020 B	ALUMINUM	VA
EPA 6020 B	ANTIMONY	VA	EPA 6020 B	ARSENIC	VA
EPA 6020 B	BARIUM	VA	EPA 6020 B	BERYLLIUM	VA
EPA 6020 B	CADMIUM	VA	EPA 6020 B	CALCIUM	VA
EPA 6020 B	CHROMIUM	VA	EPA 6020 B	COBALT	VA
EPA 6020 B	COPPER	VA	EPA 6020 B	IRON	VA
EPA 6020 B	LEAD	VA	EPA 6020 B	MAGNESIUM	VA

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NON-POTABLE WATER

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6020 B	MANGANESE	VA
EPA 6020 B	NICKEL	VA
EPA 6020 B	SELENIUM	VA
EPA 6020 B	SODIUM	VA
EPA 6020 B	TIN	VA
EPA 6020 B	ZINC	VA
EPA 6020 B - EXTENDED	BORON	VA
EPA 6020 B - EXTENDED	STRONTIUM	VA
EPA 6020 B - EXTENDED	URANIUM	VA
EPA 7470 A	MERCURY	VA
EPA 9012 B	AMENABLE CYANIDE	VA
EPA 9040 C	PH	VA
EPA 9056 A	CHLORIDE	VA
EPA 9056 A	NITRATE AS N	VA
EPA 9056 A	SULFATE	VA
EPA 9060 A	TOTAL ORGANIC CARBON (TOC)	VA
LACHAT QUIKCHEM 10-204-00-1-X	CYANIDE	VA
SM 2320 B-2011	ALKALINITY AS CaCO3	VA
SM 2540 B-2011	RESIDUE-TOTAL (TS)	VA
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	VA
SM 3500-CR B-2011	CHROMIUM VI	VA
SM 4500-CN ⁻ E-2011	CYANIDE	VA
SM 4500-P E-2011	ORTHOPHOSPHATE AS P	VA
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND (BOD)	VA
SM 5220 D-2011	CHEMICAL OXYGEN DEMAND (COD)	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6020 B	MOLYBDENUM	VA
EPA 6020 B	POTASSIUM	VA
EPA 6020 B	SILVER	VA
EPA 6020 B	THALLIUM	VA
EPA 6020 B	VANADIUM	VA
EPA 6020 B - EXTENDED	BISMUTH	VA
EPA 6020 B - EXTENDED	LITHIUM	VA
EPA 6020 B - EXTENDED	TITANIUM	VA
EPA 7196 A	CHROMIUM VI	VA
EPA 9010 C	PREP: CYANIDE DISTILLATION	VA
EPA 9012 B	TOTAL CYANIDE	VA
EPA 9056 A	BROMIDE	VA
EPA 9056 A	FLUORIDE	VA
EPA 9056 A	NITRITE AS N	VA
EPA 9056 A - EXTENDED	NITRATE/NITRITE	VA
EPA 9095 B	FREE LIQUID	VA
SM 2130 B-2011	TURBIDITY	VA
SM 2340 B-2011	TOTAL HARDNESS AS CaCO3	VA
SM 2540 C-2011	RESIDUE-FILTERABLE (TDS)	VA
SM 2540 F-2011	RESIDUE-SETTLABLE	VA
SM 4500-CL ⁻ E-2011	CHLORIDE	VA
SM 4500-CN ⁻ G-2011	AMENABLE CYANIDE	VA
SM 4500-S2 ⁻ D-2011	SULFIDE	VA
SM 5210 B-2011	CARBONACEOUS BOD (CBOD)	VA
SM 5310 B-2011	TOTAL ORGANIC CARBON (TOC)	VA

SOLID AND CHEMICAL MATERIALS

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1010 B	FLASHPOINT	VA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	VA
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	VA
EPA 6010 D	ANTIMONY	VA
EPA 6010 D	BARIUM	VA
EPA 6010 D	BORON	VA
EPA 6010 D	CALCIUM	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	VA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA
EPA 6010 D	ALUMINUM	VA
EPA 6010 D	ARSENIC	VA
EPA 6010 D	BERYLLIUM	VA
EPA 6010 D	CADIUM	VA
EPA 6010 D	CHROMIUM	VA

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Commonwealth of Virginia
 Department of General Services
 Division of Consolidated Laboratory Services



Scope of Accreditation

VELAP Certificate No.: 11380

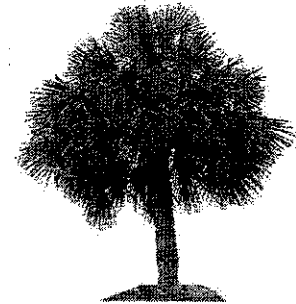
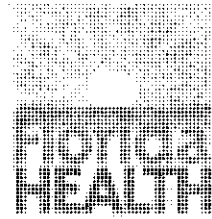
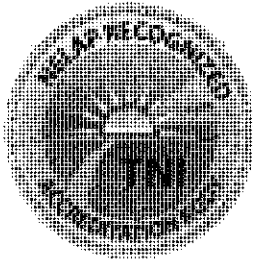
Pace Analytical Services, LLC - Asheville NC
 2225 Riverside Drive
 Asheville, NC 28804

Virginia Laboratory ID: 460222
 Effective Date: June 15, 2021
 Expiration Date: June 14, 2022

SOLID AND CHEMICAL MATERIALS

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6010 D	COBALT	VA
EPA 6010 D	IRON	VA
EPA 6010 D	MAGNESIUM	VA
EPA 6010 D	MOLYBDENUM	VA
EPA 6010 D	POTASSIUM	VA
EPA 6010 D	SILVER	VA
EPA 6010 D	STRONTIUM	VA
EPA 6010 D	TITANIUM	VA
EPA 6010 D	ZINC	VA
EPA 7471 B	MERCURY	VA
EPA 9060	TOTAL ORGANIC CARBON (TOC)	VA
EPA 9095 B	FREE LIQUID	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6010 D	COPPER	VA
EPA 6010 D	LEAD	VA
EPA 6010 D	MANGANESE	VA
EPA 6010 D	NICKEL	VA
EPA 6010 D	SELENIUM	VA
EPA 6010 D	SODIUM	VA
EPA 6010 D	THALLIUM	VA
EPA 6010 D	VANADIUM	VA
EPA 6010 D - EXTENDED	SILICON	VA
EPA 9045 D	PH	VA
EPA 9060 A	TOTAL ORGANIC CARBON (TOC)	VA



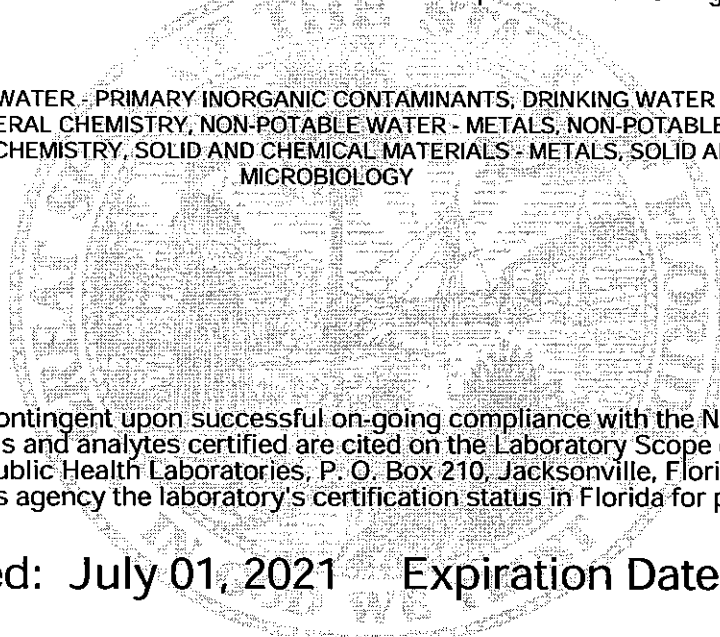
State of Florida
 Department of Health, Bureau of Public Health Laboratories
 This is to certify that

E87315

PACE ANALYTICAL SERVICES, LLC- ATLANTA GA
 110 TECHNOLOGY PARKWAY
 PEACHTREE CORNERS, GA 30092

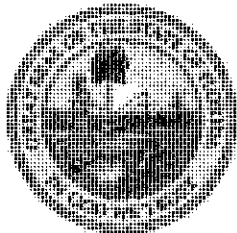
has complied with Florida Administrative Code 64E-1,
 for the examination of environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - MICROBIOLOGY



Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: July 01, 2021 Expiration Date: June 30, 2022



Patty A. Lewandowski, MBA, MT(ASCP)
 Chief Bureau of Public Health Laboratories
 DH Form 1697, 7/04
 NON-TRANSFERABLE E87315-52-07/01/2021
 Supersedes all previously issued certificates



Laboratory Scope of Accreditation

Attachment to Certificate #: E87315-52, expiration date June 30, 2022. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87315

EPA Lab Code: GA00051

(770) 734-4200

E87315
Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Color	SM 2120 B	Secondary Inorganic Contaminants	NELAP	4/10/2002
Escherichia coli	SM 9223 B	Microbiology	NELAP	4/10/2002
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Heterotrophic plate count	SIMPLATE	Microbiology	NELAP	5/29/2012
Nitrate	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Orthophosphate as P	SM 4500-P E	Primary Inorganic Contaminants	NELAP	4/10/2002
pH	SM 4500-H+-B	Primary Inorganic Contaminants, Secondary Inorganic Contaminants	NELAP	4/10/2002
Residual free chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	11/4/2010
Total coliforms	SM 9223 B	Microbiology	NELAP	4/10/2002
Total coliforms	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Total residual chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	11/4/2010
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	4/10/2002



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State Laboratory ID: E87315

EPA Lab Code: GA00051

(770) 734-4200

E87315
Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 200.7	Metals	NELAP	4/10/2002
Aluminum	EPA 200.8	Metals	NELAP	8/30/2004
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	8/30/2004
Antimony	EPA 200.7	Metals	NELAP	4/10/2002
Antimony	EPA 200.8	Metals	NELAP	8/30/2004
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	8/30/2004
Arsenic	EPA 200.7	Metals	NELAP	4/10/2002
Arsenic	EPA 200.8	Metals	NELAP	8/30/2004
Arsenic	EPA 6010	Metals	NELAP	4/10/2002
Arsenic	EPA 6020	Metals	NELAP	8/30/2004
Barium	EPA 200.7	Metals	NELAP	4/10/2002
Barium	EPA 200.8	Metals	NELAP	8/30/2004
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	8/30/2004
Beryllium	EPA 200.7	Metals	NELAP	4/10/2002
Beryllium	EPA 200.8	Metals	NELAP	8/30/2004
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	8/30/2004
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	4/10/2002
Boron	EPA 200.7	Metals	NELAP	4/10/2002
Boron	EPA 200.8	Metals	NELAP	11/6/2014
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	8/30/2004
Cadmium	EPA 200.7	Metals	NELAP	4/10/2002
Cadmium	EPA 200.8	Metals	NELAP	8/30/2004
Cadmium	EPA 6010	Metals	NELAP	4/10/2002
Cadmium	EPA 6020	Metals	NELAP	8/30/2004
Calcium	EPA 200.7	Metals	NELAP	4/10/2002
Calcium	EPA 200.8	Metals	NELAP	11/6/2014
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	8/30/2004
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	4/10/2002
Chromium	EPA 200.7	Metals	NELAP	4/10/2002
Chromium	EPA 200.8	Metals	NELAP	8/30/2004

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.

Issue Date: 7/1/2021

Expiration Date: 6/30/2022



Laboratory Scope of Accreditation

Attachment to Certificate #: E87315-52, expiration date June 30, 2022. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87315

EPA Lab Code: GA00051

(770) 734-4200

E87315

**Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092**

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	8/30/2004
Chromium VI	SM 3500-Cr B (20th/21st/22nd Ed.)/UV-VIS	General Chemistry	NELAP	7/28/2009
Cobalt	EPA 200.7	Metals	NELAP	4/10/2002
Cobalt	EPA 200.8	Metals	NELAP	8/30/2004
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	8/30/2004
Color	SM 2120 B	General Chemistry	NELAP	4/10/2002
Copper	EPA 200.7	Metals	NELAP	4/10/2002
Copper	EPA 200.8	Metals	NELAP	8/30/2004
Copper	EPA 6010	Metals	NELAP	4/10/2002
Copper	EPA 6020	Metals	NELAP	8/30/2004
Corrosivity (pH)	EPA 9040	General Chemistry	NELAP	7/1/2003
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Fecal coliforms	COLILERT®-18 (Fecal Coliforms)	Microbiology	NELAP	11/6/2014
Fecal coliforms	SM 9222 D	Microbiology	NELAP	2/21/2002
Hardness	SM 2340 B	General Chemistry	NELAP	7/28/2009
Hardness (calc.)	EPA 200.7	Metals	NELAP	6/6/2002
Heterotrophic plate count	SIMPLATE	Microbiology	NELAP	5/29/2012
Iron	EPA 200.7	Metals	NELAP	4/10/2002
Iron	EPA 200.8	Metals	NELAP	11/6/2014
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	8/30/2004
Iron-(II) (Ferrous Iron)	SM 3500-Fe B (20th/21st Ed.)/UV-VIS	General Chemistry	NELAP	7/28/2009
Lead	EPA 200.7	Metals	NELAP	4/10/2002
Lead	EPA 200.8	Metals	NELAP	8/30/2004
Lead	EPA 6010	Metals	NELAP	4/10/2002
Lead	EPA 6020	Metals	NELAP	8/30/2004
Lithium	EPA 200.8	Metals	NELAP	10/6/2016
Lithium	EPA 6020	Metals	NELAP	10/6/2016
Magnesium	EPA 200.7	Metals	NELAP	4/10/2002
Magnesium	EPA 200.8	Metals	NELAP	11/6/2014
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	8/30/2004

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.

Issue Date: 7/1/2021

Expiration Date: 6/30/2022



Laboratory Scope of Accreditation

Attachment to Certificate #: E87315-52, expiration date June 30, 2022. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87315

EPA Lab Code: GA00051

(770) 734-4200

E87315
Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Manganese	EPA 200.7	Metals	NELAP	4/10/2002
Manganese	EPA 200.8	Metals	NELAP	8/30/2004
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	8/30/2004
Mercury	EPA 245.1	Metals	NELAP	4/10/2002
Mercury	EPA 7470	Metals	NELAP	4/10/2002
Molybdenum	EPA 200.7	Metals	NELAP	4/10/2002
Molybdenum	EPA 200.8	Metals	NELAP	8/30/2004
Molybdenum	EPA 6010	Metals	NELAP	4/10/2002
Molybdenum	EPA 6020	Metals	NELAP	8/30/2004
Nickel	EPA 200.7	Metals	NELAP	4/10/2002
Nickel	EPA 200.8	Metals	NELAP	8/30/2004
Nickel	EPA 6010	Metals	NELAP	4/10/2002
Nickel	EPA 6020	Metals	NELAP	8/30/2004
Nitrate as N	EPA 353.2	General Chemistry	NELAP	4/17/2020
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	4/17/2020
Nitrite as N	EPA 353.2	General Chemistry	NELAP	4/17/2020
Orthophosphate as P	SM 4500-P E	General Chemistry	NELAP	4/10/2002
Oxygen, dissolved	ASTM D888-09C	General Chemistry	NELAP	11/6/2014
Oxygen, dissolved	SM 4500-O G	General Chemistry	NELAP	4/10/2002
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
pH	SM 4500-H+-B	General Chemistry	NELAP	10/15/2007
Phosphorus, total	EPA 200.7	Metals	NELAP	9/27/2002
Phosphorus, total	EPA 6010	Metals	NELAP	7/1/2003
Potassium	EPA 200.7	Metals	NELAP	4/10/2002
Potassium	EPA 200.8	Metals	NELAP	11/6/2014
Potassium	EPA 6010	Metals	NELAP	4/10/2002
Potassium	EPA 6020	Metals	NELAP	8/30/2004
Residual free chlorine	SM 4500-Cl G	General Chemistry	NELAP	11/4/2010
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	10/15/2007
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	10/15/2007
Residue-settleable	SM 2540 F	General Chemistry	NELAP	10/15/2007
Selenium	EPA 200.7	Metals	NELAP	4/10/2002
Selenium	EPA 200.8	Metals	NELAP	8/30/2004
Selenium	EPA 6010	Metals	NELAP	4/10/2002
Selenium	EPA 6020	Metals	NELAP	8/30/2004

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.

Issue Date: 7/1/2021

Expiration Date: 6/30/2022



Laboratory Scope of Accreditation

Attachment to Certificate #: E87315-52, expiration date June 30, 2022. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87315

EPA Lab Code: GA00051

(770) 734-4200

E87315

**Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092**

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Silicon	EPA 200.7	Metals	NELAP	4/10/2002
Silicon	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 200.7	Metals	NELAP	4/10/2002
Silver	EPA 200.8	Metals	NELAP	8/30/2004
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	8/30/2004
Sodium	EPA 200.7	Metals	NELAP	4/10/2002
Sodium	EPA 200.8	Metals	NELAP	11/6/2014
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	8/30/2004
Strontium	EPA 200.7	Metals	NELAP	9/27/2002
Strontium	EPA 6010	Metals	NELAP	7/1/2003
Strontium	EPA 6020	Metals	NELAP	8/30/2004
Thallium	EPA 200.7	Metals	NELAP	4/10/2002
Thallium	EPA 200.8	Metals	NELAP	8/30/2004
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	8/30/2004
Tin	EPA 200.7	Metals	NELAP	4/10/2002
Tin	EPA 200.8	Metals	NELAP	11/6/2014
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	8/30/2004
Titanium	EPA 200.7	Metals	NELAP	4/10/2002
Titanium	EPA 200.8	Metals	NELAP	11/6/2014
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	8/30/2004
Total coliforms	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	11/4/2010
Total, fixed, and volatile residue	SM 2540 G	General Chemistry	NELAP	9/27/2002
Turbidity	EPA 180.1	General Chemistry	NELAP	4/10/2002
Vanadium	EPA 200.7	Metals	NELAP	4/10/2002
Vanadium	EPA 200.8	Metals	NELAP	8/30/2004
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	8/30/2004
Zinc	EPA 200.7	Metals	NELAP	4/10/2002
Zinc	EPA 200.8	Metals	NELAP	8/30/2004
Zinc	EPA 6010	Metals	NELAP	4/10/2002

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.

Issue Date: 7/1/2021

Expiration Date: 6/30/2022



Laboratory Scope of Accreditation

Attachment to Certificate #: E87315-52, expiration date June 30, 2022. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87315 EPA Lab Code: GA00051 (770) 734-4200

E87315
Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Zinc	EPA 6020	Metals	NELAP	8/30/2004



Laboratory Scope of Accreditation

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State Laboratory ID: **E87315**

EPA Lab Code: **GA00051**

(770) 734-4200

E87315

**Pace Analytical Services, LLC- Atlanta GA
110 Technology Parkway
Peachtree Corners, GA 30092**

Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 6010	Metals	NELAP	4/10/2002
Antimony	EPA 6010	Metals	NELAP	4/10/2002
Arsenic	EPA 6010	Metals	NELAP	4/10/2002
Barium	EPA 6010	Metals	NELAP	4/10/2002
Beryllium	EPA 6010	Metals	NELAP	4/10/2002
Boron	EPA 6010	Metals	NELAP	4/10/2002
Cadmium	EPA 6010	Metals	NELAP	4/10/2002
Calcium	EPA 6010	Metals	NELAP	4/10/2002
Chromium	EPA 6010	Metals	NELAP	4/10/2002
Cobalt	EPA 6010	Metals	NELAP	4/10/2002
Copper	EPA 6010	Metals	NELAP	4/10/2002
Fecal coliforms	SM 9222 D	Microbiology	NELAP	7/28/2009
Fixed Residue	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Iron	EPA 6010	Metals	NELAP	4/10/2002
Lead	EPA 6010	Metals	NELAP	4/10/2002
Magnesium	EPA 6010	Metals	NELAP	4/10/2002
Manganese	EPA 6010	Metals	NELAP	4/10/2002
Mercury	EPA 7471	Metals	NELAP	4/10/2002
Molybdenum	EPA 6010	Metals	NELAP	4/10/2002
Nickel	EPA 6010	Metals	NELAP	4/10/2002
pH	EPA 9045	General Chemistry	NELAP	4/10/2002
Phosphorus, total	EPA 6010	Metals	NELAP	4/10/2002
Potassium	EPA 6010	Metals	NELAP	4/10/2002
Residue-total	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Residue-volatile	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Selenium	EPA 6010	Metals	NELAP	4/10/2002
Silicon	EPA 6010	Metals	NELAP	4/10/2002
Silver	EPA 6010	Metals	NELAP	4/10/2002
Sodium	EPA 6010	Metals	NELAP	7/9/2002
Strontium	EPA 6010	Metals	NELAP	4/10/2002
Thallium	EPA 6010	Metals	NELAP	4/10/2002
Tin	EPA 6010	Metals	NELAP	4/10/2002
Titanium	EPA 6010	Metals	NELAP	9/27/2002
Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	General Chemistry	NELAP	4/10/2002
Vanadium	EPA 6010	Metals	NELAP	4/10/2002
Zinc	EPA 6010	Metals	NELAP	4/10/2002

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.

Issue Date: 7/1/2021

Expiration Date: 6/30/2022

Ron DeSantis
Governor



Laboratory Scope of Accreditation

Page 8 of 8

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.

Issue Date: 7/1/2021

Expiration Date: 6/30/2022

APPENDIX C

Monitoring Well and Piezometer Installation Report

June 2, 2022

Project No. 166849621

Ms. Lauren Hartley, PG

Southern Company Services
241 Ralph McGill Blvd NE
Atlanta, GA 30308
JAbraham@southernco.com

WELL AND PIEZOMETER INSTALLATION (DGWC-121, B-122D, B-123D) AND ABANDONMENT (B-84) REPORT, GEORGIA POWER COMPANY - PLANT MCDONOUGH, SMYRNA, GEORGIA

Dear Ms. Hartley:

Golder Associates USA Inc. (Golder) is submitting this *Piezometer and Well Installation and Abandonment Report* to Southern Company Services, Inc. (SCS) and Georgia Power Company (Georgia Power), which documents the construction of two piezometers and one monitoring well, and abandonment of one piezometer at Plant McDonough in Smyrna, Georgia (Site). Piezometer construction activities were performed in general accordance with the standards described in the Resource Conservation and Recovery Act (RCRA) Technical Enforcement Guidance Document (1986) and the Georgia Water Wells Standards Act of 1985. The installation and abandonment of the piezometers was conducted under the oversight and direction of Rachel Kirkman, a Georgia Registered Professional Geologist (PG).

The field activities for this investigation were performed in March 2022 through April 2022. The field work consisted of the installation and development of one (1) monitoring well and two (2) piezometers, which were installed for purposes of delineation of target constituents for Coal Combustion Residuals (CCR) compliance monitoring in groundwater. Due to construction activities, piezometer B-84 was abandoned in April 2022. Metro Engineering & Surveying (Metro) conducted a survey of the installed wells and piezometers in May 2022. A summary of the activities is presented below. Figure 1 presents the location of each of the newly installed piezometers.

Monitoring Well and Piezometer Drilling and Construction Activities

Monitoring well DGWC-121 and piezometers B-122D and B-123D were drilled and installed by Cascade Drilling, LP, who was contracted through SCS, at the facility in March 2022 through April 2022. Cascade had a current and valid bond with the Water Wells Standards Advisory Council for the state of Georgia at the time of drilling (Appendix A). The driller's name is provided on the boring/construction diagrams presented in Appendix B.

An experienced Golder geologist was present on site to oversee and record the drilling and piezometer construction under the supervision of a professional geologist registered to practice in Georgia (Rachel Kirkman). Drilling methods employed for borehole advancement were rotasonic drilling techniques. The drilling equipment

consisted of a full-sized TSI 150T Truck-Mounted Sonic drilling rig, equipped with 4-inch sonic rods with a 6-inch outer-casing sleeve. During the drilling, continuous core samples were logged in the field for lithologic and geotechnical properties.

Prior to use, and between boreholes, downhole equipment was steam cleaned. The boring (lithologic) logs and piezometer construction records for the newly installed piezometers are included in Appendix B. The construction data are summarized on Table 1, and the locations of the piezometers are provided on Figure 1.

Piezometers were constructed within the borehole using factory-cleaned and sealed Schedule 40 polyvinyl chloride (PVC) products with flush-threaded fittings. Monitoring well DGWC-121 and piezometer B-122D were constructed with a 10-foot section of 4-inch outer diameter (OD) and 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC, U-Pack screen. To increase the likelihood of water production, piezometer B-123D was constructed with five (5) 10-foot sections of 4-inch outer diameter (OD) and 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC, U-Pack screens. The well depths for DGWC-121, B-122D, and B-123D are 50 feet, 85 feet, and 160 feet, respectively.

The drillers filled the annulus of each U-Pack screen section with No. 1 filter sand. For each borehole, the screen was placed near the bottom of the borehole, with the remainder of the piezometer constructed from 10-foot sections of 2-inch ID, flush-threaded, PVC casing riser. A flush-threaded PVC end cap was placed on the bottom of each piezometer to provide a 0.4-foot sump/sediment trap, and the top of the piezometers to extend to approximately 2.8 feet above grade. Construction details for the well and piezometers are shown on the boring/construction logs in Appendix B. The PVC products used were American Society for Testing and Materials (ASTM) and National Sanitation Foundation (NSF) rated.

Borehole geophysics was performed on piezometer B-123D to identify potential water-producing fractures to aid in well screen length and placement. Geophysical tests included acoustic televiewer, caliper, heat pulse flow meter, fluid temperature and fluid conductivity. The logs showed water producing features at 113 and 134 feet below ground surface (bgs). As these appeared to be relatively small fractures with low measurable flow (i.e., between 0.018 and 0.027 gallons per minute), the selected screened interval was chosen to target both potential water-bearing zones with a 50-foot screened interval. Borehole geophysical logs are included in Appendix C.

Following placement of the screen and casing, the annular space in each borehole adjacent to the screen was filled with US Standard Sieve size No. 1 filter pack sand as appropriate for the formation. The filter pack sand was placed into the borehole and extended approximately 2 to 3 feet above the depth of the top of the screen. Immediately following placement of the filter pack, each piezometer was pumped using a portable submersible pump until visibly clear water was discharged. A filter pack seal, composed of approximately 2.5 to 3 feet of hydrated 3/8" coated bentonite pellets, was then placed on top of the filter pack by slowly pouring the material down the borehole and tamping it into place. The bentonite was hydrated using potable water and allowed to cure for approximately two hours prior to grouting the piezometer.

Following hydration of the bentonite, the remaining annular space was grouted with an AquaGuard® bentonite grout mixture to approximately 2 feet below ground surface using a tremie method. Based on information provided by the product manufacturer, AquaGuard® is a bentonite grout consisting of bentonite and additives that allow for a mixture of 30% solids by weight to facilitate grouting via tremie pipe, with additives that slow the bentonite curing so that proper placement can be achieved. Each piezometer surface completion consists of a locked, anodized aluminum protective casing and a 4-foot by 4-foot by 4-inch concrete pad with an engraved tag

showing the piezometer name. The annular space of the aluminum protective casing was filled with pea gravel to approximately 2 inches from top of PVC. A weep hole was drilled into the lower side of the protective casing.

Piezometer Development Activities

The newly installed piezometers were developed in April 2022 in general accordance with the *Monitoring Well Development Procedures* prepared by SCS (March 2016), and the US EPA Science and Ecosystem Support Division *Design and Installation of Monitoring Wells* (February 2008). The piezometers were surged using a Reclaimer pump system. During development, water quality measurements of pH, temperature, specific conductance, oxidation reduction potential (ORP), dissolved oxygen (DO), and turbidity were periodically collected using field-calibrated water quality equipment after the piezometer responded to improving conditions. Development activities were conducted utilizing an AquaTroll® multimeter and a Hach turbidimeter and for monitoring water quality measurements. Equipment calibration forms and development forms are included in Appendix B with development details summarized in Table 2.

During development, a turbidity value below 10 nephelometric turbidity units (NTUs) was achieved at each well and piezometer. Water level measurements were collected using a decontaminated electronic water level indicator, referenced to a permanent marking at the top of the casing and recorded to within 0.01 foot.

Piezometer Survey

The newly installed piezometers and well were surveyed on May 9, 2022 by Metro Survey and Engineering. The survey was completed using Leica GS18T (survey-grade) global positioning system receiver and a closed level check loop with a Leica DNA 10 digital level with a positional tolerance of 0.5/0.01' H:V. The top of the PVC casing was surveyed to 0.5 foot horizontal and 0.01-foot vertical tolerance, and a marking was made on the PVC to use for reference during future measurements. Surveyed coordinates and elevations are presented on the boring/construction diagrams and on Table 1. The certified surveyor's report is attached as Appendix C.

Piezometer Abandonment

Piezometer B-84 was damaged during construction activities for infrastructure updates and required abandonment in place by SCS's Civil Field Service Team. The abandonment was done under the oversight of Duane Fulton and under the supervision of a professional geologist registered to practice in Georgia (Rachel Kirkman) on April 28, 2022. The well was abandoned by backfilling the 2-inch PVC with time-released 3/8" TR-30 Pel-Plug bentonite pellets from 35 feet to 49.3 feet; and the remaining PVC was abandoned with 6.5 gallons of AquaGuard® bentonite grout mixture. There were no above-ground surface completions to remove.

Closing

We appreciate the opportunity to assist SCS and Georgia Power with this project. Should you have any questions or require additional information, please contact the undersigned at (770) 496-1893.

Sincerely,

Golder Associates USA Inc.



Rachel P. Kirkman, PG
Director, Geologist

A handwritten signature in black ink, appearing to read "Dawn L. Prell".

Dawn L. Prell, CPG
Senior Consultant, Hydrogeologist





RPK/DP/kld

- Attachments:
- Figure 1: Monitoring Well and Piezometer Location Map
 - Table 1: Summary of Piezometer Construction Details
 - Table 2: Summary of Piezometer Development
 - Appendix A: Cascade and SCS Drilling Bonds
 - Appendix B: Boring Logs/Construction Diagrams, Development Forms and Calibration Logs
 - Appendix C: Geophysical Record of Borehole B-123D
 - Appendix D: Certified Well Survey

Figure



LEGEND

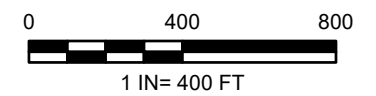
-  AP-1 MONITORING WELL
-  PIEZOMETER
-  PROPERTY BOUNDARY
-  PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND AUGUST 04, 2021 AND OCTOBER 08, 2021 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN MAY 2022.




CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



PROJECT
 WELL AND PIEZOMETER INSTALLATION (DGWC-121, B-122D, B-123D) AND ABANDONMENT (B-84) REPORT

TITLE
MONITORING WELL AND PIEZOMETER LOCATION MAP

CONSULTANT	YYYY-MM-DD	2022-05-10
	PREPARED	JVW
	DESIGN	JVW
	CHECKED	DP/RPK
	REVIEWED/APPROVED	RPK

PROJECT No. 166849621 Rev. 0 FIGURE 1

Path: C:\Users\wajuepapak\OneDrive - Golder Associates\Project Files - 1668496 - SCS Plant McDonough GW Cons Svcs GA800 - Shapefiles\MXD\Well Installation Report\Figure 1 - Site Location Map.mxd

THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN. THE SHEET HAS BEEN MODIFIED FROM ANS.B

Tables

TABLE 1
SUMMARY OF MONITORING WELL AND PIEZOMETER CONSTRUCTION DETAILS
 Georgia Power Company - Plant McDonough

Borehole ID	Latitude	Longitude	NAD 83 Northing	NAD 83 Easting	Elevation On Top Of PVC (feet NAVD88)	Elevation Ground Surface (feet NAVD88)	Ground Surface Elevation at Concrete Pad (feet NAVD88) ^[1]	Total Depth (feet bgs)	Depth to Bedrock (feet bgs)	Screened Interval (feet bgs)	Core Available	Water Level (feet bTOC)	Date Installed
B-84 ^[2]	33.821939	-84.477307	1390411.7	2202241.5	776.24	776.27	776.6	50.0	> 50.0	39.1-49.1	NA	24.10	10/1/2019
DGWC-121	33.822829	-84.481895	1390739.7	2200849.4	764.16	764.52	764.6	50.0	46.0	39.7-49.7	Sonic Core	9.40	3/22/2022
B-122D	33.823541	-84.474897	1390992.8	2202975.4	777.03	777.32	777.3	85.0	41.0	69.8-79.8	Sonic Core	30.25	3/24/2022
B-123D	33.824203	-84.476108	1391234.4	2202608.4	781.80	778.85	779.0	160.0	31.5	110-160	Sonic Core	13.20	4/4/2022

Notes:

1. Ground surface measured at the mag nail in the concrete pad.
 2. Piezometer B-84 was abandoned on 4/28/2022 as described in the text.
- NAD - North American Datum
 NAVD88 - North American Vertical Datum 1988
 NA - Not Available
 bgs - Below ground surface
 bTOC - Below Top of Casing
 Survey Data from Metro Engineering & Surveying Co., Inc.
 ID - Identification
 PVC - Polyvinyl chloride

TABLE 2
SUMMARY OF PIEZOMETER DEVELOPMENT
 Georgia Power Company - Plant McDonough

Piezometer ID	Date Started	Time Started (hr:min)	Development Method	Measured Total Depth of Well (feet bTOC)	Initial Water level (feet bTOC)	Final Water Level (feet bTOC)	Volume of Casing (gal)	Total Volume Removed (gal)	pH (SU)	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)
DGWC-121	4/12/2022	11:15	Reclaimer Pump	49.37	8.68	22.95	6.6	40	6.26	0.379	19.20	4.69	33.0	3.37
B-122D	4/7/2022	11:24	Reclaimer Pump	80.78	26.56	33.89	8.84	38	6.07	0.574	18.10	4.32	35.7	2.16
B-123D	4/8/2022	13:50	Reclaimer Pump	162.86	11.76	67.01	24.63	138	6.64	0.795	20.79	4.56	-33.7	6.50

Notes:

hr:min - hours:minutes	mV - millivolts
bTOC - feet below Top of Casing	mg/L - milligrams per liter
gal - gallons	ORP - oxygen reduction potential
SU - Standard Units	DO - dissolved oxygen
mS/cm - millisiemens per centimeter	ID - Identification
°C - degrees Celcius	PVC - Polyvinyl chloride
NTU - nephelometric turbidity units	Temp - Temperature

APPENDIX A

Cascade Drilling Bond



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.

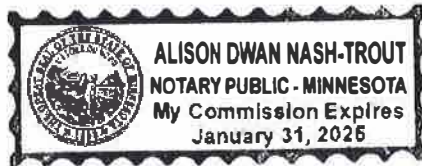
IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.



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.

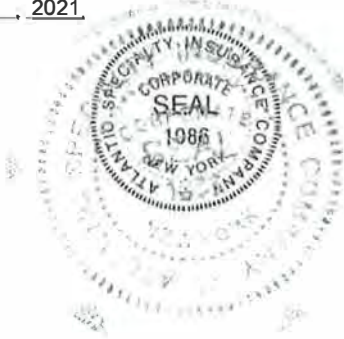


Alison Nash-Trout
Notary Public

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 Andrew P. Larsen
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

CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2021
(MONTH-DAY-YEAR)

and ending on June 30, 2022
(MONTH-DAY-YEAR)

Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

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 05/06/2021
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America
175 Berkeley Street, Boston, MA 02116

By 
Attorney-in-fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, Inc.
Agent

2211 7th Avenue South, Birmingham, AL 35233
Address of Agent

(205) 252-9871
Telephone Number of Agent



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

Certificate No: 8205019-016032

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American States Insurance Company is a corporation duly organized under the laws of the State of Indiana, that First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Alisa B. Ferris; Anna Childress; Jeffrey M. Wilson; Mark W. Edwards II; Richard H. Mitchell; Robert R. Freel; Sam Audia; William M. Smith

all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of March, 2021.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America



By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 11th day of March, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of May, 2021.



By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2022
(MONTH-DAY-YEAR)

and ending on June 30, 2023
(MONTH-DAY-YEAR)

Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

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 05/06/2021
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America

175 Berkeley Street, Boston, MA 02116

By 
Attorney-in-Fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, Inc.

Agent

2211 7th Avenue South, Birmingham, AL 35233

Address of Agent

(205) 252-0871

Telephone Number of Agent



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First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

Certificate No: 8205019-016032

POWER OF ATTORNEY

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all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of March, 2021.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America



By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 11th day of March, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of May, 2021.



By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

APPENDIX B

**Boring Logs/Construction
Diagrams, Development Forms and
Calibration Logs**

RECORD OF BOREHOLE B-84

SHEET 1 of 2

PROJECT: Plant McDonough
 PROJECT NUMBER: 1668496-01
 DRILLED DEPTH: 50.00 ft
 LOCATION: NE of security gate, along road

DRILL RIG: CME550X
 DATE STARTED: 10/1/19
 DATE COMPLETED: 10/1/19

NORTHING: 1,390,411.65
 EASTING: 2,202,242.51
 GS ELEVATION: 776.27
 TOC ELEVATION: 776.24 ft

DEPTH W.L.: 24.10
 DATE W.L.: 10/1/2019
 TIME W.L.: 1140
 GW ELEVATION:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop			N-VALUE
0	775	0.00 - 14.50 Hydrovac to 14.5' for utilities								AquaGuard Bentonite Grout	WELL CASING Interval: 0'-39.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 39.1'-49.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 36.0'-49.5' Type: Filter Media FILTER PACK SEAL Interval: 30.6'-36.0' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-30.6' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A
15	760	14.50 - 20.00 ML-CL, silty CLAY with some gravel, brown-black, micaceous, W-PL, moist, very soft	CL-ML		761.77 14.50	S1	SS	3-1-2	3	0.75 1.50	
20	755	20.00 - 25.00 ML, sandy SILT with some gravel, brown-black, dry, W<PL, very soft	ML		753.27 20.00						
25	750	25.00 - 30.00 CL, silty CLAY with some gravel, brown-black, micaceous, W-PL, moist, very soft to soft	CL		751.27 25.00	S2	SS	3-2-3	5	0.75 1.50	
30	745	30.00 - 35.00 CL, silty CLAY with some sand, brown-black with tan, W-PL, moist	CL		746.27 30.00	S3	SS	1-2-3	5	1.50 1.50	
35	740	35.00 - 39.00 CL, silty CLAY, brown-black, W-PL, wet to moist	CL		741.27 35.00	S4	SS	2-2-3	5	1.50 1.50	
40	735	39.00 - 40.00 SM, silty SAND with gravel, black-grey, moist, compact	SM		737.27 39.00	S5	SS	15-18-11	29	1.50 1.50	
40	735	40.00 - 44.00 CL, silty CLAY, brown-black, W-PL, moist, very soft to soft	CL		736.27 40.00						
45	732.27	44.00 - 45.00 ML, gravelly SILT with some sand, Log continued on next page	ML		732.27 44.00 731.27	S6	SS	7-7-8	17	1.50 1.50	

BOREHOLE RECORD MCDONOUGH MASTER LIST.GPJ PIEDMONT.GDT 2/11/20

LOG SCALE: 1 in = 5.5 ft
 DRILLING COMPANY: Southern Company Services
 DRILLER: S. Milam

GA INSPECTOR: K. Minkara
 CHECKED BY: Brian Steele, PG
 DATE: 2/11/20



RECORD OF BOREHOLE B-84

SHEET 2 of 2

PROJECT: Plant McDonough
 PROJECT NUMBER: 1668496-01
 DRILLED DEPTH: 50.00 ft
 LOCATION: NE of security gate, along road

DRILL RIG: CME550X
 DATE STARTED: 10/1/19
 DATE COMPLETED: 10/1/19

NORTHING: 1,390,411.65
 EASTING: 2,202,242.51
 GS ELEVATION: 776.27
 TOC ELEVATION: 776.24 ft

DEPTH W.L.: 24.10
 DATE W.L.: 10/1/2019
 TIME W.L.: 1140
 GW ELEVATION:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES					MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N-VALUE	REC		
45	730	brown-black, micaceous, PWR, moist 45.00 - 50.00 ML, sandy SILT with gravel, brown-black, PWR, W<PL, wet to moist, PWR, very dense	ML		45.00						Schedule 40 PVC 	WELL CASING Interval: 0'-39.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 39.1'-49.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 36.0'-49.5' Type: Filter Media FILTER PACK SEAL Interval: 30.6'-36.0' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-30.6' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A
50		Boring completed at 50.00 ft			726.27	S7	SS	25-33-24	57	1.50 1.50		
55	720											
60	715											
65	710											
70	705											
75	700											
80	695											
85	690											
90												

Abandoned 4/28/2022

BOREHOLE RECORD MCDONOUGH MASTER LIST.GPJ PIEDMONT.GDT 2/12/20

LOG SCALE: 1 in = 5.5 ft
 DRILLING COMPANY: Southern Company Services
 DRILLER: S. Milam

GA INSPECTOR: K. Minkara
 CHECKED BY: Brian Steele, PG
 DATE: 2/11/20



RECORD OF BOREHOLE DGWC-121

SHEET 1 of 2

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 50.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/22/22
 DATE COMPLETED: 3/22/22

NORTHING: 1,390,739.7
 EASTING: 2,200,849.4
 GS ELEVATION: 764.52
 TOC ELEVATION: 764.16 ft

DEPTH W.L.: 9.4'
 ELEVATION W.L.: 755.12
 DATE W.L.: 3/22/22
 TIME W.L.: 19:25

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
0		0.00 - 8.00 Fill material								<p>WELL CASING Interval: 0'-39.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded</p> <p>WELL SCREEN Interval: 39.7'-49.7' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3"</p> <p>FILTER PACK Interval: 37.5'-49.7' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 3.5 x 50 lb bag</p> <p>FILTER PACK SEAL Interval: 34'-37.5' Type: Pel Plug Bentonite Pellets Quantity: 1 x 50 lb bucket</p> <p>ANNULUS SEAL Interval: 0'-34' Type: Aquaguard bentonite grout Quantity: 2 bags Aquaguard + 40 gal water</p> <p>WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic</p>
5	760					1	6.50 10.00			
		8.00 - 10.00 MH, CLAYEY SILT; very micaceous, little fine to coarse sand, brown/red brown, saprolitic, dry	MH		756.52 8.00					
10	755				754.52 10.00					
		10.00 - 20.00 ML, fine sandy SILT; very micaceous, little clay, brown to dark brown, saprolitic, crenulated, dry	ML			2	9.75 10.00			
15	750									
		20.00 - 29.50 SW-ML, fine SAND and SILT; very micaceous, little clay, dark brown to brown, iron staining, saprolitic, moist			744.52 20.00					
20	745					3	9.75 10.00			
		29.50 - 30.00 TWR, Transitionally Weathered Rock; muscovite schist	TWR		735.02 30.00					
25	740									
		30.00 - 40.00 TWR; fine to coarse gravel with fine sandy silt, little clay, friable, very micaceous, brown to dark brown, orange iron staining in soils, moist	TWR			4	9.75 10.00	Pel Plug Bentonite Pellets		
30	735									
		40.00 - 48.50 TWR; same as above	TWR		724.52 40.00			Filter Sil Filtration sand and gravel 0.010" Slotted Schedule 40 PVC U-pack Screen		
35	730					5	7.50 10.00			
		48.50 - 50.00 muscovite SCHIST, fine to coarse grained, medium strong,			716.02 48.50 714.52					
40	725									
45	720									
50	715									

BOREHOLE RECORD: PLANT MCDONOUGH_DGWC-121, B-122D, B-123D, GPJ, PIEDMONT, GDT, 5/13/22

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



Log continued on next page

RECORD OF BOREHOLE DGWC-121

SHEET 2 of 2

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 50.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/22/22
 DATE COMPLETED: 3/22/22

NORTHING: 1,390,739.7
 EASTING: 2,200,849.4
 GS ELEVATION: 764.52
 TOC ELEVATION: 764.16 ft

DEPTH W.L.: 9.4'
 ELEVATION
 W.L.: 755.12
 DATE W.L.: 3/22/22
 TIME W.L.: 19:25

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
50		slightly to moderately weathered, slightly to moderately fractured, some iron staining Boring completed at 50.00 ft							WELL CASING Interval: 0'-39.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 39.7'-49.7' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 37.5'-49.7' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 3.5 x 50 lb bag FILTER PACK SEAL Interval: 34'-37.5' Type: Pel Plug Bentonite Pellets Quantity: 1 x 50 lb bucket ANNULUS SEAL Interval: 0'-34' Type: Aquaguard bentonite grout Quantity: 2 bags Aquaguard + 40 gal water WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic	
55	710									
60	705									
65	700									
70	695									
75	690									
80	685									
85	680									
90	675									
95	670									
100	665									

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ - PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



RECORD OF BOREHOLE B-122D

SHEET 1 of 2

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 85.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/24/22
 DATE COMPLETED: 3/24/22

NORTHING: 1,390,992.8
 EASTING: 2,202,975.4
 GS ELEVATION: 777.32
 TOC ELEVATION: 777.03 ft

DEPTH W.L.: 30.25
 ELEVATION W.L.: 747.07
 DATE W.L.: 3/25/22
 TIME W.L.: 8:15

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
0	775	0.00 - 10.00 FILL, CL, SILTY CLAY, moist, micaceous, trace of organics; air knifed for utility clearance								<p>WELL CASING Interval: 0'-69.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded</p> <p>WELL SCREEN Interval: 69.8'-79.8' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3"</p> <p>FILTER PACK Interval: 67.8'-85' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 5 x 50 lb bag</p> <p>FILTER PACK SEAL Interval: 64.2'-67.8' Type: Pel Plug Bentonite Pellets Quantity: 1 x 50 lb bucket</p> <p>ANNULUS SEAL Interval: 0'-64.2' Type: Aquaguard bentonite grout Quantity: 3 batches of 2 bags Aquaguard + 40 gal water</p> <p>WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic</p>
5	770				767.32	1	NA	10.00		
10	765	10.00 - 20.00 CL, SILTY CLAY, moist, high plasticity, little fine to coarse gravel, orange to brown, schist fragments	CH							
15	760				757.32	2	8.50	10.00		
20	755	20.00 - 30.00 SP-SM, SAND and SILT, dark brown, iron staining, low plasticity, weathered boulder encountered, muscovite, biotite schist boulder								
25	750		SP-SM			3	6.50	10.00		
30	745	30.00 - 40.00 SP-SM, SAND, moist, dark gray, fine grained, trace of organics, rounded shape								
35	740		SP-SM			4	9.75	10.00		
40	735	40.00 - 41.00 SP-SM, SILTY SAND, dark brown, little iron staining, fine, rounded shape								
45	730	41.00 - 50.00 muscovite biotite SCHIST, strong, fresh to slightly weathered, slightly fractured, fine to coarse grains, little iron staining	SP-SM			5	9.75	10.00		
50					727.32					

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D, GPJ, PIEDMONT, GDT, 5/13/22

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



RECORD OF BOREHOLE B-122D

SHEET 2 of 2

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 85.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/24/22
 DATE COMPLETED: 3/24/22

NORTHING: 1,390,992.8
 EASTING: 2,202,975.4
 GS ELEVATION: 777.32
 TOC ELEVATION: 777.03 ft

DEPTH W.L.: 30.25
 ELEVATION W.L.: 747.07
 DATE W.L.: 3/25/22
 TIME W.L.: 8:15

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
50		50.00 - 60.00 Muscovite biotite SCHIST, strong, fresh, unfractured, fine to coarse grains		[Graphic Log Pattern]	50.00				<p style="font-size: small;">Pel Plug Bentonite Pellets Filter Sil Filtration sand and gravel 0.010" Slotted Schedule 40 PVC U-pack Screen</p>	<p>WELL CASING Interval: 0'-69.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded</p> <p>WELL SCREEN Interval: 69.8'-79.8' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3"</p> <p>FILTER PACK Interval: 67.8'-85' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 5 x 50 lb bag</p> <p>FILTER PACK SEAL Interval: 64.2'-67.8' Type: Pel Plug Bentonite Pellets Quantity: 1 x 50 lb bucket</p> <p>ANNULUS SEAL Interval: 0'-64.2' Type: Aquaguard bentonite grout Quantity: 3 batches of 2 bags Aquaguard + 40 gal water</p> <p>WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic</p>
725						6	6.50 10.00			
55										
720										
60		60.00 - 65.00 Same as above			717.32 60.00					
715										
65		65.00 - 70.00 muscovite biotite SCHIST, strong, fresh to slightly weathered, slightly fractured, fine to coarse grained, traces of iron staining			712.32 65.00	7	9.50 10.00			
710										
70		70.00 - 73.00 Same as above, some iron staining, slightly to moderately fractured			707.32 70.00					
705										
75		73.00 - 80.00 muscovite biotite SCHIST, strong fresh, unfractured, fine to coarse grained			704.32 73.00					
75						8	9.20 10.00			
70										
80		80.00 - 85.00 muscovite biotite SCHIST, strong fresh to slightly weathered, slightly fractured, fine to coarse grained, trace to little iron staining			697.32 80.00					
695						9	5.00 5.00			
85		Boring completed at 85.00 ft			692.32					
690										
90										
685										
95										
680										
100										

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ - PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



RECORD OF BOREHOLE B-123D

SHEET 1 of 4

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 160.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/25/22
 DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
 EASTING: 2,202,608.4
 GS ELEVATION: 778.85
 TOC ELEVATION: 781.80 ft

DEPTH W.L.: 13.2
 ELEVATION W.L.: 765.65
 DATE W.L.: 4/4/22
 TIME W.L.: 14:55

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO		
0		0.00 - 10.00 FILL, CL, SILTY CLAY, moist, micaceous, trace of organics; Air knifed for utility clearance	CL		768.85	1			<p>WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded</p> <p>WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3"</p> <p>FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag</p> <p>FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips</p> <p>ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water</p> <p>WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic</p>
5						NA	10.00		
10		10.00 - 20.00 ML-CH, SILT and CLAY, moist, red, orange, brown, some fine sand, trace of fine schist gravel, micaceous	ML-CH		758.85	2	9.75 10.00		
15									
20		20.00 - 28.00 Same as above	ML-CH		750.85	3	8.50 10.00		
25									
30		28.00 - 30.00 ML, sandy SILT, moist, gray, fine, trace of coarse gravel	ML		748.85				
35		30.00 - 31.50 Same as above	ML		30.00				
40		31.50 - 40.00 muscovite biotite SCHIST, fine grained, strong, slightly to moderately weathered, slight, fractured, some iron staining			747.35	4	9.75 10.00		
45									
50		40.00 - 50.00 muscovite biotite garnet SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, traces iron staining			738.85	5	7.50 10.00		
55									
60					728.85				

Log continued on next page

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ_PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



RECORD OF BOREHOLE B-123D

SHEET 3 of 4

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 160.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/25/22
 DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
 EASTING: 2,202,608.4
 GS ELEVATION: 778.85
 TOC ELEVATION: 781.80 ft

DEPTH W.L.: 13.2
 ELEVATION W.L.: 765.65
 DATE W.L.: 4/4/22
 TIME W.L.: 14:55

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO		
100		100.00 - 110.00 muscovite biotite SCHIST, fine to coarse grained, strong, fresh, fresh to slightly weathered, unfractured to slightly fractured		[Graphic Log Pattern]	100.00				<p>WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded</p> <p>WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3"</p> <p>FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag</p> <p>FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips</p> <p>ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water</p> <p>WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic</p>
675					668.85	11	9.75 10.00		
105		110.00 - 120.00 muscovite Biotite SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, secondary mineralization of fractures with calcite @ 114' bgs, measured -0.018 gallons per minute (gpm) from borehole geophysics heat-pulse flow meter (HPFM), trace vein quartz		[Graphic Log Pattern]	110.00				
670					658.85	12	8.25 10.00		
110		120.00 - 130.00 Same as above. Water producing fracture at 129.5' identified using borehole geophysics		[Graphic Log Pattern]	120.00				
665					648.85	13	9.75 10.00		
115		130.00 - 140.00 Same as above; Trace secondary mineralization of calcite within fractures @ 131 bgs, water producing fracture at 130.5' identified using borehole geophysics, measured -0.027 gallons per minute (gpm) from HPFM		[Graphic Log Pattern]	130.00				
660					638.85	14	9.00 10.00		
120		140.00 - 150.00 muscovite biotite, garnet SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, calcite precipitation @ 145' bgs		[Graphic Log Pattern]	140.00				
655					628.85	15	9.00 10.00		
125									
650									
130									
645									
135									
640									
140									
635									
145									
630									
150		Log continued on next page							

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D, G.P.J. - PIEDMONT, GDT. 5/13/22

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



RECORD OF BOREHOLE B-123D



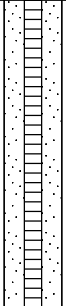
SHEET 4 of 4

PROJECT: SCS Plant McDonough
 PROJECT NUMBER: GL166849621
 DRILLED DEPTH: 160.00 ft
 LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
 Truck-Mounted Sonic
 DATE STARTED: 3/25/22
 DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
 EASTING: 2,202,608.4
 GS ELEVATION: 778.85
 TOC ELEVATION: 781.80 ft

DEPTH W.L.: 13.2
 ELEVATION W.L.: 765.65
 DATE W.L.: 4/4/22
 TIME W.L.: 14:55

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO			REC
150		150.00 - 160.00 Same as above; calcite @ 157.5' bgs			150.00					WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded
625						16	9.75 10.00	WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3"		
155								FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag		
160		Boring completed at 160.00 ft			618.85				FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips	
620									ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water	
160									WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum	
615									DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic	
165										
610										
170										
605										
175										
600										
180										
595										
185										
590										
190										
585										
195										
580										
200										

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D, GPJ_PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/10/22



WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849621 Plant McDonough WELL ID: GW-121

WELL DIA (in) 2

DEVELOPED BY C. Mikilins DATE OF INSTALL. 3/22/22

W.L. BEFORE DEVEL. 8.68 / 953 DATE 4/12/22 WL AFTER DEVEL. 30.7 / 1415

STARTED DEVEL. 4/12/22 / 1115 COMPLETED DEVEL. 4/12/22 / 1410

WELL DEPTH: BEFORE DEVEL. 49.37 WELL DEPTH: AFTER DEVEL. 49.38

STANDING WATER COLUMN (FT.) 40.69 STANDING WELL VOLUME 6.63 gal.

SCREEN INTERVAL 39.7 - 49.7 DRILLING WATER LOSS - gal.

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS	
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
4/12/22 1115												Pump On pump 1 off bottom
1120	1	0.2	13.15	6.56	375.25	18.50	OVER	brown	1.50	-27.3		Surge
1125	2	0.2	15.32	6.47	391.28	18.19	Over	brown	2.29	-36		Surge
1130	4	0.4	20.25	6.51	350.43	17.85	Over	brown	0.31	-30.5		Surge
1135	6	0.4	27.2	6.66	321.67	17.90	over	brown	0.81	-23.0		Surge
1145	10	0.4	37.85	6.62	322.63	17.89	37.2	Clear	1.02	-14.1		surge move pump up 3ft
1150	12	0.4	39.9	6.56	327.58	17.91	54	Clear	0.97	-17.6		Surge
1155	14	0.4	40	6.46	339.63	18.03	32.7	Clear	0.95	-12.1		Surge move pump up 3ft
1158	15.2		40.4									Well Dry
1222	15.2		19.35				0					Pump ON allow Recharge
1225	16	0.4	22.60				over	brown				IPAD Overheat Pump off
1315	16						AT					Pump ON
1320	19	0.4	27.6	6.33	378.48	18.67	19.7	clear	5.24	15.1		Surge
1325	20	0.4	31.4	6.32	388.26	18.48	15.8	clear	5.24	22.1		Surge move pump up to top of
1330	22	0.4	37.3	6.39	375.71	18.64	67.5	brown	5.79	25.4		Surge
1335	24	0.4										Well Dry Pump Off Screen
1355	24	0.4	20.15									Pump ON
1400	26	0.4	26.5	6.33	372.46	19.53	62.6	Clear	4.58	32.9		
1410	30	0.4	34.2	6.31	384.93	18.74	48.7	clear	4.98	30.2		Switch to low flow
= TOTAL VOLUME REMOVED (gal.)												

DEVELOPMENT METHOD: _____

NOTES: _____

PURGING AND SAMPLING FORM

Project #: 166849621	Project Name/Site Name: Plant McDonough		Page: 1 of 2
Well ID: DGWC-121	Date: 4/12/22	Water Level (ft): 30.7	Time (WL): 1415
Well Diameter (in): 2	Well Depth (ft): 49.38	Water Column (ft): 18.68	Well Volume (gal): 3.04
Start Purge: 1415	End Purge: 1550	Top of Pump (ft): 42	3 Well Volume (gal): 9.13
Evacuation Method: Low-flow		Volume Removed (gal): 6.35 ^{cm} 9.53 gal	
Evacuation Equipment: Geotech Dedicated Pump Reclaimer		Purging Personnel: C. Mikilitus	
Field probe: Horiba U-55 Aquatroll	Serial #: 883561	Weather: 80° Sunny	

Purge Data/Field Parameters

Time	Color & Appearance	Odor	pH (S.U.)	Cond. (uS/cm)	DO (mg/L)	Temp (C)	ORP (mV)	Turbidity (NTU)	DTW (ft BGS)
1415									30.7
1420								25.0	30.05
1425								45.5	28.10
1430								33.3	27.70
1435								16.2	26.60
1440								17.2	27.20
1450								14.6	26.80
1455								11.2	26.50
1500								11.18	26.90
1505								10.66	26.4
1510								10.68	26.2
1515								8.70	25.9
1520								7.63	25.4
1525								6.82	23.4
1530								6.53	22.9
1535								5.81	22.85
1540								4.83	22.63
1545								4.97	22.95

Stabilization Criteria (EPA Region 4 Groundwater sampling stabilization criteria, SESDPROC-301-R3, 2013):
 pH ± 0.1 S.U., Conductivity ± 5%, Dissolved Oxygen ± 10% or ± 0.2 mg/L (whichever is greater), Turbidity value should be less than 10 NTU, preferably less than 5 NTU.



WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849621 Plant McDonough WELL ID: B-122D
 WELL DIA (in) 2
 DEVELOPED BY C. M. K. Iltis DATE OF INSTALL. 3/24/22
 W.L. BEFORE DEVEL. 26.56 4/7/22 1122 WL AFTER DEVEL. 66.05 4/7/22 1648
 STARTED DEVEL. 4/7/22 1124 COMPLETED DEVEL. 4/7/22 1648
 WELL DEPTH: BEFORE DEVEL. 80.78 WELL DEPTH: AFTER DEVEL. 80.78
 STANDING WATER COLUMN (FT.) 54.22 STANDING WELL VOLUME 8.84 gal.
 SCREEN INTERVAL 69.8' - 79.8' bgs DRILLING WATER LOSS — gal.

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS	
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
1124 4/7/22			26.56									Pump On, pump 1ft off bottom
1127	0.6	0.2 gpm	30.30	6.82	443.36	22.21	56.7	Clear	7.46	-38.8		turn up pumps rate/surge
1139	3.6	0.25	41.25	6.43	467.65	19.41	93.5	Clear	5.51	-33.7		
1150	8	0.4	57.05	6.34	421.56	19.20	70.1	Cloudy	6.47	-50.2		turn up pump / surge
1200	12	0.4	70.90	6.34	438.02	19.16	90.7	Cloudy	5.25	-42.6		
1207	14.8	0.4	73.40									pump dry
1400			80.89									pump on
1405	16.8	0.4	41.18	6.37	487.09	19.65	56.9	Orange	10.22	1.8		
1415	20.8	0.4	57.47	6.27	445.57	19.41	74.2	Clear	8.91	10.9		Surge, pull pump up 2ft
1425	24.8	0.4	71.3	7.37	377.0	19.25	12.8	Clear	10.75	-157.6		pump dry
1630		0.4	29.08									pump on / more pump up 3ft
1640	28.8	0.4	53.52	6.11	553.58	19.28	10.56	Clear	5.89	13.6		
1645	30.8	0.4	62.15	6.28	489.78	19.50	19.8	Clear	10.38	1.7		
1648			66.05									pump off, went dry
= TOTAL VOLUME REMOVED (gal.)												

DEVELOPMENT METHOD: Reclaimer pump

NOTES: _____

PURGING AND SAMPLING FORM

Project #: 166849621	Project Name/Site Name: Plant McDonough		Page: <u>1</u> of <u>2</u>
Well ID: B-1220	Date: 4/8/22	Water Level (ft): 27.92	Time (WL): 930
Well Diameter (in): 2	Well Depth (ft): 80.78	Water Column (ft): 52.86	Well Volume (gal): 8.62
Start Purge: 1010	End Purge: 1300	Top of Pump (ft): 74' bgs	3 Well Volume (gal): 25.8
Evacuation Method: Low-flow		Volume Removed (gal): 6.45	
Evacuation Equipment: Geotech Dedicated Pump Reclaimer		Purging Personnel: C.M. Kilatus	
Field probe: Honda U-53 Aqua Troll	Serial #: 883561	Weather: 60° Sunny	

Purge Data/Field Parameters

Time	Color & Appearance	Odor	pH (S.U.)	Cond. (uS/cm)	DO (mg/L)	Temp (C)	ORP (mV)	Turbidity (NTU)	DTW (ft BGS)
1010								2	29.3 27.92
1015			6.07					29.3	33.03 28.3
1024			6.08					10.20	32.72 32.05
1027			6.07					13.49	32.99 32.72
1030			6.07					9.60	32.98
1037			6.07					11.36	32.92
1042			6.07					9.61	32.38
1047			6.07					9.31	32.10
1052			6.07					10.23	31.66
1057								9.96	31.58
1102								13.98	32.15
1107								11.98	32.39
1112								14.10	32.65
1117								14.10	32.63
1122								19.5	32.74
1127								17.8	32.80
1132								17.3	32.95
1137								16.8	32.90

Stabilization Criteria (EPA Region 4 Groundwater sampling stabilization criteria, SESDPROC-301-R3, 2013):
 pH ± 0.1 S.U., Conductivity ± 5%, Dissolved Oxygen ± 10% or ± 0.2 mg/L (whichever is greater), Turbidity value should be less than 10 NTU, preferably less than 5 NTU.

WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849621 Plant McDonough WELL ID: B-1230 B-1230

WELL DIA (in) 2

DEVELOPED BY C. Miklins DATE OF INSTALL. 4/4/22

W.L. BEFORE DEVEL. 11.76 4/9/22 1320 WL AFTER DEVEL. 62.5 1500 4/11/22

STARTED DEVEL. 4/9/22 1350 COMPLETED DEVEL. 4/11/22 1500

WELL DEPTH: BEFORE DEVEL. 162.86 BTOC WELL DEPTH: AFTER DEVEL. 162.86

STANDING WATER COLUMN (FT.) 151.1 STANDING WELL VOLUME 24.63 gal.

SCREEN INTERVAL 110' - 160' DRILLING WATER LOSS - gal.

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS	
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
4/8/22												
1350	—	0.4	11.76	—								Pump on 2ft from bottom
1405	6	0.4	29.92	7.40	360.43	18.92	62.3	cloudy	4.54	-4.7	Surge	
1415	10	0.4	50.1	7.89	364.40	18.92	40	cloudy	4.67	-9.7	move pump up 5ft	ft Surge
1430	16	0.4	71.4	7.61	409.84	18.81	13.43	cloudy	4.58	-6.6	Surge	
1445	22	0.4	55.2	7.40	449.21	18.79	54.5	cloudy	3.68	-6.3	surge, move pump up 5ft	up 5ft
1500	28	0.4	55.1	7.23	558.51	18.79	21.7	clear	3.20	-45.2		
1515	34	0.4	56.4	7.09	693.88	18.48	66.3	clear	3.47	-70.3	Surge move pump up 5ft	pump up 5ft
1530	40	0.4	108.1	7.03	789.04	18.21	47.2	clear	5.05	-67.5	Surge	
1545	46	0.4	114.78	6.97	819.2	18.19	58	clear	6.71	-61.9	Surge move pump up 5ft	pump up 5ft
1600	52	0.4	117.66	7.00	792.92	19.08	41.7	clear	6.98	-59.6	Surge	
1615	58	0.4	119.71	7.07	682.55	18.09	71	cloudy	5.46	-58.6	Surge move pump up 5ft	up 5ft
1620	60	0.4									pump off	
4/11/22 1030	60	0.4	10.98	—								Pump ON raised 30' off bottom
1035	62	0.4	22.25	6.76	653.49	18.94	70	cloudy	4.48	-2.1	Surge	
1100	72	0.4	51.45	6.54	781.74	19.41	77.3	cloudy	3.91	-14.1	Surge	
1115	76	0.4	63.15	6.56	775.63	20.16	18.6	clear	3.70	-20.2	Surge move pump up 5'	up 5'
1130	82	0.4	75.47	6.51	844.78	20.32	13.0	clear	2.85	-31.0	Surge	
1145	88	0.4	82.25	6.54	841.74	20.63	11.8	clear	2.85	-33.2	Surge	
1200	94	0.4	88.16	6.62	903.67	20.31	11.32	clear	4.23	-34.7	Surge	
1215	100 gal	0.4	92.80	6.70	901.00	20.70	8.15	clear	5.52	-35.3	Surge move pump up 5'	pump up 5'
1230	106	0.4	96.60	6.77	862.20	20.88	18.5	clear	6.04	-38.8	Surge	
1245	112	0.4	100.45	6.90	895.49	20.58	9.86	clear	8.79	-36.5	Surge move pump up 5'	pump up 5'
1300	118	0.4	103.30	6.73	828.79	20.35	8.28	clear	6.98	-31.1	Surge	
1315	124	0.4	104.27	6.72	842.05	20.36	59.5	cloudy	7.46	-28.8	Surge move pump up 5'	pump up 5'
1325	126	0.4	106.9								well dry, pump off	off
1445	126	0.4	60.02								pump on	
1500	132	0.4	71.69	6.86	852.61	20.30	13.8	clear	8.67	-70.1	→	Switch to low flow lower pump to 25' from bottom
				= TOTAL VOLUME REMOVED (gal.)								

DEVELOPMENT METHOD: _____

NOTES: _____

PURGING AND SAMPLING FORM

Project #: 166849621	Project Name/Site Name: Plant McDonough		Page: 1 of 2
Well ID: B-123D	Date: 4/11/22	Water Level (ft): 68.5	Time (WL): 1500
Well Diameter (in): 2	Well Depth (ft): 162.86	Water Column (ft): 94.36	Well Volume (gal): 15.38
Start Purge: 1500	End Purge: 1620	Top of Pump (ft): 133	3 Well Volume (gal): 46.14
Evacuation Method: Low-flow		Volume Removed (gal): 6.35	
Evacuation Equipment: Geotech Dedicated Pump Reclaimer		Purging Personnel: C. Mikulitis	
Field probe: Horiba U-58 Aquatroll	Serial #: 883561	Weather: 50° Cloudy	

Purge Data/Field Parameters

Time	Color & Appearance	Odor	pH (S.U.)	Cond. (uS/cm)	DO (mg/L)	Temp (C)	ORP (mV)	Turbidity (NTU)	DTW (ft BGS)
1500								—	68.5
1505								—	—
1510								12.29	73.4
1515								11.7	73.2
1520								9.47	72.38
1525								9.38	71.51
1530								9.73	71.24
1535								11.36	70.68
1540								9.92	70.05
1545								9.04	69.28
1550								7.20	68.90
1555								6.57	68.35
1600								6.19	68.05
1605								5.76	67.70
1610								4.75	67.34
1615								4.94	67.20
1620								4.56	67.01

Stabilization Criteria (EPA Region 4 Groundwater sampling stabilization criteria, SESDPROC-301-R3, 2013):
 pH ± 0.1 S.U., Conductivity ± 5%, Dissolved Oxygen ± 10% or ± 0.2 mg/L (whichever is greater), Turbidity value should be less than 10 NTU, preferably less than 5 NTU.

Low-Flow Test Report:

Test Date / Time: 4/12/2022 2:17:01 PM

Project: 166849621 Plant McDonough Low-Flow Test

DGWC-121

Operator Name: C Mikilitus

Location Name: Device Location Initial Depth to Water: 30.7 ft	Estimated Total Volume Pumped: 36106.668 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883561
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
4/12/2022 2:17 PM	00:00	6.29 pH	20.65 °C	381.40 µS/cm	4.49 mg/L		30.2 mV	30.70 ft	400.00 ml/min
4/12/2022 2:22 PM	05:00	6.35 pH	19.81 °C	379.38 µS/cm	1.07 mg/L	25.00 NTU	3.5 mV	30.05 ft	400.00 ml/min
4/12/2022 2:27 PM	10:00	6.34 pH	19.59 °C	378.36 µS/cm	1.09 mg/L	45.50 NTU	3.4 mV	28.10 ft	400.00 ml/min
4/12/2022 2:32 PM	15:00	6.29 pH	19.52 °C	382.18 µS/cm	2.87 mg/L	33.30 NTU	13.5 mV	27.70 ft	400.00 ml/min
4/12/2022 2:37 PM	20:00	6.28 pH	19.43 °C	379.06 µS/cm	3.30 mg/L	16.20 NTU	20.4 mV	26.60 ft	400.00 ml/min
4/12/2022 2:42 PM	25:00	6.28 pH	19.25 °C	378.48 µS/cm	3.49 mg/L	17.20 NTU	21.9 mV	27.20 ft	400.00 ml/min
4/12/2022 2:53 PM	36:37	6.27 pH	19.10 °C	377.76 µS/cm	3.85 mg/L	14.60 NTU	30.0 mV	26.80 ft	400.00 ml/min
4/12/2022 2:58 PM	41:37	6.26 pH	19.30 °C	379.27 µS/cm	3.91 mg/L	11.20 NTU	26.9 mV	26.50 ft	400.00 ml/min
4/12/2022 3:03 PM	46:37	6.27 pH	19.28 °C	380.49 µS/cm	3.80 mg/L	11.18 NTU	32.7 mV	26.90 ft	400.00 ml/min
4/12/2022 3:07 PM	50:16	6.26 pH	19.57 °C	379.20 µS/cm	3.73 mg/L	10.66 NTU	29.4 mV	26.40 ft	400.00 ml/min
4/12/2022 3:12 PM	55:16	6.26 pH	19.60 °C	379.92 µS/cm	3.72 mg/L	10.68 NTU	26.8 mV	26.20 ft	400.00 ml/min
4/12/2022 3:17 PM	01:00:16	6.26 pH	20.15 °C	380.39 µS/cm	3.68 mg/L	7.63 NTU	27.4 mV	25.90 ft	400.00 ml/min
4/12/2022 3:22 PM	01:05:16	6.26 pH	19.41 °C	379.46 µS/cm	3.33 mg/L	6.82 NTU	26.5 mV	25.40 ft	400.00 ml/min
4/12/2022 3:27 PM	01:10:16	6.26 pH	19.62 °C	380.55 µS/cm	3.47 mg/L	6.53 NTU	26.8 mV	23.40 ft	400.00 ml/min
4/12/2022 3:32 PM	01:15:16	6.26 pH	19.50 °C	381.13 µS/cm	2.75 mg/L	5.81 NTU	29.2 mV	22.90 ft	400.00 ml/min
4/12/2022 3:37 PM	01:20:16	6.26 pH	19.28 °C	380.88 µS/cm	2.82 mg/L	4.83 NTU	24.3 mV	22.85 ft	400.00 ml/min
4/12/2022 3:42 PM	01:25:16	6.26 pH	19.28 °C	380.38 µS/cm	3.17 mg/L	4.97 NTU	24.8 mV	22.63 ft	400.00 ml/min

4/12/2022 3:47 PM	01:30:16	6.26 pH	19.20 °C	378.85 µS/cm	3.37 mg/L	4.69 NTU	33.0 mV	<u>22.95</u> ft	400.00 ml/min
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Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 4/8/2022 10:18:10 AM

Project: Plant McDonough 166849621

Low Flow B-122D

Operator Name: C. Mikilitus

Location Name: Device Location Initial Depth to Water: 27.92 ft	Estimated Total Volume Pumped: 24430 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883561
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
4/8/2022 10:18 AM	00:00	6.08 pH	18.66 °C	568.22 µS/cm	4.74 mg/L	-	27.8 mV	27.92 ft	150.00 ml/min
4/8/2022 10:19 AM	00:50	6.04 pH	18.66 °C	634.17 µS/cm	4.11 mg/L	-	29.5 mV	-	150.00 ml/min
4/8/2022 10:22 AM	03:50	6.07 pH	18.70 °C	582.31 µS/cm	3.59 mg/L	29.30 NTU	30.5 mV	28.30 ft	150.00 ml/min
4/8/2022 10:25 AM	06:50	6.08 pH	18.51 °C	553.89 µS/cm	3.88 mg/L	10.20 NTU	32.9 mV	33.05 ft	150.00 ml/min
4/8/2022 10:28 AM	09:50	6.07 pH	18.50 °C	551.09 µS/cm	3.77 mg/L	13.49 NTU	33.3 mV	32.72 ft	150.00 ml/min
4/8/2022 10:31 AM	12:50	6.07 pH	18.21 °C	546.95 µS/cm	3.89 mg/L	9.60 NTU	37.0 mV	32.98 ft	150.00 ml/min
4/8/2022 10:32 AM	14:08	6.07 pH	18.15 °C	546.30 µS/cm	3.88 mg/L	-	43.1 mV	-	150.00 ml/min
4/8/2022 10:37 AM	19:08	6.07 pH	18.26 °C	544.06 µS/cm	3.77 mg/L	11.36 NTU	38.6 mV	32.92 ft	150.00 ml/min
4/8/2022 10:42 AM	24:08	6.07 pH	18.43 °C	542.80 µS/cm	3.60 mg/L	9.61 NTU	38.9 mV	32.38 ft	150.00 ml/min
4/8/2022 10:47 AM	29:08	6.07 pH	18.21 °C	538.75 µS/cm	3.67 mg/L	9.31 NTU	39.1 mV	32.10 ft	150.00 ml/min
4/8/2022 10:52 AM	34:08	6.07 pH	18.25 °C	540.21 µS/cm	3.64 mg/L	10.23 NTU	39.0 mV	31.66 ft	150.00 ml/min
4/8/2022 10:57 AM	39:08	6.08 pH	18.30 °C	537.01 µS/cm	3.56 mg/L	9.96 NTU	41.5 mV	31.58 ft	150.00 ml/min
4/8/2022 11:02 AM	44:08	6.08 pH	18.76 °C	547.83 µS/cm	3.43 mg/L	13.98 NTU	40.6 mV	32.15 ft	150.00 ml/min
4/8/2022 11:07 AM	49:08	6.08 pH	18.92 °C	543.69 µS/cm	3.17 mg/L	11.98 NTU	48.0 mV	32.39 ft	150.00 ml/min
4/8/2022 11:12 AM	54:08	6.08 pH	19.20 °C	546.28 µS/cm	2.93 mg/L	14.10 NTU	38.8 mV	32.65 ft	150.00 ml/min
4/8/2022 11:17 AM	59:08	6.09 pH	19.23 °C	534.00 µS/cm	2.93 mg/L	14.10 NTU	38.6 mV	32.63 ft	150.00 ml/min
4/8/2022 11:22 AM	01:04:08	6.09 pH	19.72 °C	537.75 µS/cm	2.96 mg/L	19.50 NTU	38.7 mV	32.74 ft	150.00 ml/min

4/8/2022 11:27 AM	01:09:08	6.08 pH	20.08 °C	536.91 µS/cm	2.87 mg/L	17.80 NTU	36.8 mV	32.80 ft	150.00 ml/min
4/8/2022 11:32 AM	01:14:08	6.09 pH	19.41 °C	532.00 µS/cm	2.93 mg/L	17.30 NTU	37.2 mV	32.95 ft	150.00 ml/min
4/8/2022 11:37 AM	01:19:08	6.09 pH	19.35 °C	535.91 µS/cm	2.85 mg/L	16.80 NTU	37.8 mV	32.90 ft	150.00 ml/min
4/8/2022 11:42 AM	01:24:08	6.09 pH	18.81 °C	552.59 µS/cm	3.01 mg/L	15.70 NTU	36.1 mV	33.16 ft	150.00 ml/min
4/8/2022 11:47 AM	01:29:08	6.09 pH	18.52 °C	567.32 µS/cm	2.88 mg/L	15.00 NTU	35.2 mV	33.14 ft	150.00 ml/min
4/8/2022 11:52 AM	01:34:08	6.09 pH	18.34 °C	561.71 µS/cm	2.83 mg/L	12.70 NTU	35.2 mV	33.08 ft	150.00 ml/min
4/8/2022 11:57 AM	01:39:08	6.09 pH	18.13 °C	568.71 µS/cm	2.76 mg/L	11.70 NTU	35.0 mV	33.05 ft	150.00 ml/min
4/8/2022 12:02 PM	01:44:08	6.09 pH	18.17 °C	575.76 µS/cm	2.80 mg/L	13.38 NTU	41.4 mV	33.38 ft	150.00 ml/min
4/8/2022 12:07 PM	01:49:08	6.08 pH	18.08 °C	576.49 µS/cm	2.73 mg/L	-	34.9 mV	-	150.00 ml/min
4/8/2022 12:12 PM	01:54:08	6.08 pH	18.10 °C	578.29 µS/cm	2.67 mg/L	11.18 NTU	35.2 mV	33.45 ft	150.00 ml/min
4/8/2022 12:17 PM	01:59:08	6.08 pH	18.04 °C	576.66 µS/cm	2.63 mg/L	-	36.4 mV	-	150.00 ml/min
4/8/2022 12:22 PM	02:04:08	6.08 pH	18.13 °C	578.33 µS/cm	2.57 mg/L	8.77 NTU	42.9 mV	33.60 ft	150.00 ml/min
4/8/2022 12:27 PM	02:09:08	6.07 pH	18.63 °C	581.19 µS/cm	2.48 mg/L	-	37.6 mV	-	150.00 ml/min
4/8/2022 12:32 PM	02:14:08	6.08 pH	18.29 °C	576.59 µS/cm	2.45 mg/L	5.95 NTU	36.5 mV	33.78 ft	150.00 ml/min
4/8/2022 12:37 PM	02:19:08	6.08 pH	18.21 °C	576.36 µS/cm	2.38 mg/L	-	35.7 mV	-	150.00 ml/min
4/8/2022 12:42 PM	02:24:08	6.07 pH	18.34 °C	580.25 µS/cm	2.34 mg/L	4.98 NTU	36.2 mV	33.79 ft	150.00 ml/min
4/8/2022 12:47 PM	02:29:08	6.07 pH	18.64 °C	581.30 µS/cm	2.23 mg/L	-	35.6 mV	-	150.00 ml/min
4/8/2022 12:52 PM	02:34:08	6.07 pH	18.99 °C	573.12 µS/cm	2.26 mg/L	4.49 NTU	36.4 mV	33.85 ft	150.00 ml/min
4/8/2022 12:57 PM	02:39:08	6.08 pH	18.50 °C	570.33 µS/cm	2.21 mg/L	-	36.6 mV	-	150.00 ml/min
4/8/2022 1:01 PM	02:42:52	6.07 pH	18.10 °C	573.78 µS/cm	2.16 mg/L	4.32 NTU	35.7 mV	33.89 ft	150.00 ml/min

Samples

Sample ID:	Description:
------------	--------------

Low-Flow Test Report:

Test Date / Time: 4/11/2022 3:02:26 PM

Project: 166849621 Plant McDonough Low-Flow Test B-123D

Operator Name: C Mikilitus

Location Name: Device Location Initial Depth to Water: 68.5 ft	Estimated Total Volume Pumped: 24025 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 67.01 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883561
---	--	--

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
4/11/2022 3:02 PM	00:00	6.80 pH	20.55 °C	861.26 µS/cm	8.62 mg/L	-	-59.5 mV	68.50 ft	300.00 ml/min
4/11/2022 3:07 PM	05:00	7.43 pH	20.97 °C	10.09 µS/cm	9.45 mg/L	-	-45.2 mV	-	300.00 ml/min
4/11/2022 3:12 PM	10:05	7.05 pH	20.33 °C	728.75 µS/cm	11.55 mg/L	12.29 NTU	-72.3 mV	73.40 ft	300.00 ml/min
4/11/2022 3:17 PM	15:05	6.90 pH	20.39 °C	662.65 µS/cm	5.59 mg/L	11.70 NTU	-37.6 mV	73.20 ft	300.00 ml/min
4/11/2022 3:22 PM	20:05	6.86 pH	20.23 °C	667.55 µS/cm	4.99 mg/L	9.47 NTU	-43.4 mV	72.38 ft	300.00 ml/min
4/11/2022 3:27 PM	25:05	6.84 pH	20.15 °C	677.24 µS/cm	4.84 mg/L	9.38 NTU	-35.8 mV	71.51 ft	300.00 ml/min
4/11/2022 3:32 PM	30:05	6.82 pH	20.13 °C	692.92 µS/cm	4.85 mg/L	9.73 NTU	-37.3 mV	71.24 ft	300.00 ml/min
4/11/2022 3:37 PM	35:05	6.80 pH	20.22 °C	711.58 µS/cm	5.07 mg/L	11.36 NTU	-41.9 mV	70.68 ft	300.00 ml/min
4/11/2022 3:42 PM	40:05	6.79 pH	20.20 °C	725.06 µS/cm	5.31 mg/L	9.92 NTU	-42.8 mV	70.05 ft	300.00 ml/min
4/11/2022 3:47 PM	45:05	6.78 pH	20.04 °C	738.35 µS/cm	5.49 mg/L	9.04 NTU	-50.6 mV	69.28 ft	300.00 ml/min
4/11/2022 3:52 PM	50:05	6.75 pH	20.07 °C	756.55 µS/cm	5.77 mg/L	7.20 NTU	-43.7 mV	68.90 ft	300.00 ml/min
4/11/2022 3:57 PM	55:05	6.74 pH	20.13 °C	763.88 µS/cm	5.92 mg/L	6.57 NTU	-42.2 mV	68.35 ft	300.00 ml/min
4/11/2022 4:02 PM	01:00:05	6.71 pH	20.26 °C	775.89 µS/cm	6.10 mg/L	6.19 NTU	-41.1 mV	68.05 ft	300.00 ml/min
4/11/2022 4:07 PM	01:05:05	6.69 pH	20.40 °C	783.65 µS/cm	6.28 mg/L	5.76 NTU	-39.3 mV	67.70 ft	300.00 ml/min
4/11/2022 4:12 PM	01:10:05	6.68 pH	20.65 °C	782.18 µS/cm	6.30 mg/L	4.75 NTU	-38.0 mV	67.34 ft	300.00 ml/min
4/11/2022 4:17 PM	01:15:05	6.66 pH	20.65 °C	788.42 µS/cm	6.41 mg/L	4.94 NTU	-36.1 mV	67.20 ft	300.00 ml/min
4/11/2022 4:22 PM	01:20:05	6.64 pH	20.79 °C	794.65 µS/cm	6.50 mg/L	4.56 NTU	-33.7 mV	67.01 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

Daily Calibration Log

Project **166849621 Plant McDonough**
 Field Staff **C. Mikulitus**

Instrument Calibration

		Date	4/7/22	4/8/22	4/11/22	4/12/22
		Time	1020	905	910	1000
Parameter	Units	Standard	SmarTROLL SN <u>883561</u> iPad # _____	SmarTROLL SN <u>883561</u> iPad # _____	SmarTROLL SN <u>883561</u> iPad # _____	SmarTROLL SN <u>883561</u> iPad # _____
DO	% saturation	100	91.6%	100.3%	100.7%	100.2%
Conductivity	us/cm	4490	4334.9	4386.73	4314.89	4454.08
pH	S.U.	4.00	4.00	3.98	3.96	3.96
pH	S.U.	7.00	7.02	7.01	6.98	6.99
pH	S.U.	10.00	10.02	9.98	10.03	10.02
ORP	mV	228.00	227.6	222.1	221.1	220.8

Turbidity	Units	Standard	LaMotte SN <u>7007-1416</u>	LaMotte SN <u>7007-1416</u>	LaMotte SN <u>7007-1416</u>	LaMotte SN <u>7007-1416</u>
	NTU	0.0	0.02	0.27	0.05	0.04
	NTU	1.0	0.95	1.09	0.88	0.60
	NTU	10.0	10.66	10.98	10.25	10.29

		Date				
		Time				
Parameter	Units	Standard	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100				
Conductivity	us/cm	4490				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	883561
Created	4/7/2022

Sensor	RDO
Serial Number	878558
Last Calibrated	4/7/2022

Calibration Details

Slope	0.9164088
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.33 mg/L
Temperature	21.55 °C
Barometric Pressure	982.80 mbar

Sensor	Conductivity
Serial Number	883561
Last Calibrated	4/7/2022

Calibration Details

Cell Constant	1.01
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	Level
Serial Number	883845
Last Calibrated	3/1/2022

Calibration Details

Zero Offset	-0.10 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi

Sensor	pH/ORP
Serial Number	21636
Last Calibrated	4/7/2022

Calibration Details

Total Calibration Points	3
--------------------------	---

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	170.9 mV
Temperature	21.91 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-1.2 mV
Temperature	20.69 °C

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-172.1 mV
Temperature	20.39 °C

Slope and Offset 1

Slope	-56.99 mV/pH
Offset	-0.1 mV

Slope and Offset 2

Slope	-56.59 mV/pH
Offset	-0.1 mV

ORP

ORP Solution	ORP Standard
Offset	-0.4 mV
Temperature	20.90 °C

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	883561
Created	4/8/2022

Sensor	RDO
--------	------------

Serial Number	878558
Last Calibrated	4/8/2022

Calibration Details

Slope	1.003327
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.13 mg/L
Temperature	18.16 °C
Barometric Pressure	984.44 mbar

Sensor	Conductivity
--------	---------------------

Serial Number	883561
Last Calibrated	4/8/2022

Calibration Details

Cell Constant	0.977
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	Level
--------	--------------

Serial Number	883845
Last Calibrated	3/1/2022

Calibration Details

Zero Offset	-0.10 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi

Sensor	pH/ORP
Serial Number	21636
Last Calibrated	4/8/2022

Calibration Details

Total Calibration Points	3
--------------------------	---

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	170.6 mV
Temperature	18.52 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-0.5 mV
Temperature	19.32 °C

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-168.8 mV
Temperature	19.44 °C

Slope and Offset 1

Slope	-56.65 mV/pH
Offset	0.6 mV

Slope and Offset 2

Slope	-55.74 mV/pH
Offset	0.6 mV

ORP

ORP Solution	ORP Standard
Offset	-5.9 mV
Temperature	18.63 °C

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	883561
Created	4/11/2022

Sensor	RDO
--------	------------

Serial Number	878558
Last Calibrated	4/11/2022

Calibration Details

Slope	1.007237
Offset	0.00 mg/L

Calibration point 100%

Concentration	9.15 mg/L
Temperature	18.40 °C
Barometric Pressure	994.98 mbar

Sensor	Conductivity
--------	---------------------

Serial Number	883561
Last Calibrated	4/11/2022

Calibration Details

Cell Constant	0.961
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	Level
--------	--------------

Serial Number	883845
Last Calibrated	3/1/2022

Calibration Details

Zero Offset	-0.10 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi

Sensor	pH/ORP
Serial Number	21636
Last Calibrated	4/11/2022

Calibration Details

Total Calibration Points	3
--------------------------	---

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	169.4 mV
Temperature	18.45 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	1.2 mV
Temperature	19.13 °C

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-168.7 mV
Temperature	19.55 °C

Slope and Offset 1

Slope	-55.68 mV/pH
Offset	2.3 mV

Slope and Offset 2

Slope	-56.27 mV/pH
Offset	2.3 mV

ORP

ORP Solution	ORP Standard
Offset	-6.3 mV
Temperature	18.94 °C

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	883561
Created	4/12/2022

Sensor	RDO
--------	------------

Serial Number	878558
Last Calibrated	4/12/2022

Calibration Details

Slope	1.002736
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.37 mg/L
Temperature	23.20 °C
Barometric Pressure	996.14 mbar

Sensor	Conductivity
--------	---------------------

Serial Number	883561
Last Calibrated	4/12/2022

Calibration Details

Cell Constant	0.992
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	Level
--------	--------------

Serial Number	883845
Last Calibrated	3/1/2022

Calibration Details

Zero Offset	-0.10 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi

Sensor	pH/ORP
Serial Number	21636
Last Calibrated	4/12/2022

Calibration Details

Total Calibration Points	3
--------------------------	---

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	168.4 mV
Temperature	18.41 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	0.8 mV
Temperature	18.88 °C

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-167.7 mV
Temperature	19.17 °C

Slope and Offset 1

Slope	-55.48 mV/pH
Offset	1.9 mV

Slope and Offset 2

Slope	-55.79 mV/pH
Offset	1.9 mV

ORP

ORP Solution	ORP Standard
Offset	-7.2 mV
Temperature	19.27 °C

APPENDIX C

**Geophysical Record of Borehole
B-123D**



Project Title: Plant McDonough Ground Water Program
Project Number: GL166849621
Client: Georgia Power
Date: March 30, 2022

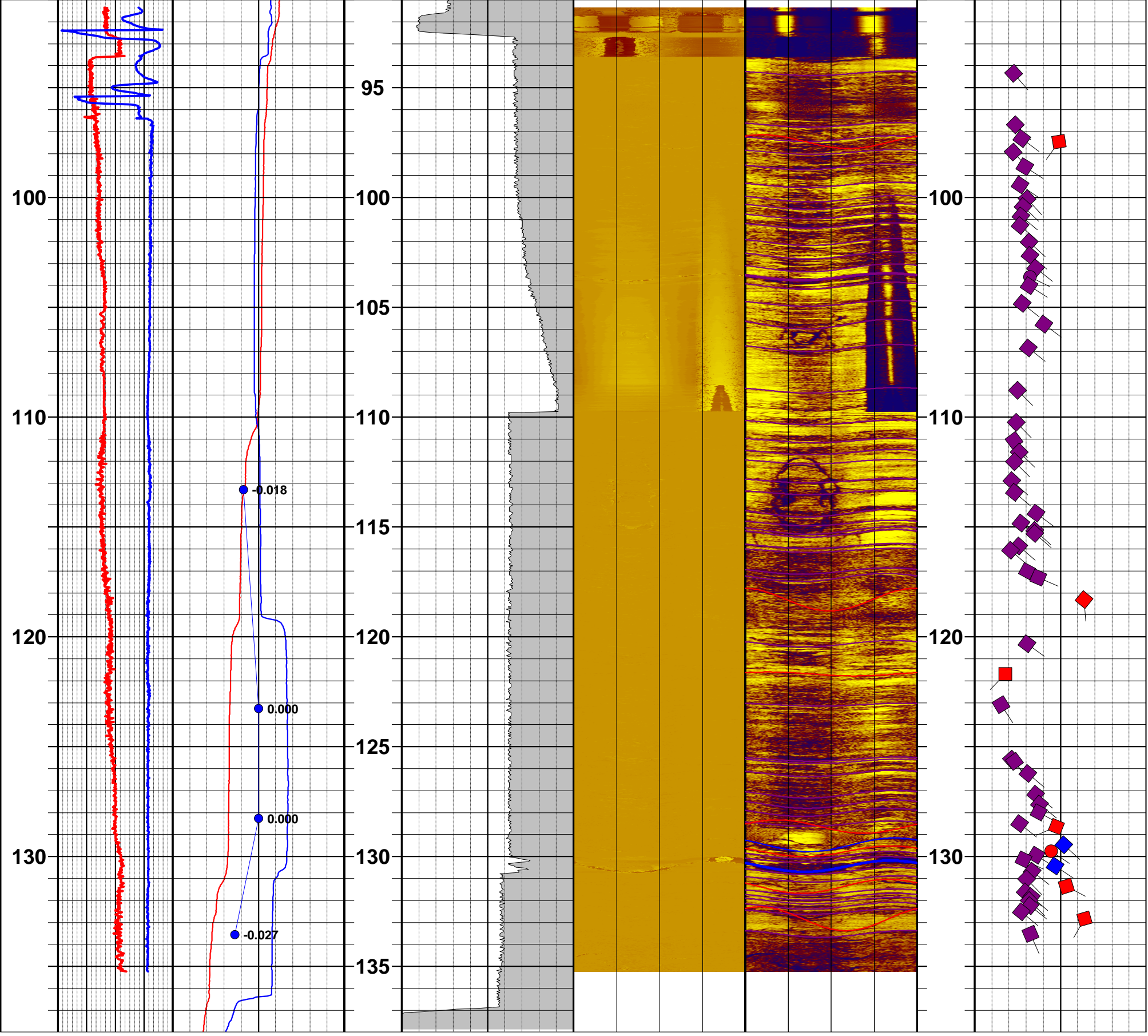
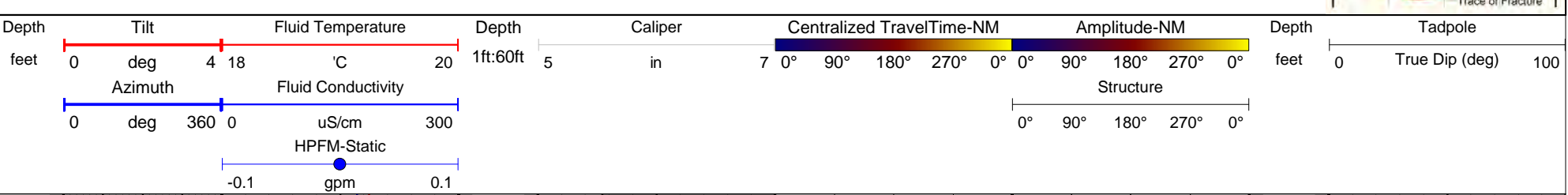
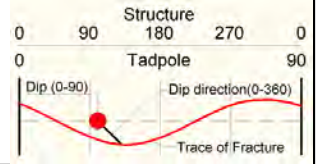
Preliminary Logs

Driller: Cascade	Casing Dia.: 5.4 in	Log Depth Ref.: Logs zeroed @ gs	Location: Plant McDonough
Drilled Depth: 140 ft bgs	Casing Material: Steel	Water Level: 22.49 ft bgs @ 7:47am	
Drill Date: March 29, 2022	Casing Depth: 92.5 ft bgs	Borehole Incl.: vertical	Log Date: March 30, 2022
Drill Method.: 6" sonic	Casing Stick-up: 1.75 ft ags	Borehole Az.: na	Logged By: Chris Bryant

Notes: B-123 was drilled from 110 to 140 ft after completion of the geophysical logging on 3-29-2022. All tools were zeroed with the probe top at the TOC and corrected to ground surface in processing. The accuracy of the orientation sensor (APS544) used in the QL40ABI-2G (ABI) acoustic televiewer is +/- 1.2 degrees for Azimuth and +/- 0.5 degrees for Tilt. The ABI images are oriented to magnetic north. Water level at the start of the static HPFM run was 23.21 ft bgs at 9:38 am, a drop of ~0.72 ft in ~2 hours, a falling head condition during the test.

Structure Legend:

- ◆ Foliation
- Open Foliation
- Open Fracture / Joint
- Filled Fracture / Joint
- ◆ Producing Fracture / Joint



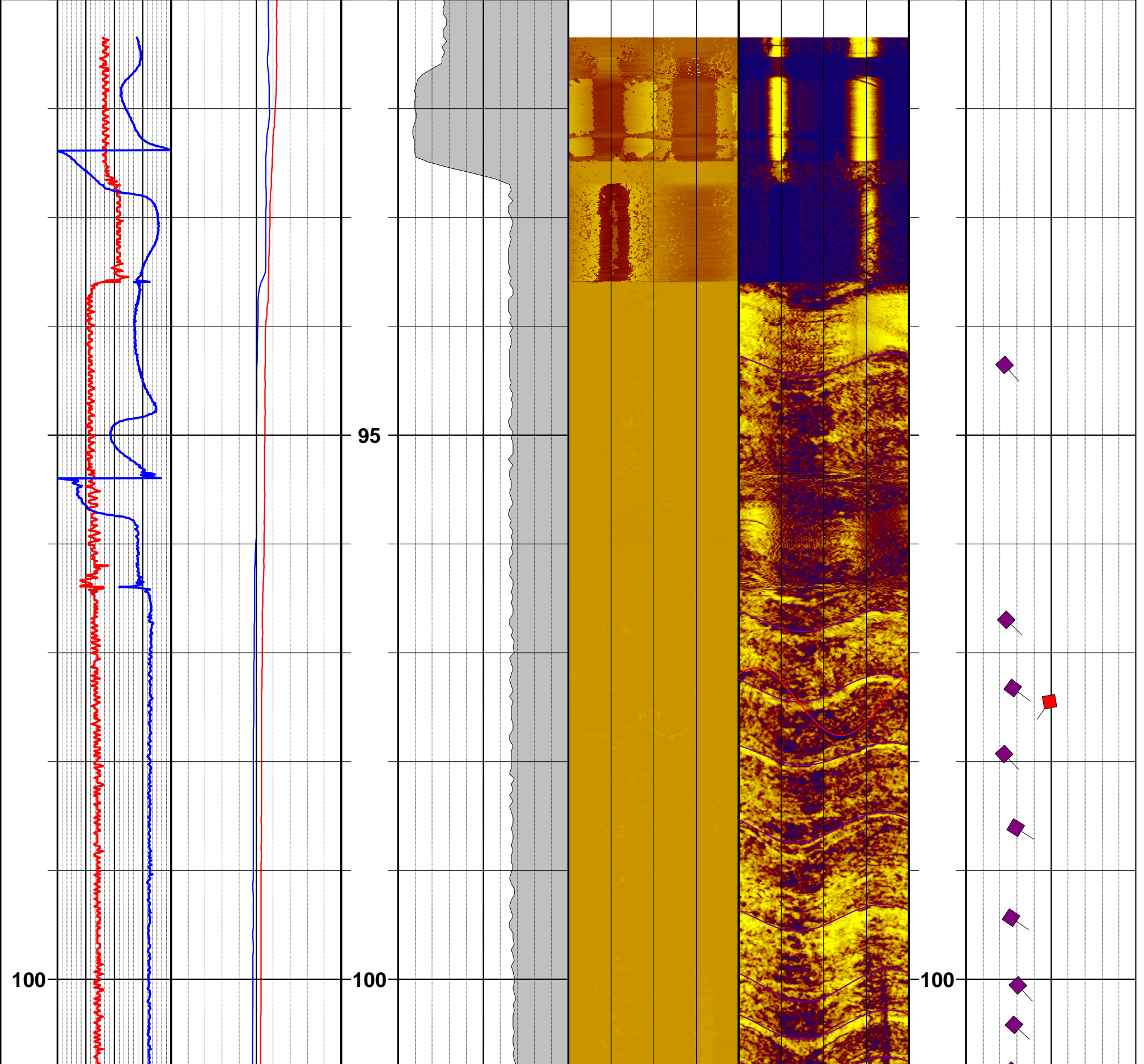
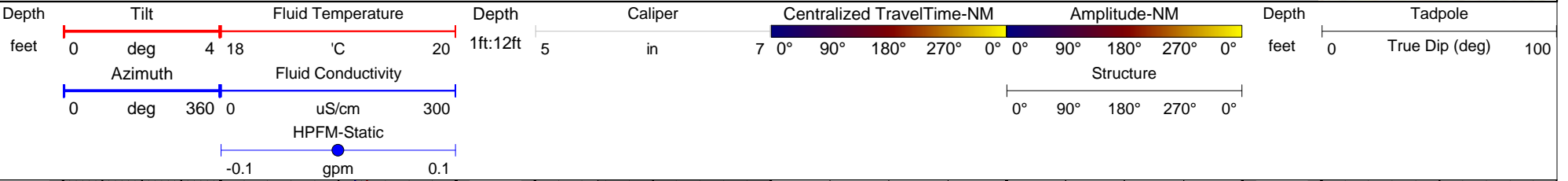


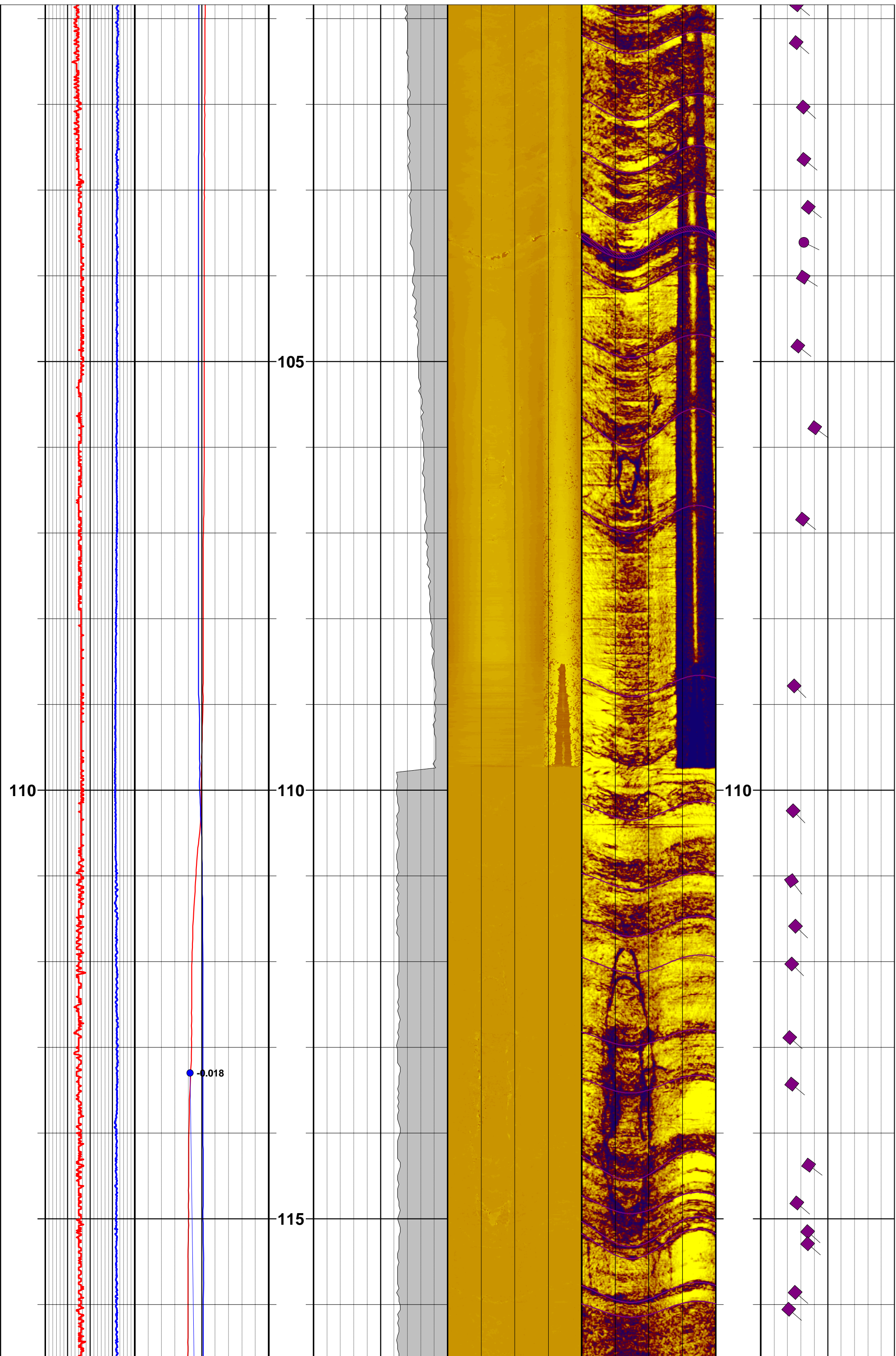
Project Title: Plant McDonough Ground Water Program
Project Number: GL166849621
Client: Georgia Power
Date: March 30, 2022

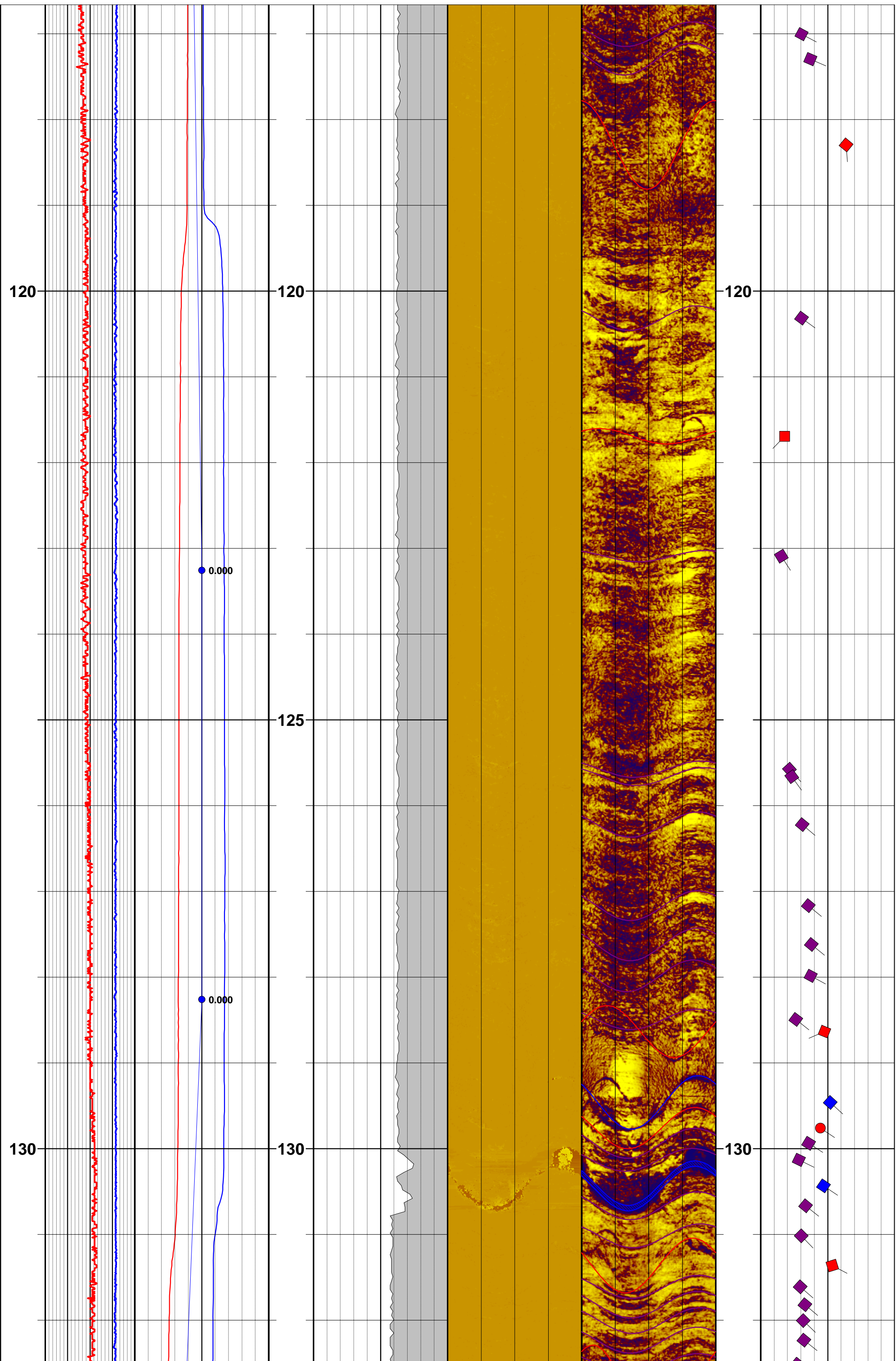
Preliminary Logs

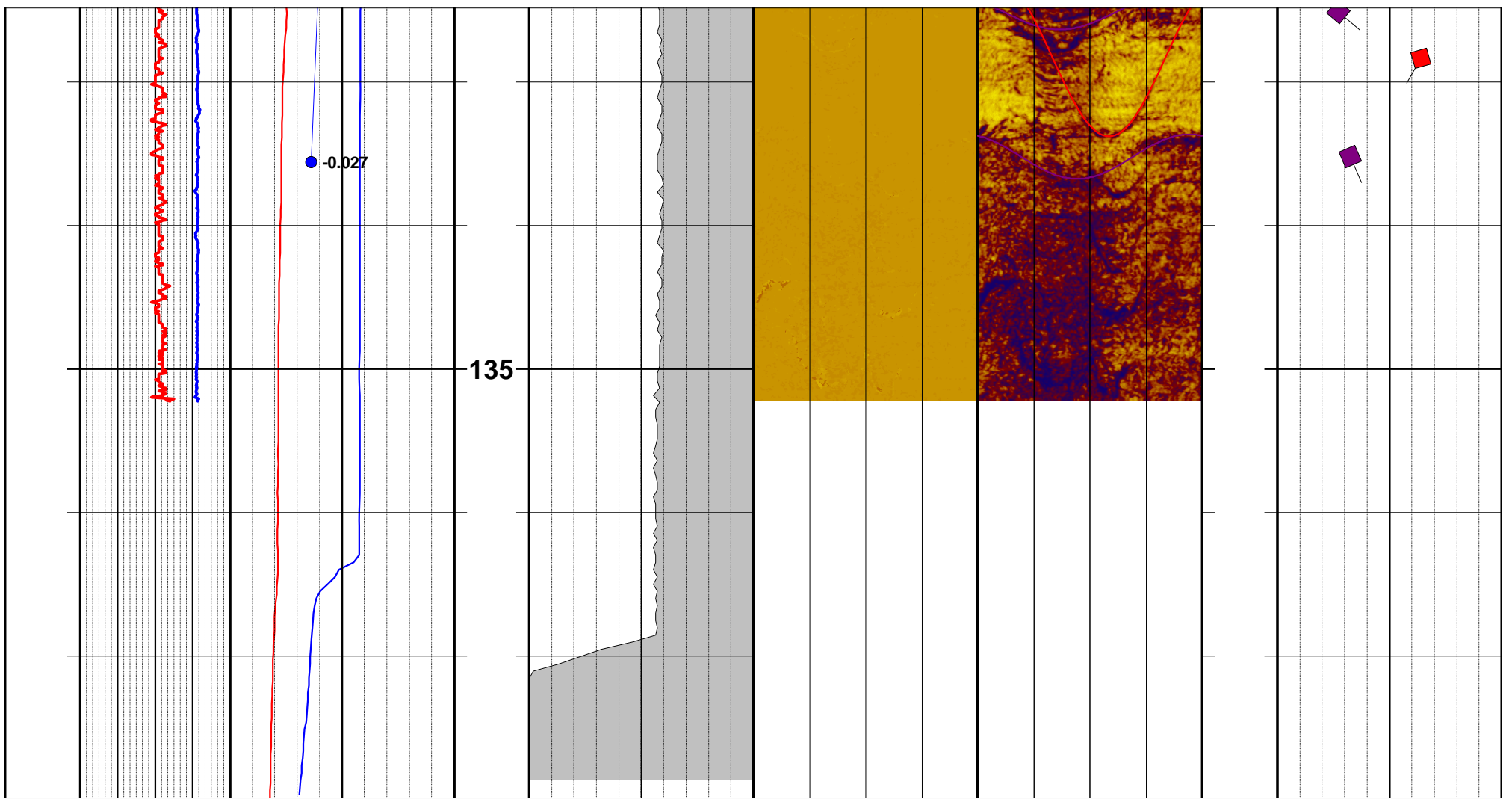
Driller: Cascade	Casing Dia.: 5.4 in	Log Depth Ref.: Logs zeroed @ gs	Location: Plant McDonough
Drilled Depth: 140 ft bgs	Casing Material: Steel	Water Level: 22.49 ft bgs @ 7:47am	
Drill Date: March 29, 2022	Casing Depth: 92.5 ft bgs	Borehole Incl.: vertical	Log Date: March 30, 2022
Drill Method.: 6" sonic	Casing Stick-up: 1.75 ft ags	Borehole Az.: na	Logged By: Chris Bryant

Notes: B-123 was drilled from 110 to 140 ft after completion of the geophysical logging on 3-29-2022. All tools were zeroed with the probe top at the TOC and corrected to ground surface in processing. The accuracy of the orientation sensor (APS544) used in the QL40ABI-2G (ABI) acoustic televiewer is +/- 1.2 degrees for Azimuth and +/- 0.5 degrees for Tilt. The ABI images are oriented to magnetic north. Water level at the start of the static HPFM run was 23.21 ft bgs at 9:38 am, a drop of ~0.72 ft in ~2 hours, a falling head condition during the test.









APPENDIX D

Certified Well Survey



1469 HIGHWAY 20 WEST • McDONOUGH, GA 30253
phone: 770-707-0777 fax: 770.707-0755
WWW.METRO-ENGINEERING.COM

SURVEYOR'S REPORT

SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant Branch in Milledgeville, GA.


Horizontal and vertical datum was derived from RTK GPS observations with corrections received via a cellular modem utilizing the Leica "Smartnet" RTK Network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Leica GS18T GPS Receiver
Leica TS16 Total Station
Leica DNA10 Digital Level

CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Leica GS18T GPS (survey-grade) global positioning system receiver referencing the Georgia State Plane, West Zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.


James R. Green R.L.S. No. 2543

Date: 5/10/22



Plant McDonough
Monitoring Well Locations
May 9, 2022

Well ID	LATITUDE	LONGITUDE	NAIL NORTHING	NAIL EASTING	NAIL ELEV	PVC NORTHING	PVC EASTING	TOP PVC ELEV	ELEV AT BASE
B-122D	N33.823541	W84.474897	1390992.06	2202975.35	777.32	1390992.8	2202975.4	777.03	777.3
B-123D	N33.824203	W84.476108	1391233.80	2202608.91	778.85	1391234.4	2202608.4	781.80	779.0
DWGC121	N33.822829	W84.481895	1390739.51	2200848.27	764.52	1390739.7	2200849.4	764.16	764.6

APPENDIX D

Well Condition Assessment Forms and Well Maintenance Documentation

TECHNICAL MEMORANDUM

DATE February 9, 2022

TO Joju Abraham, PG
Southern Company Services

CC Ben Hodges, Georgia Power Company

FROM Golder Associates USA Inc.

PLANT MCDONOUGH ASH POND 1, ASH POND 2 AND ASH POND 3/4
WELL MAINTENANCE AND REPAIR DOCUMENTATION
GEORGIA POWER COMPANY


Golder Associates USA Inc. (Golder) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant McDonough Ash Pond 1, Ash Pond 2, and Ash Pond 3/4 during the semi-annual reporting period. Repairs and maintenance were completed in accordance with 12-5-134 (5)(D)vii of the Georgia Well Standards Act (1985) for routine visual inspections of groundwater monitoring wells (i.e., at least once every five years) under the direction of a Georgia licensed professional engineer or geologist.

Plant McDonough – Well Maintenance Summary

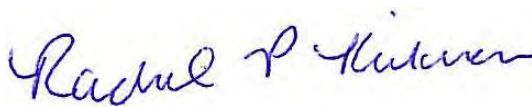
Well ID	Date Performed	Maintenance/Repair Performed
DGWA-53	October 2021	Cleared vegetation to improve access and visibility
DGWA-71	October 2021	Cleared vegetation to improve access and visibility. Replaced protective cover lid.
DGWC-2	October 2021	Replaced protective bollard.
DGWC-4	October 2021	Cleared vegetation to improve access and visibility
DGWC-5	October 2021	Cleared vegetation to improve access and visibility
DGWC-22	October 2021	Straighten protective bollard and added concrete to base.
DGWC-30	October 2021	Cleared vegetation to improve access and visibility
B-62	October 2021	Filled annular space with Portland/bentonite grout to approximately 5" from top of casing. Added pea gravel on top of grout.
B-63	October 2021	Repaired surface cracks in concrete pad with concrete resurface/fill
B-65	October 2021	Added concrete strap over the manhole cover for security.

Well ID	Date Performed	Maintenance/Repair Performed
B-87	October 2021	Cleared vegetation to improve access and visibility
B-88	October 2021	Cleared vegetation to improve access and visibility
B-94	October 2021	Cleared vegetation to improve access and visibility
B-95	October 2021	Replace concrete apron around flush mount protective cover. Updated survey is pending.
B-111	October 2021	Cleared vegetation to improve access and visibility
B-117D	October 2021	Cleared vegetation to improve access and visibility
B-3	October 2021	Cleared vegetation to improve access and visibility
B-120D	October 2021	Cleared vegetation to improve access and visibility
B-5	October 2021	Cleared vegetation to improve access and visibility
B-59	October 2021	Cleared vegetation to improve access and visibility; Straighten protective bollard.
DGWC-37	October 2021	Straighten protective bollard.
All wells	October 2021	Well Signs were confirmed and/or installed at all locations except for B-110D, B-112D and B-113D. These locations are flush mount wells located at the toe of AP1 dike. Signs will be replaced post construction.

Golder Associates USA Inc.



Dawn L. Prell
Senior Consultant, Hydrogeologist



Rachel P. Kirkman, PG
Senior Consultant, Principal

Attachments: Photo Documentation

[https://golderassociates.sharepoint.com/sites/11950g/shared documents/300_field information/2021/09_2021 sagw/mcd_well maintenance repair memo 2.2021.docx](https://golderassociates.sharepoint.com/sites/11950g/shared%20documents/300_field%20information/2021/09_2021_sagw/mcd_well_maintenance_repair_memo_2.2021.docx)

Southern Company CFS Plant McDonough Oct 2021 Well O&M

AP1 – DGWA-53: Cleared overgrowth from around pad.



AP1 – DGWA-71: Cleared overgrowth from around pad. Removed cracked protective cover lid and replaced with a new lid.



Southern Company CFS
Plant McDonough Oct 2021 Well O&M



AP-2/3/4 – DGWC-2: Replaced front left bollard.



Southern Company CFS

Plant McDonough Oct 2021 Well O&M

AP-2/3/4 – DGWC-4: Cleared overgrowth from around pad.



AP-2/3/4 – DGWC-5: Cleared overgrowth from around pad.



Southern Company CFS Plant McDonough Oct 2021 Well O&M

AP-2/3/4 – DGWC-22: Straightened bollard and added additional concrete to base.



AP1 – DGWC-39: Cleared overgrowth from around pad.



Southern Company CFS
Plant McDonough Oct 2021 Well O&M

AP-4 2/3/- B-62: Filled annular with Portland/Bentonite Grout and brought up to approx. 5" from top of casing. Added pea gravel to top of grout.

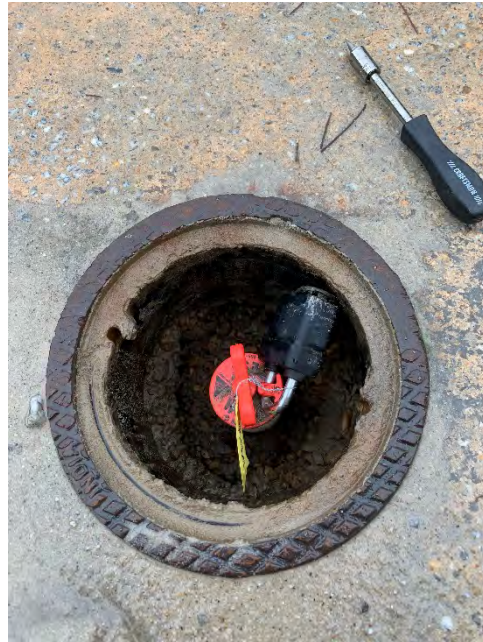


Southern Company CFS Plant McDonough Oct 2021 Well O&M

AP-2/3/4 – B-63: Only surface cracks observed in pad. Used concrete resurface/fill to fill in superficial cracks.



AP4 – B-65: Bolt flange on inside of manhole broke due to concrete truck traffic at the Argos Batch Plant near AP4 fence. The only way to repair is to saw cut the manhole/pad out of concrete and replace. After discussing with ES&EE, decided to place a strap over top of the manhole cover to keep it in place. If truck traffic damages the strap, then full replacement may be required.



Southern Company CFS
Plant McDonough Oct 2021 Well O&M



AP-4 2/3/- B-68: Discharge pipe is coming from the Argos Concrete Batch Plant Washdown area. The pipe is owned by Argos. After discussing with ES&EE, CFS did not tamper with the pipe until GPC EA/ES&EE contact Argos about extending the pipe downgradient of B-68.



Southern Company CFS
Plant McDonough Oct 2021 Well O&M

AP-4 2/3/- B-87: Cleared overgrowth from around pad.



AP-4 2/3/- B-88: Cleared overgrowth from around pad.



Southern Company CFS Plant McDonough Oct 2021 Well O&M

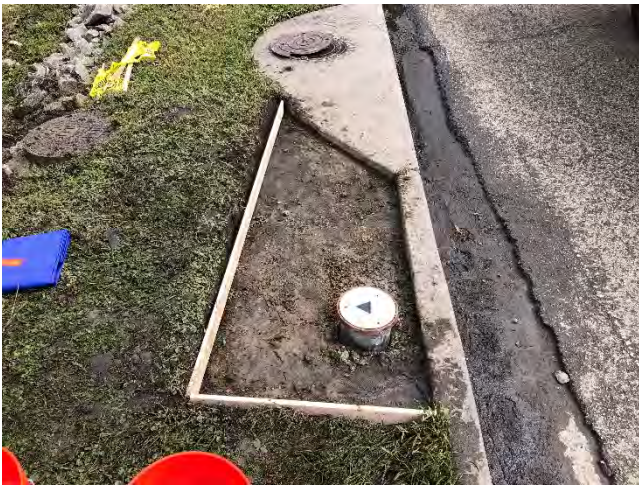
AP-4 2/3/- B-94: Cleared overgrowth from around pad.



AP-4 2/3/- B-95: Cracked pad due to truck traffic from Waste Management Facility. Appears that the manhole cover was pushed down which crushed the pad. The cover also contacted well cap and broke it. CFS removed the old pad/manhole and replaced. To lower the manhole closer to curb height to try to prevent the cover from being pushed down, CFS trimmed approx. 1' from the bottom of the manhole skirt. CFS also cut off the riser approx. 2" and replaced the well cap. The pad size was also increased, and rebar embedded in the concrete to strengthen and try to prevent the pad from cracking if it is run over again. Since CFS replaced the well cap, Golder will need to install a new cap lock as CFS was not able to transfer the lock over to the new cap. The well should also be resurveyed since the riser was cut off.



Southern Company CFS
Plant McDonough Oct 2021 Well O&M



Southern Company CFS
Plant McDonough Oct 2021 Well O&M



AP-4 2/3/- B-111D: Cleared overgrowth from around pad.



Southern Company CFS Plant McDonough Oct 2021 Well O&M

AP-4 2/3/- B-117D: Cleared overgrowth from around pad.



Additionally, all well signs that CFS was requested to procure, were installed during this O&M mobilization. All well signs were installed with the exception of B-110D, B-112D and B-113D. These are flush mount wells located at the toe of AP1 Dike. The ordered signs for these 3 wells were left in the SCS construction trailer, with the construction coordinator at the request of ES&EE.

Southern Company CFS Plant McDonough Oct 2021 Well O&M

While installing wells signs, additional wells that were observed needing maintenance where addressed:

B-3 – Clear overgrowth



B-120D – Clear Overgrowth



Southern Company CFS
Plant McDonough Oct 2021 Well O&M

B-5 – Clear Overgrowth



B-59 – Straighten bollard and clear overgrowth



Southern Company CFS
Plant McDonough Oct 2021 Well O&M

DGWC-37 – Straighten bollard



APPENDIX D

**Well Condition Assessment Forms
September/October 2021**

WELL INSPECTION FORM
PLANT MCDONOUGH

Well-ID	POSITION ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning lock and in good condition (S) for Satisfactory Discrepancies identified below	a. Pad & bollards in good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Sounded depth consistent with well log f. Stable/immobile (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment (S) for Satisfactory Discrepancies identified below
DGWA-53	↑	Overgrown	S	S	S	Poor recharge, requires purge dry and returning to sample
DGWA-70A	↑	S	S	S	S	S
DGWA-71	↑	Overgrown	Cracked Lid	S	S	S
DGWC-2	↓	S	S	Bollard knocked over	S	S
DGWC-4	↓	Overgrown	S	S	S	S
DGWC-5	↓	Overgrown	S	S	S	S
DGWC-8	↓	S	S	S	S	S
DGWC-9	↓	S	S	S	S	S
DGWC-10	↓	S	S	S	S	S
DGWC-11	↓	S	S	S	S	S
DGWC-12	↓	S	S	S	S	S
DGWC-13	↓	S	S	S	S	S
DGWC-14	↓	S	S	S	S	S
DGWC-15	↓	S	S	S	S	S
DGWC-17	↓	S	S	S	S	S
DGWC-19	↓	S	S	S	S	S
DGWC-20	↓	S	S	S	S	S
DGWC-21	↓	S	S	S	S	S
DGWC-22	↓	S	S	Bollard knocked over	S	S
DGWC-23	↓	S	S	S	S	S

WELL INSPECTION FORM
PLANT MCDONOUGH

Well-ID	POSITION ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning lock and in good condition (S) for Satisfactory Discrepancies identified below	a. Pad & bollards in good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weep hole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Sounded depth consistent with well log f. Stable/immobile (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment (S) for Satisfactory Discrepancies identified below
DGWC-37	↓	In floodplain	S	S	S	S
DGWC-38	↓	S	S	S	S	S
DGWC-39	↓	Overgrown	S	S	S	S
DGWC-40	↓	S	S	S	S	S
DGWC-42	↓	S	S	S	S	S
DGWC-47	↓	S	S	S	S	S
DGWC-48	↓	S	S	S	S	S
DGWC-67	↓	In floodplain	S	S	S	S
DGWC-68A	↓	S	S	S	S	S
DGWC-69	↓	S	S	S	S	S
B-3	↓	S	S	S	S	S
B-6	↓	S	S	S	S	S
B-7	↓	S	S	S	S	S
B-16	↓	S	S	S	S	S
B-18	↓	S	S	S	S	S
B-24	↓	S	S	S	S	S
B-25	↓	S	S	S	S	S
B-26	↓	S	S	S	S	S
B-28	↓	S	S	S	S	S
B-29	↓	S	S	S	S	S

WELL INSPECTION FORM
PLANT MCDONOUGH

Well-ID	POSITION ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning lock and in good condition (S) for Satisfactory Discrepancies identified below	a. Pad & bollards in good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Sounded depth consistent with well log f. Stable/immobile (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment (S) for Satisfactory Discrepancies identified below
B-31	↓	S	S	S	S	S
B-41	↓	S	S	S	S	S
B-50	↓	S	S	S	S	S
B-51	↓	In floodplain	S	S	S	S
B-52	↓	S	S	S	S	S
B-54	↓	S	S	S	S	S
B-55	↓	S	S	S	S	S
B-56	↓	S	S	S	S	S
B-57	↓	S	S	S	S	S
B-58	↓	S	S	S	S	S
B-59	↓	S	S	S	S	S
B-60	↓	S	S	S	S	S
B-61	↓	S	S	S	S	S
B-62	↓	S	Bolts and washers replaced	S	Cave in - annular space	S
B-63	↓	S	S	Well pad cracked	S	S
B-64	↓	S	S	S	S	S
B-65	↓	S	S	Bolt intake broken	S	S
B-66	↓	S	S	S	S	S
B-68	↓	S	S	S	S	S
B-72	↓	In floodplain	S	S	S	S

WELL INSPECTION FORM
PLANT MCDONOUGH

Well-ID	POSITION ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning lock and in good condition (S) for Satisfactory Discrepancies identified below	a. Pad & bollards in good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Sounded depth consistent with well log f. Stable/immobile (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment (S) for Satisfactory Discrepancies identified below
B-73	↓	S	S	S	S	S
B-74	↓	S	S	S	S	S
B-76	↓	S	S	S	S	S
B-77	↓	Well ID replaced	S	S	S	S
B-78	↓	S	S	S	S	S
B-79	↓	S	S	S	S	S
B-80	↓	S	Pea gravel added	S	Weep hole added	S
B-81	↓	S	S	S	S	S
B-82	↓	Downgrade of discharge pipe	S	S	S	S
B-83	↓	S	Washers replaced	S	S	S
B-84	↓	Well ID replaced	Bolt replaced	S	S	S
B-85	↓	S	S	S	S	S
B-86	↓	S	S	S	S	S
B-87	↓	Overgrown	S	Overgrown	S	S
B-88	↓	Overgrown	S	Overgrown	S	S
B-89	↓	S	S	S	S	S
B-90	↓	Close to Road	S	S	S	S
B-91	↓	Close to Road	S	S	S	S
B-92	↓	Close to Road	S	S	S	S
B-93	↓	Close to Road	S	S	S	S

WELL INSPECTION FORM
PLANT MCDONOUGH

Well-ID	POSITION ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning lock and in good condition (S) for Satisfactory Discrepancies identified below	a. Pad & bollards in good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Sounded depth consistent with well log f. Stable/immobile (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment (S) for Satisfactory Discrepancies identified below
B-94	↓	Overgrown	S	S	S	S
B-95	↓	Close to Road	S	Cracked Pad	S	S
B-96	↓	Close to Road	S	S	S	S
B-97	↓	Close to Road	S	S	S	S
B-98	↓	Close to Road	S	S	S	S
B-99	↓	S	S	S	S	S
B-100	↓	S	S	S	S	S
B-101D	↓	S	S	S	S	S
B-102D	↓	S	S	S	S	S
B-103D	↓	S	S	S	S	S
B-104D	↓	S	S	S	S	S
B-105D	↓	S	S	S	S	S
B-106D	↓	S	S	S	S	S
B-107D	↓	S	S	S	S	S
B-108D	↓	S	S	S	S	S
B-109D	↓	S	Pea gravel added	S	S	S
B-110D	↓	S	Bolt replaced	S	S	S
B-111D	↓	Overgrown	S	S	S	S
B-112D	↓	S	S	S	S	S
B-113D	↓	In floodplain	S	S	S	S

WELL INSPECTION FORM
PLANT MCDONOUGH

Well-ID	POSITION ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning lock and in good condition (S) for Satisfactory Discrepancies identified below	a. Pad & bollards in good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Sounded depth consistent with well log f. Stable/immobile (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment (S) for Satisfactory Discrepancies identified below
B-115D	↓	S	S	S	S	S
B-116D	↑	S	S	S	S	S
B-117D	↑	Overgrown	S	S	S	S
B-118	↑	Well ID replaced	S	S	S	S
B-119D	↑	Well ID replaced	S	S	S	S
B-120D	↓	S	S	S	S	S
AP-1-B-3	IW	S	S	S	S	S
AP-1-B-7	IW	S	S	S	S	S
AP-1-B-8	IW	S	S	S	S	S
						S

- NOTES:
 IW = Interstitial Well
1. Provide pictures of any deficiencies.
 2. Notify SCS /GPC of any noted deficiencies.
 3. Provide additional comments as necessary to address any deficiencies.
 4. Indicates issue resolved 9/16/21

APPENDIX D

**Well Condition Assessment Forms
January 2022**

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWA-53

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|--|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | X | |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWA-70A

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|--|---|---|--|
| A Does water recharge adequately when purged? | X | | |
| B If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| C Does the well require redevelopment (low flow/turbidity)? | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWA-71

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|---|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|--|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|--|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|--|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|---|--|
| A Does water recharge adequately when purged? | X | | |
| B If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| C Does the well require redevelopment (low flow/turbidity)? | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date: _____

Signature and Seal of PE/PG responsible for inspection _____

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-37

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|---|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | | X |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-38

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|--|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-39

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|--|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-40

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|--|---|---|--|
| A Does water recharge adequately when purged? If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C Does the well require redevelopment (low flow/turbidity)? | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-67

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|---|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | | X |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-68A

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|---|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: DGWC-69

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|---|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C Does the well require redevelopment (low flow/turbidity)? | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-105D

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-112D

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|---|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-113D

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | | X | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|---|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | | X | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|--|---|---|--|
| A Does water recharge adequately when purged? If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date: Wash out around well pad

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-62

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|--|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | X | |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-100

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|---|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | | X |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-90

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-91

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|--|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | X | |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-95

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|---|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | | X |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|---|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | | X |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date: Off site well, no lock bar

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-96

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|--|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | X | |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date: Off site well, no lock bar

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-99

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|--|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | X | |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-116D

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-117D

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|--|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | X | |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|--|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-118

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|---|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: B-119D

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|---|---|---|--|
| A Does water recharge adequately when purged?
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: AP-1-B-3

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | | |
|----------|--|---|---|
| A | Is the well visible and accessible? | X | |
| B | Is the well properly identified with correct well ID? | X | |
| C | Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D | Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | | |
|----------|---|---|--|
| A | Is the protective casing free from apparent damage and able to be secured? | X | |
| B | Is the casing free of degradation or deterioration? | X | |
| C | Does the casing have a functioning weep hole? | X | |
| D | Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E | Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | | |
|----------|---|---|--|
| A | Is the well pad in good condition (not cracked/broken)? | X | |
| B | Is the well pad sloped away from the protective casing? | X | |
| C | Is the well pad in complete contact with the ground surface and stable? | X | |
| D | Is the well pad in complete contact with the protective casing? | X | |
| E | Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | | |
|----------|---|---|--|
| A | Does the cap prevent entry of foreign material into the well? | X | |
| B | Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C | Is the well properly vented for equilibration of air pressure? | X | |
| D | Is the survey point clearly marked on the inner casing? | X | |
| E | Is the depth of the well consistent with the original well log? | X | |
| F | Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | | |
|----------|--|---|---|
| A | Does water recharge adequately when purged? | X | |
| B | If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| C | Does the well require redevelopment (low flow/turbidity)? | | X |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: AP-1-B-7

Date: 1/18/22

	Yes	No	N/A
--	-----	----	-----

1) Location/Identification

- | | | | |
|--|---|---|--|
| A Is the well visible and accessible? | X | | |
| B Is the well properly identified with correct well ID? | X | | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X | |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | | |

2) Protective Casing

- | | | | |
|---|---|--|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | | |
| B Is the casing free of degradation or deterioration? | X | | |
| C Does the casing have a functioning weep hole? | X | | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | | |
| E Is the well locked and is the lock in good condition? | X | | |

3) Surface Pad

- | | | | |
|---|---|--|--|
| A Is the well pad in good condition (not cracked/broken)? | X | | |
| B Is the well pad sloped away from the protective casing? | X | | |
| C Is the well pad in complete contact with the ground surface and stable? | X | | |
| D Is the well pad in complete contact with the protective casing? | X | | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | | |

4) Internal Casing

- | | | | |
|---|---|--|--|
| A Does the cap prevent entry of foreign material into the well? | X | | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | | |
| C Is the well properly vented for equilibration of air pressure? | X | | |
| D Is the survey point clearly marked on the inner casing? | X | | |
| E Is the depth of the well consistent with the original well log? | X | | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | | |

5) Sampling: Groundwater Wells Only

- | | | | |
|--|---|---|--|
| A Does water recharge adequately when purged? If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | | |
| B Does the well require redevelopment (low flow/turbidity)? | X | | |
| C | | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McDonough

Permit Number:

Well ID: AP-1-B-8

Date: 1/18/22

Yes	No	N/A
-----	----	-----

1) Location/Identification

- | | | |
|---|---|---|
| A Is the well visible and accessible? | X | |
| B Is the well properly identified with correct well ID? | X | |
| C Is the well in a high traffic area and does the well require protection from traffic? | | X |
| D Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path) | X | |

2) Protective Casing

- | | | |
|--|---|--|
| A Is the protective casing free from apparent damage and able to be secured? | X | |
| B Is the casing free of degradation or deterioration? | X | |
| C Does the casing have a functioning weep hole? | X | |
| D Is the annular space between the casings clear of debris and water, or filled with pea gravel/sand? | X | |
| E Is the well locked and is the lock in good condition? | X | |

3) Surface Pad

- | | | |
|--|---|--|
| A Is the well pad in good condition (not cracked/broken)? | X | |
| B Is the well pad sloped away from the protective casing? | X | |
| C Is the well pad in complete contact with the ground surface and stable? | X | |
| D Is the well pad in complete contact with the protective casing? | X | |
| E Is the pad surface clean (not covered with sediment or debris)? | X | |

4) Internal Casing

- | | | |
|--|---|--|
| A Does the cap prevent entry of foreign material into the well? | X | |
| B Is the casing free of kinks/bends, or any obstructions from foreign objects (such as bailers)? | X | |
| C Is the well properly vented for equilibration of air pressure? | X | |
| D Is the survey point clearly marked on the inner casing? | X | |
| E Is the depth of the well consistent with the original well log? | X | |
| F Is the casing stable? (Does PVC move easily when touched or can be taken apart by hand due to lack of grout or use of slip couplings in construction) | X | |

5) Sampling: Groundwater Wells Only

- | | | |
|---|---|--|
| A Does water recharge adequately when purged? If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater monitoring plan for the facility? | X | |
| B Does the well require redevelopment (low flow/turbidity)? | X | |

6) Based on professional judgement, is the well construction / location appropriate to **1)** achieve the objectives of the Groundwater Monitoring Program and **2)** comply with the applicable regulatory requirements? X

7) Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

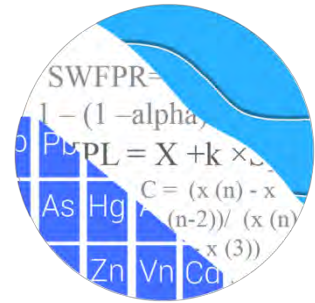
APPENDIX E

Statistical Analyses

APPENDIX E

**Statistical Analysis
September/October 2021**

GROUNDWATER STATS CONSULTING



February 28, 2022

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant McDonough Ash Pond (AP-1)
September 2021 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2021 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of groundwater data for Georgia Power Company's Plant McDonough AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. The delineation wells were installed at various times since 2020 and have limited data. Semi-annual sampling of the majority of Appendix IV constituents has been performed for the groundwater monitoring wells 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 wells:** DGWA-53, DGWA-70A, and DGWA-71
- **Downgradient wells:** DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, and DGWC-69
- **Delineation wells:** B-62, B-100, B-105D, B-112D, and B-113D

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Founder and Groundwater Statistician of Groundwater Stats Consulting. The analysis is prepared according to the recommended statistical methodology prepared in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance.

The Coal Combustion Residual (CCR) 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 delineation 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. Note that due to flooding in well DGWC-68A during the September 2021 sample event, this well was, reportedly, re-developed and resamples were collected in October 2021 for arsenic, barium, chromium, cobalt, and pH. While the September 2021 reported results remain in the database for this well, these measurements were flagged as outliers. 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 method was 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. Non-detects are handled as follows:

- 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 the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. 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 are used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified, and the reports were submitted with the screening. In cases where the most recent value was identified as an outlier, values were not flagged in the database at that time 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 laboratory's 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.

Of the outliers identified by Tukey's method, only a few of these values were flagged in the database as all other values are similar to remaining measurements within a given well or neighboring wells or were non-detects.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. When the reporting limit was higher than the Regional Screening Levels discussed below, non-detects were substituted with one half the reporting limit.

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 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, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any 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 were included with the previous screening and showed two statistically significant decreasing trends for the Appendix III parameters. The only trend identified in the upgradient wells was a statistically significant decreasing trend for sulfate in well DGWA-71. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets.

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 are not representative of the current background data

population; 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 which would indicate intrawell analyses may be most appropriate for these parameters. 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.

Statistical Analysis of Appendix III Parameters – September 2021

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2021 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2021 sample event from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result. Therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Several prediction limit exceedances were noted for Appendix III parameters. A summary table of the interwell prediction limits follows this letter. Note that the upper interwell prediction limit for pH at downgradient well DGWC-68A is equal to the reported concentration for this well when rounded to the same number of significant figures as the October 2021 sample.

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 to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction

limit in downgradient wells. Similar patterns that are present in both upgradient and downgradient wells are an indication of natural variability in groundwater quality, unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Chloride: DGWC-67

Decreasing trends:

- Calcium: DGWA-53 (upgradient)
- Chloride: DGWA-53 (upgradient) and DGWC-39
- Sulfate: DGWA-70A (upgradient), DGWA-71 (upgradient), and DGWC-39
- TDS: DGWA-53 (upgradient)

Statistical Analysis of Appendix IV Parameters – September 2021

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. Downgradient well/constituent pairs that have 100% non-detects do not require analysis. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis prior to constructing statistical limits. No new values were flagged during this analysis and a complete list of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2021 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for combined radium. 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).

As described in 40 CFR §257.95(h) (1-3), 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, CCR-rule specified level (RSLs) have been specified 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

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the September 2021 sample event for the federal and state rules (Figures G and H).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in accordance with the federal and state requirements in each downgradient well (Figures I and J, respectively). Note that confidence intervals require a minimum of 4 samples and, in many cases, the delineation wells had insufficient samples at this time. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Due to the required transformations to fit the data to a transformed normal distribution, the lower confidence limit resulted in a negative number for barium, cobalt, combined radium, and at delineation well B-100. Therefore, non-parametric confidence intervals were constructed for these well/constituent pairs and may be found at the end of Figures I and J. This is a more conservative approach in that the lower confidence limit reflects the lowest reported measurement in the data set rather than a negative number.

Those confidence intervals were compared to the GWPS established using the CCR Rules for the federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. A summary of the confidence intervals follows this letter. Exceedances were noted for the following well/constituent pairs:

Federal & State:

- Arsenic: DGWC-69
- Cobalt: DGWC-40
- Molybdenum: DGWC-68A

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure K). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. 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. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Cobalt: DGWC-40

Decreasing

- Cobalt: DGWA-53 (upgradient)

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for McDonough Ash Pond 1. 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
Groundwater Statistician

100% Non-Detects: Appendix IV Downgradient & Delineation

Analysis Run 11/8/2021 10:25 AM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Antimony (mg/L)

DGWC-37, DGWC-38, DGWC-39

Arsenic (mg/L)

B-100, B-113D, B-62

Beryllium (mg/L)

DGWC-39, DGWC-67, B-105D, B-112D, B-113D

Cadmium (mg/L)

DGWC-39, B-105D, B-112D, B-62

Chromium (mg/L)

DGWC-39

Cobalt (mg/L)

B-113D

Fluoride, total (mg/L)

B-100

Lead (mg/L)

B-62

Lithium (mg/L)

DGWC-39

Mercury (mg/L)

B-112D, B-113D, B-62

Molybdenum (mg/L)

DGWC-37, DGWC-39, DGWC-40, DGWC-67, B-100, B-62

Selenium (mg/L)

DGWC-37, DGWC-39, DGWC-69, B-105D, B-112D, B-113D, B-62

Thallium (mg/L)

DGWC-37, DGWC-67, DGWC-69, B-100, B-105D, B-112D, B-113D, B-62

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	DGWC-37	0.13	n/a	9/16/2021	1.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	9/15/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	9/17/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	9/14/2021	0.7	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	9/16/2021	3.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	9/16/2021	1.3	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-69	0.13	n/a	9/16/2021	0.32	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	9/16/2021	63	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	9/15/2021	88.3	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	9/17/2021	98.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	9/14/2021	45.1	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	9/16/2021	46	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	9/16/2021	60.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-37	4.677	n/a	9/16/2021	5.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-38	4.677	n/a	9/15/2021	7.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-39	4.677	n/a	9/17/2021	8.3	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-40	4.677	n/a	9/14/2021	16.7	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-67	4.677	n/a	9/16/2021	7.9	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Fluoride, total (mg/L)	DGWC-68A	0.42	n/a	9/16/2021	0.55	Yes	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
pH, Field (SU)	DGWC-40	6.556	5.244	9/14/2021	4.67	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-68A	6.556	5.244	10/27/2021	6.56	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.94	n/a	9/16/2021	95	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-38	28.94	n/a	9/15/2021	219	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-39	28.94	n/a	9/17/2021	156	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-40	28.94	n/a	9/14/2021	186	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-67	28.94	n/a	9/16/2021	101	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	265.7	n/a	9/16/2021	278	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	265.7	n/a	9/15/2021	474	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	265.7	n/a	9/17/2021	446	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	265.7	n/a	9/14/2021	347	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	265.7	n/a	9/16/2021	282	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	DGWC-37	0.13	n/a	9/16/2021	1.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	9/15/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	9/17/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	9/14/2021	0.7	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	9/16/2021	3.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	9/16/2021	1.3	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-69	0.13	n/a	9/16/2021	0.32	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	9/16/2021	63	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	9/15/2021	88.3	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	9/17/2021	98.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	9/14/2021	45.1	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	9/16/2021	46	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	9/16/2021	60.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-69	40.3	n/a	9/16/2021	18	No	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-37	4.677	n/a	9/16/2021	5.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-38	4.677	n/a	9/15/2021	7.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-39	4.677	n/a	9/17/2021	8.3	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-40	4.677	n/a	9/14/2021	16.7	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-67	4.677	n/a	9/16/2021	7.9	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-68A	4.677	n/a	9/16/2021	3.4	No	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-69	4.677	n/a	9/16/2021	4.5	No	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Fluoride, total (mg/L)	DGWC-37	0.42	n/a	9/16/2021	0.084J	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-38	0.42	n/a	9/15/2021	0.06J	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-39	0.42	n/a	9/17/2021	0.13	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-40	0.42	n/a	9/14/2021	0.13	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-67	0.42	n/a	9/16/2021	0.069J	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-68A	0.42	n/a	9/16/2021	0.55	Yes	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-69	0.42	n/a	9/16/2021	0.11	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
pH, Field (SU)	DGWC-37	6.556	5.244	9/16/2021	6.33	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-38	6.556	5.244	9/15/2021	6.08	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-39	6.556	5.244	9/17/2021	6.49	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-40	6.556	5.244	9/14/2021	4.67	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-67	6.556	5.244	9/16/2021	6.2	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-68A	6.556	5.244	10/27/2021	6.56	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-69	6.556	5.244	9/16/2021	6.16	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.94	n/a	9/16/2021	95	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-38	28.94	n/a	9/15/2021	219	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-39	28.94	n/a	9/17/2021	156	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-40	28.94	n/a	9/14/2021	186	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-67	28.94	n/a	9/16/2021	101	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-68A	28.94	n/a	9/16/2021	22.3	No	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-69	28.94	n/a	9/16/2021	17.9	No	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	265.7	n/a	9/16/2021	278	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	265.7	n/a	9/15/2021	474	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	265.7	n/a	9/17/2021	446	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	265.7	n/a	9/14/2021	347	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	265.7	n/a	9/16/2021	282	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	265.7	n/a	9/16/2021	259	No	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	265.7	n/a	9/16/2021	113	No	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	DGWA-53 (bg)	-4.533	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1941	-59	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.263	-53	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.4926	71	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.2582	-50	-48	Yes	14	35.71	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.564	-72	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-25.51	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-26.59	-62	-48	Yes	14	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	DGWA-53 (bg)	-0.002041	-16	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-70A (bg)	0	14	48	No	14	57.14	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-71 (bg)	0	-2	-43	No	13	23.08	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-37	-0.08919	-35	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-38	-0.03951	-20	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-39	-0.1094	-41	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-40	-0.03842	-48	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-67	0.0544	26	48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-68A	-0.1038	-42	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-69	-0.06702	-48	-58	No	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-53 (bg)	-4.533	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-70A (bg)	-0.1515	-29	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-71 (bg)	-0.6883	-36	-43	No	13	7.692	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-37	0.5433	10	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-38	3.389	43	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-39	0.8605	15	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-40	0.9025	32	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-67	0.776	31	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-68A	0.9653	37	48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1941	-59	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-70A (bg)	-0.08417	-33	-48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-71 (bg)	0.07636	12	48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-37	-0.1431	-42	-48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-38	0.1365	29	48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.263	-53	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-40	-0.1993	-32	-48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.4926	71	48	Yes	14	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWA-53 (bg)	-0.001259	-9	-63	No	17	11.76	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWA-70A (bg)	0.01092	48	53	No	15	66.67	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWA-71 (bg)	0	32	58	No	16	81.25	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWC-68A	-0.01382	-57	-58	No	16	6.25	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-53 (bg)	0.02897	13	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02535	-22	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.03005	28	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02032	-21	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-68A	-0.007008	-16	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-53 (bg)	-1.708	-31	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.2582	-50	-48	Yes	14	35.71	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.564	-72	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-37	-3.418	-37	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-38	-9.784	-40	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-25.51	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-40	-9.852	-42	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-67	-0.2466	-14	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-26.59	-62	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	-1.029	-7	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-5.605	-39	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	-4.604	-23	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	2.895	9	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	-15.12	-39	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-0.1363	0	43	No	13	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	-3.971	-11	-48	No	14	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/8/2021, 10:17 AM

Constituent	Well	Upper 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	44	n/a	n/a	79.55	n/a	n/a	0.1047	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	44	n/a	n/a	81.82	n/a	n/a	0.1047	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	44	n/a	n/a	0	n/a	n/a	0.1047	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0009	n/a	n/a	n/a	45	n/a	n/a	62.22	n/a	n/a	0.09944	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	44	n/a	n/a	93.18	n/a	n/a	0.1047	NP Inter(NDs)
Chromium (mg/L)	n/a	0.005	n/a	n/a	n/a	43	n/a	n/a	60.47	n/a	n/a	0.1102	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	5.605	n/a	n/a	n/a	46	1.041	0.3523	0	None	x ^(1/3)	0.05	Inter
Fluoride, total (mg/L)	n/a	0.42	n/a	n/a	n/a	48	n/a	n/a	52.08	n/a	n/a	0.08526	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	44	n/a	n/a	79.55	n/a	n/a	0.1047	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	44	n/a	n/a	86.36	n/a	n/a	0.1047	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	44	n/a	n/a	63.64	n/a	n/a	0.1047	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	44	n/a	n/a	95.45	n/a	n/a	0.1047	NP Inter(NDs)

PLANT MCDONOUGH ASH POND 1 GWPS TABLE - FEDERAL				
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		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.032	0.032
Combined Radium, Total (pCi/L)	5		5.61	5.61
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

PLANT MCDONOUGH ASH POND 1 GWPS TABLE - STATE				
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		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.032	0.032
Combined Radium, Total (pCi/L)	5		5.61	5.61
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.001
Lithium, Total (mg/L)		0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.041
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

Federal Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.1	Yes	15	0.2089	0.02252	0	None	In(x)	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.001954	0.001046	0.006	No	4	0.00225	0.0008813	50	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	7	0.002637	0.00096	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	14	0.002809	0.0007136	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.003	0.0023	0.006	No	14	0.002607	0.000874	78.57	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	14	0.002651	0.000891	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	15	0.002693	0.0006829	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.0007	0.01	No	15	0.003019	0.002198	53.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.0011	0.01	No	15	0.004157	0.001749	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0008	0.01	No	15	0.004415	0.001546	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	15	0.004773	0.0008779	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	ln(x)	0.01	Param.
Barium (mg/L)	B-100	0.022	0.015	2	No	4	0.02	0.003367	0	None	No	0.0625	NP (selected)
Barium (mg/L)	B-62	0.02758	0.01985	2	No	7	0.02371	0.003251	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1106	0.08922	2	No	15	0.09993	0.0158	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.0336	0.032	2	No	15	0.03288	0.0009143	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-39	0.09601	0.08399	2	No	15	0.09	0.008868	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.019	0.0168	2	No	15	0.01805	0.002624	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1121	0.1001	2	No	15	0.1061	0.008863	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.09023	0.08687	2	No	15	0.08855	0.00248	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-69	0.1021	0.06835	2	No	16	0.08523	0.02594	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0006113	0.0002587	0.004	No	4	0.000435	0.00007767	0	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0005	0.000078	0.004	No	8	0.0002085	0.000181	25	None	No	0.004	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.000086	0.004	No	15	0.0003602	0.0002048	66.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	15	0.0004705	0.0001141	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003315	0.002898	0.004	No	15	0.003107	0.0003081	6.667	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	15	0.000443	0.0001505	86.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000061	0.004	No	16	0.0003361	0.0002186	62.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	4	0.000355	0.000157	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00013	0.005	No	15	0.0003867	0.0001705	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	15	0.00034	0.0002553	20	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008845	0.0007248	0.005	No	15	0.0008047	0.0001178	13.33	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00018	0.005	No	15	0.000416	0.0001495	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.001	0.00017	0.005	No	15	0.000388	0.0002332	53.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	16	0.0004169	0.0001502	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.001223	0.0003828	0.1	No	4	0.002877	0.002456	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	7	0.004426	0.001519	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	15	0.004419	0.001534	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	15	0.004124	0.001816	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.00061	0.1	No	15	0.002267	0.002034	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.00088	0.1	No	15	0.003899	0.001899	73.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0011	0.1	No	16	0.003981	0.001829	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.087	0.029	0.032	No	6	0.058	0.02804	0	None	No	0.0155	NP (selected)
Cobalt (mg/L)	B-62	0.005	0.0003	0.032	No	7	0.003659	0.002291	71.43	None	No	0.008	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	15	0.004073	0.001919	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	15	0.002353	0.002296	13.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.007286	0.005895	0.032	No	15	0.006633	0.001136	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-67	0.003862	0.001505	0.032	No	15	0.003087	0.002508	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	15	0.004153	0.00177	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0016	0.032	No	16	0.003812	0.001698	62.5	None	No	0.01	NP (NDs)

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-100	1.4	0.168	5.61	No	4	0.7853	0.5031	0	None	No	0.0625	NP (selected)
Combined Radium 226 + 228 (pCi/L)	B-62	2.02	1.173	5.61	No	6	1.597	0.3082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.115	0.5395	5.61	No	15	0.8273	0.4247	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	1.193	0.3928	5.61	No	15	0.7931	0.5907	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.353	0.6709	5.61	No	15	1.012	0.5031	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.546	0.6118	5.61	No	15	1.079	0.6893	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.996	0.4419	5.61	No	15	0.7189	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.426	0.5976	5.61	No	15	1.012	0.6109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.844	1.178	5.61	No	16	1.511	0.5122	0	None	No	0.01	Param.
Fluoride, total (mg/L)	B-62	0.3546	0.06003	4	No	6	0.1855	0.1295	0	None	x^(1/3)	0.01	Param.
Fluoride, total (mg/L)	DGWC-37	0.21	0.054	4	No	16	0.1014	0.07777	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-38	0.23	0.057	4	No	16	0.1214	0.1131	12.5	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-39	0.17	0.083	4	No	16	0.1576	0.1194	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-40	0.3219	0.1358	4	No	16	0.2409	0.1592	6.25	None	sqrt(x)	0.01	Param.
Fluoride, total (mg/L)	DGWC-67	0.07	0.038	4	No	16	0.08794	0.1217	50	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-68A	0.23	0.076	4	No	16	0.1544	0.1295	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-69	0.1805	0.09325	4	No	17	0.1369	0.06963	5.882	None	No	0.01	Param.
Lead (mg/L)	B-100	0.0003036	0.00005528	0.015	No	4	0.0003695	0.0004235	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	15	0.0009641	0.0002702	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.0001	0.015	No	15	0.000701	0.0004381	66.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	15	0.0008867	0.0003003	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.00007	0.015	No	15	0.0005283	0.0004602	46.67	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-67	0.001	0.00009	0.015	No	15	0.0007629	0.0004094	73.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	15	0.0008945	0.0002836	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.00009	0.015	No	16	0.0006631	0.0004498	62.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.003519	0.0007815	0.04	No	4	0.00215	0.0006028	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.03	0.0078	0.04	No	7	0.01154	0.008158	14.29	None	No	0.008	NP (normality)
Lithium (mg/L)	DGWC-37	0.03	0.0021	0.04	No	15	0.009707	0.01267	26.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0035	0.0029	0.04	No	15	0.005	0.00692	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.003	0.0022	0.04	No	15	0.00602	0.009739	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.0052	0.0043	0.04	No	15	0.00634	0.006555	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	15	0.02616	0.01013	86.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0024	0.04	No	16	0.004525	0.006804	6.25	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	14	0.0001711	0.00005824	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	14	0.0001711	0.00005818	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	14	0.0001899	0.00003768	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	14	0.0001699	0.00006064	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-38	0.01	0.00099	0.1	No	15	0.005219	0.004629	46.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.1	Yes	15	0.2089	0.02252	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	DGWC-69	0.01236	0.006699	0.1	No	16	0.01023	0.005862	6.25	None	ln(x)	0.01	Param.
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	4	0.004225	0.00155	75	Kaplan-Meier	No	0.0625	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003517	0.001857	0.05	No	15	0.003607	0.002356	20	Kaplan-Meier	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	15	0.004847	0.0005939	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	15	0.00478	0.0008521	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.0001	0.002	No	15	0.000534	0.0004517	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-39	0.001	0.00009	0.002	No	15	0.0006953	0.0004461	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.000068	0.002	No	15	0.0006885	0.0004559	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	15	0.0009433	0.0002195	93.33	None	No	0.01	NP (NDs)

State Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.041	Yes	15	0.2089	0.02252	0	None	In(x)	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.001954	0.001046	0.006	No	4	0.00225	0.0008813	50	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	7	0.002637	0.00096	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	14	0.002809	0.0007136	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.003	0.0023	0.006	No	14	0.002607	0.000874	78.57	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	14	0.002651	0.000891	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	15	0.002693	0.0006829	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.0007	0.01	No	15	0.003019	0.002198	53.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.0011	0.01	No	15	0.004157	0.001749	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0008	0.01	No	15	0.004415	0.001546	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	15	0.004773	0.0008779	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	ln(x)	0.01	Param.
Barium (mg/L)	B-100	0.022	0.015	2	No	4	0.02	0.003367	0	None	No	0.0625	NP (selected)
Barium (mg/L)	B-62	0.02758	0.01985	2	No	7	0.02371	0.003251	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1106	0.08922	2	No	15	0.09993	0.0158	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.0336	0.032	2	No	15	0.03288	0.0009143	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-39	0.09601	0.08399	2	No	15	0.09	0.008868	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.019	0.0168	2	No	15	0.01805	0.002624	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1121	0.1001	2	No	15	0.1061	0.008863	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.09023	0.08687	2	No	15	0.08855	0.00248	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-69	0.1021	0.06835	2	No	16	0.08523	0.02594	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0006113	0.0002587	0.004	No	4	0.000435	0.00007767	0	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0005	0.000078	0.004	No	8	0.0002085	0.000181	25	None	No	0.004	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.000086	0.004	No	15	0.0003602	0.0002048	66.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	15	0.0004705	0.0001141	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003315	0.002898	0.004	No	15	0.003107	0.0003081	6.667	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	15	0.000443	0.0001505	86.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000061	0.004	No	16	0.0003361	0.0002186	62.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	4	0.000355	0.000157	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00013	0.005	No	15	0.0003867	0.0001705	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	15	0.00034	0.0002553	20	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008845	0.0007248	0.005	No	15	0.0008047	0.0001178	13.33	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00018	0.005	No	15	0.000416	0.0001495	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.001	0.00017	0.005	No	15	0.000388	0.0002332	53.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	16	0.0004169	0.0001502	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.001223	0.0003828	0.1	No	4	0.002877	0.002456	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	7	0.004426	0.001519	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	15	0.004419	0.001534	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	15	0.004124	0.001816	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.00061	0.1	No	15	0.002267	0.002034	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.00088	0.1	No	15	0.003899	0.001899	73.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0011	0.1	No	16	0.003981	0.001829	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.087	0.029	0.032	No	6	0.058	0.02804	0	None	No	0.0155	NP (selected)
Cobalt (mg/L)	B-62	0.005	0.0003	0.032	No	7	0.003659	0.002291	71.43	None	No	0.008	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	15	0.004073	0.001919	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	15	0.002353	0.002296	13.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.007286	0.005895	0.032	No	15	0.006633	0.001136	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-67	0.003862	0.001505	0.032	No	15	0.003087	0.002508	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	15	0.004153	0.00177	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0016	0.032	No	16	0.003812	0.001698	62.5	None	No	0.01	NP (NDs)

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-100	1.4	0.168	5.61	No	4	0.7853	0.5031	0	None	No	0.0625	NP (selected)
Combined Radium 226 + 228 (pCi/L)	B-62	2.02	1.173	5.61	No	6	1.597	0.3082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.115	0.5395	5.61	No	15	0.8273	0.4247	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	1.193	0.3928	5.61	No	15	0.7931	0.5907	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.353	0.6709	5.61	No	15	1.012	0.5031	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.546	0.6118	5.61	No	15	1.079	0.6893	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.996	0.4419	5.61	No	15	0.7189	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.426	0.5976	5.61	No	15	1.012	0.6109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.844	1.178	5.61	No	16	1.511	0.5122	0	None	No	0.01	Param.
Fluoride, total (mg/L)	B-62	0.3546	0.06003	4	No	6	0.1855	0.1295	0	None	x^(1/3)	0.01	Param.
Fluoride, total (mg/L)	DGWC-37	0.21	0.054	4	No	16	0.1014	0.07777	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-38	0.23	0.057	4	No	16	0.1214	0.1131	12.5	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-39	0.17	0.083	4	No	16	0.1576	0.1194	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-40	0.3219	0.1358	4	No	16	0.2409	0.1592	6.25	None	sqrt(x)	0.01	Param.
Fluoride, total (mg/L)	DGWC-67	0.07	0.038	4	No	16	0.08794	0.1217	50	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-68A	0.23	0.076	4	No	16	0.1544	0.1295	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-69	0.1805	0.09325	4	No	17	0.1369	0.06963	5.882	None	No	0.01	Param.
Lead (mg/L)	B-100	0.0003036	0.00005528	0.001	No	4	0.0003695	0.0004235	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.001	No	15	0.0009641	0.0002702	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.0001	0.001	No	15	0.000701	0.0004381	66.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.001	No	15	0.0008867	0.0003003	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.00007	0.001	No	15	0.0005283	0.0004602	46.67	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-67	0.001	0.00009	0.001	No	15	0.0007629	0.0004094	73.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.001	No	15	0.0008945	0.0002836	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.00009	0.001	No	16	0.0006631	0.0004498	62.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.003519	0.0007815	0.03	No	4	0.00215	0.0006028	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.03	0.0078	0.03	No	7	0.01154	0.008158	14.29	None	No	0.008	NP (normality)
Lithium (mg/L)	DGWC-37	0.03	0.0021	0.03	No	15	0.009707	0.01267	26.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0035	0.0029	0.03	No	15	0.005	0.00692	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.003	0.0022	0.03	No	15	0.00602	0.009739	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.0052	0.0043	0.03	No	15	0.00634	0.006555	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.03	No	15	0.02616	0.01013	86.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0024	0.03	No	16	0.004525	0.006804	6.25	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	14	0.0001711	0.00005824	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	14	0.0001711	0.00005818	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	14	0.0001899	0.00003768	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	14	0.0001699	0.00006064	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-38	0.01	0.00099	0.041	No	15	0.005219	0.004629	46.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.041	Yes	15	0.2089	0.02252	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	DGWC-69	0.01236	0.006699	0.041	No	16	0.01023	0.005862	6.25	None	ln(x)	0.01	Param.
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	4	0.004225	0.00155	75	Kaplan-Meier	No	0.0625	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003517	0.001857	0.05	No	15	0.003607	0.002356	20	Kaplan-Meier	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	15	0.004847	0.0005939	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	15	0.00478	0.0008521	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.0001	0.002	No	15	0.000534	0.0004517	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-39	0.001	0.00009	0.002	No	15	0.0006953	0.0004461	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.000068	0.002	No	15	0.0006885	0.0004559	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	15	0.0009433	0.0002195	93.33	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/8/2021, 11:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	DGWA-53 (bg)	-0.005485	-77	-53	Yes	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.002343	56	53	Yes	15	0	n/a	n/a	0.01	NP

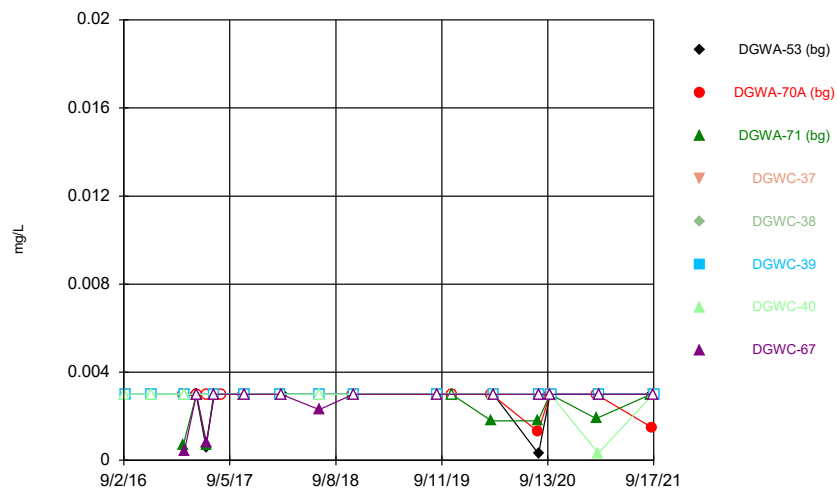
Appendix IV Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/8/2021, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	11	53	No	15	66.67	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-4	-53	No	15	93.33	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	9	48	No	14	85.71	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWC-69	0.00508	52	63	No	17	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.005485	-77	-53	Yes	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-70A (bg)	0	13	53	No	15	46.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-71 (bg)	0	35	48	No	14	64.29	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.002343	56	53	Yes	15	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.002607	-25	-53	No	15	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	13	48	No	14	92.86	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWC-68A	-0.006801	-42	-53	No	15	0	n/a	n/a	0.01	NP

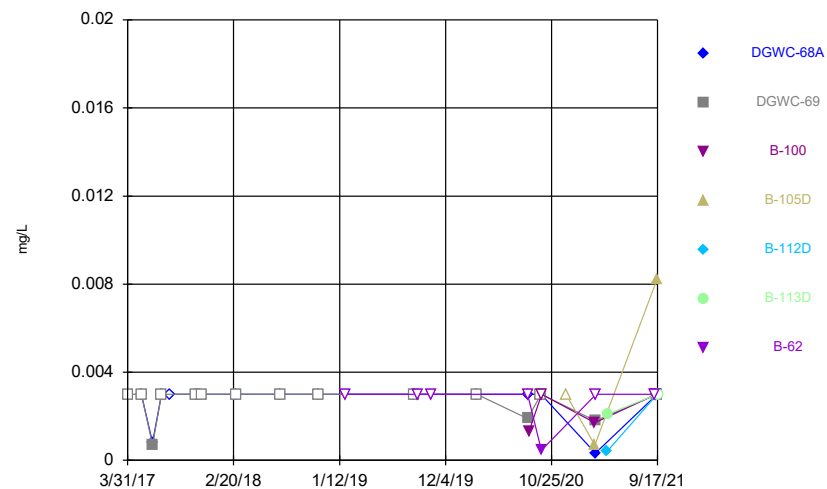
FIGURE A.

Time Series



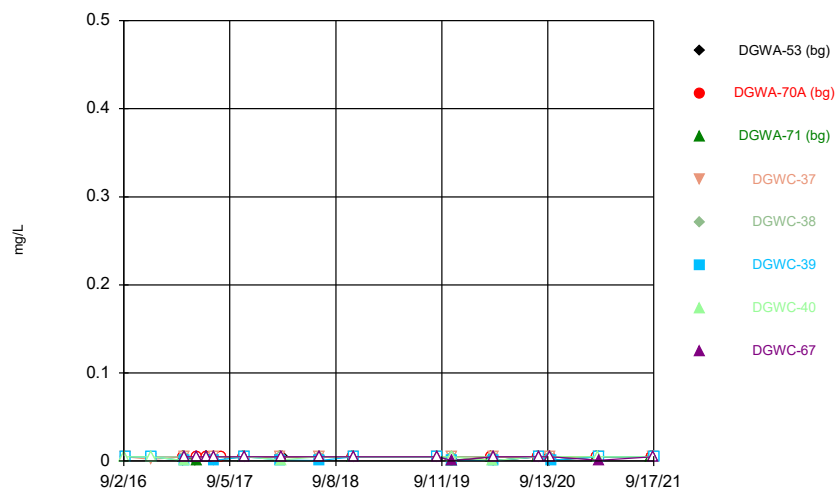
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



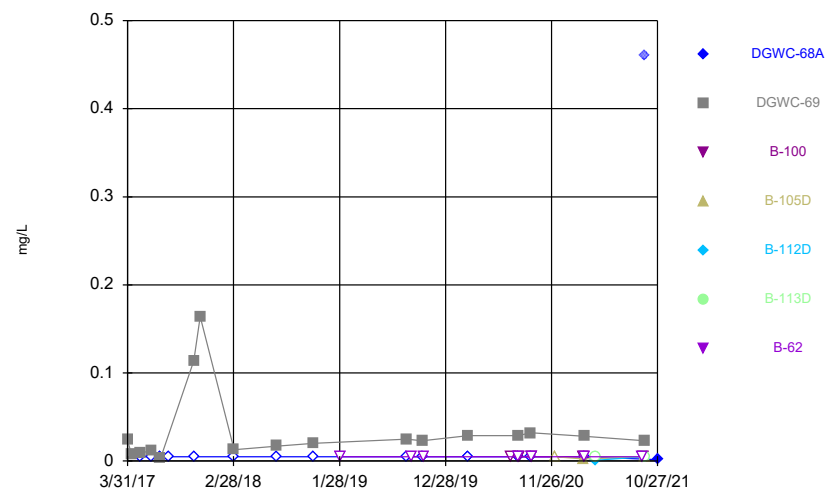
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



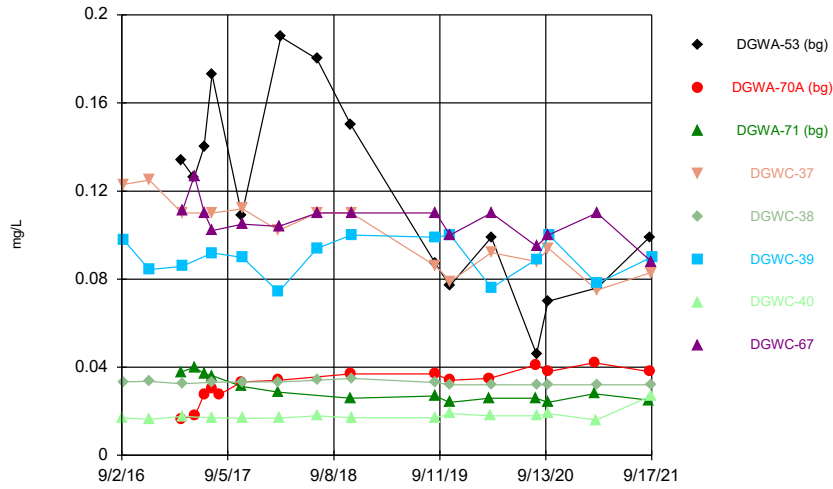
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



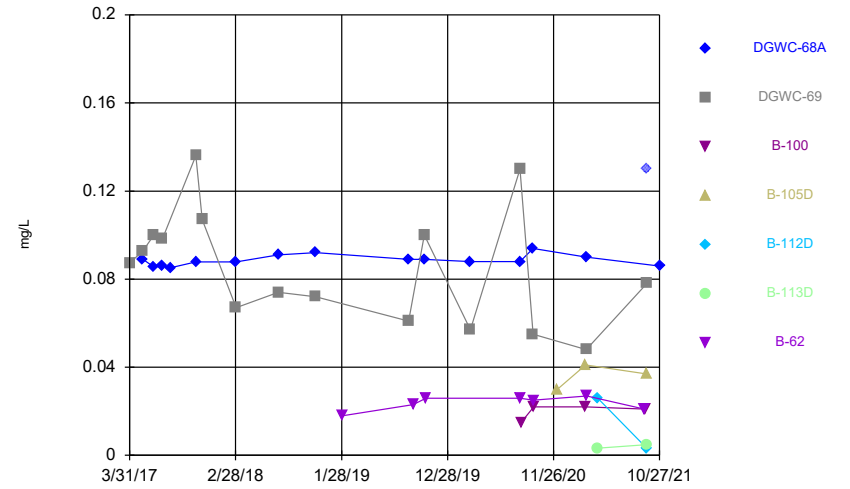
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



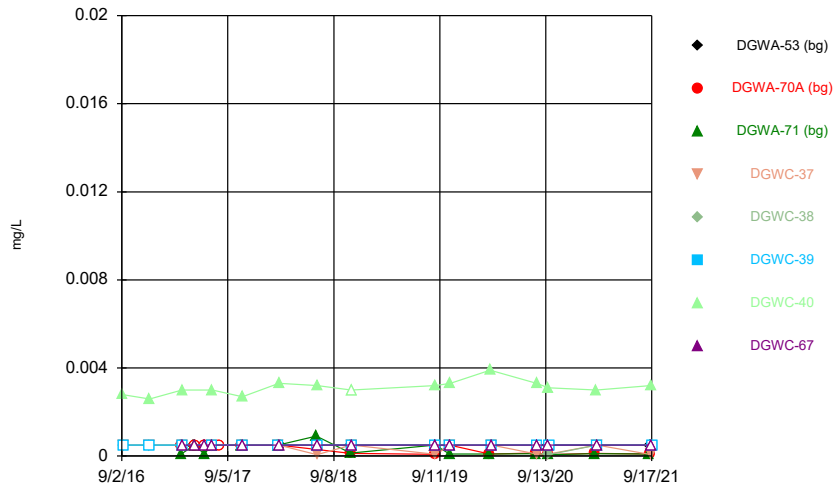
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



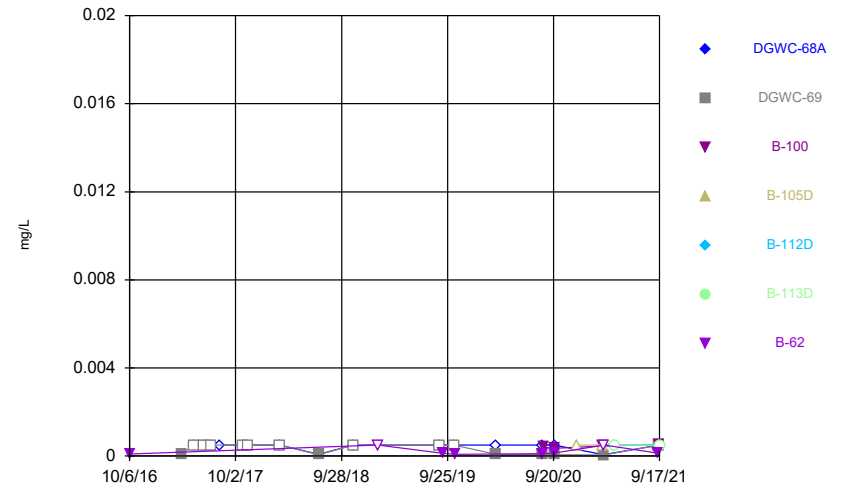
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



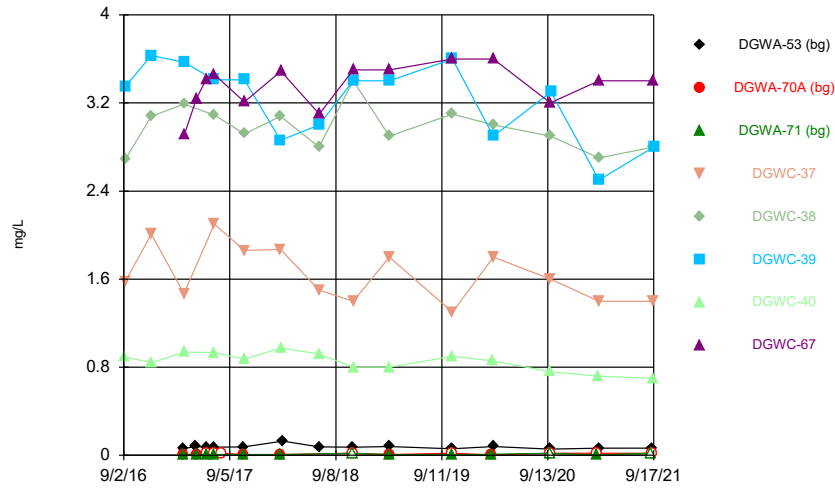
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



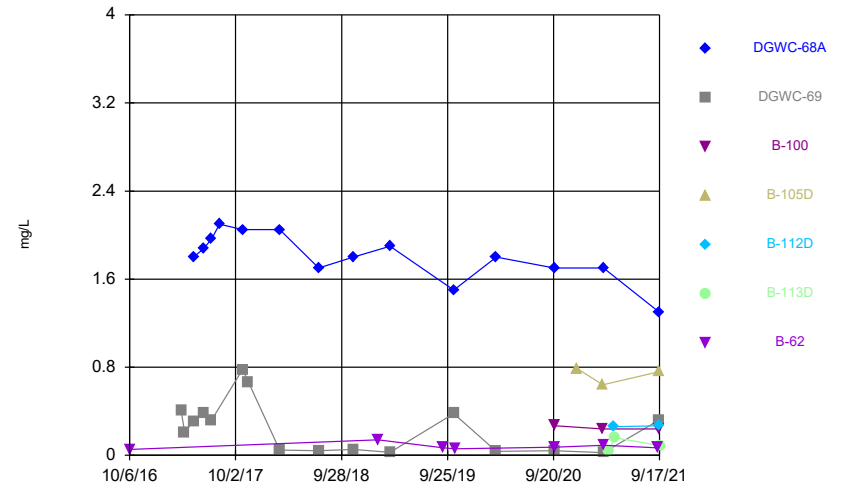
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



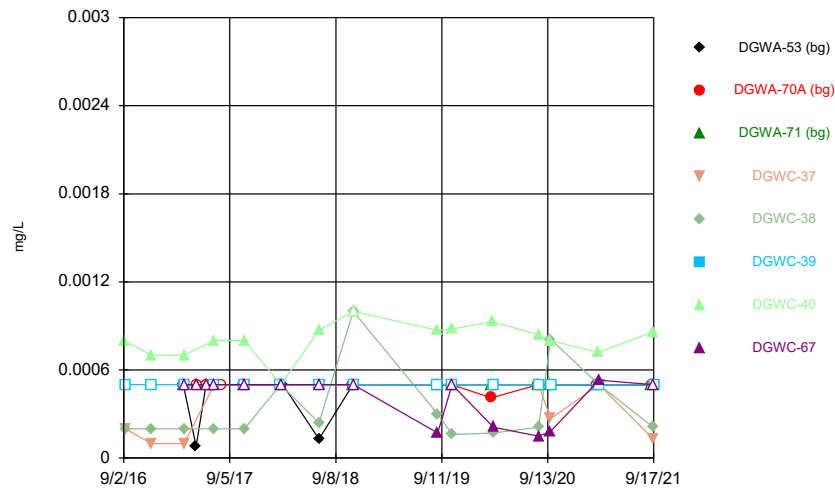
Constituent: Boron, total Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



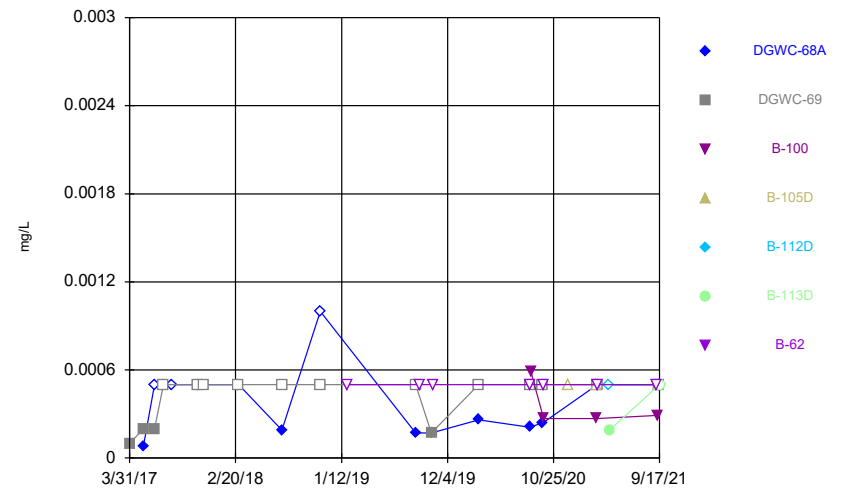
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



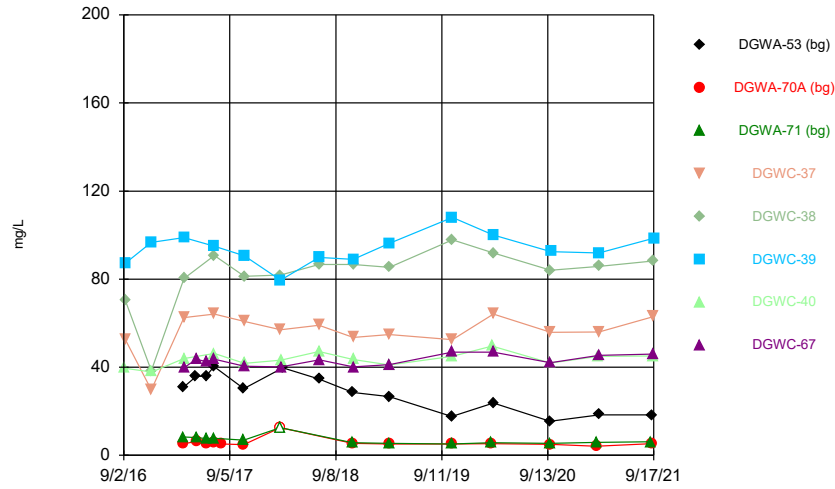
Constituent: Cadmium Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



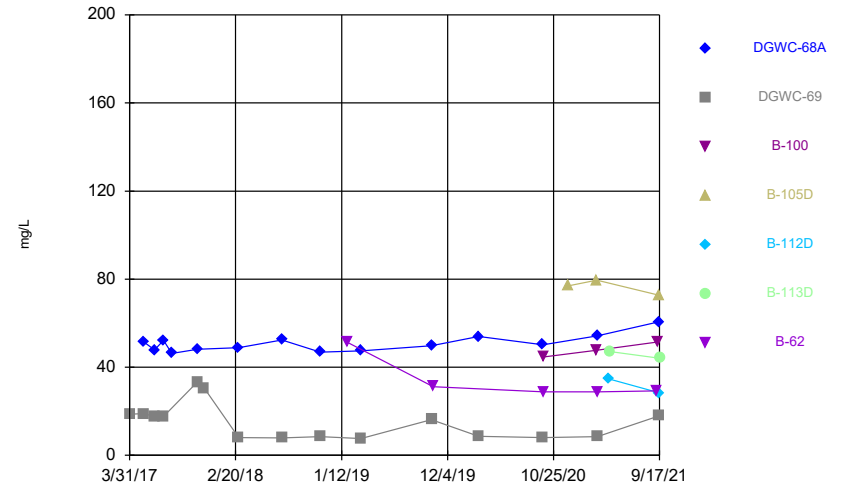
Constituent: Cadmium Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



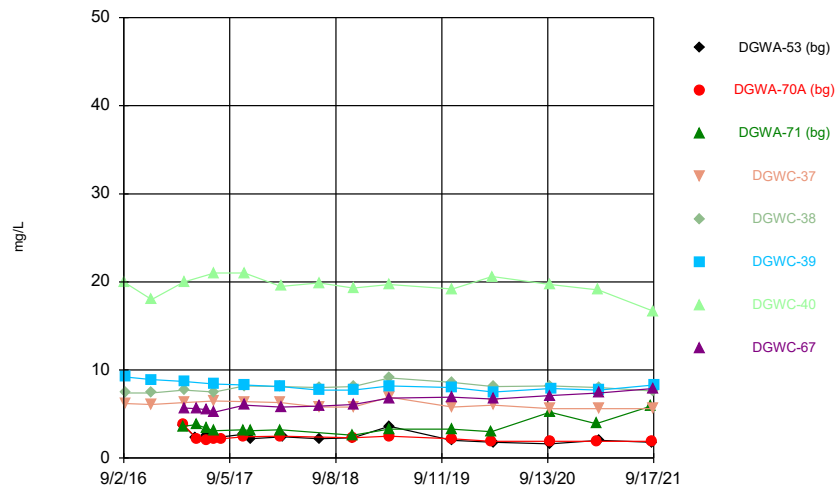
Constituent: Calcium, total Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



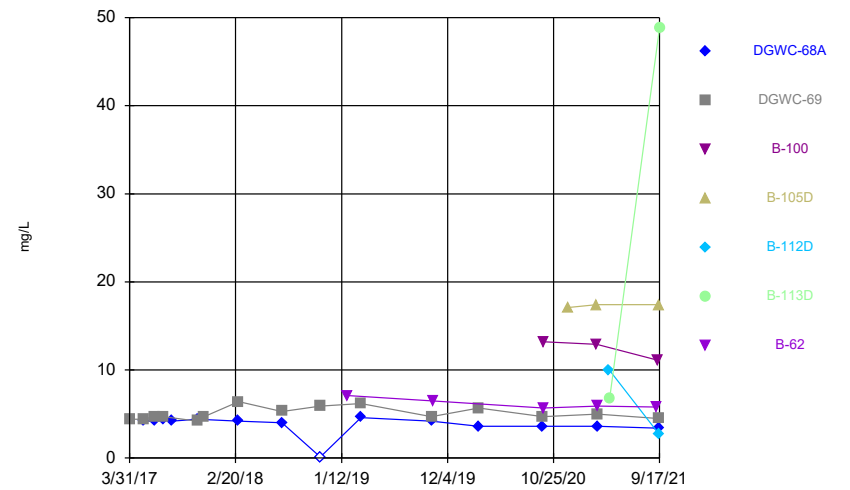
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Time Series



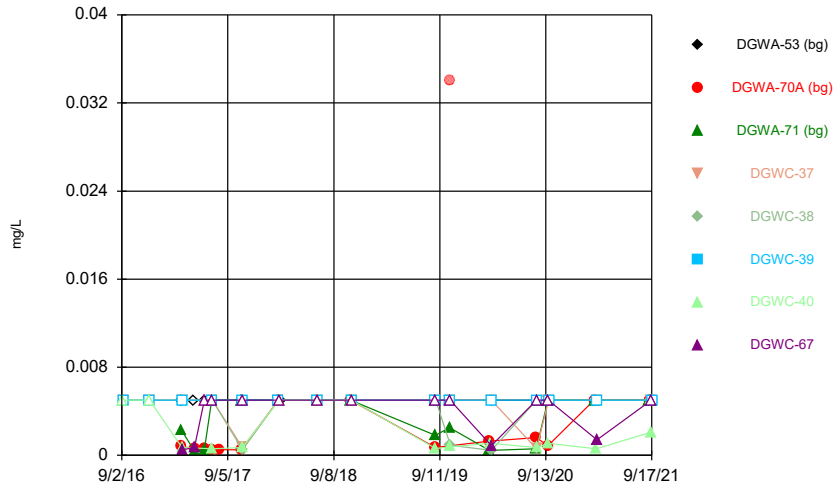
Constituent: Chloride, Total Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



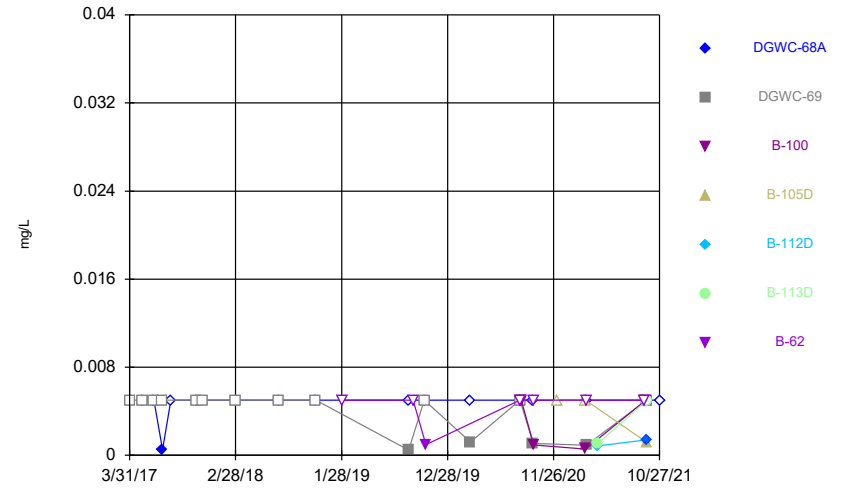
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



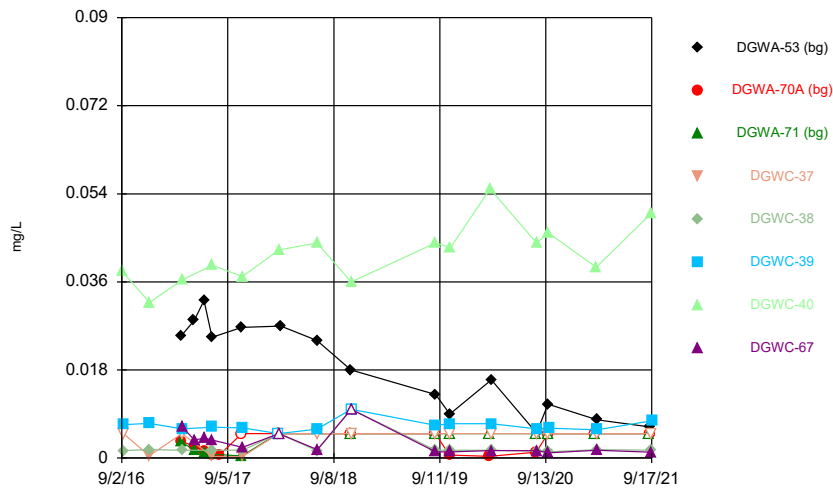
Constituent: Chromium Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



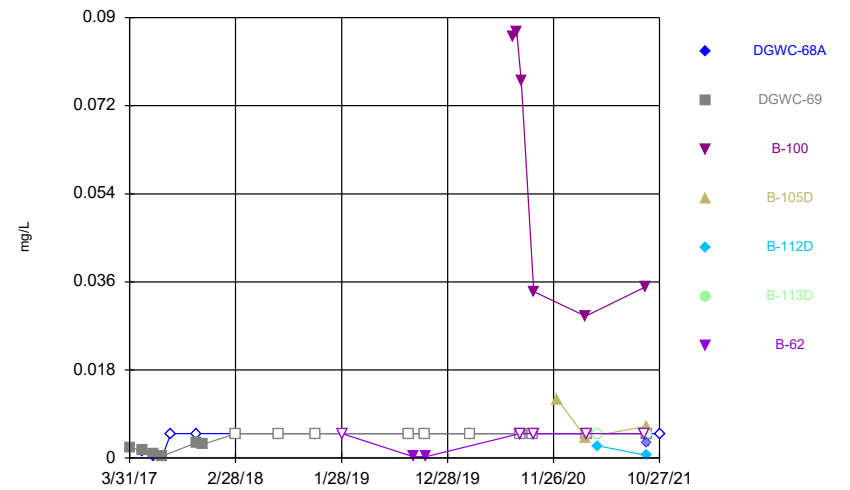
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



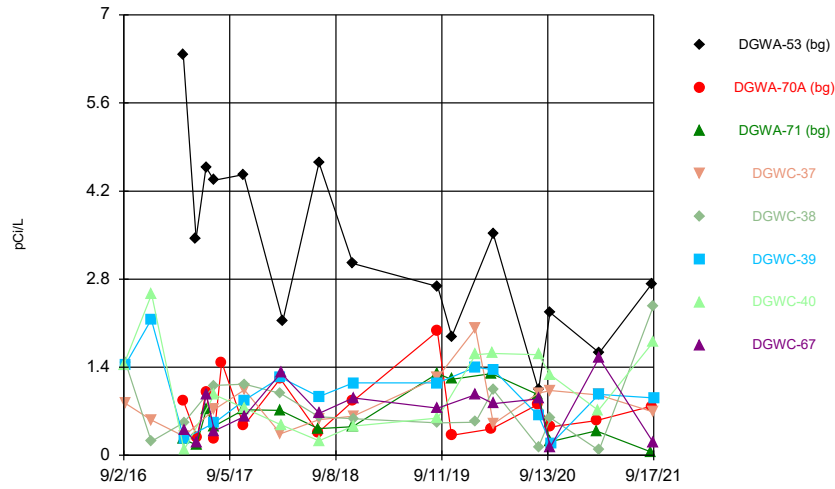
Constituent: Cobalt Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



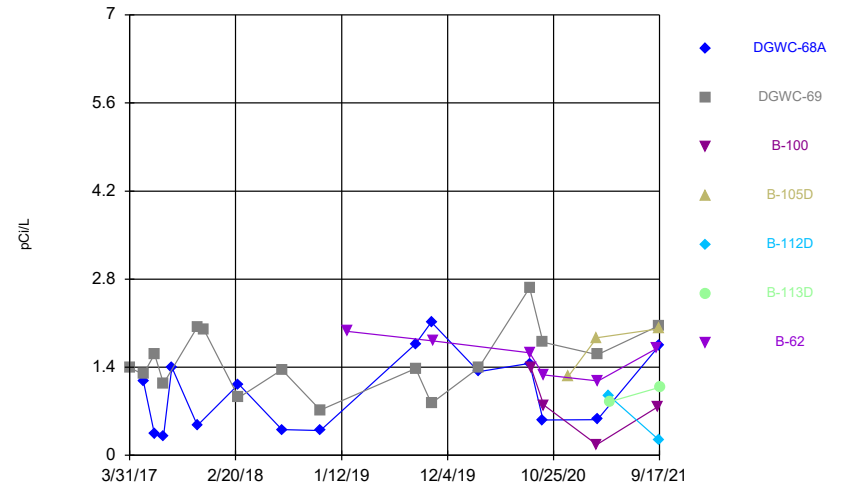
Constituent: Cobalt Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



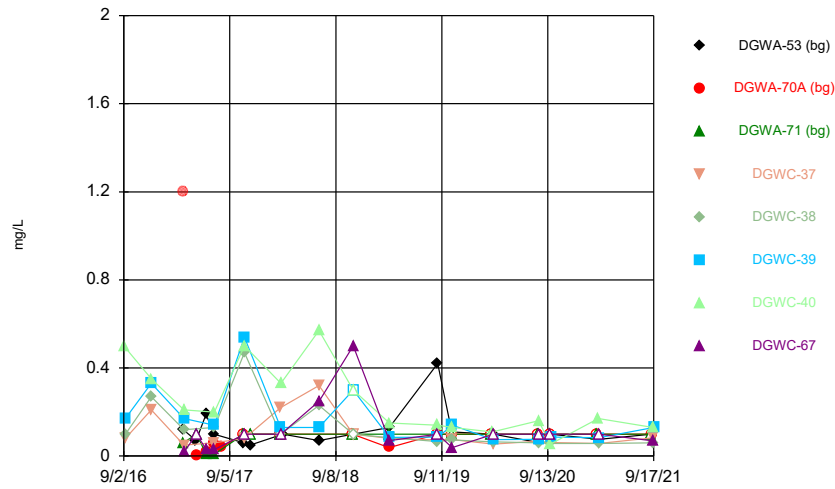
Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



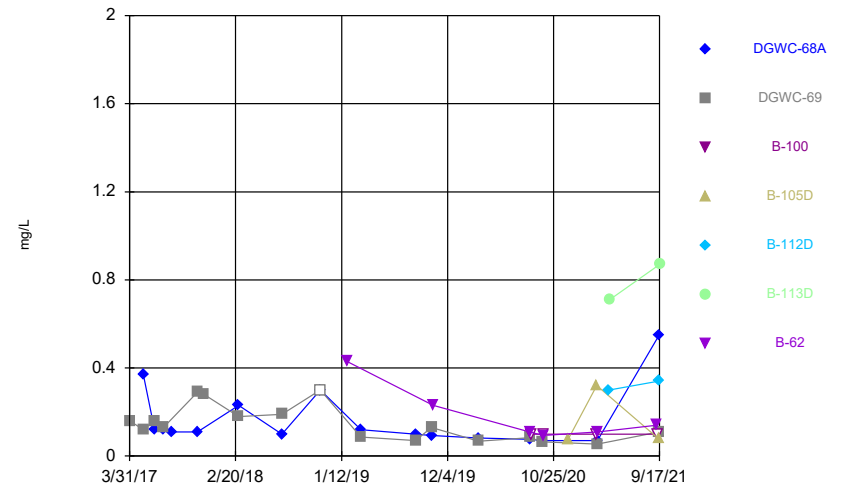
Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



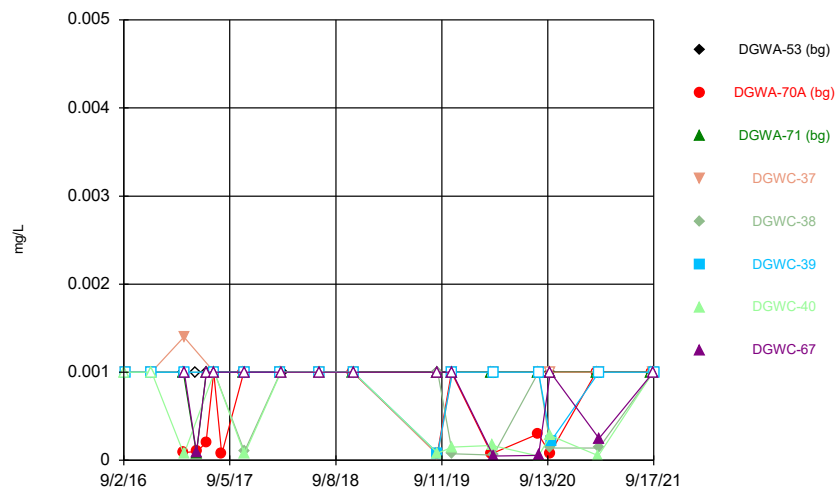
Constituent: Fluoride, total Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



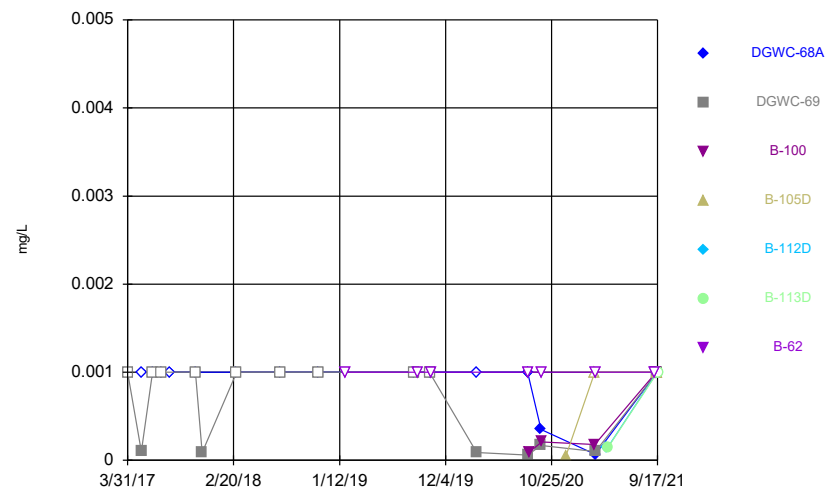
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



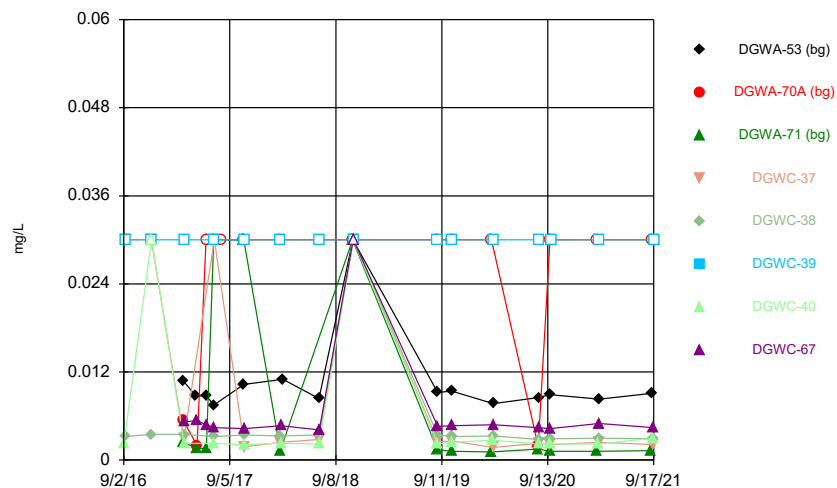
Constituent: Lead Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



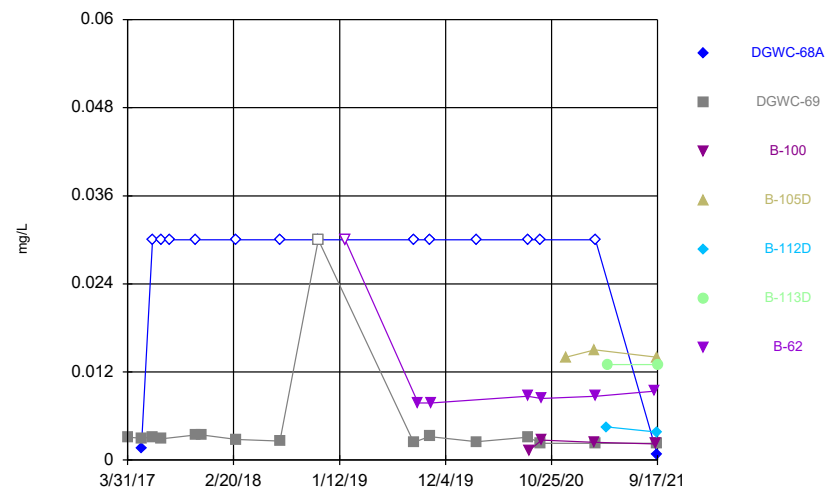
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



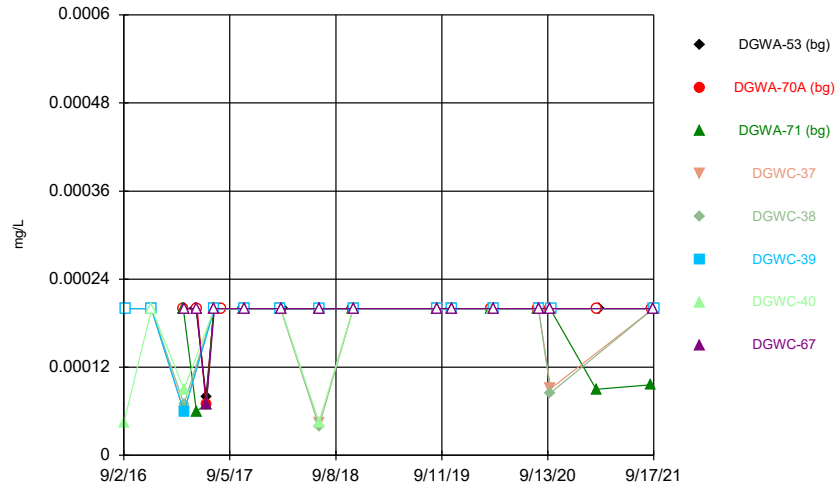
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



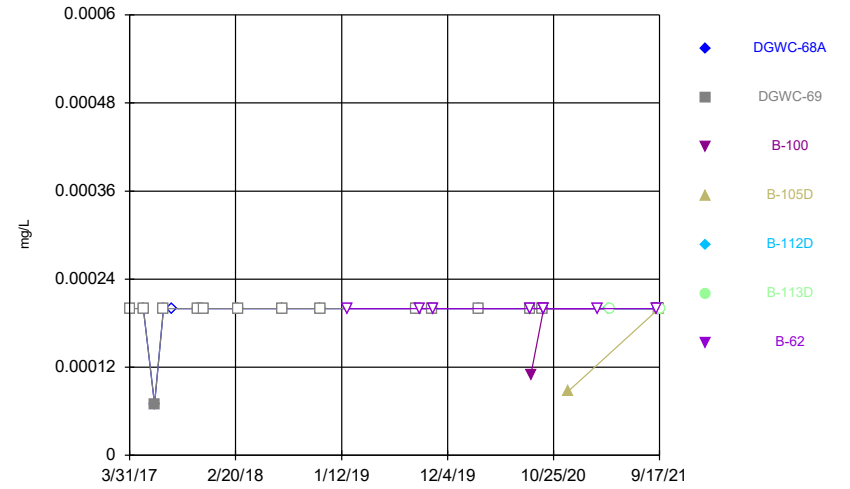
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



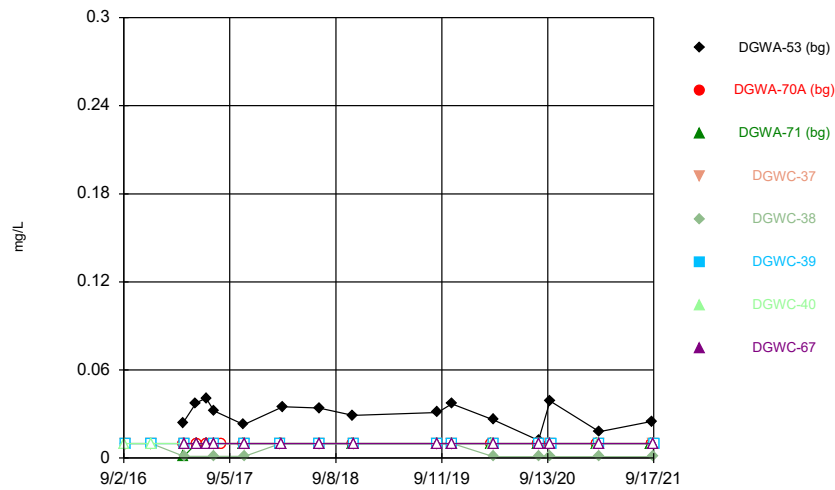
Constituent: Mercury Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



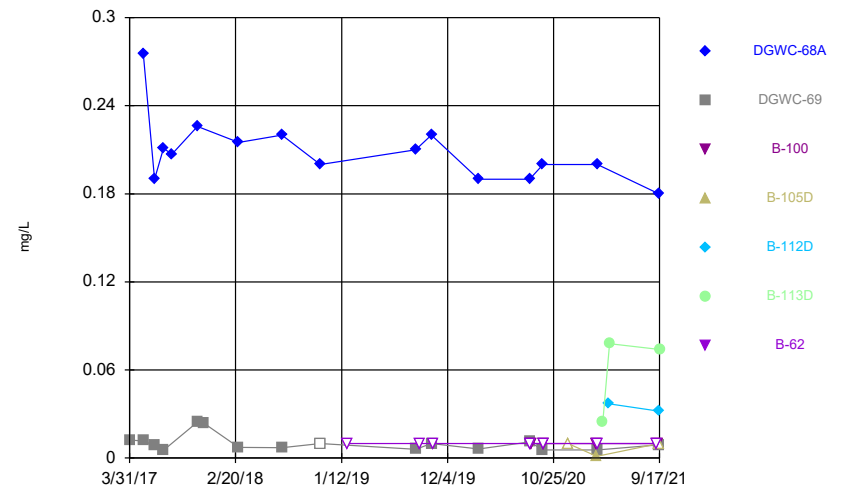
Constituent: Mercury Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



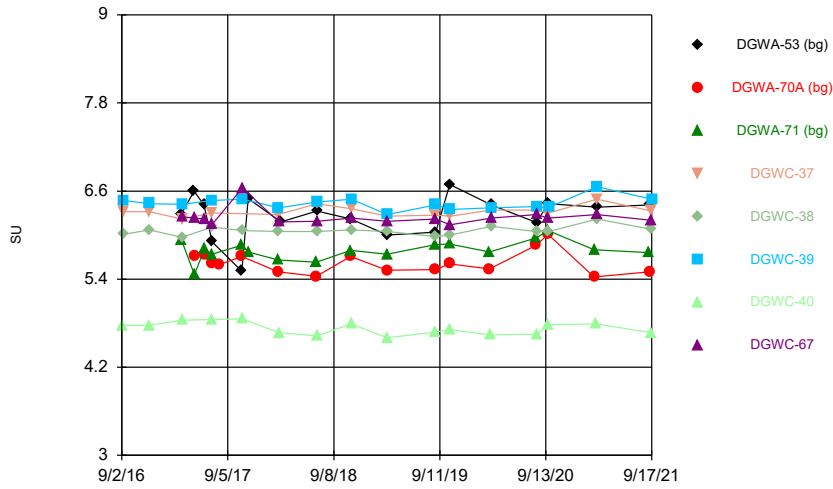
Constituent: Molybdenum Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



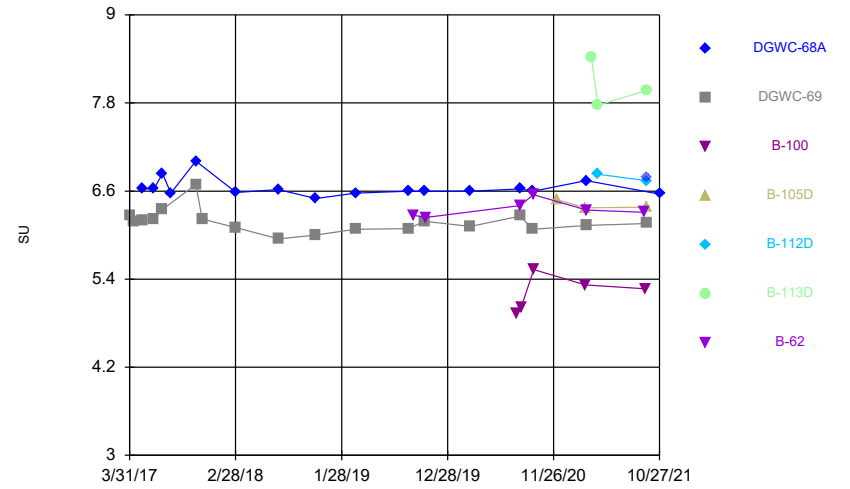
Constituent: Molybdenum Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



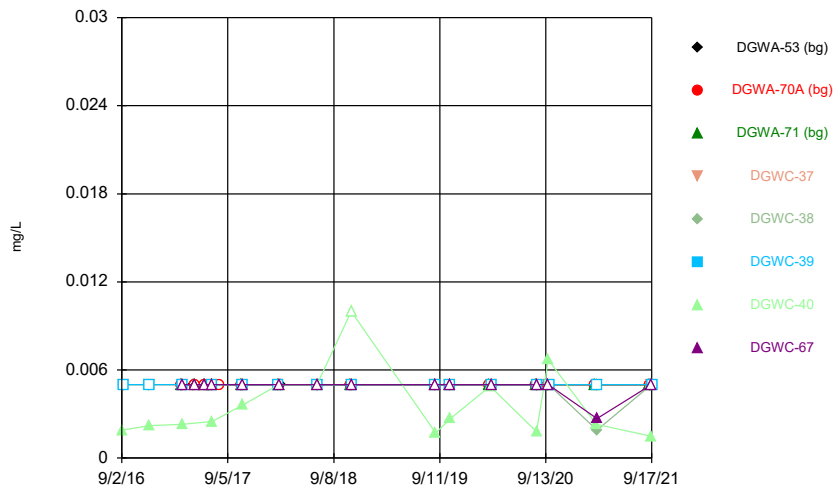
Constituent: pH, Field Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



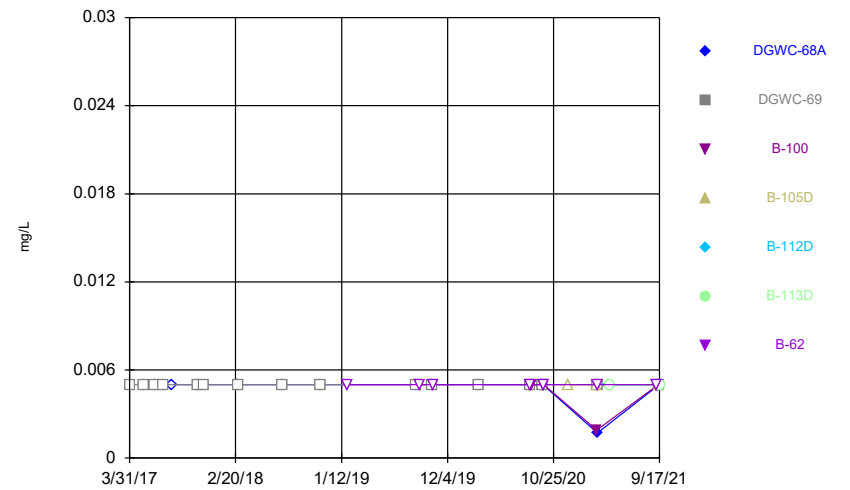
Constituent: pH, Field Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



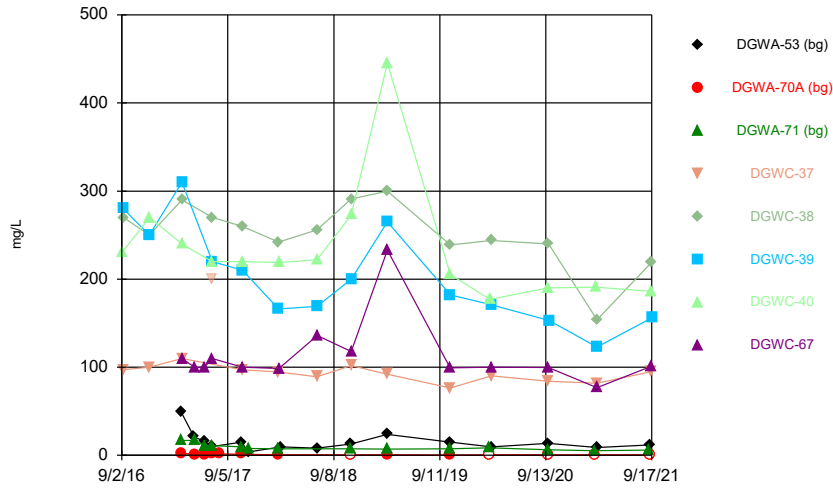
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



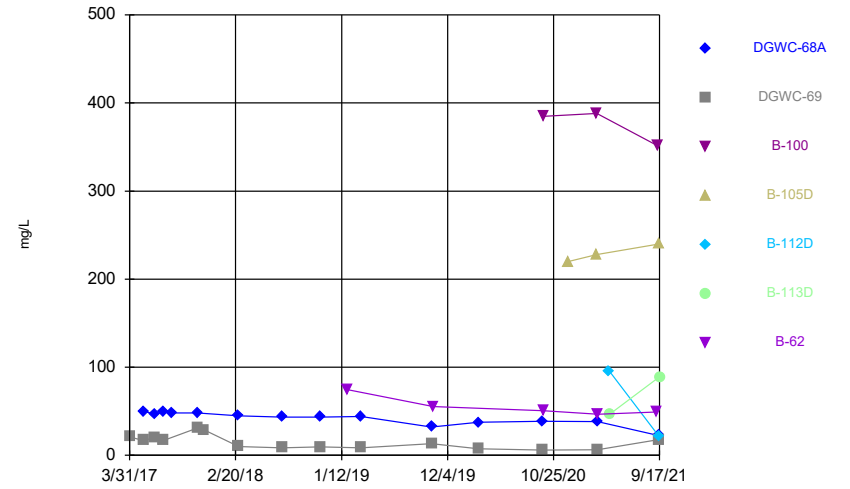
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



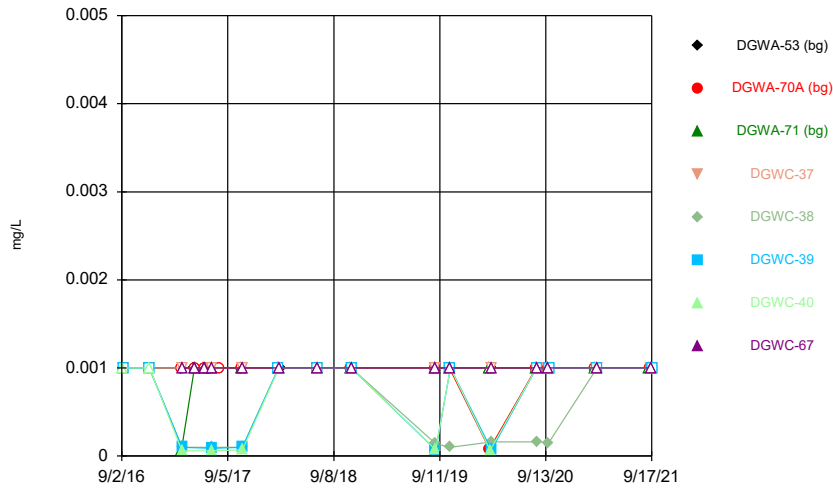
Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



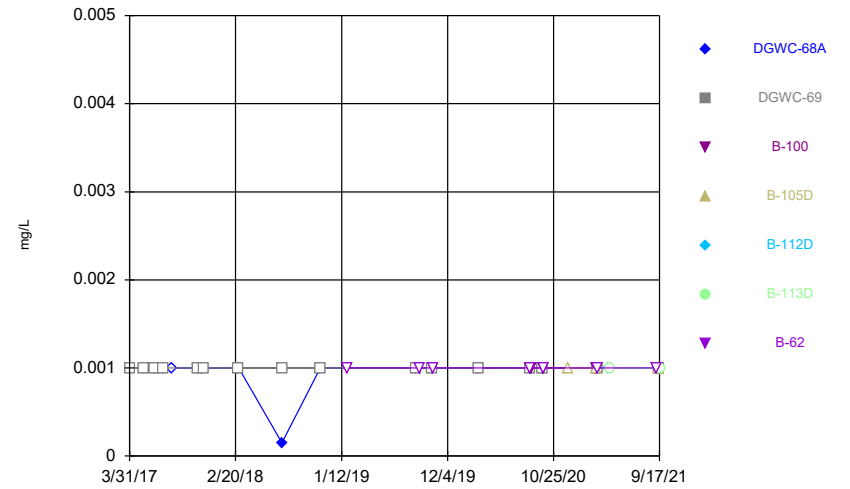
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



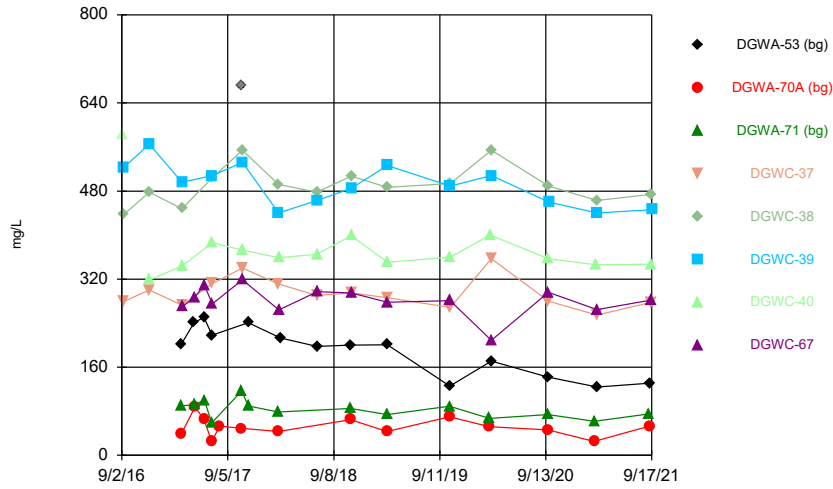
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



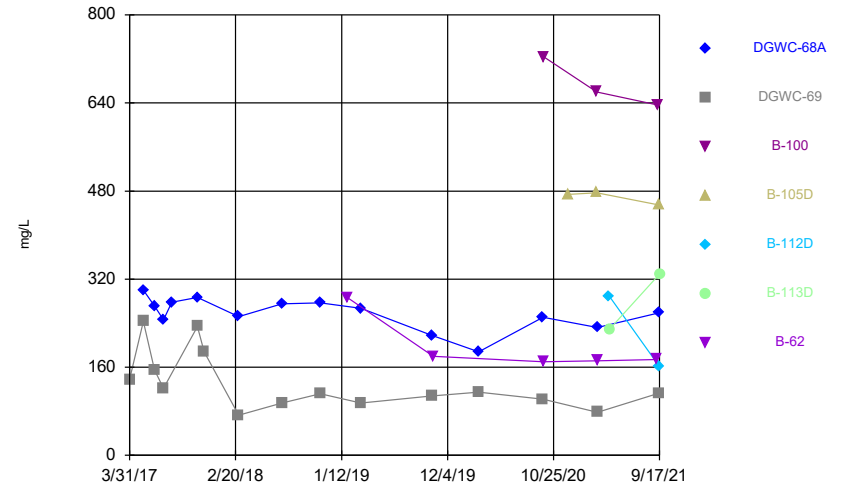
Constituent: Thallium Analysis Run 12/16/2021 2:07 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:07 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.003	
9/8/2016				<0.003	<0.003	<0.003		
12/7/2016				<0.003	<0.003	<0.003		
12/8/2016							<0.003	
3/28/2017	<0.003	<0.003	0.0007 (J)					
3/30/2017				<0.003	<0.003	<0.003	<0.003	
3/31/2017								0.0004 (J)
5/11/2017	<0.003							
5/12/2017			<0.003					<0.003
5/15/2017		<0.003						
6/15/2017	0.0006 (J)	<0.003						
6/16/2017			0.0007 (J)					0.0008 (J)
7/11/2017		<0.003	<0.003					
7/12/2017	<0.003							
7/13/2017				<0.003	<0.003	<0.003	<0.003	<0.003
8/8/2017		<0.003						
10/24/2017	<0.003	<0.003	<0.003					
10/26/2017				<0.003	<0.003	<0.003	<0.003	<0.003
2/27/2018		<0.003	<0.003					
3/1/2018				<0.003	<0.003	<0.003		
3/2/2018							<0.003	<0.003
3/8/2018	<0.003							
7/12/2018	<0.003			<0.003	<0.003	<0.003	<0.003	
7/13/2018								0.0023 (J)
11/6/2018		<0.003	<0.003					
11/7/2018	<0.003							
11/8/2018				<0.003	<0.003	<0.003	<0.003	<0.003
8/27/2019		<0.003	<0.003					
8/28/2019	<0.003			<0.003	<0.003	<0.003	<0.003	<0.003
10/15/2019		<0.003	<0.003					
10/16/2019	<0.003							
3/2/2020		<0.003	0.0018 (J)					
3/4/2020							<0.003	
3/9/2020	<0.003			<0.003	<0.003	<0.003		<0.003
8/11/2020		0.0013 (J)	0.0018 (J)					
8/13/2020	0.0003 (J)			<0.003	<0.003	<0.003	<0.003	<0.003
9/22/2020	<0.003	<0.003	<0.003					
9/23/2020							<0.003	<0.003
9/24/2020				<0.003	<0.003			
9/25/2020						<0.003		
3/1/2021		<0.003	0.0019 (J)					
3/8/2021							0.00033 (J)	
3/11/2021				<0.003	<0.003	<0.003		<0.003
3/12/2021	<0.003							
9/8/2021			<0.003					
9/9/2021	<0.003	0.0015 (J)						
9/14/2021							<0.003	
9/15/2021					<0.003			
9/16/2021				<0.003				<0.003
9/17/2021						<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.003					
5/12/2017	<0.003	<0.003					
6/16/2017	0.0008 (J)	0.0007 (J)					
7/13/2017	<0.003	<0.003					
8/8/2017	<0.003						
10/26/2017	<0.003	<0.003					
11/15/2017		<0.003					
3/2/2018	<0.003	<0.003					
7/13/2018	<0.003	<0.003					
11/8/2018	<0.003	<0.003					
1/30/2019							<0.003
8/28/2019	<0.003	<0.003					
9/11/2019							<0.003
10/21/2019							<0.003
3/9/2020	<0.003	<0.003					
8/13/2020	<0.003	0.0019 (J)					<0.003
8/17/2020			0.0013 (J)				
9/23/2020	<0.003	<0.003					
9/24/2020							0.00046 (J)
9/25/2020			<0.003				
12/9/2020				<0.003			
3/8/2021			0.0017 (J)	0.00069 (J)			
3/10/2021	0.00032 (J)	0.0018 (J)					
3/12/2021							<0.003
4/15/2021					0.00041 (J)		
4/16/2021						0.0021 (J)	
9/9/2021							<0.003
9/13/2021			<0.003				
9/15/2021				0.0082			
9/16/2021	<0.003	<0.003			<0.003		
9/17/2021						<0.003	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.005	
9/8/2016				<0.005	<0.005	<0.005		
12/7/2016				0.0019 (J)	<0.005	<0.005		
12/8/2016							<0.005	
3/28/2017	0.0005 (J)	<0.005	<0.005					
3/30/2017				<0.005	<0.005	0.0007 (J)	0.0006 (J)	
3/31/2017								<0.005
5/11/2017	0.0005 (J)							
5/12/2017			0.0004 (J)					<0.005
5/15/2017		<0.005						
6/15/2017	<0.005	<0.005						
6/16/2017			<0.005					<0.005
7/11/2017		<0.005	<0.005					
7/12/2017	<0.005							
7/13/2017				<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005
8/8/2017		<0.005						
10/24/2017	<0.005	<0.005	<0.005					
10/26/2017				<0.005	<0.005	<0.005	<0.005	<0.005
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	0.0011 (J)		
3/2/2018							0.0011 (J)	<0.005
3/8/2018	<0.005							
7/12/2018	<0.005			<0.005	<0.005	0.00057 (J)	<0.005	
7/13/2018								<0.005
11/6/2018		<0.005	<0.005					
11/7/2018	<0.005 (J)							
11/8/2018				<0.005	<0.005	<0.005	<0.005	<0.005
8/27/2019		<0.005	<0.005					
8/28/2019	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005
10/15/2019		0.00052 (J)	0.00071 (J)					
10/16/2019	0.0018 (J)							
10/17/2019								0.00042 (J)
10/18/2019				<0.005	<0.005	0.00075 (J)	<0.005	
3/2/2020		<0.005	<0.005					
3/4/2020							0.00065 (J)	
3/9/2020	0.00068 (J)			<0.005	<0.005	0.00039 (J)		<0.005
8/11/2020		<0.005	<0.005					
8/13/2020	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005
9/22/2020	0.00093 (J)	<0.005	<0.005					
9/23/2020							<0.005	<0.005
9/24/2020				<0.005	<0.005			
9/25/2020						0.00087 (J)		
3/1/2021		<0.005	<0.005					
3/8/2021							<0.005	
3/11/2021				<0.005	<0.005	<0.005		0.0008 (J)
3/12/2021	<0.005							
9/8/2021			<0.005					
9/9/2021	<0.005	<0.005						
9/14/2021							<0.005	
9/15/2021					<0.005			
9/16/2021				<0.005				<0.005
9/17/2021						<0.005		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0239					
4/12/2017		0.0077					
5/12/2017	<0.005	0.0097					
6/16/2017	<0.005	0.0113					
7/13/2017	<0.005	0.0029 (J)					
8/8/2017	<0.005						
10/26/2017	<0.005	0.114					
11/15/2017		0.164					
3/2/2018	<0.005	0.0127					
7/13/2018	<0.005	0.017					
11/8/2018	<0.005 (J)	0.02					
1/30/2019							<0.005
8/28/2019	<0.005	0.025					
9/11/2019							<0.005
10/16/2019	<0.005	0.023					
10/21/2019							<0.005
3/9/2020	<0.005	0.029					
7/23/2020			<0.005				
8/13/2020	<0.005	0.029					<0.005
8/17/2020			<0.005				
9/23/2020	<0.005	0.032					
9/24/2020							<0.005
9/25/2020			<0.005				
12/9/2020				<0.005			
3/8/2021			<0.005	0.0025 (J)			
3/10/2021	<0.005	0.028					
3/12/2021							<0.005
4/15/2021					0.00078 (J)		
4/16/2021						<0.005	
9/9/2021							<0.005
9/13/2021			<0.005				
9/15/2021				<0.005			
9/16/2021	0.46 (o)	0.023			<0.005		
9/17/2021						<0.005	
10/27/2021	0.0016 (J)						

Time Series

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0171	
9/8/2016				0.123	0.0333	0.0978		
12/7/2016				0.125	0.0336	0.0844		
12/8/2016							0.0163	
3/28/2017	0.134	0.0166	0.0378					
3/30/2017				0.11	0.0325	0.0858	0.0177	
3/31/2017								0.111
5/11/2017	0.126							
5/12/2017			0.04					0.127
5/15/2017		0.0181						
6/15/2017	0.14	0.0277						
6/16/2017			0.0369					0.11
7/11/2017		0.0306	0.0362					
7/12/2017	0.173							
7/13/2017				0.11	0.0332	0.0919	0.017	0.102
8/8/2017		0.0277						
10/24/2017	0.109	0.0333	0.0313					
10/26/2017				0.112	0.0333	0.0899	0.0168	0.105
2/27/2018		0.0341	0.0287					
3/1/2018				0.102	0.0333	0.0742		
3/2/2018							0.0169	0.104
3/8/2018	0.19							
7/12/2018	0.18			0.11	0.034	0.094	0.018	
7/13/2018								0.11
11/6/2018		0.037	0.026					
11/7/2018	0.15							
11/8/2018				0.11	0.035	0.1	0.017	0.11
8/27/2019		0.037	0.027					
8/28/2019	0.087			0.086	0.033	0.099	0.017	0.11
10/15/2019		0.034	0.024					
10/16/2019	0.077							
10/17/2019								0.1
10/18/2019				0.079	0.032	0.1	0.019	
3/2/2020		0.035	0.026					
3/4/2020							0.018	
3/9/2020	0.099			0.092	0.032	0.076		0.11
8/11/2020		0.041	0.026					
8/13/2020	0.046			0.088	0.032	0.089	0.018	0.095
9/22/2020	0.07	0.038	0.024					
9/23/2020							0.019	0.1
9/24/2020				0.094	0.032			
9/25/2020						0.1		
3/1/2021		0.042	0.028					
3/8/2021							0.016	
3/11/2021				0.075	0.032	0.078		0.11
3/12/2021	0.076							
9/8/2021			0.025					
9/9/2021	0.099	0.038						
9/14/2021							0.027	
9/15/2021					0.032			
9/16/2021				0.083				0.088
9/17/2021						0.09		

Time Series

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0872					
5/12/2017	0.089	0.0929					
6/16/2017	0.0855	0.1					
7/13/2017	0.0859	0.0985					
8/8/2017	0.0852						
10/26/2017	0.0878	0.136					
11/15/2017		0.107					
3/2/2018	0.0878	0.0671					
7/13/2018	0.091	0.074					
11/8/2018	0.092	0.072					
1/30/2019							0.018
8/28/2019	0.089	0.061					
9/11/2019							0.023
10/16/2019	0.089	0.1					
10/21/2019							0.026
3/9/2020	0.088	0.057					
8/13/2020	0.088	0.13					0.026
8/17/2020			0.015				
9/23/2020	0.094	0.055					
9/24/2020							0.025
9/25/2020			0.022				
12/9/2020				0.03			
3/8/2021			0.022	0.041			
3/10/2021	0.09	0.048					
3/12/2021							0.027
4/15/2021					0.026		
4/16/2021						0.0032 (J)	
9/9/2021							0.021
9/13/2021			0.021				
9/15/2021				0.037			
9/16/2021	0.13 (o)	0.078			0.0032 (J)		
9/17/2021						0.0048 (J)	
10/27/2021	0.086						

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0028 (J)	
9/8/2016				<0.0005	<0.0005	<0.0005		
12/7/2016				<0.0005	<0.0005	<0.0005		
12/8/2016							0.0026 (J)	
3/28/2017	<0.0005	<0.0005	9E-05 (J)					
3/30/2017				<0.0005	<0.0005	<0.0005	0.003	
3/31/2017								<0.0005
5/11/2017	<0.0005							
5/12/2017			<0.0005					<0.0005
5/15/2017		<0.0005						
6/15/2017	<0.0005	<0.0005						
6/16/2017			0.0001 (J)					<0.0005
7/11/2017		<0.0005	<0.0005					
7/12/2017	<0.0005							
7/13/2017				<0.0005	<0.0005	<0.0005	0.003 (J)	<0.0005
8/8/2017		<0.0005						
10/24/2017	<0.0005	<0.0005	<0.0005					
10/26/2017				<0.0005	<0.0005	<0.0005	0.0027 (J)	<0.0005
2/27/2018		<0.0005	<0.0005					
3/1/2018				<0.0005	<0.0005	<0.0005		
3/2/2018							0.0033	<0.0005
3/8/2018	<0.0005							
7/10/2018			0.0009 (J)					
7/12/2018	<0.0005			7E-05 (J)	<0.0005	<0.0005	0.0032	
7/13/2018								<0.0005
11/6/2018		0.00012 (J)	0.00013 (J)					
11/7/2018	<0.0005							
11/8/2018				<0.0005	<0.0005	<0.0005	<0.003 (J)	<0.0005
8/27/2019		7.9E-05 (J)	<0.0005					
8/28/2019	<0.0005			8.6E-05 (J)	<0.0005	<0.0005	0.0032	<0.0005
10/15/2019		<0.0005	8.8E-05 (J)					
10/16/2019	<0.0005							
10/17/2019								<0.0005
10/18/2019				<0.0005	<0.0005	<0.0005	0.0033	
3/2/2020		9.6E-05 (J)	0.0001 (J)					
3/4/2020							0.0039	
3/9/2020	<0.0005			<0.0005	<0.0005	<0.0005		<0.0005
8/11/2020		0.00013 (J)	0.00011 (J)					
8/13/2020	<0.0005			0.0001 (J)	<0.0005	<0.0005	0.0033	<0.0005
9/22/2020	<0.0005	6.8E-05 (J)	6.9E-05 (J)					
9/23/2020							0.0031	<0.0005
9/24/2020				8.8E-05 (J)	5.8E-05 (J)			
9/25/2020						<0.0005		
3/1/2021		0.00012 (J)	0.00011 (J)					
3/8/2021							0.003	
3/11/2021				<0.0005	<0.0005	<0.0005		<0.0005
3/12/2021	<0.0005							
9/8/2021			9.1E-05 (J)					
9/9/2021	<0.0005	8.9E-05 (J)						
9/14/2021							0.0032	
9/15/2021					<0.0005			
9/16/2021				5.9E-05 (J)				<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/17/2021						<0.0005		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
10/6/2016							9E-05 (J)
3/31/2017		7E-05 (J)					
5/12/2017	<0.0005	<0.0005					
6/16/2017	<0.0005	<0.0005					
7/13/2017	<0.0005	<0.0005					
8/8/2017	<0.0005						
10/26/2017	<0.0005	<0.0005					
11/15/2017		<0.0005					
3/2/2018	<0.0005	<0.0005					
7/13/2018	8.4E-05 (J)	5.8E-05 (J)					
11/8/2018	<0.0005	<0.0005					
1/30/2019							<0.0005
8/28/2019	<0.0005	<0.0005					
9/11/2019							0.00012 (J)
10/16/2019	<0.0005	<0.0005					
10/21/2019							7.8E-05 (J)
3/9/2020	<0.0005	7.5E-05 (J)					
8/13/2020	<0.0005	6.3E-05 (J)					0.00011 (J)
8/17/2020			0.0004 (J)				
9/23/2020	<0.0005	6.1E-05 (J)					
9/24/2020							0.00013 (J)
9/25/2020			0.00035 (J)				
12/9/2020				<0.0005			
3/8/2021			0.00046 (J)	<0.0005			
3/10/2021	6.1E-05 (J)	5E-05 (J)					
3/12/2021							<0.0005
4/15/2021					<0.0005		
4/16/2021						<0.0005	
9/9/2021							0.00014 (J)
9/13/2021			0.00053				
9/15/2021				<0.0005			
9/16/2021	<0.0005	<0.0005			<0.0005		
9/17/2021						<0.0005	

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.895	
9/8/2016				1.58	2.69	3.35		
12/7/2016				2.01	3.08	3.63		
12/8/2016							0.841	
3/28/2017	0.0612	0.0067 (J)	0.0097 (J)					
3/30/2017				1.47	3.19	3.57	0.937	
3/31/2017								2.91
5/11/2017	0.0805							
5/12/2017			0.0082 (J)					3.24
5/15/2017		0.0073 (J)						
6/15/2017	0.0725	<0.04						
6/16/2017			0.0085 (J)					3.42
7/11/2017		<0.04	0.0077 (J)					
7/12/2017	0.0735							
7/13/2017				2.1	3.09	3.41	0.933	3.46
8/8/2017		<0.04						
10/24/2017	0.077	0.0082 (J)	0.0083 (J)					
10/26/2017				1.86	2.92	3.41	0.873	3.21
2/27/2018		0.0062 (J)	0.0069 (J)					
3/1/2018				1.87	3.08	2.86		
3/2/2018							0.974	3.49
3/8/2018	0.13 (J)							
7/12/2018	0.076			1.5	2.8	3	0.92	
7/13/2018								3.1
11/6/2018		<0.04 (J)	<0.04 (J)					
11/7/2018	0.073							
11/8/2018				1.4	3.4	3.4	0.8	3.5
3/12/2019		0.0073 (J)	0.0068 (J)					
3/13/2019	0.08			1.8	2.9	3.4	0.8	3.5
10/15/2019		<0.04	0.0054 (J)					
10/16/2019	0.059							
10/17/2019								3.6
10/18/2019				1.3	3.1	3.6	0.9	
3/2/2020		0.0055 (J)	0.01 (J)					
3/4/2020							0.86	
3/9/2020	0.08 (J)			1.8	3	2.9		3.6
9/22/2020	0.056 (J)	<0.04	<0.04					
9/23/2020							0.76	3.2
9/24/2020				1.6	2.9			
9/25/2020						3.3		
3/1/2021		<0.04	0.0054 (J)					
3/8/2021							0.72	
3/11/2021				1.4	2.7	2.5		3.4
3/12/2021	0.064							
9/8/2021			<0.04					
9/9/2021	0.065	<0.04						
9/14/2021							0.7	
9/15/2021					2.8			
9/16/2021				1.4				3.4
9/17/2021						2.8		

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
10/6/2016							0.053 (J)
3/31/2017		0.407					
4/12/2017		0.207					
5/12/2017	1.8	0.311					
6/16/2017	1.88	0.381					
7/13/2017	1.97	0.323					
8/8/2017	2.1						
10/26/2017	2.05	0.779					
11/15/2017		0.667					
3/2/2018	2.05	0.0478					
7/13/2018	1.7	0.043					
11/8/2018	1.8	0.054					
1/30/2019							0.14
3/13/2019	1.9	0.028 (J)					
9/11/2019							0.068
10/16/2019	1.5	0.38					
10/21/2019							0.058
3/9/2020	1.8	0.035 (J)					
9/23/2020	1.7	0.041 (J)					
9/24/2020							0.074 (J)
9/25/2020			0.27				
12/9/2020				0.79			
3/8/2021			0.24	0.64			
3/10/2021	1.7	0.024 (J)					
3/12/2021							0.092 (J)
3/26/2021						0.034 (J)	
4/15/2021					0.26		
4/16/2021						0.16	
9/9/2021							0.068
9/13/2021			0.24				
9/15/2021				0.76			
9/16/2021	1.3	0.32			0.27		
9/17/2021						0.089	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0008 (J)	
9/8/2016				0.0002 (J)	0.0002 (J)	<0.0005		
12/7/2016				0.0001 (J)	0.0002 (J)	<0.0005		
12/8/2016							0.0007 (J)	
3/28/2017	<0.0005	<0.0005	<0.0005					
3/30/2017				0.0001 (J)	0.0002 (J)	<0.0005	0.0007 (J)	
3/31/2017								<0.0005
5/11/2017	8E-05 (J)							
5/12/2017			<0.0005					<0.0005
5/15/2017		<0.0005						
6/15/2017	<0.0005	<0.0005						
6/16/2017			<0.0005					<0.0005
7/11/2017		<0.0005	<0.0005					
7/12/2017	<0.0005							
7/13/2017				<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005
8/8/2017		<0.0005						
10/24/2017	<0.0005	<0.0005	<0.0005					
10/26/2017				<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005
2/27/2018		<0.0005	<0.0005					
3/1/2018				<0.0005	<0.0005	<0.0005		
3/2/2018							<0.0005	<0.0005
3/8/2018	<0.0005							
7/12/2018	0.00013 (J)			<0.0005	0.00024 (J)	<0.0005	0.00087 (J)	
7/13/2018								<0.0005
11/6/2018		<0.0005	<0.0005					
11/7/2018	<0.0005							
11/8/2018				<0.0005	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/27/2019		<0.0005	<0.0005					
8/28/2019	<0.0005			<0.0005	0.0003 (J)	<0.0005	0.00087 (J)	0.00017 (J)
10/15/2019		<0.0005	<0.0005					
10/16/2019	<0.0005							
10/17/2019								<0.0005
10/18/2019				<0.0005	0.00016 (J)	<0.0005	0.00088 (J)	
3/2/2020		0.00041 (J)	<0.0005					
3/4/2020							0.00093 (J)	
3/9/2020	<0.0005			<0.0005	0.00017 (J)	<0.0005		0.00021 (J)
8/11/2020		<0.0005	<0.0005					
8/13/2020	<0.0005			<0.0005	0.00021 (J)	<0.0005	0.00084 (J)	0.00015 (J)
9/22/2020	<0.0005	<0.0005	<0.0005					
9/23/2020							0.0008 (J)	0.00018 (J)
9/24/2020				0.00027 (J)	0.00081 (J)			
9/25/2020						<0.0005		
3/1/2021		<0.0005	<0.0005					
3/8/2021							0.00072	
3/11/2021				<0.0005	<0.0005	<0.0005		0.00053
3/12/2021	<0.0005							
9/8/2021			<0.0005					
9/9/2021	<0.0005	<0.0005						
9/14/2021							0.00086	
9/15/2021					0.00021 (J)			
9/16/2021				0.00013 (J)				<0.0005
9/17/2021						<0.0005		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0001 (J)					
5/12/2017	8E-05 (J)	0.0002 (J)					
6/16/2017	<0.0005	0.0002 (J)					
7/13/2017	<0.0005	<0.0005					
8/8/2017	<0.0005						
10/26/2017	<0.0005	<0.0005					
11/15/2017		<0.0005					
3/2/2018	<0.0005	<0.0005					
7/13/2018	0.00019 (J)	<0.0005					
11/8/2018	<0.001 (J)	<0.0005					
1/30/2019							<0.0005
8/28/2019	0.00017 (J)	<0.0005					
9/11/2019							<0.0005
10/16/2019	0.00017 (J)	0.00017 (J)					
10/21/2019							<0.0005
3/9/2020	0.00026 (J)	<0.0005					
8/13/2020	0.00021 (J)	<0.0005					<0.0005
8/17/2020			0.00059 (J)				
9/23/2020	0.00024 (J)	<0.0005					
9/24/2020							<0.0005
9/25/2020			0.00027 (J)				
12/9/2020				<0.0005			
3/8/2021			0.00027 (J)	<0.0005			
3/10/2021	<0.0005	<0.0005					
3/12/2021							<0.0005
4/15/2021					<0.0005		
4/16/2021						0.00019 (J)	
9/9/2021							<0.0005
9/13/2021			0.00029 (J)				
9/15/2021				<0.0005			
9/16/2021	<0.0005	<0.0005			<0.0005		
9/17/2021						<0.0005	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							39.6	
9/8/2016				52.5	70.3	87.2		
12/7/2016				29.7	38.4	96.7		
12/8/2016							37.9	
3/28/2017	30.8	5.14	8.31					
3/30/2017				62.6	80.3	98.9	43.9	
3/31/2017								39.9
5/11/2017	35.8							
5/12/2017			8.04					43.6
5/15/2017		6.5						
6/15/2017	36	5.38						
6/16/2017			7.66					42.5
7/11/2017		5.96	7.71					
7/12/2017	40.3							
7/13/2017				64.1	90.8	95	46.2	43.7
8/8/2017		5.2						
10/24/2017	30.3	4.93	6.86					
10/26/2017				60.8	81.3	90.6	41.8	40.4
2/27/2018		<25	<25					
3/1/2018				57	81.8	79.6		
3/2/2018							43.2	40.1
3/8/2018	39.8							
7/12/2018	34.7			59.1	86.7	89.8	47.1	
7/13/2018								43.3
11/6/2018		5.5	5.7					
11/7/2018	28.6							
11/8/2018				53.6	86.6	89	43.5	40.1
3/12/2019		5.1	5.5					
3/13/2019	26.7			54.8	85.3	96.3	41	41.2
10/15/2019		5.1	5.1					
10/16/2019	17.7							
10/17/2019								46.9
10/18/2019				52.5	97.8	108	44.9	
3/2/2020		5.3	5.8					
3/4/2020							49.6	
3/9/2020	23.7			64.2	91.9	100		46.9
9/22/2020	15.5	5	5.4					
9/23/2020							41.9	42
9/24/2020				55.9	84.1			
9/25/2020						92.5		
3/1/2021		4.1	5.9					
3/8/2021							44.9	
3/11/2021				56	85.8	91.9		45.4
3/12/2021	18.4							
9/8/2021			6.1					
9/9/2021	18.3	5.3						
9/14/2021							45.1	
9/15/2021					88.3			
9/16/2021				63				46
9/17/2021						98.6		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							20	
9/8/2016				6.2	7.4	9.2		
12/7/2016				6.1	7.4	8.9		
12/8/2016							18	
3/28/2017	3.7	3.8	3.6					
3/30/2017				6.3	7.7	8.7	20	
3/31/2017								5.7
5/11/2017	2.3							
5/12/2017			3.8					5.6
5/15/2017		2.2						
6/15/2017	2.6	2						
6/16/2017			3.4					5.5
7/11/2017		2.1	3.1					
7/12/2017	2.3							
7/13/2017				6.5	7.5	8.4	21	5.2
8/8/2017		2.2						
10/24/2017	2.7	2.4	3.2					
10/26/2017				6.4	8.2	8.3	21	6
11/15/2017	2.2		3.1					
2/27/2018		2.5	3.2					
3/1/2018				6.3	8.1	8.1		
3/2/2018							19.5	5.8
3/8/2018	2.4							
7/12/2018	2.2			5.8	8	7.7	19.9	
7/13/2018								5.9
11/6/2018		2.3	2.6					
11/7/2018	2.3							
11/8/2018				5.8	8.1	7.7	19.3	6.1
3/12/2019		2.5	3.3					
3/13/2019	3.6			6.9	9.1	8.2	19.7	6.8
10/15/2019		2.2	3.3					
10/16/2019	2							
10/17/2019								6.9
10/18/2019				5.8	8.6	8	19.2	
3/2/2020		1.9	3					
3/4/2020							20.6	
3/9/2020	1.8			6	8.1	7.5		6.7
9/22/2020	1.6	1.9	5.2					
9/23/2020							19.7	7.1
9/24/2020				5.6	8.2			
9/25/2020						7.9		
3/1/2021		1.9	3.9					
3/8/2021							19.1	
3/11/2021				5.6	8	7.7		7.4
3/12/2021	2							
9/8/2021			5.9					
9/9/2021	1.8	1.9						
9/14/2021							16.7	
9/15/2021					7.6			
9/16/2021				5.6				7.9
9/17/2021						8.3		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		4.4					
5/12/2017	4.2	4.4					
6/16/2017	4.2	4.7					
7/13/2017	4.4	4.7					
8/8/2017	4.2						
10/26/2017	4.4	4.2					
11/15/2017		4.7					
3/2/2018	4.2	6.4					
7/13/2018	4	5.3					
11/8/2018	<0.25	5.9					
1/30/2019							7.1
3/13/2019	4.6	6.2					
10/16/2019	4.2	4.7					
10/21/2019							6.5
3/9/2020	3.6	5.7					
9/23/2020	3.6	4.7					
9/24/2020							5.7
9/25/2020			13.2				
12/9/2020				17.1			
3/8/2021			12.9	17.4			
3/10/2021	3.6	5					
3/12/2021							5.9
4/15/2021					10		
4/16/2021						6.7	
9/9/2021							5.8
9/13/2021			11.1				
9/15/2021				17.4			
9/16/2021	3.4	4.5			2.7		
9/17/2021						48.8	

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.005	
9/8/2016				<0.005	<0.005	<0.005		
12/7/2016				<0.005	<0.005	<0.005		
12/8/2016							<0.005	
3/28/2017	<0.005	0.0008 (J)	0.0023 (J)					
3/30/2017				<0.005	<0.005	<0.005	0.0007 (J)	
3/31/2017								0.0005 (J)
5/11/2017	<0.005							
5/12/2017			0.0004 (J)					0.0007 (J)
5/15/2017		0.0006 (J)						
6/15/2017	<0.005	0.0006 (J)						
6/16/2017			0.0005 (J)					<0.005
7/11/2017		0.0005 (J)	<0.005					
7/12/2017	<0.005							
7/13/2017				<0.005	<0.005	<0.005	0.0006 (J)	<0.005
8/8/2017		0.0005 (J)						
10/24/2017	<0.005	0.0005 (J)	<0.005					
10/26/2017				0.0007 (J)	0.0005 (J)	<0.005	0.0007 (J)	<0.005
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	<0.005		
3/2/2018							<0.005	<0.005
3/8/2018	<0.005							
7/12/2018	<0.005			<0.005	<0.005	<0.005	<0.005	
7/13/2018								<0.005
11/6/2018		<0.005	<0.005					
11/7/2018	<0.005							
11/8/2018				<0.005	<0.005	<0.005	<0.005	<0.005
8/27/2019		0.00071 (J)	0.0018 (J)					
8/28/2019	<0.005			<0.005	<0.005	<0.005	0.00061 (J)	<0.005
10/15/2019		0.034 (O)	0.0025 (J)					
10/16/2019	<0.005							
10/17/2019								<0.005
10/18/2019				<0.005	0.00092 (J)	<0.005	0.00078 (J)	
3/2/2020		0.0013 (J)	0.00045 (J)					
3/4/2020							0.0011 (J)	
3/9/2020	<0.005			<0.005	0.00044 (J)	<0.005		0.00088 (J)
8/11/2020		0.0016 (J)	0.0006 (J)					
8/13/2020	<0.005			0.00058 (J)	<0.005	<0.005	0.00072 (J)	<0.005
9/22/2020	<0.005	0.00089 (J)	<0.005					
9/23/2020							0.0011 (J)	<0.005
9/24/2020				<0.005	<0.005			
9/25/2020						<0.005		
3/1/2021		<0.005	<0.005					
3/8/2021							0.0006 (J)	
3/11/2021				<0.005	<0.005	<0.005		0.0014 (J)
3/12/2021	<0.005							
9/8/2021			<0.005					
9/9/2021	<0.005	<0.005						
9/14/2021							0.0021 (J)	
9/15/2021					<0.005			
9/16/2021				<0.005				<0.005
9/17/2021						<0.005		

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.005					
5/12/2017	<0.005	<0.005					
6/16/2017	<0.005	<0.005					
7/13/2017	0.0005 (J)	<0.005					
8/8/2017	<0.005						
10/26/2017	<0.005	<0.005					
11/15/2017		<0.005					
3/2/2018	<0.005	<0.005					
7/13/2018	<0.005	<0.005					
11/8/2018	<0.005	<0.005					
1/30/2019							<0.005
8/28/2019	<0.005	0.00049 (J)					
9/11/2019							<0.005
10/16/2019	<0.005	<0.005					
10/21/2019							0.00098 (J)
3/9/2020	<0.005	0.0012 (J)					
8/13/2020	<0.005	<0.005					<0.005
8/17/2020			<0.005				
9/23/2020	<0.005	0.0011 (J)					
9/24/2020							<0.005
9/25/2020			0.00094 (J)				
12/9/2020				<0.005			
3/8/2021			0.00057 (J)	<0.005			
3/10/2021	<0.005	0.0009 (J)					
3/12/2021							<0.005
4/15/2021					0.00085 (J)		
4/16/2021						0.0011 (J)	
9/9/2021							<0.005
9/13/2021			<0.005				
9/15/2021				0.0012 (J)			
9/16/2021	0.0014 (J,o)	<0.005			0.0014 (J)		
9/17/2021						<0.005	
10/27/2021	<0.005						

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0382	
9/8/2016				<0.005	0.0015 (J)	0.0068 (J)		
12/7/2016				0.0005 (J)	0.0017 (J)	0.0071 (J)		
12/8/2016							0.0318	
3/28/2017	0.025	0.0034 (J)	0.0033 (J)					
3/30/2017				<0.005	0.0016 (J)	0.006 (J)	0.0364	
3/31/2017								0.0064 (J)
5/11/2017	0.0281							
5/12/2017			0.0016 (J)					0.0037 (J)
5/15/2017		0.0024 (J)						
6/15/2017	0.0322	0.0014 (J)						
6/16/2017			0.0011 (J)					0.0041 (J)
7/11/2017		0.0007 (J)	0.0008 (J)					
7/12/2017	0.0247							
7/13/2017				0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)
8/8/2017		0.0007 (J)						
10/24/2017	0.0267	<0.005	0.0004 (J)					
10/26/2017				0.0003 (J)	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	<0.005		
3/2/2018							0.0425	<0.005
3/8/2018	0.027							
7/12/2018	0.024			<0.005	0.0015 (J)	0.0059 (J)	0.044	
7/13/2018								0.0017 (J)
11/6/2018		<0.005	<0.005					
11/7/2018	0.018							
11/8/2018				<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)
8/27/2019		<0.005	<0.005					
8/28/2019	0.013			<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)
10/15/2019		0.00064 (J)	<0.005					
10/16/2019	0.009							
10/17/2019								0.0013 (J)
10/18/2019				<0.005	0.0016 (J)	0.007	0.043	
3/2/2020		0.00037 (J)	<0.005					
3/4/2020							0.055	
3/9/2020	0.016			<0.005	0.0016 (J)	0.007		0.0015 (J)
8/11/2020		0.0012 (J)	<0.005					
8/13/2020	0.0051			<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)
9/22/2020	0.011	<0.005	<0.005					
9/23/2020							0.046	0.0011 (J)
9/24/2020				<0.005	0.0013 (J)			
9/25/2020						0.0061		
3/1/2021		<0.005	<0.005					
3/8/2021							0.039	
3/11/2021				<0.005	0.0017 (J)	0.0058		0.0016 (J)
3/12/2021	0.0078							
9/8/2021			<0.005					
9/9/2021	0.0064	<0.005						
9/14/2021							0.05	
9/15/2021					0.0016 (J)			
9/16/2021				<0.005				0.0012 (J)
9/17/2021						0.0076		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0022 (J)					
5/12/2017	0.0015 (J)	0.0016 (J)					
6/16/2017	0.0003 (J)	0.0009 (J)					
7/13/2017	0.0005 (J)	0.0004 (J)					
8/8/2017	<0.005						
10/26/2017	<0.005	0.0031 (J)					
11/15/2017		0.0028 (J)					
3/2/2018	<0.005	<0.005					
7/13/2018	<0.005	<0.005					
11/8/2018	<0.005	<0.005					
1/30/2019							<0.005
8/28/2019	<0.005	<0.005					
9/11/2019							0.0003 (J)
10/16/2019	<0.005	<0.005					
10/21/2019							0.00031 (J)
3/9/2020	<0.005	<0.005					
7/23/2020			0.086				
8/3/2020			0.087				
8/13/2020	<0.005	<0.005					<0.005
8/17/2020			0.077				
9/23/2020	<0.005	<0.005					
9/24/2020							<0.005
9/25/2020			0.034				
12/9/2020				0.012			
3/8/2021			0.029	0.0042 (J)			
3/10/2021	<0.005	<0.005					
3/12/2021							<0.005
4/15/2021					0.0025 (J)		
4/16/2021						<0.005	
9/9/2021							<0.005
9/13/2021			0.035				
9/15/2021				0.0065			
9/16/2021	0.0032 (J,o)	<0.005			0.00054 (J)		
9/17/2021						<0.005	
10/27/2021	<0.005						

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							1.44	
9/8/2016				0.827 (U)	1.48	1.44		
12/7/2016				0.56 (U)	0.22 (U)	2.16		
12/8/2016							2.56	
3/28/2017	6.36	0.866 (U)	0.257 (U)					
3/30/2017				0.302 (U)	0.519 (U)	0.264 (U)	0.0844 (U)	
3/31/2017								0.404 (U)
5/11/2017	3.45							
5/12/2017			0.165 (U)					0.206 (U)
5/15/2017		0.288 (U)						
6/15/2017	4.58	1.01 (U)						
6/16/2017			0.732 (U)					0.966 (U)
7/11/2017		0.254 (U)	0.461 (U)					
7/12/2017	4.37							
7/13/2017				0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)
8/8/2017		1.48						
10/24/2017	4.46	0.472 (U)	0.724 (U)					
10/26/2017				1.04 (U)	1.13 (U)	0.875 (U)	0.748 (U)	0.619 (U)
2/27/2018		1.22	0.714 (U)					
3/1/2018				0.344 (U)	0.985 (U)	1.24		
3/2/2018							0.485 (U)	1.31
3/8/2018	2.14							
7/10/2018		0.362 (U)	0.426 (U)					
7/12/2018	4.65			0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)	
7/13/2018								0.667 (U)
11/6/2018		0.859 (U)	0.455 (U)					
11/7/2018	3.05							
11/8/2018				0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)
8/27/2019		1.97	1.3 (U)					
8/28/2019	2.68			1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)
10/15/2019		0.319 (U)	1.21 (U)					
10/16/2019	1.89							
1/6/2020				2.01	0.527 (U)	1.4	1.6	0.965 (U)
3/2/2020		0.419 (U)	1.3					
3/4/2020							1.62	
3/9/2020	3.51			0.499 (U)	1.04	1.36		0.819 (U)
8/11/2020		0.812 (U)	0.965 (U)					
8/13/2020	1.04			0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)
9/22/2020	2.27	0.45 (U)	0.216 (U)					
9/23/2020							1.28 (U)	0.131 (U)
9/24/2020				1.03 (U)	0.593 (U)			
9/25/2020						0.181 (U)		
3/1/2021		0.552 (U)	0.389 (U)					
3/8/2021							0.714 (U)	
3/11/2021				0.956 (U)	0.0784 (U)	0.969 (U)		1.55
3/12/2021	1.63							
9/8/2021			0.051 (U)					
9/9/2021	2.72	0.779 (U)						
9/14/2021							1.8	
9/15/2021					2.37			
9/16/2021				0.691 (U)				0.201 (U)
9/17/2021						0.911 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		1.39					
5/12/2017	1.18	1.29					
6/16/2017	0.332 (U)	1.61					
7/13/2017	0.304 (U)	1.14					
8/8/2017	1.4						
10/26/2017	0.477 (U)	2.04					
11/15/2017		1.99					
3/2/2018	1.13	0.918 (U)					
7/13/2018	0.407 (U)	1.36 (U)					
11/8/2018	0.393 (U)	0.719 (U)					
1/30/2019							1.97 (U)
8/28/2019	1.77	1.38					
10/16/2019	2.12	0.826 (U)					
10/21/2019							1.82
3/9/2020	1.33	1.39					
8/13/2020	1.46	2.66					1.63
8/17/2020			1.4 (U)				
9/23/2020	0.563 (U)	1.8					
9/24/2020							1.28 (U)
9/25/2020			0.799 (U)				
12/9/2020				1.25 (U)			
3/8/2021			0.168 (U)	1.87			
3/10/2021	0.568 (U)	1.6					
3/12/2021							1.18 (U)
4/15/2021					0.945 (U)		
4/16/2021						0.852 (U)	
9/9/2021							1.7
9/13/2021			0.774 (U)				
9/15/2021				2.01			
9/16/2021	1.74	2.06			0.241 (U)		
9/17/2021						1.08 (U)	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/15/2021					0.06 (J)			
9/16/2021				0.084 (J)				0.069 (J)
9/17/2021						0.13		

Time Series

Constituent: Lead (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.001	
9/8/2016				<0.001	<0.001	<0.001		
12/7/2016				<0.001	<0.001	<0.001		
12/8/2016							<0.001	
3/28/2017	<0.001	9E-05 (J)	<0.001					
3/30/2017				0.0014 (J)	<0.001	<0.001	7E-05 (J)	
3/31/2017								<0.001
5/11/2017	<0.001							
5/12/2017			8E-05 (J)					9E-05 (J)
5/15/2017		0.0001 (J)						
6/15/2017	<0.001	0.0002 (J)						
6/16/2017			<0.001					<0.001
7/11/2017		<0.001	<0.001					
7/12/2017	<0.001							
7/13/2017				<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2017		7E-05 (J)						
10/24/2017	<0.001	<0.001	<0.001					
10/26/2017				<0.001	0.0001 (J)	<0.001	7E-05 (J)	<0.001
2/27/2018		<0.001	<0.001					
3/1/2018				<0.001	<0.001	<0.001		
3/2/2018							<0.001	<0.001
3/8/2018	<0.001							
7/12/2018	<0.001			<0.001	<0.001	<0.001	<0.001	
7/13/2018								<0.001
11/6/2018		<0.001	<0.001					
11/7/2018	<0.001							
11/8/2018				<0.001	<0.001	<0.001	<0.001	<0.001
8/27/2019		7.8E-05 (J)	<0.001					
8/28/2019	<0.001			6.1E-05 (J)	<0.001	8E-05 (J)	8.1E-05 (J)	<0.001
10/15/2019		<0.001	<0.001					
10/16/2019	<0.001							
10/17/2019								<0.001
10/18/2019				<0.001	7.4E-05 (J)	<0.001	0.00015 (J)	
3/2/2020		7.4E-05 (J)	<0.001					
3/4/2020							0.00017 (J)	
3/9/2020	<0.001			<0.001	6.1E-05 (J)	<0.001		4.7E-05 (J)
8/11/2020		0.0003 (J)	<0.001					
8/13/2020	<0.001			<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)
9/22/2020	<0.001	7.8E-05 (J)	<0.001					
9/23/2020							0.00028 (J)	<0.001
9/24/2020				<0.001	0.00014 (J)			
9/25/2020						0.00022 (J)		
3/1/2021		<0.001	<0.001					
3/8/2021							5.4E-05 (J)	
3/11/2021				<0.001	0.00014 (J)	<0.001		0.00025 (J)
3/12/2021	<0.001							
9/8/2021			<0.001					
9/9/2021	<0.001	<0.001						
9/14/2021							<0.001	
9/15/2021					<0.001			
9/16/2021				<0.001				<0.001
9/17/2021						<0.001		

Time Series

Constituent: Lead (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.001					
5/12/2017	<0.001	0.0001 (J)					
6/16/2017	<0.001	<0.001					
7/13/2017	<0.001	<0.001					
8/8/2017	<0.001						
10/26/2017	<0.001	<0.001					
11/15/2017		9E-05 (J)					
3/2/2018	<0.001	<0.001					
7/13/2018	<0.001	<0.001					
11/8/2018	<0.001	<0.001					
1/30/2019							<0.001
8/28/2019	<0.001	<0.001					
9/11/2019							<0.001
10/16/2019	<0.001	<0.001					
10/21/2019							<0.001
3/9/2020	<0.001	9E-05 (J)					
8/13/2020	<0.001	5.9E-05 (J)					<0.001
8/17/2020			8.8E-05 (J)				
9/23/2020	0.00035 (J)	0.00017 (J)					
9/24/2020							<0.001
9/25/2020			0.00021 (J)				
12/9/2020				5.2E-05 (J)			
3/8/2021			0.00018 (J)	<0.001			
3/10/2021	6.7E-05 (J)	0.0001 (J)					
3/12/2021							<0.001
4/15/2021					0.00014 (J)		
4/16/2021						0.00014 (J)	
9/9/2021							<0.001
9/13/2021			<0.001				
9/15/2021				<0.001			
9/16/2021	<0.001	<0.001			<0.001		
9/17/2021						<0.001	

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0022 (J)	
9/8/2016				<0.03	0.0032 (J)	<0.03		
12/7/2016				<0.03	0.0035 (J)	<0.03		
12/8/2016							<0.03	
3/28/2017	0.0108 (J)	0.0054 (J)	0.0025 (J)					
3/30/2017				0.0029 (J)	0.0035 (J)	<0.03	0.0023 (J)	
3/31/2017								0.0052 (J)
5/11/2017	0.0087 (J)							
5/12/2017			0.0016 (J)					0.0054 (J)
5/15/2017		0.002 (J)						
6/15/2017	0.0088 (J)	<0.03						
6/16/2017			0.0016 (J)					0.0048 (J)
7/11/2017		<0.03	<0.03					
7/12/2017	0.0075 (J)							
7/13/2017				<0.03	0.0032 (J)	<0.03	0.0023 (J)	0.0044 (J)
8/8/2017		<0.03						
10/24/2017	0.0103 (J)	<0.03	<0.03					
10/26/2017				0.0018 (J)	0.0034 (J)	<0.03	0.0021 (J)	0.0043 (J)
2/27/2018		<0.03	0.0013 (J)					
3/1/2018				0.0024 (J)	0.0033 (J)	<0.03		
3/2/2018							0.0023 (J)	0.0047 (J)
3/8/2018	0.011 (J)							
7/12/2018	0.0084 (J)			0.0028 (J)	0.0034 (J)	<0.03	0.0022 (J)	
7/13/2018								0.0041 (J)
11/6/2018		<0.03	<0.03					
11/7/2018	<0.03							
11/8/2018				<0.03	<0.03	<0.03	<0.03	<0.03
8/27/2019		<0.03	0.0014 (J)					
8/28/2019	0.0092 (J)			0.0025 (J)	0.0034 (J)	<0.03	0.0022 (J)	0.0046 (J)
10/15/2019		<0.03	0.0012 (J)					
10/16/2019	0.0094 (J)							
10/17/2019								0.0047 (J)
10/18/2019				0.0026 (J)	0.0032 (J)	<0.03	0.0024 (J)	
3/2/2020		<0.03	0.0011 (J)					
3/4/2020							0.0027 (J)	
3/9/2020	0.0077 (J)			0.0017 (J)	0.0033 (J)	<0.03		0.0048 (J)
8/11/2020		0.0019 (J)	0.0015 (J)					
8/13/2020	0.0085 (J)			0.0023 (J)	0.0028 (J)	<0.03	0.0022 (J)	0.0044 (J)
9/22/2020	0.0089 (J)	<0.03	0.0012 (J)					
9/23/2020							0.0022 (J)	0.0043 (J)
9/24/2020				0.0021 (J)	0.0029 (J)			
9/25/2020						<0.03		
3/1/2021		<0.03	0.0012 (J)					
3/8/2021							0.0022 (J)	
3/11/2021				0.0024 (J)	0.003 (J)	<0.03		0.005 (J)
3/12/2021	0.0083 (J)							
9/8/2021			0.0013 (J)					
9/9/2021	0.0091 (J)	<0.03						
9/14/2021							0.003 (J)	
9/15/2021					0.0029 (J)			
9/16/2021				0.0021 (J)				0.0044 (J)
9/17/2021						<0.03		

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0031 (J)					
5/12/2017	0.0016 (J)	0.003 (J)					
6/16/2017	<0.03	0.0031 (J)					
7/13/2017	<0.03	0.0029 (J)					
8/8/2017	<0.03						
10/26/2017	<0.03	0.0034 (J)					
11/15/2017		0.0034 (J)					
3/2/2018	<0.03	0.0028 (J)					
7/13/2018	<0.03	0.0026 (J)					
11/8/2018	<0.03	<0.03					
1/30/2019							<0.03
8/28/2019	<0.03	0.0024 (J)					
9/11/2019							0.0078 (J)
10/16/2019	<0.03	0.0032 (J)					
10/21/2019							0.0078 (J)
3/9/2020	<0.03	0.0025 (J)					
8/13/2020	<0.03	0.0031 (J)					0.0087 (J)
8/17/2020			0.0013 (J)				
9/23/2020	<0.03	0.0023 (J)					
9/24/2020							0.0084 (J)
9/25/2020			0.0027 (J)				
12/9/2020				0.014 (J)			
3/8/2021			0.0024 (J)	0.015 (J)			
3/10/2021	<0.03	0.0023 (J)					
3/12/2021							0.0087 (J)
4/15/2021					0.0045 (J)		
4/16/2021						0.013 (J)	
9/9/2021							0.0094 (J)
9/13/2021			0.0022 (J)				
9/15/2021				0.014 (J)			
9/16/2021	0.00082 (J)	0.0023 (J)			0.0038 (J)		
9/17/2021						0.013 (J)	

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							4.4E-05 (J)	
9/8/2016				<0.0002	<0.0002	<0.0002		
12/7/2016				<0.0002	<0.0002	<0.0002		
12/8/2016							<0.0002	
3/28/2017	<0.0002	<0.0002	<0.0002					
3/30/2017				6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)	
3/31/2017								<0.0002
5/11/2017	<0.0002							
5/12/2017			6E-05 (J)					<0.0002
5/15/2017		<0.0002						
6/15/2017	8E-05 (J)	7E-05 (J)						
6/16/2017			7E-05 (J)					7E-05 (J)
7/11/2017		<0.0002	<0.0002					
7/12/2017	<0.0002							
7/13/2017				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2017		<0.0002						
10/24/2017	<0.0002	<0.0002	<0.0002					
10/26/2017				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/27/2018		<0.0002	<0.0002					
3/1/2018				<0.0002	<0.0002	<0.0002		
3/2/2018							<0.0002	<0.0002
3/8/2018	<0.0002							
7/12/2018	<0.0002			4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)	
7/13/2018								<0.0002
11/6/2018		<0.0002	<0.0002					
11/7/2018	<0.0002							
11/8/2018				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/27/2019		<0.0002	<0.0002					
8/28/2019	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/15/2019		<0.0002	<0.0002					
10/16/2019	<0.0002							
10/17/2019								<0.0002
10/18/2019				<0.0002	<0.0002	<0.0002	<0.0002	
3/2/2020		<0.0002	<0.0002					
3/4/2020							<0.0002	
3/9/2020	<0.0002			<0.0002	<0.0002	<0.0002		<0.0002
8/11/2020		<0.0002	<0.0002					
8/13/2020	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/22/2020	<0.0002	<0.0002	<0.0002					
9/23/2020							<0.0002	<0.0002
9/24/2020				9.1E-05 (J)	8.5E-05 (J)			
9/25/2020						<0.0002		
3/1/2021		<0.0002	9E-05 (J)					
3/12/2021	<0.0002							
9/8/2021			9.6E-05 (J)					
9/9/2021	<0.0002	<0.0002						
9/14/2021							<0.0002	
9/15/2021					<0.0002			
9/16/2021				<0.0002				<0.0002
9/17/2021						<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.0002					
5/12/2017	<0.0002	<0.0002					
6/16/2017	7E-05 (J)	7E-05 (J)					
7/13/2017	<0.0002	<0.0002					
8/8/2017	<0.0002						
10/26/2017	<0.0002	<0.0002					
11/15/2017		<0.0002					
3/2/2018	<0.0002	<0.0002					
7/13/2018	<0.0002	<0.0002					
11/8/2018	<0.0002	<0.0002					
1/30/2019							<0.0002
8/28/2019	<0.0002	<0.0002					
9/11/2019							<0.0002
10/16/2019	<0.0002	<0.0002					
10/21/2019							<0.0002
3/9/2020	<0.0002	<0.0002					
8/13/2020	<0.0002	<0.0002					<0.0002
8/17/2020			0.00011 (J)				
9/23/2020	<0.0002	<0.0002					
9/24/2020							<0.0002
9/25/2020			<0.0002				
12/9/2020				8.7E-05 (J)			
3/12/2021							<0.0002
4/15/2021					<0.0002		
4/16/2021						<0.0002	
9/9/2021							<0.0002
9/13/2021			<0.0002				
9/15/2021				<0.0002			
9/16/2021	<0.0002	<0.0002			<0.0002		
9/17/2021						<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.01	
9/8/2016				<0.01	<0.01	<0.01		
12/7/2016				<0.01	<0.01	<0.01		
12/8/2016							<0.01	
3/28/2017	0.0242	<0.01	0.0009 (J)					
3/30/2017				<0.01	0.0011 (J)	<0.01	<0.01	
3/31/2017								<0.01
5/11/2017	0.0375							
5/12/2017			<0.01					<0.01
5/15/2017		<0.01						
6/15/2017	0.0409	<0.01						
6/16/2017			<0.01					<0.01
7/11/2017		<0.01	<0.01					
7/12/2017	0.0321							
7/13/2017				<0.01	0.0012 (J)	<0.01	<0.01	<0.01
8/8/2017		<0.01						
10/24/2017	0.0227	<0.01	<0.01					
10/26/2017				<0.01	0.0011 (J)	<0.01	<0.01	<0.01
2/27/2018		<0.01	<0.01					
3/1/2018				<0.01	<0.01	<0.01		
3/2/2018							<0.01	<0.01
3/8/2018	0.035							
7/12/2018	0.034			<0.01	<0.01	<0.01	<0.01	
7/13/2018								<0.01
11/6/2018		<0.01	<0.01					
11/7/2018	0.029							
11/8/2018				<0.01	<0.01	<0.01	<0.01	<0.01
8/27/2019		<0.01	<0.01					
8/28/2019	0.031			<0.01	<0.01	<0.01	<0.01	<0.01
10/15/2019		<0.01	<0.01					
10/16/2019	0.037							
10/17/2019								<0.01
10/18/2019				<0.01	<0.01	<0.01	<0.01	
3/2/2020		<0.01	<0.01					
3/4/2020							<0.01	
3/9/2020	0.026			<0.01	0.001 (J)	<0.01		<0.01
8/11/2020		<0.01	<0.01					
8/13/2020	0.012			<0.01	0.00098 (J)	<0.01	<0.01	<0.01
9/22/2020	0.039	<0.01	<0.01					
9/23/2020							<0.01	<0.01
9/24/2020				<0.01	0.001 (J)			
9/25/2020						<0.01		
3/1/2021		<0.01	<0.01					
3/8/2021							<0.01	
3/11/2021				<0.01	0.00092 (J)	<0.01		<0.01
3/12/2021	0.018							
9/8/2021			<0.01					
9/9/2021	0.025	<0.01						
9/14/2021							<0.01	
9/15/2021					0.00099 (J)			
9/16/2021				<0.01				<0.01
9/17/2021						<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0124					
5/12/2017	0.275	0.0117					
6/16/2017	0.19	0.0087 (J)					
7/13/2017	0.211	0.0053 (J)					
8/8/2017	0.207						
10/26/2017	0.226	0.0244					
11/15/2017		0.0237					
3/2/2018	0.215	0.0072 (J)					
7/13/2018	0.22	0.007 (J)					
11/8/2018	0.2	<0.01 (J)					
1/30/2019							<0.01
8/28/2019	0.21	0.0059 (J)					
9/11/2019							<0.01
10/16/2019	0.22	0.01					
10/21/2019							<0.01
3/9/2020	0.19	0.0062 (J)					
8/13/2020	0.19	0.011					<0.01
8/17/2020			<0.01				
9/23/2020	0.2	0.0056 (J)					
9/24/2020							<0.01
9/25/2020			<0.01				
12/9/2020				<0.01			
3/8/2021			<0.01	0.0011 (J)			
3/10/2021	0.2	0.0056 (J)					
3/12/2021							<0.01
3/26/2021						0.025	
4/15/2021					0.037		
4/16/2021						0.078	
9/9/2021							<0.01
9/13/2021			<0.01				
9/15/2021				<0.01			
9/16/2021	0.18	0.009 (J)			0.032		
9/17/2021						0.074	

Time Series

Constituent: pH, Field (SU) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							4.77	
9/8/2016				6.32	6.01	6.47		
12/7/2016				6.32	6.07	6.43		
12/8/2016							4.77	
3/28/2017	6.29		5.94					
3/30/2017				6.22	5.97	6.42	4.84	
3/31/2017								6.25
5/11/2017	6.6							
5/12/2017			5.46					6.23
5/15/2017		5.72						
6/15/2017	6.41	5.74						
6/16/2017			5.81					6.22
7/11/2017		5.62	5.74					
7/12/2017	5.91							
7/13/2017				6.3	6.11	6.47	4.85	6.15
8/8/2017		5.6						
10/24/2017	5.51	5.71	5.86					
10/26/2017					6.06	6.49	4.86	6.64
11/15/2017	6.5		5.77					
2/27/2018		5.5	5.66					
3/1/2018				6.28	6.05	6.37		
3/2/2018							4.67	6.18
3/8/2018	6.18							
7/10/2018		5.44	5.63					
7/12/2018	6.33			6.43	6.05	6.45	4.63	
7/13/2018								6.19
11/6/2018		5.71	5.79					
11/7/2018	6.22							
11/8/2018				6.36	6.07	6.49	4.79	6.23
3/12/2019		5.52	5.74					
3/13/2019	6			6.26	6.05	6.28	4.6	6.19
8/27/2019		5.53	5.87					
8/28/2019	6.04			6.27	5.98	6.41	4.68	6.22
10/15/2019		5.61	5.88					
10/16/2019	6.69							
10/17/2019								6.14
10/18/2019				6.26	6	6.35	4.71	
3/2/2020		5.54	5.77					
3/4/2020							4.64	
3/9/2020	6.41			6.34	6.12	6.37		6.23
8/11/2020		5.86	5.96					
8/13/2020	6.17			6.34	6.05	6.39	4.65	6.28
9/22/2020	6.43	6.01	6.06					
9/23/2020							4.78	6.23
9/24/2020				6.3	6.05			
9/25/2020						6.38		
3/1/2021		5.43	5.8					
3/8/2021							4.79	
3/11/2021				6.49	6.22	6.66		6.28
3/12/2021	6.38							
9/8/2021			5.76					
9/9/2021	6.41	5.5						

Time Series

Constituent: pH, Field (SU) Analysis Run 12/16/2021 2:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/14/2021							4.67	
9/15/2021					6.08			
9/16/2021				6.33				6.2
9/17/2021						6.49		

Time Series

Constituent: pH, Field (SU) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		6.26					
4/12/2017		6.19					
5/12/2017	6.63	6.2					
6/16/2017	6.63	6.22					
7/13/2017	6.84	6.35					
8/8/2017	6.57						
10/26/2017	7.01	6.69					
11/15/2017		6.22					
3/2/2018	6.58	6.1					
7/13/2018	6.62	5.95					
11/8/2018	6.5	6					
3/13/2019	6.57	6.08					
8/28/2019	6.6	6.09					
9/11/2019							6.27
10/16/2019	6.6	6.19					
10/21/2019							6.24
3/9/2020	6.6	6.12					
8/3/2020			4.93				
8/13/2020	6.63	6.26					6.4
8/17/2020			5.02				
9/23/2020	6.6	6.08					
9/24/2020							6.55
9/25/2020			5.53				
12/9/2020				6.48			
3/8/2021			5.32	6.37			
3/10/2021	6.74	6.13					
3/12/2021							6.34
3/26/2021						8.42	
4/15/2021					6.83		
4/16/2021						7.77	
9/9/2021							6.31
9/13/2021			5.27				
9/15/2021				6.38			
9/16/2021	6.79 (o)	6.16			6.74		
9/17/2021						7.97	
10/27/2021	6.56						

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0019 (J)	
9/8/2016				<0.005	<0.005	<0.005		
12/7/2016				<0.005	<0.005	<0.005		
12/8/2016							0.0022 (J)	
3/28/2017	<0.005	<0.005	<0.005					
3/30/2017				<0.005	<0.005	<0.005	0.0023 (J)	
3/31/2017								<0.005
5/11/2017	<0.005							
5/12/2017			<0.005					<0.005
5/15/2017		<0.005						
6/15/2017	<0.005	<0.005						
6/16/2017			<0.005					<0.005
7/11/2017		<0.005	<0.005					
7/12/2017	<0.005							
7/13/2017				<0.005	<0.005	<0.005	0.0025 (J)	<0.005
8/8/2017		<0.005						
10/24/2017	<0.005	<0.005	<0.005					
10/26/2017				<0.005	<0.005	<0.005	0.0036 (J)	<0.005
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	<0.005		
3/2/2018							<0.005	<0.005
3/8/2018	<0.005							
7/12/2018	<0.005			<0.005	<0.005	<0.005	<0.005	
7/13/2018								<0.005
11/6/2018		<0.005	<0.005					
11/7/2018	<0.005							
11/8/2018				<0.005	<0.005	<0.005	<0.01 (J)	<0.005
8/27/2019		<0.005	<0.005					
8/28/2019	<0.005			<0.005	<0.005	<0.005	0.0017 (J)	<0.005
10/15/2019		<0.005	<0.005					
10/16/2019	<0.005							
10/17/2019								<0.005
10/18/2019				<0.005	<0.005	<0.005	0.0027 (J)	
3/2/2020		<0.005	<0.005					
3/4/2020							0.0049 (J)	
3/9/2020	<0.005			<0.005	<0.005	<0.005		<0.005
8/11/2020		<0.005	<0.005					
8/13/2020	<0.005			<0.005	<0.005	<0.005	0.0018 (J)	<0.005
9/22/2020	<0.005	<0.005	<0.005					
9/23/2020							0.0067 (J)	<0.005
9/24/2020				<0.005	<0.005			
9/25/2020						<0.005		
3/1/2021		<0.005	<0.005					
3/8/2021							0.0023 (J)	
3/11/2021				<0.005	0.0019 (J)	<0.005		0.0027 (J)
3/12/2021	<0.005							
9/8/2021			<0.005					
9/9/2021	<0.005	<0.005						
9/14/2021							0.0015 (J)	
9/15/2021					<0.005			
9/16/2021				<0.005				<0.005
9/17/2021						<0.005		

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.005					
5/12/2017	<0.005	<0.005					
6/16/2017	<0.005	<0.005					
7/13/2017	<0.005	<0.005					
8/8/2017	<0.005						
10/26/2017	<0.005	<0.005					
11/15/2017		<0.005					
3/2/2018	<0.005	<0.005					
7/13/2018	<0.005	<0.005					
11/8/2018	<0.005	<0.005					
1/30/2019							<0.005
8/28/2019	<0.005	<0.005					
9/11/2019							<0.005
10/16/2019	<0.005	<0.005					
10/21/2019							<0.005
3/9/2020	<0.005	<0.005					
8/13/2020	<0.005	<0.005					<0.005
8/17/2020			<0.005				
9/23/2020	<0.005	<0.005					
9/24/2020							<0.005
9/25/2020			<0.005				
12/9/2020				<0.005			
3/8/2021			0.0019 (J)	<0.005			
3/10/2021	0.0017 (J)	<0.005					
3/12/2021							<0.005
4/15/2021					<0.005		
4/16/2021						<0.005	
9/9/2021							<0.005
9/13/2021			<0.005				
9/15/2021				<0.005			
9/16/2021	<0.005	<0.005			<0.005		
9/17/2021						<0.005	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							230	
9/8/2016				97	270	280		
12/7/2016				100	250	250		
12/8/2016							270	
3/28/2017	49	2.7	17					
3/30/2017				110	290	310	240	
3/31/2017								110
5/11/2017	21							
5/12/2017			17					100
5/15/2017		1						
6/15/2017	16	0.86 (J)						
6/16/2017			11					100
7/11/2017		1.4	11					
7/12/2017	10							
7/13/2017				200 (O)	270	220	220	110
8/8/2017		1.5						
10/24/2017	15	1.4	9.6					
10/26/2017				97	260	210	220	100
11/15/2017	3.8		7.8					
2/27/2018		0.54 (J)	7.4					
3/1/2018				94.6	242	166		
3/2/2018							219	98.5
3/8/2018	9.7							
7/12/2018	8			89.2	256	169	222	
7/13/2018								136
11/6/2018		<1 (J)	7.3					
11/7/2018	12.8							
11/8/2018				102	291	200	273	118
3/12/2019		0.35 (J)	7					
3/13/2019	23.7			92.2	300	265	445	233
10/15/2019		0.16 (J)	7.4					
10/16/2019	15.1							
10/17/2019								99.4
10/18/2019				76.4	239	182	205	
3/2/2020		<1	8.5					
3/4/2020							177	
3/9/2020	9.5			90.3	244	171		100
9/22/2020	13.5	<1	6.5					
9/23/2020							190	99.8
9/24/2020				84.1	240			
9/25/2020						153		
3/1/2021		<1	5.2					
3/8/2021							191	
3/11/2021				81.9	154	123		76.7
3/12/2021	8.8							
9/8/2021			6.1					
9/9/2021	11.9	<1						
9/14/2021							186	
9/15/2021					219			
9/16/2021				95				101
9/17/2021						156		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		21					
5/12/2017	50	17					
6/16/2017	47	20					
7/13/2017	49	17					
8/8/2017	48						
10/26/2017	48	31					
11/15/2017		29					
3/2/2018	44.7	10.1					
7/13/2018	43.3	8.6					
11/8/2018	43.5	9.7					
1/30/2019							74.7
3/13/2019	44.1	8.4					
10/16/2019	32.1	13.3					
10/21/2019							55.3
3/9/2020	37.4	7.6					
9/23/2020	38.7	5.9					
9/24/2020							50.6
9/25/2020			385				
12/9/2020				220			
3/8/2021			388	228			
3/10/2021	38.4	6.4					
3/12/2021							46.5
4/15/2021					95.6		
4/16/2021						46.5	
9/9/2021							49.2
9/13/2021			351				
9/15/2021				240			
9/16/2021	22.3	17.9			21.2		
9/17/2021						89.1	

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.001	
9/8/2016				<0.001	<0.001	<0.001		
12/7/2016				<0.001	<0.001	<0.001		
12/8/2016							<0.001	
3/28/2017	<0.001	<0.001	6E-05 (J)					
3/30/2017				<0.001	0.0001 (J)	0.0001 (J)	6E-05 (J)	
3/31/2017								<0.001
5/11/2017	<0.001							
5/12/2017			<0.001					<0.001
5/15/2017		<0.001						
6/15/2017	<0.001	<0.001						
6/16/2017			<0.001					<0.001
7/11/2017		<0.001	<0.001					
7/12/2017	<0.001							
7/13/2017				<0.001	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001
8/8/2017		<0.001						
10/24/2017	<0.001	<0.001	<0.001					
10/26/2017				<0.001	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001
2/27/2018		<0.001	<0.001					
3/1/2018				<0.001	<0.001	<0.001		
3/2/2018							<0.001	<0.001
3/8/2018	<0.001							
7/12/2018	<0.001			<0.001	<0.001	<0.001	<0.001	
7/13/2018								<0.001
11/6/2018		<0.001	<0.001					
11/7/2018	<0.001							
11/8/2018				<0.001	<0.001	<0.001	<0.001	<0.001
8/27/2019		<0.001	<0.001					
8/28/2019	<0.001			<0.001	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001
10/15/2019		<0.001	<0.001					
10/16/2019	<0.001							
10/17/2019								<0.001
10/18/2019				<0.001	0.0001 (J)	<0.001	<0.001	
3/2/2020		7.8E-05 (J)	<0.001					
3/4/2020							6.8E-05 (J)	
3/9/2020	<0.001			<0.001	0.00016 (J)	7.1E-05 (J)		<0.001
8/11/2020		<0.001	<0.001					
8/13/2020	<0.001			<0.001	0.00016 (J)	<0.001	<0.001	<0.001
9/22/2020	<0.001	<0.001	<0.001					
9/23/2020							<0.001	<0.001
9/24/2020				<0.001	0.00015 (J)			
9/25/2020						<0.001		
3/1/2021		<0.001	<0.001					
3/8/2021							<0.001	
3/11/2021				<0.001	<0.001	<0.001		<0.001
3/12/2021	<0.001							
9/8/2021			<0.001					
9/9/2021	<0.001	<0.001						
9/14/2021							<0.001	
9/15/2021					<0.001			
9/16/2021				<0.001				<0.001
9/17/2021						<0.001		

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							583 (O)	
9/8/2016				279	437	522		
12/7/2016				300	478	565		
12/8/2016							319	
3/28/2017	202	39	90					
3/30/2017				273	448	496	344	
3/31/2017								270
5/11/2017	241							
5/12/2017			92					287
5/15/2017		88						
6/15/2017	251	65						
6/16/2017			100					309
7/11/2017		25	59					
7/12/2017	218							
7/13/2017				312	504	508	386	275
8/8/2017		53						
10/24/2017	671 (O)	49	117					
10/26/2017				340	554	532	373	319
11/15/2017	241		90					
2/27/2018		43	79					
3/1/2018				311	492	440		
3/2/2018							359	264
3/8/2018	213							
7/12/2018	198			290	478	463	365	
7/13/2018								297
11/6/2018		65	85					
11/7/2018	200							
11/8/2018				295	507	485	399	295
3/12/2019		43	74					
3/13/2019	201			286	487	526	351	278
10/15/2019		70	89					
10/16/2019	126							
10/17/2019								281
10/18/2019				269	494	489	360	
3/2/2020		52	67					
3/4/2020							400	
3/9/2020	171			357	554	508		209
9/22/2020	142	46	74					
9/23/2020							357	296
9/24/2020				280	489			
9/25/2020						460		
3/1/2021		25	62					
3/8/2021							346	
3/11/2021				255	463	440		265
3/12/2021	124							
9/8/2021			75					
9/9/2021	131	53						
9/14/2021							347	
9/15/2021					474			
9/16/2021				278				282
9/17/2021						446		

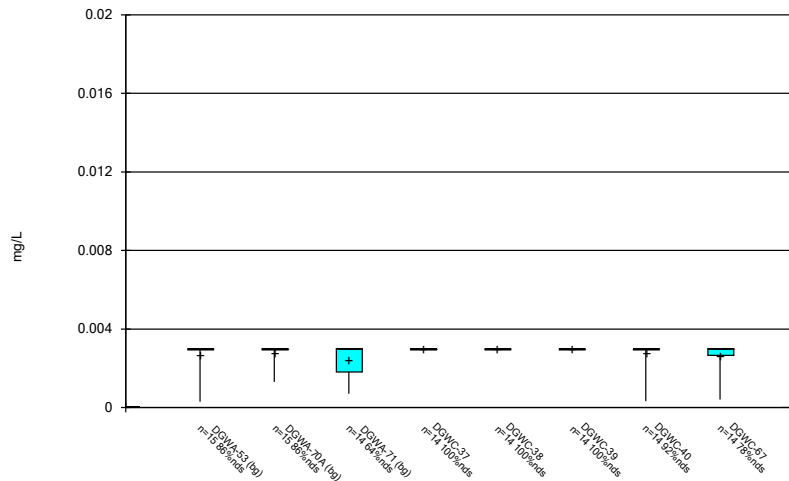
Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/16/2021 2:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		138					
5/12/2017	300	243					
6/16/2017	271	155					
7/13/2017	246	122					
8/8/2017	278						
10/26/2017	287	234					
11/15/2017		188					
3/2/2018	252	73					
7/13/2018	275	95					
11/8/2018	277	112					
1/30/2019							287
3/13/2019	267	95					
10/16/2019	218	108					
10/21/2019							180
3/9/2020	188	115					
9/23/2020	251	102					
9/24/2020							170
9/25/2020			724				
12/9/2020				474			
3/8/2021			660	477			
3/10/2021	232	78					
3/12/2021							172
4/15/2021					289		
4/16/2021						229	
9/9/2021							174
9/13/2021			636				
9/15/2021				455			
9/16/2021	259	113			162		
9/17/2021						329	

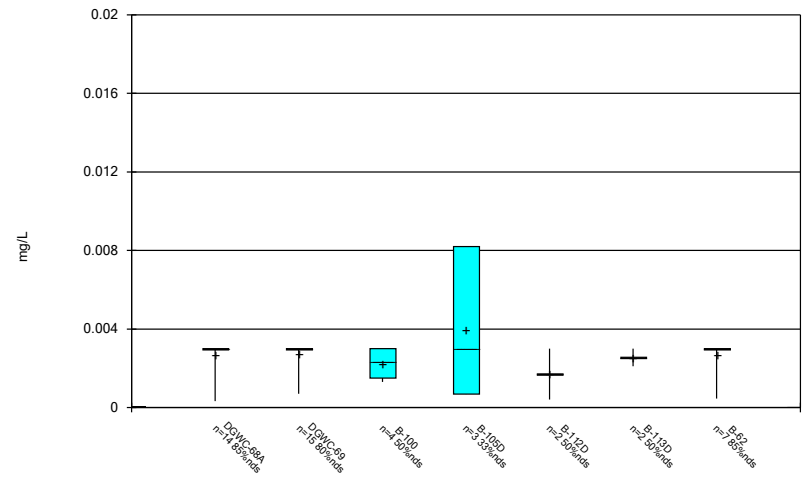
FIGURE B.

Box & Whiskers Plot



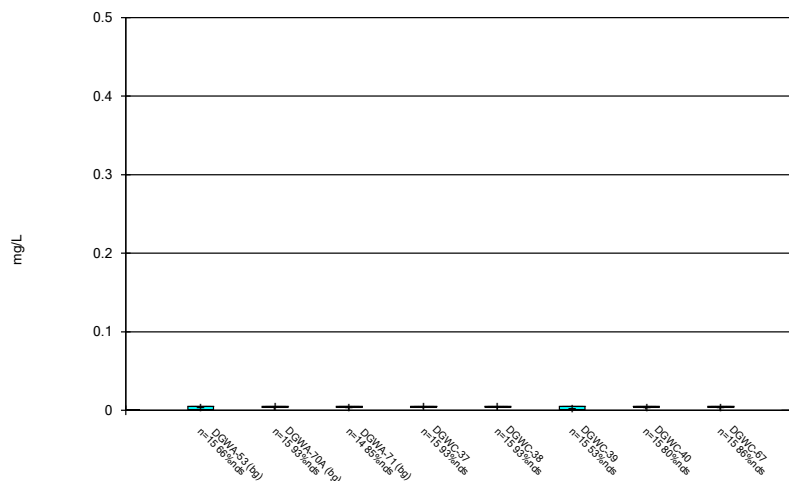
Constituent: Antimony Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



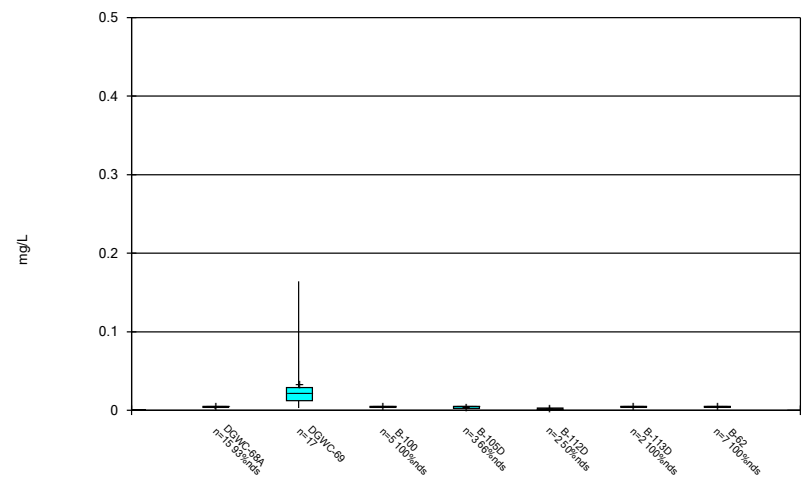
Constituent: Antimony Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



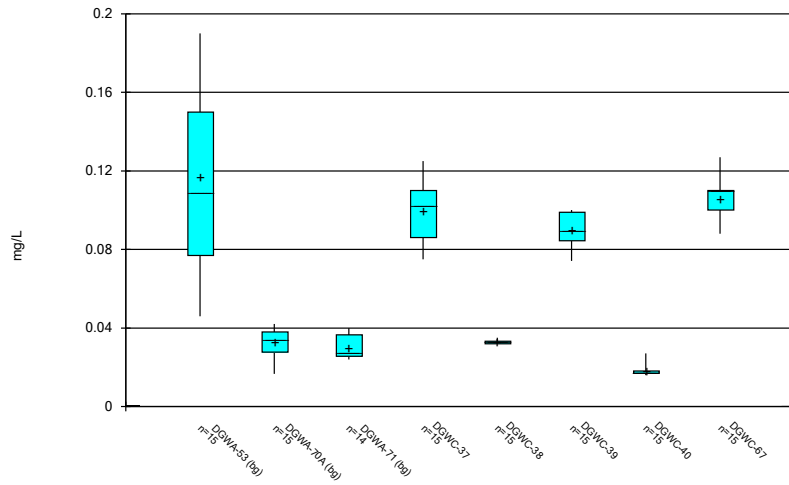
Constituent: Arsenic Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



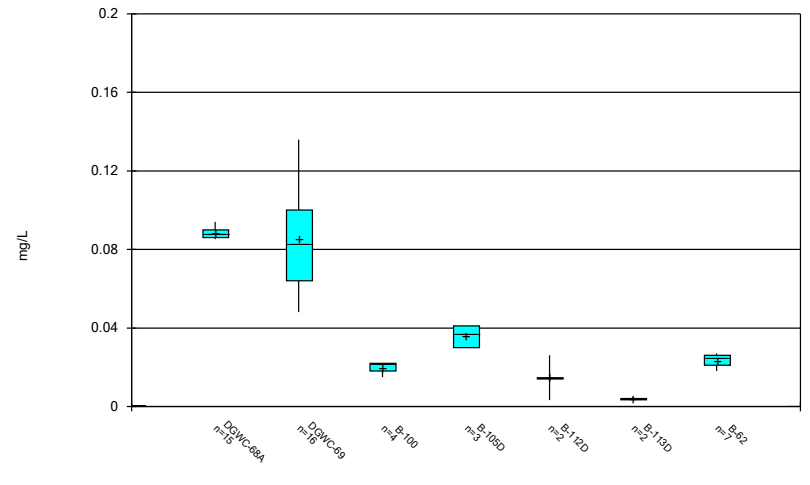
Constituent: Arsenic Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



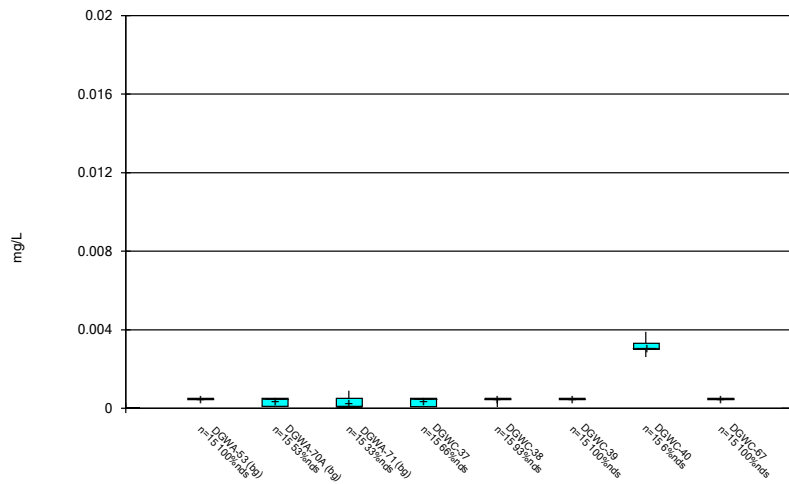
Constituent: Barium Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



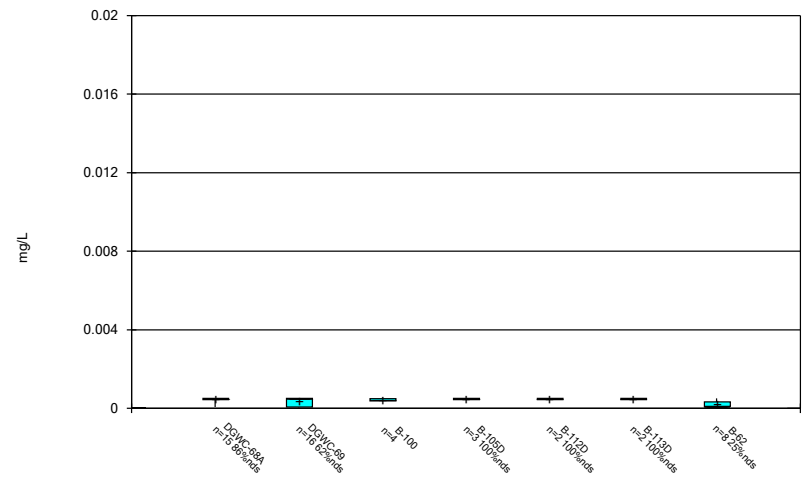
Constituent: Barium Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



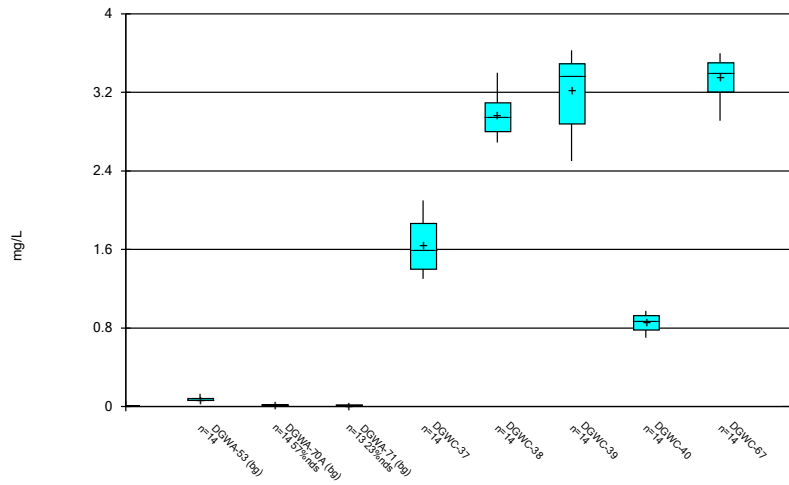
Constituent: Beryllium Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



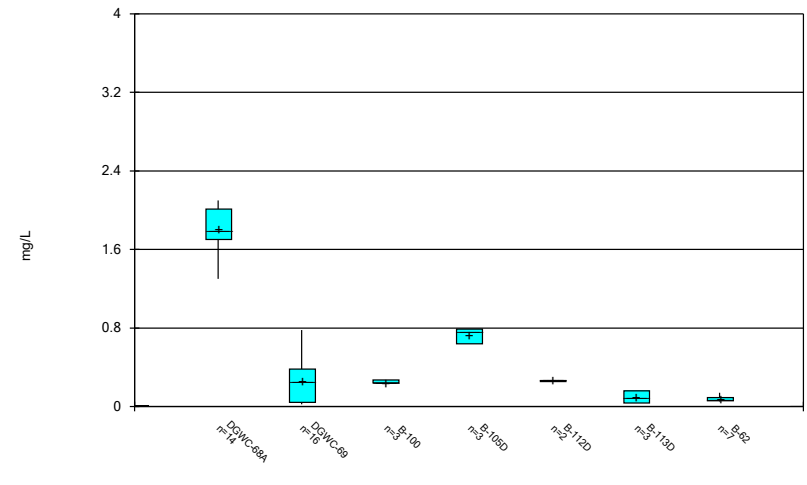
Constituent: Beryllium Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



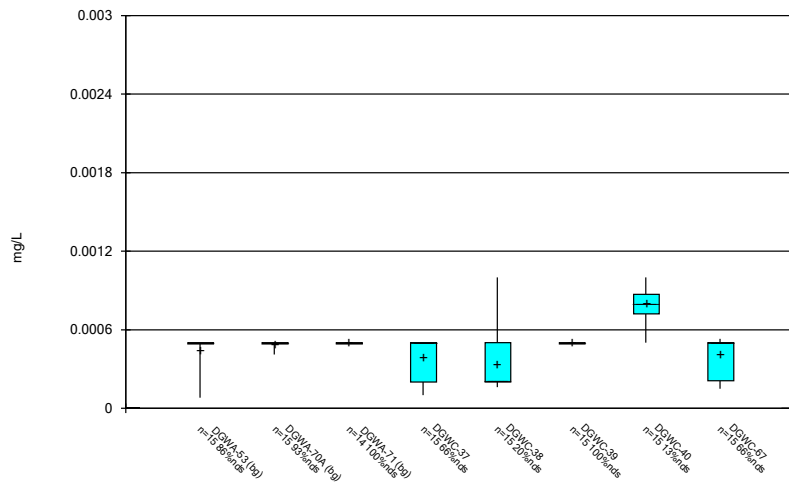
Constituent: Boron, total Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



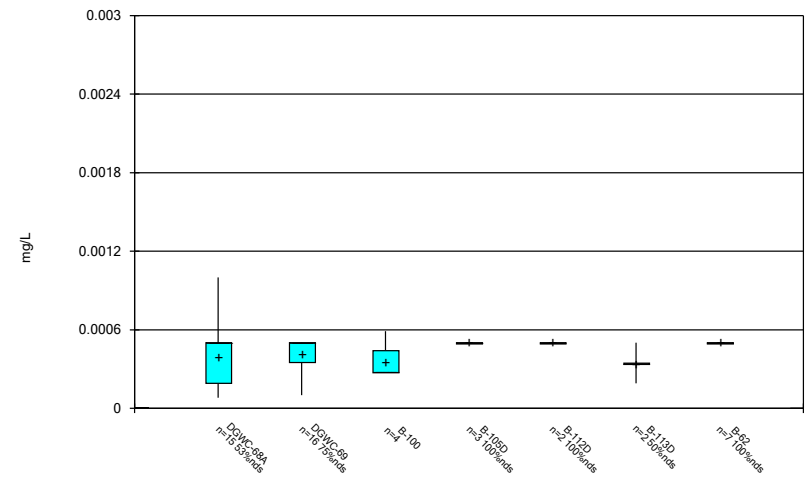
Constituent: Boron, total Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



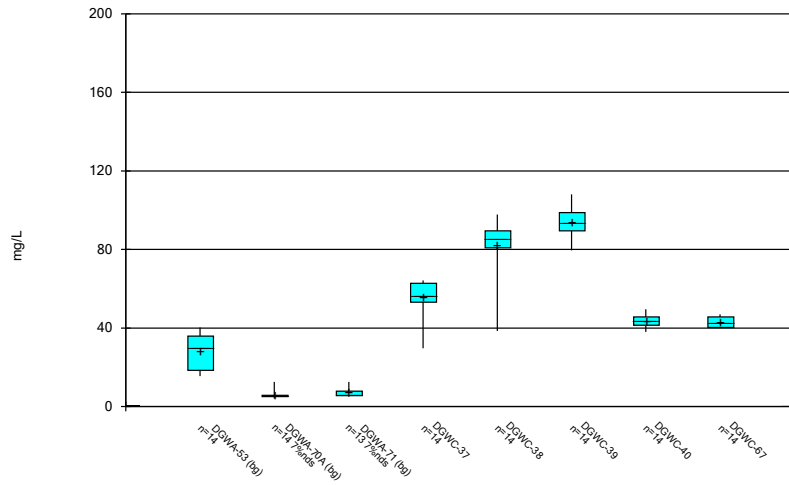
Constituent: Cadmium Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



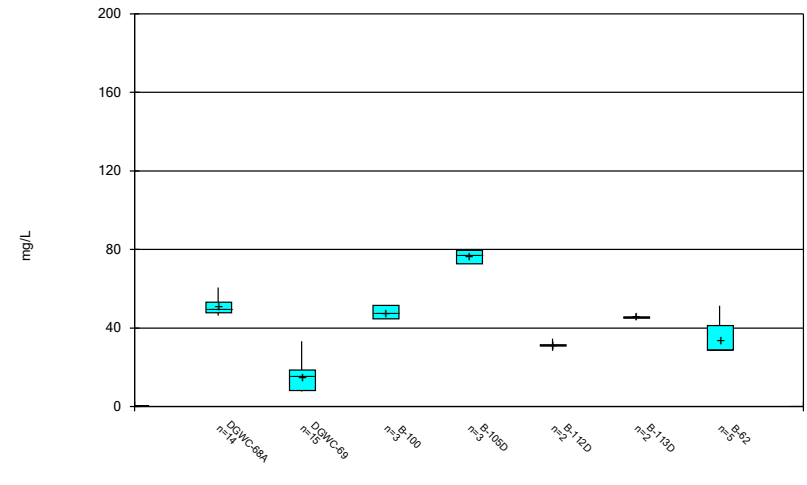
Constituent: Cadmium Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



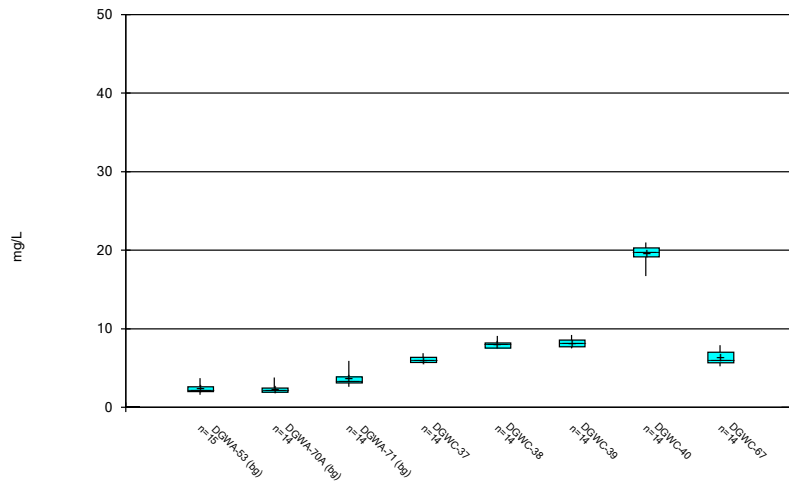
Constituent: Calcium, total Analysis Run 12/16/2021 2:13 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



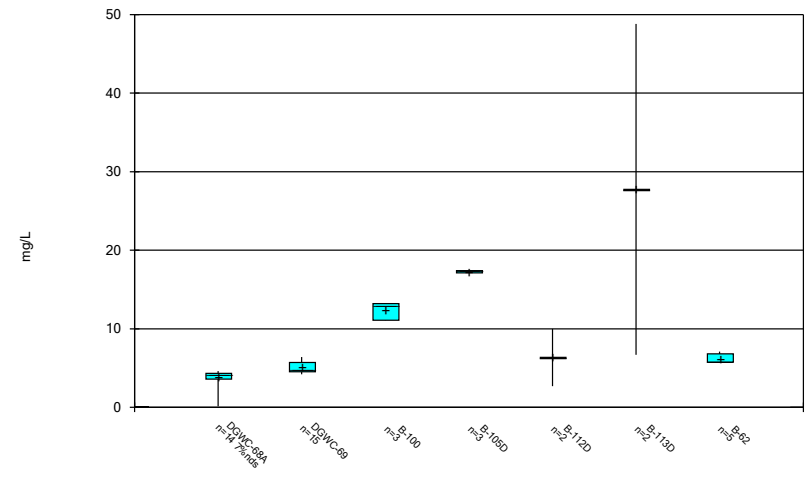
Constituent: Calcium, total Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



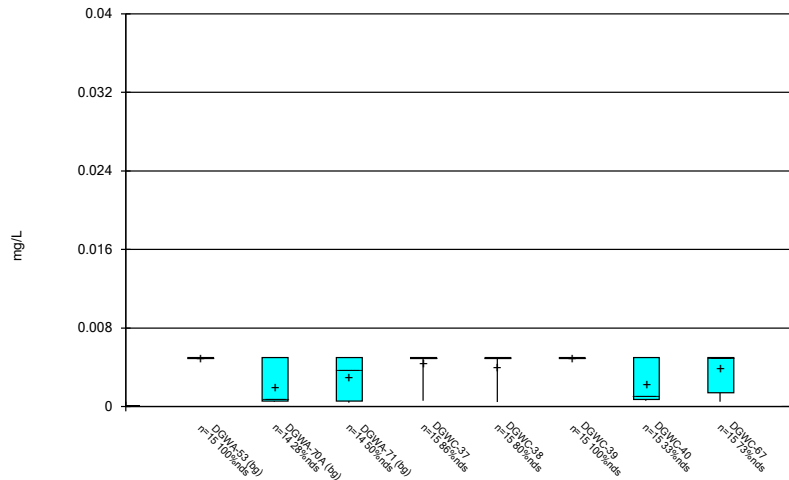
Constituent: Chloride, Total Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



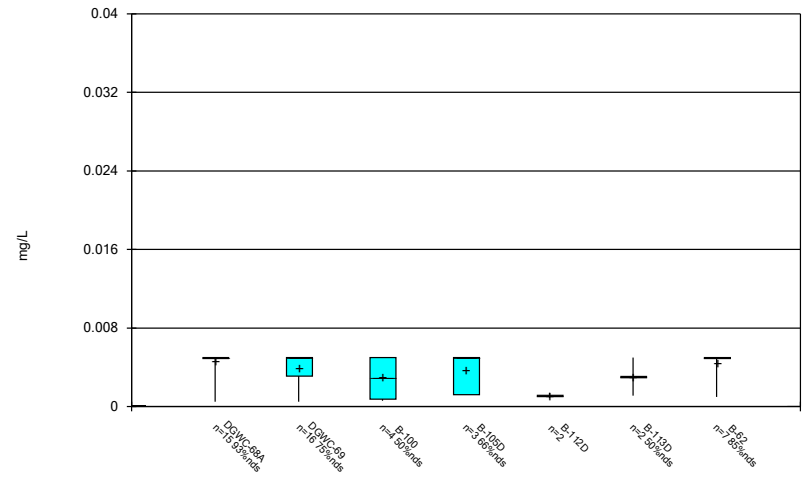
Constituent: Chloride, Total Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



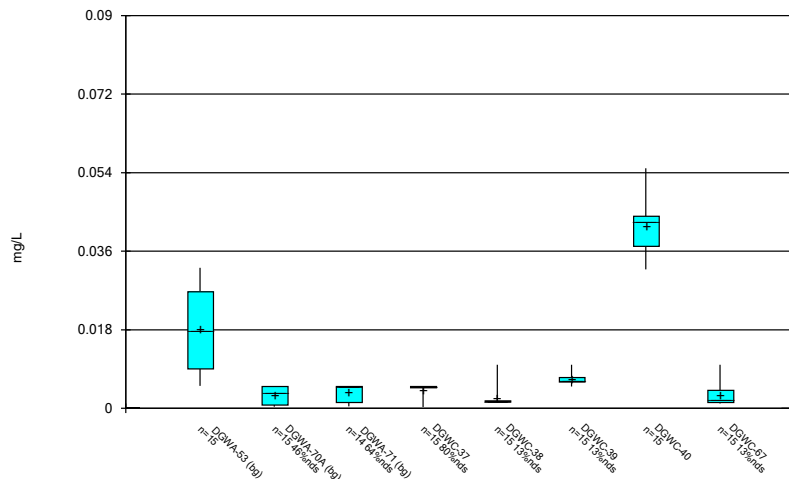
Constituent: Chromium Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



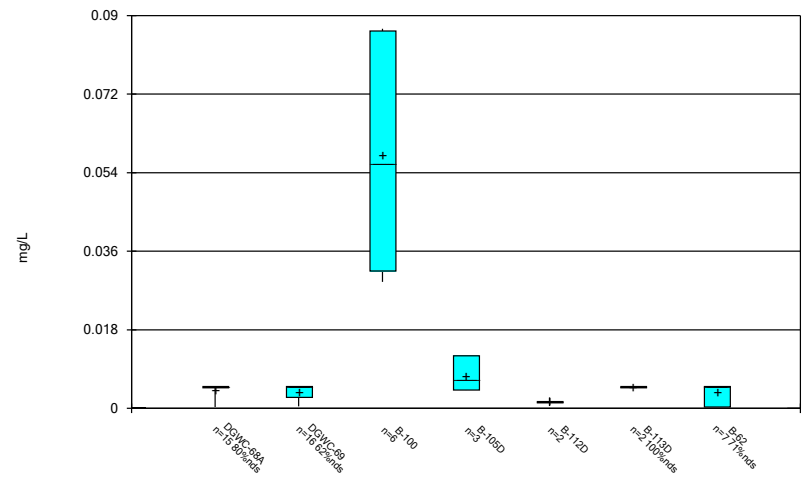
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



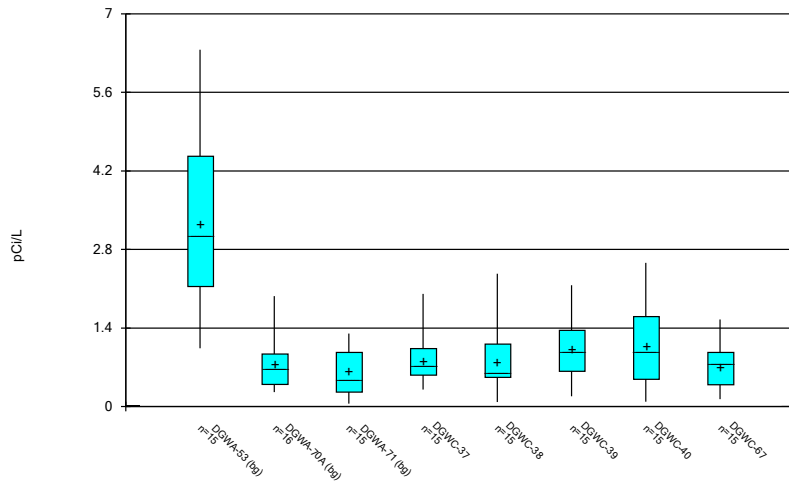
Constituent: Cobalt Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



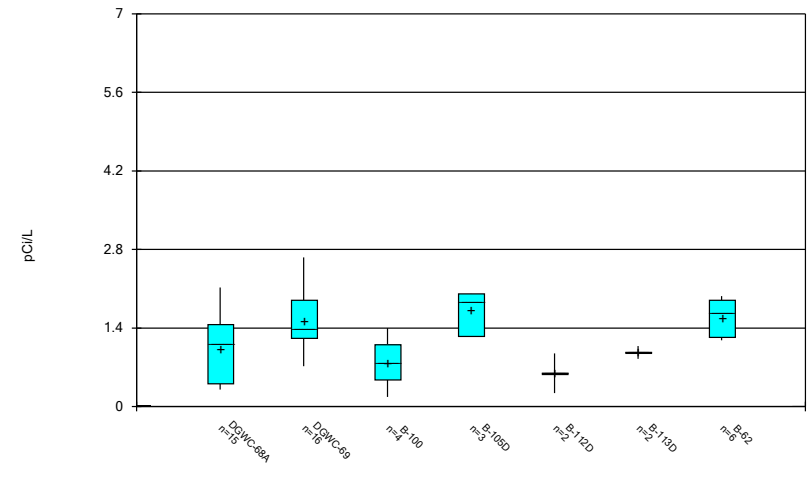
Constituent: Cobalt Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



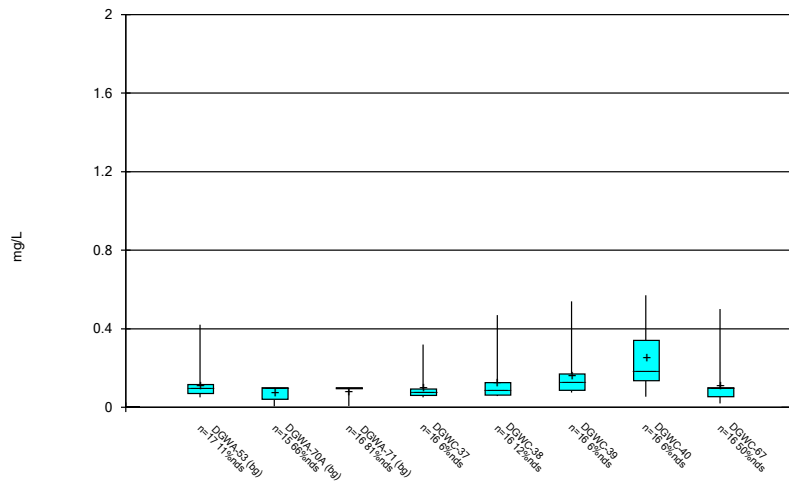
Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



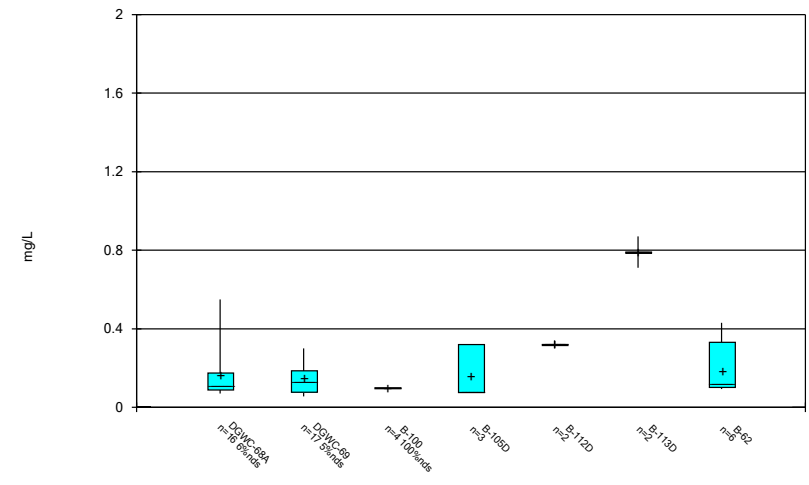
Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



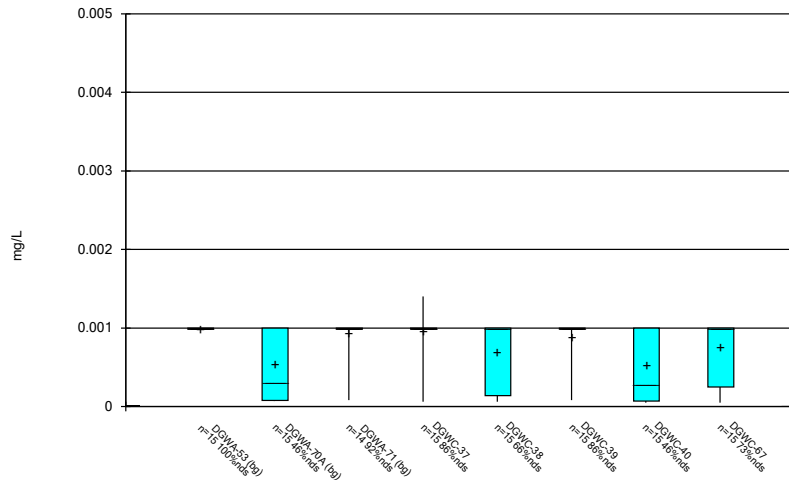
Constituent: Fluoride, total Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



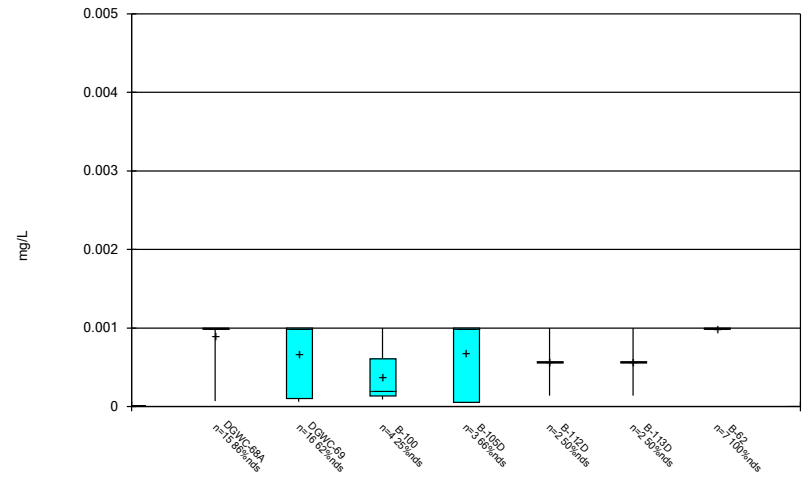
Constituent: Fluoride, total Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



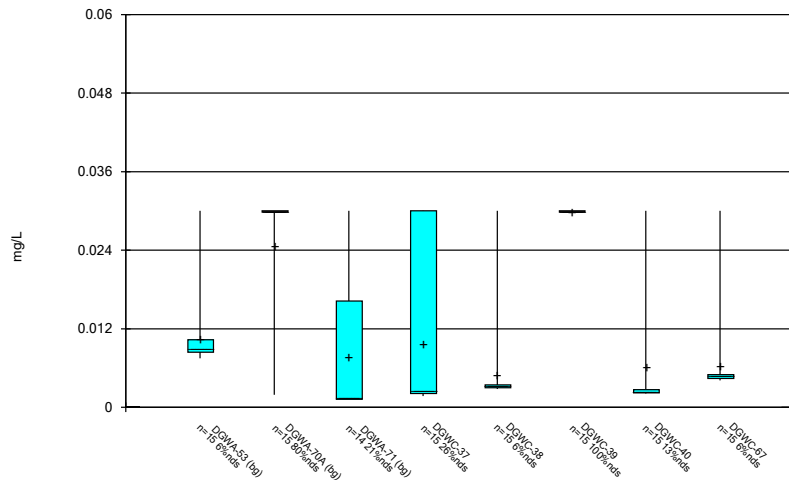
Constituent: Lead Analysis Run 12/16/2021 2:14 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



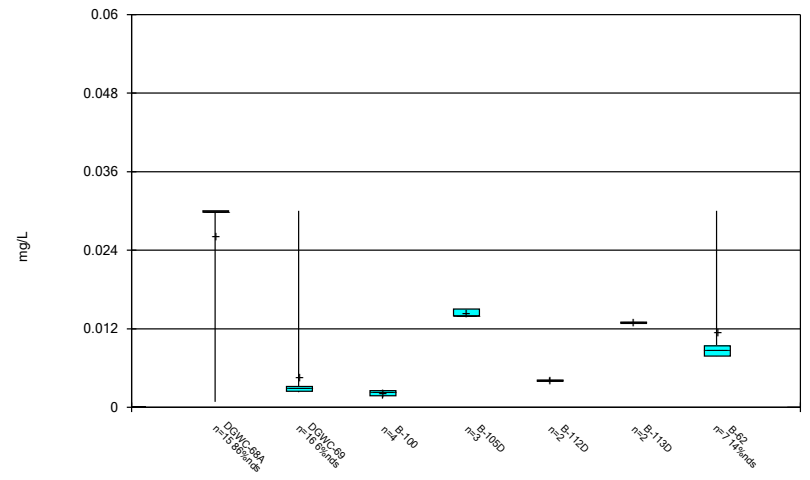
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



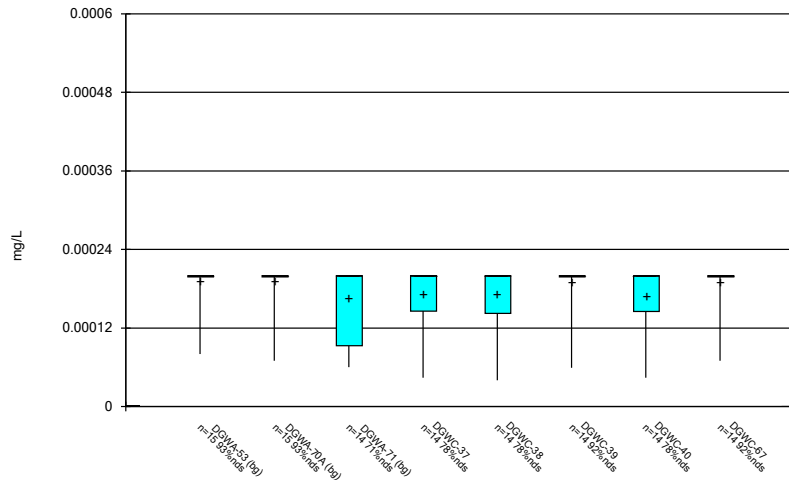
Constituent: Lithium Analysis Run 12/16/2021 2:14 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



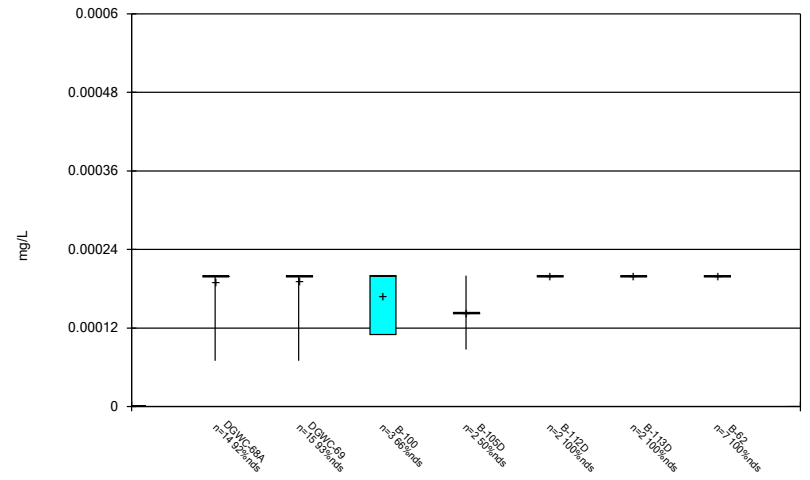
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



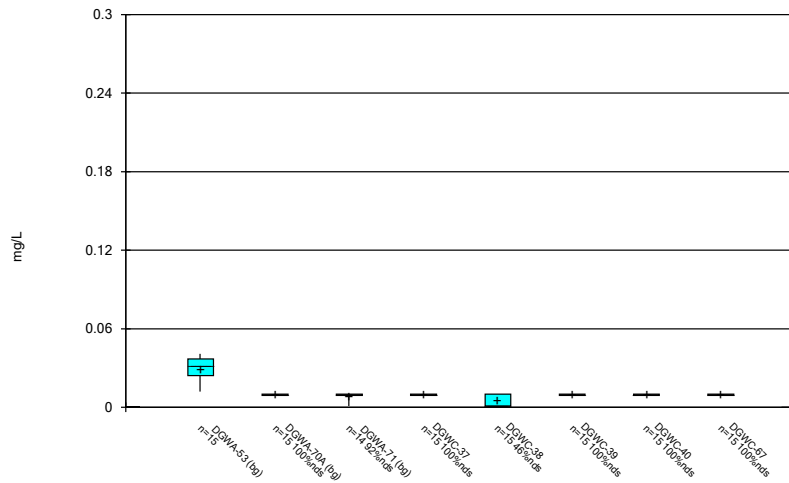
Constituent: Mercury Analysis Run 12/16/2021 2:14 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



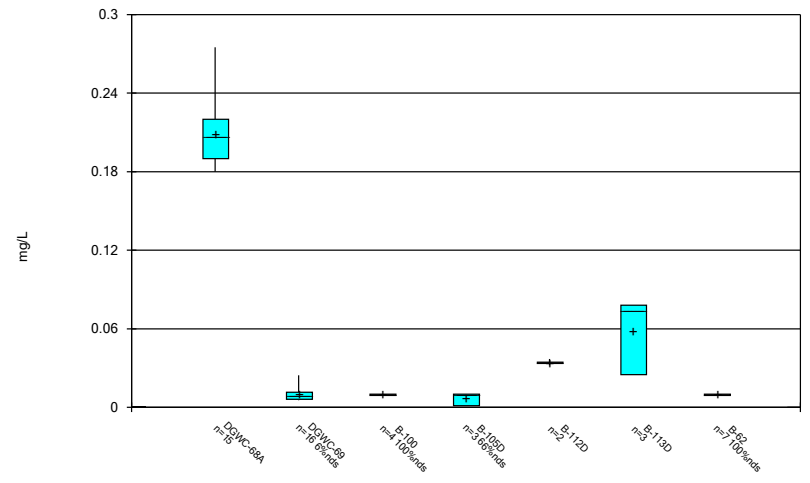
Constituent: Mercury Analysis Run 12/16/2021 2:14 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



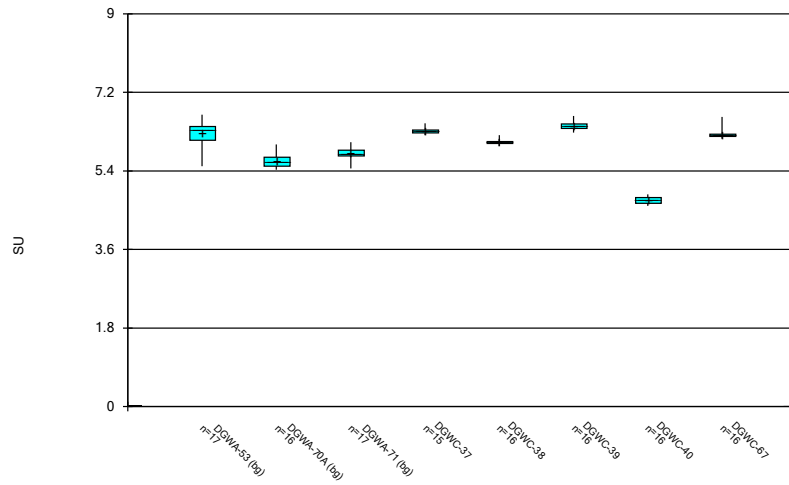
Constituent: Molybdenum Analysis Run 12/16/2021 2:14 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



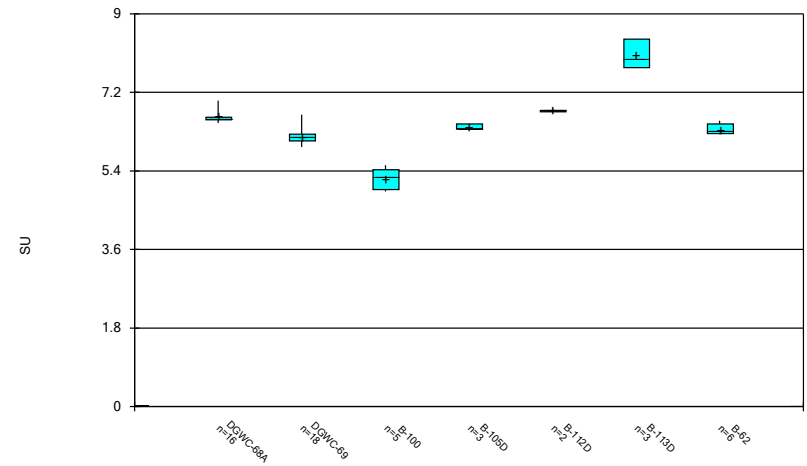
Constituent: Molybdenum Analysis Run 12/16/2021 2:14 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



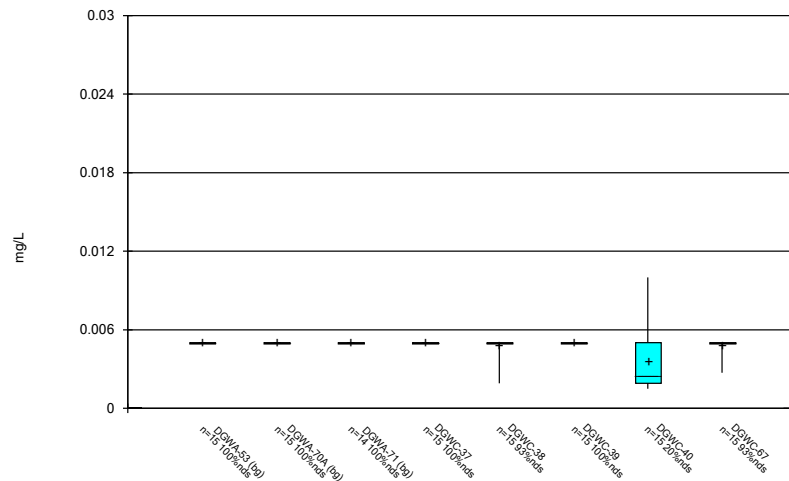
Constituent: pH, Field Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



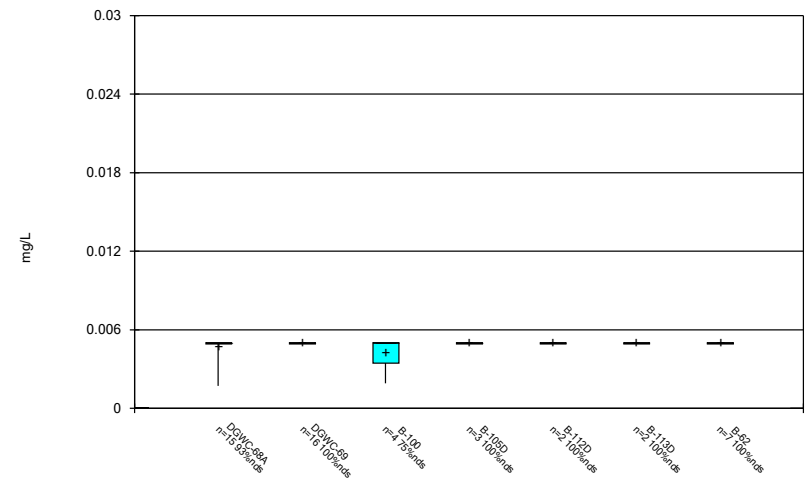
Constituent: pH, Field Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



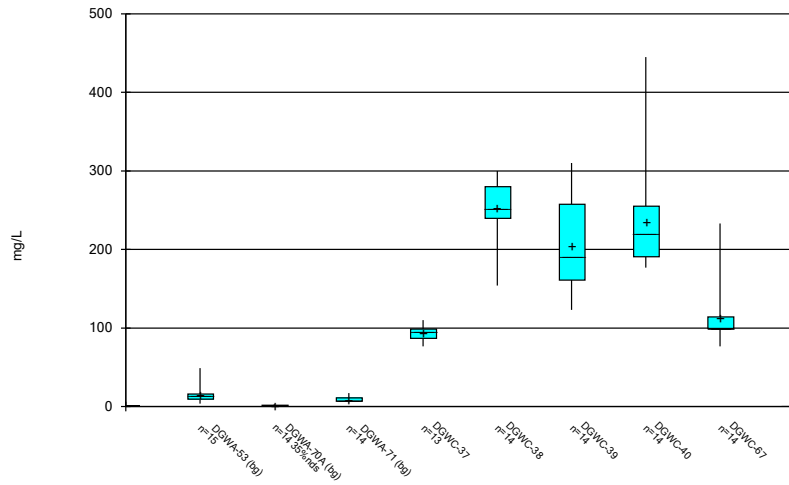
Constituent: Selenium Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



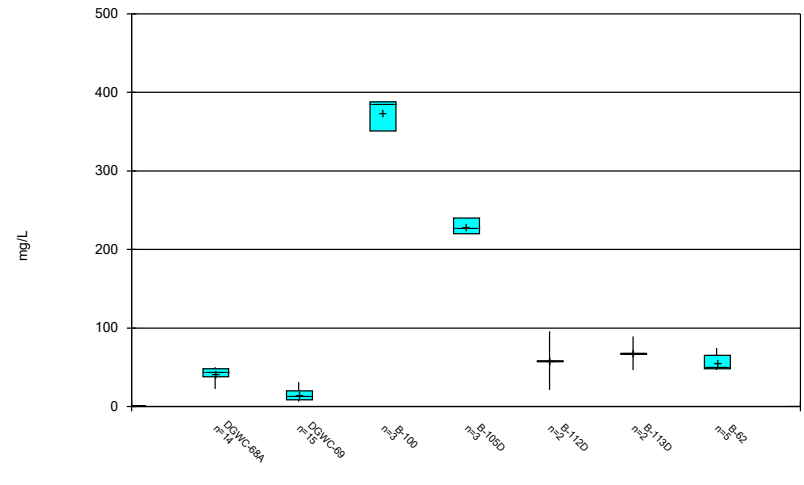
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



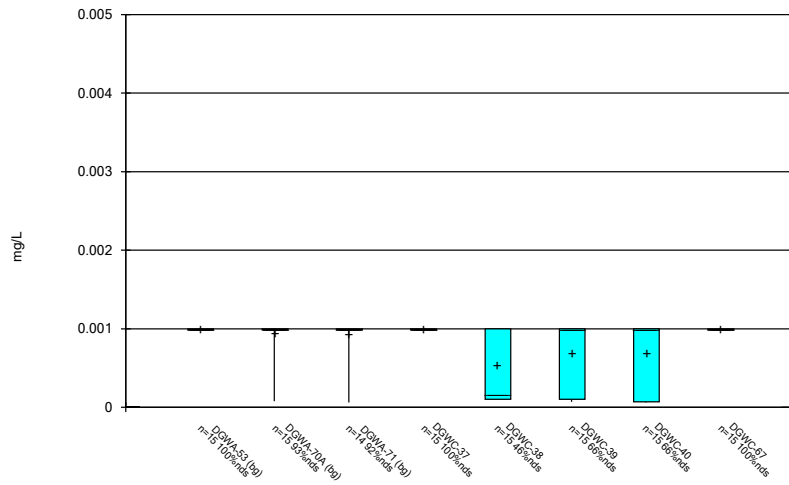
Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



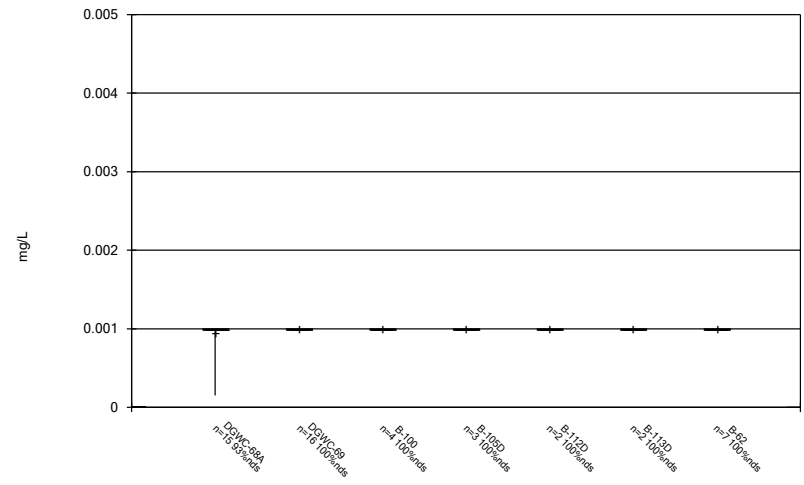
Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



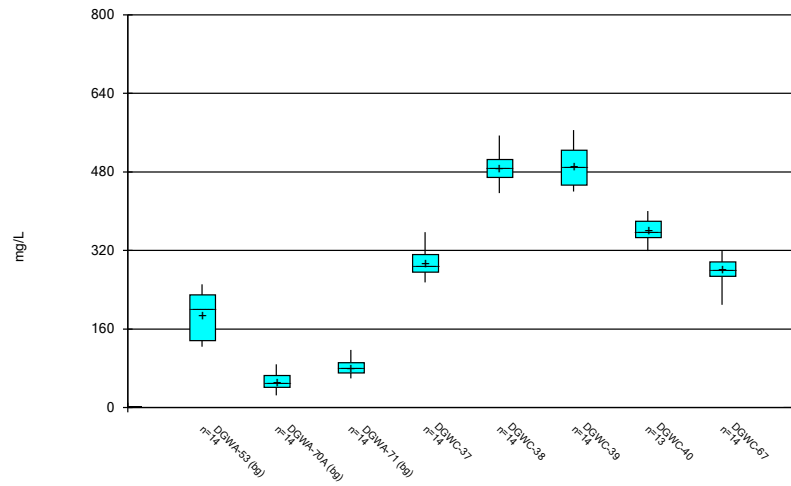
Constituent: Thallium Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



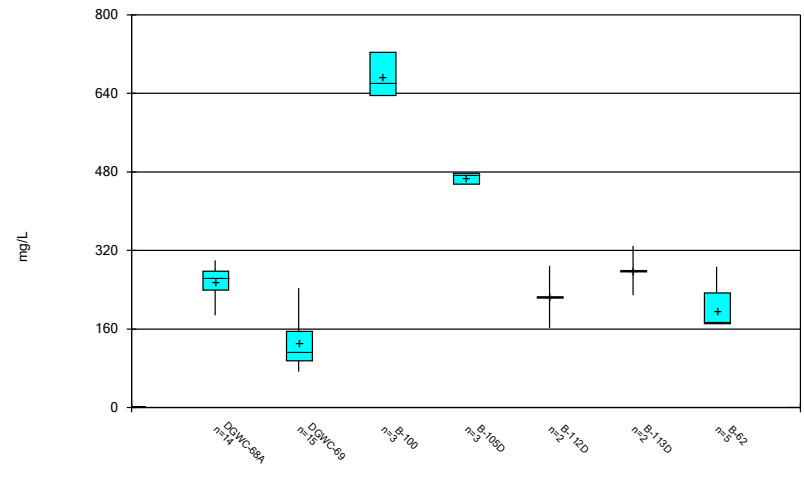
Constituent: Thallium Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:14 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE C.

Outlier Summary

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:15 PM

Date	DGWC-68A Arsenic (mg/L)	DGWC-68A Barium (mg/L)	DGWA-70A Chromium (mg/L)	DGWC-68A Chromium (mg/L)	DGWC-68A Cobalt (mg/L)	DGWA-70A Fluoride, total (mg/L)	DGWC-68A pH, Field (SU)	DGWC-37 Sulfate as SO4 (mg/L)	DGWA-53 Total Dissolved Solids [TDS] (mg/L)	DGWC-40 Total Dissolved Solids [TDS] (mg/L)
9/2/2016									583 (O)	
3/28/2017				1.2 (O)						
7/13/2017							200 (O)			
10/24/2017									671 (O)	
10/15/2019			0.034 (O)							
9/16/2021	0.46 (o)	0.13 (o)		0.0014 (J,o)	0.0032 (J,o)	6.79 (o)				

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	DGWC-37	0.13	n/a	9/16/2021	1.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	9/15/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	9/17/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	9/14/2021	0.7	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	9/16/2021	3.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	9/16/2021	1.3	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-69	0.13	n/a	9/16/2021	0.32	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	9/16/2021	63	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	9/15/2021	88.3	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	9/17/2021	98.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	9/14/2021	45.1	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	9/16/2021	46	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	9/16/2021	60.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-37	4.677	n/a	9/16/2021	5.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-38	4.677	n/a	9/15/2021	7.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-39	4.677	n/a	9/17/2021	8.3	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-40	4.677	n/a	9/14/2021	16.7	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-67	4.677	n/a	9/16/2021	7.9	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Fluoride, total (mg/L)	DGWC-68A	0.42	n/a	9/16/2021	0.55	Yes	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
pH, Field (SU)	DGWC-40	6.556	5.244	9/14/2021	4.67	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-68A	6.556	5.244	10/27/2021	6.56	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.94	n/a	9/16/2021	95	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-38	28.94	n/a	9/15/2021	219	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-39	28.94	n/a	9/17/2021	156	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-40	28.94	n/a	9/14/2021	186	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-67	28.94	n/a	9/16/2021	101	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	265.7	n/a	9/16/2021	278	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	265.7	n/a	9/15/2021	474	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	265.7	n/a	9/17/2021	446	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	265.7	n/a	9/14/2021	347	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	265.7	n/a	9/16/2021	282	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2

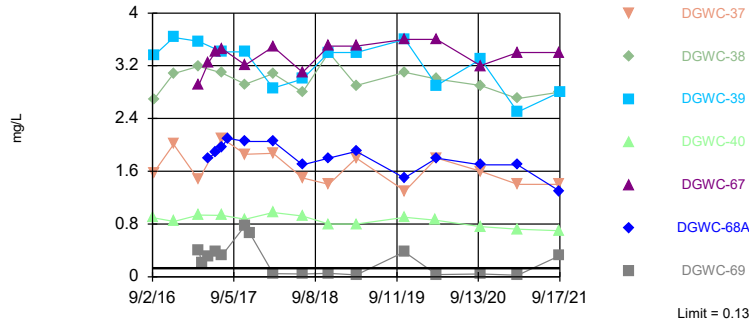
Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	DGWC-37	0.13	n/a	9/16/2021	1.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	9/15/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	9/17/2021	2.8	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	9/14/2021	0.7	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	9/16/2021	3.4	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	9/16/2021	1.3	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-69	0.13	n/a	9/16/2021	0.32	Yes	41	n/a	n/a	26.83	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	9/16/2021	63	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	9/15/2021	88.3	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	9/17/2021	98.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	9/14/2021	45.1	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	9/16/2021	46	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	9/16/2021	60.6	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-69	40.3	n/a	9/16/2021	18	No	41	n/a	n/a	4.878	n/a	n/a	0.001085	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-37	4.677	n/a	9/16/2021	5.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-38	4.677	n/a	9/15/2021	7.6	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-39	4.677	n/a	9/17/2021	8.3	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-40	4.677	n/a	9/14/2021	16.7	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-67	4.677	n/a	9/16/2021	7.9	Yes	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-68A	4.677	n/a	9/16/2021	3.4	No	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride, Total (mg/L)	DGWC-69	4.677	n/a	9/16/2021	4.5	No	43	0.9633	0.2952	0	None	ln(x)	0.001075	Param Inter 1 of 2
Fluoride, total (mg/L)	DGWC-37	0.42	n/a	9/16/2021	0.084J	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-38	0.42	n/a	9/15/2021	0.06J	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-39	0.42	n/a	9/17/2021	0.13	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-40	0.42	n/a	9/14/2021	0.13	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-67	0.42	n/a	9/16/2021	0.069J	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-68A	0.42	n/a	9/16/2021	0.55	Yes	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-69	0.42	n/a	9/16/2021	0.11	No	48	n/a	n/a	52.08	n/a	n/a	0.0008146	NP Inter (NDs) 1 of 2
pH, Field (SU)	DGWC-37	6.556	5.244	9/16/2021	6.33	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-38	6.556	5.244	9/15/2021	6.08	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-39	6.556	5.244	9/17/2021	6.49	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-40	6.556	5.244	9/14/2021	4.67	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-67	6.556	5.244	9/16/2021	6.2	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-68A	6.556	5.244	10/27/2021	6.56	Yes	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-69	6.556	5.244	9/16/2021	6.16	No	50	5.9	0.3378	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.94	n/a	9/16/2021	95	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-38	28.94	n/a	9/15/2021	219	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-39	28.94	n/a	9/17/2021	156	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-40	28.94	n/a	9/14/2021	186	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-67	28.94	n/a	9/16/2021	101	Yes	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-68A	28.94	n/a	9/16/2021	22.3	No	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-69	28.94	n/a	9/16/2021	17.9	No	43	2.563	1.435	11.63	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	265.7	n/a	9/16/2021	278	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	265.7	n/a	9/15/2021	474	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	265.7	n/a	9/17/2021	446	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	265.7	n/a	9/14/2021	347	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	265.7	n/a	9/16/2021	282	Yes	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	265.7	n/a	9/16/2021	259	No	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	265.7	n/a	9/16/2021	113	No	42	4.572	0.9447	0	None	x^(1/3)	0.001075	Param Inter 1 of 2

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-69

Prediction Limit
Interwell Non-parametric

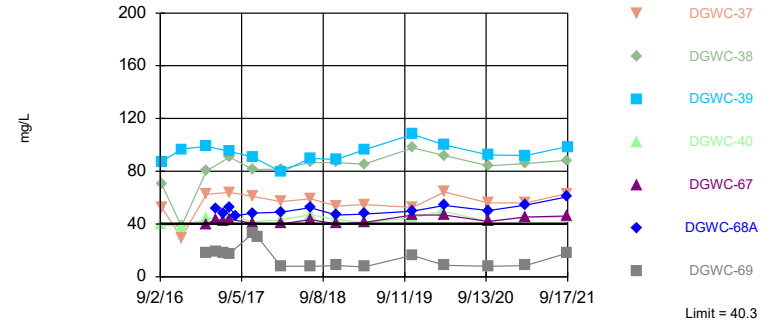


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 41 background values. 26.83% NDs. Annual per-constituent alpha = 0.01508. Individual comparison alpha = 0.001085 (1 of 2). Comparing 7 points to limit.

Constituent: Boron, total Analysis Run 12/16/2021 2:15 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A

Prediction Limit
Interwell Non-parametric

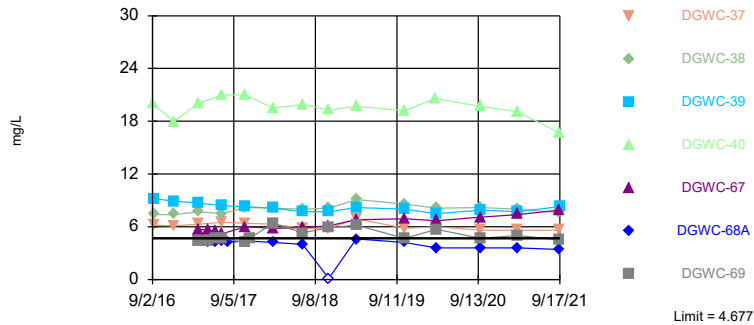


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 41 background values. 4.878% NDs. Annual per-constituent alpha = 0.01508. Individual comparison alpha = 0.001085 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium, total Analysis Run 12/16/2021 2:16 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67

Prediction Limit
Interwell Parametric

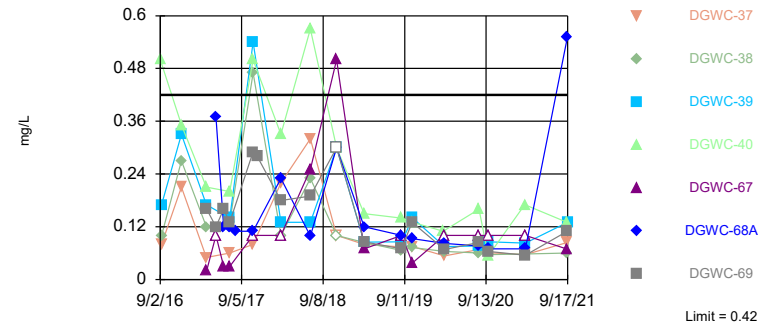


Background Data Summary (based on natural log transformation): Mean=0.9633, Std. Dev.=0.2952, n=43. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.923. Kappa = 1.962 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Chloride, Total Analysis Run 12/16/2021 2:16 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-68A

Prediction Limit
Interwell Non-parametric

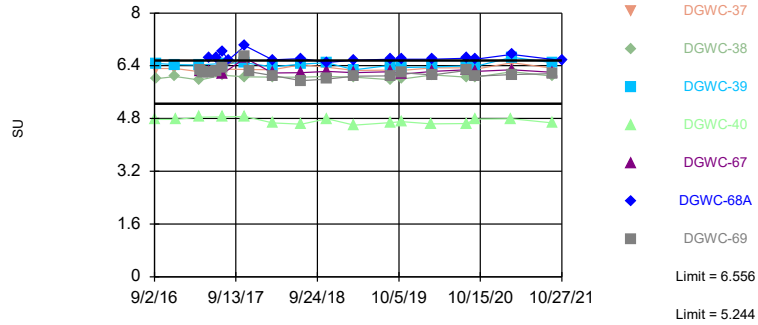


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 48 background values. 52.08% NDs. Annual per-constituent alpha = 0.01134. Individual comparison alpha = 0.0008146 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride, total Analysis Run 12/16/2021 2:16 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limits: DGWC-40, DGWC-68A

Prediction Limit
Interwell Parametric

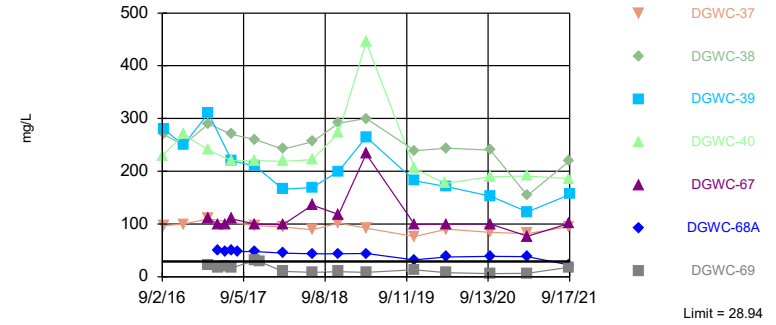


Background Data Summary: Mean=5.9, Std. Dev.=0.3378, n=50. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9448, critical = 0.935. Kappa = 1.942 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005373. Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 12/16/2021 2:16 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67

Prediction Limit
Interwell Parametric

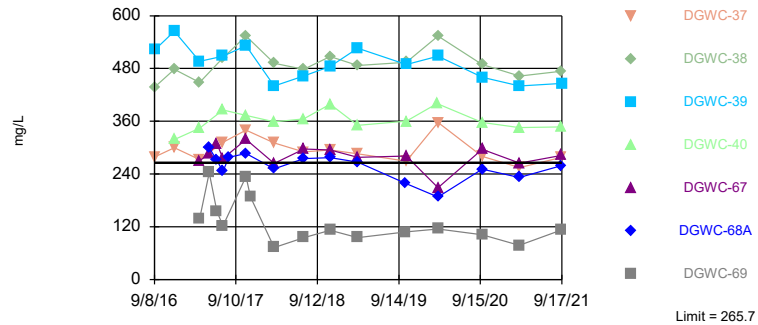


Background Data Summary (based on square root transformation): Mean=2.563, Std. Dev.=1.435, n=43, 11.63% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9331, critical = 0.923. Kappa = 1.962 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:16 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67

Prediction Limit
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=4.572, Std. Dev.=0.9447, n=42. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.922. Kappa = 1.966 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:16 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-69	DGWC-67
9/2/2016	0.895								
9/8/2016		3.35	2.69	1.58					
12/7/2016		3.63	3.08	2.01					
12/8/2016	0.841								
3/28/2017					0.0097 (J)	0.0067 (J)	0.0612		
3/30/2017	0.937	3.57	3.19	1.47					
3/31/2017								0.407	2.91
4/12/2017								0.207	
5/11/2017							0.0805		
5/12/2017					0.0082 (J)			0.311	3.24
5/15/2017						0.0073 (J)			
6/15/2017						<0.04	0.0725		
6/16/2017					0.0085 (J)			0.381	3.42
7/11/2017					0.0077 (J)	<0.04			
7/12/2017							0.0735		
7/13/2017	0.933	3.41	3.09	2.1				0.323	3.46
8/8/2017						<0.04			
10/24/2017					0.0083 (J)	0.0082 (J)	0.077		
10/26/2017	0.873	3.41	2.92	1.86				0.779	3.21
11/15/2017								0.667	
2/27/2018					0.0069 (J)	0.0062 (J)			
3/1/2018		2.86	3.08	1.87					
3/2/2018	0.974							0.0478	3.49
3/8/2018							0.13 (J)		
7/12/2018	0.92	3	2.8	1.5			0.076		
7/13/2018								0.043	3.1
11/6/2018					<0.04 (J)	<0.04 (J)			
11/7/2018							0.073		
11/8/2018	0.8	3.4	3.4	1.4				0.054	3.5
3/12/2019					0.0068 (J)	0.0073 (J)			
3/13/2019	0.8	3.4	2.9	1.8			0.08	0.028 (J)	3.5
10/15/2019					0.0054 (J)	<0.04			
10/16/2019							0.059	0.38	
10/17/2019									3.6
10/18/2019	0.9	3.6	3.1	1.3					
3/2/2020					0.01 (J)	0.0055 (J)			
3/4/2020	0.86								
3/9/2020		2.9	3	1.8			0.08 (J)	0.035 (J)	3.6
9/22/2020					<0.04	<0.04	0.056 (J)		
9/23/2020	0.76							0.041 (J)	3.2
9/24/2020			2.9	1.6					
9/25/2020		3.3							
3/1/2021					0.0054 (J)	<0.04			
3/8/2021	0.72								
3/10/2021								0.024 (J)	
3/11/2021		2.5	2.7	1.4					3.4
3/12/2021							0.064		
9/8/2021					<0.04				
9/9/2021						<0.04	0.065		
9/14/2021	0.7								
9/15/2021			2.8						
9/16/2021				1.4				0.32	3.4

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

9/17/2021	DGWC-40	DGWC-39 2.8	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-69	DGWC-67
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Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
4/12/2017	
5/11/2017	
5/12/2017	1.8
5/15/2017	
6/15/2017	
6/16/2017	1.88
7/11/2017	
7/12/2017	
7/13/2017	1.97
8/8/2017	2.1
10/24/2017	
10/26/2017	2.05
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	2.05
3/8/2018	
7/12/2018	
7/13/2018	1.7
11/6/2018	
11/7/2018	
11/8/2018	1.8
3/12/2019	
3/13/2019	1.9
10/15/2019	
10/16/2019	1.5
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	1.8
9/22/2020	
9/23/2020	1.7
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	1.7
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	1.3

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/17/2021

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-69	DGWC-67
9/2/2016	39.6								
9/8/2016		87.2	70.3	52.5					
12/7/2016		96.7	38.4	29.7					
12/8/2016	37.9								
3/28/2017					8.31	5.14	30.8		
3/30/2017	43.9	98.9	80.3	62.6					
3/31/2017								18.6 (J)	39.9
5/11/2017							35.8		
5/12/2017					8.04			18.9 (J)	43.6
5/15/2017						6.5			
6/15/2017						5.38	36		
6/16/2017					7.66			17.7	42.5
7/11/2017					7.71	5.96			
7/12/2017							40.3		
7/13/2017	46.2	95	90.8	64.1				17.6	43.7
8/8/2017						5.2			
10/24/2017					6.86	4.93	30.3		
10/26/2017	41.8	90.6	81.3	60.8				33.3	40.4
11/15/2017								30.6	
2/27/2018					<25	<25			
3/1/2018		79.6	81.8	57					
3/2/2018	43.2							8.09	40.1
3/8/2018							39.8		
7/12/2018	47.1	89.8	86.7	59.1			34.7		
7/13/2018								7.9	43.3
11/6/2018					5.7	5.5			
11/7/2018							28.6		
11/8/2018	43.5	89	86.6	53.6				8.5	40.1
3/12/2019					5.5	5.1			
3/13/2019	41	96.3	85.3	54.8			26.7	7.6	41.2
10/15/2019					5.1	5.1			
10/16/2019							17.7	16.2	
10/17/2019									46.9
10/18/2019	44.9	108	97.8	52.5					
3/2/2020					5.8	5.3			
3/4/2020	49.6								
3/9/2020		100	91.9	64.2			23.7	8.6	46.9
9/22/2020					5.4	5	15.5		
9/23/2020	41.9							8	42
9/24/2020			84.1	55.9					
9/25/2020		92.5							
3/1/2021					5.9	4.1			
3/8/2021	44.9								
3/10/2021								8.5	
3/11/2021		91.9	85.8	56					45.4
3/12/2021							18.4		
9/8/2021					6.1				
9/9/2021						5.3	18.3		
9/14/2021	45.1								
9/15/2021			88.3						
9/16/2021				63				18	46
9/17/2021		98.6							

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	51.7
5/15/2017	
6/15/2017	
6/16/2017	47.9
7/11/2017	
7/12/2017	
7/13/2017	52.3
8/8/2017	46.3
10/24/2017	
10/26/2017	48.2
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	48.9
3/8/2018	
7/12/2018	
7/13/2018	52.4
11/6/2018	
11/7/2018	
11/8/2018	46.8
3/12/2019	
3/13/2019	47.5
10/15/2019	
10/16/2019	49.7
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	54
9/22/2020	
9/23/2020	50.2
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	54.2
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	60.6
9/17/2021	

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-39	DGWC-38	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-67	DGWC-69
9/2/2016	20								
9/8/2016		6.2	9.2	7.4					
12/7/2016		6.1	8.9	7.4					
12/8/2016	18								
3/28/2017					3.7	3.8	3.6		
3/30/2017	20	6.3	8.7	7.7					
3/31/2017								5.7	4.4
5/11/2017					2.3				
5/12/2017							3.8	5.6	4.4
5/15/2017						2.2			
6/15/2017					2.6	2			
6/16/2017							3.4	5.5	4.7
7/11/2017						2.1	3.1		
7/12/2017					2.3				
7/13/2017	21	6.5	8.4	7.5				5.2	4.7
8/8/2017						2.2			
10/24/2017					2.7	2.4	3.2		
10/26/2017	21	6.4	8.3	8.2				6	4.2
11/15/2017					2.2		3.1		4.7
2/27/2018						2.5	3.2		
3/1/2018		6.3	8.1	8.1					
3/2/2018	19.5							5.8	6.4
3/8/2018					2.4				
7/12/2018	19.9	5.8	7.7	8	2.2				
7/13/2018								5.9	5.3
11/6/2018						2.3	2.6		
11/7/2018					2.3				
11/8/2018	19.3	5.8	7.7	8.1				6.1	5.9
3/12/2019						2.5	3.3		
3/13/2019	19.7	6.9	8.2	9.1	3.6			6.8	6.2
10/15/2019						2.2	3.3		
10/16/2019					2				4.7
10/17/2019								6.9	
10/18/2019	19.2	5.8	8	8.6					
3/2/2020						1.9	3		
3/4/2020	20.6								
3/9/2020		6	7.5	8.1	1.8			6.7	5.7
9/22/2020					1.6	1.9	5.2		
9/23/2020	19.7							7.1	4.7
9/24/2020		5.6		8.2					
9/25/2020			7.9						
3/1/2021						1.9	3.9		
3/8/2021	19.1								
3/10/2021									5
3/11/2021		5.6	7.7	8				7.4	
3/12/2021					2				
9/8/2021							5.9		
9/9/2021					1.8	1.9			
9/14/2021	16.7								
9/15/2021				7.6					
9/16/2021		5.6						7.9	4.5
9/17/2021			8.3						

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	4.2
5/15/2017	
6/15/2017	
6/16/2017	4.2
7/11/2017	
7/12/2017	
7/13/2017	4.4
8/8/2017	4.2
10/24/2017	
10/26/2017	4.4
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	4.2
3/8/2018	
7/12/2018	
7/13/2018	4
11/6/2018	
11/7/2018	
11/8/2018	<0.25
3/12/2019	
3/13/2019	4.6
10/15/2019	
10/16/2019	4.2
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	3.6
9/22/2020	
9/23/2020	3.6
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	3.6
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	3.4
9/17/2021	

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/2/2016	0.5								
9/8/2016		0.17 (J)	0.1 (J)	0.08 (J)					
12/7/2016		0.33	0.27 (J)	0.21 (J)					
12/8/2016	0.35								
3/28/2017					0.06 (J)	0.12 (J)			
3/30/2017	0.21 (J)	0.17 (J)	0.12 (J)	0.05 (J)					
3/31/2017							0.02 (J)	0.16 (J)	
5/11/2017						0.07 (J)			
5/12/2017					<0.1		<0.1	0.12 (J)	0.37
5/15/2017									
6/15/2017						0.19 (J)			
6/16/2017					0.008 (J)		0.03 (J)	0.16 (J)	0.12 (J)
7/11/2017					0.007 (J)				
7/12/2017						0.1 (J)			
7/13/2017	0.2 (J)	0.14 (J)	0.13 (J)	0.06 (J)			0.03 (J)	0.13 (J)	0.12 (J)
8/8/2017									0.11 (J)
10/24/2017					<0.1	0.06 (J)			
10/26/2017	0.5	0.54	0.47	0.08 (J)			<0.1	0.29 (J)	0.11 (J)
11/15/2017					<0.1	0.05 (J)		0.28 (J)	
2/27/2018					<0.1				
3/1/2018		0.13	<0.1	0.22					
3/2/2018	0.33						<0.1	0.18	0.23
3/8/2018						<0.1			
7/12/2018	0.57	0.13 (J)	0.23 (J)	0.32		0.071 (J)			
7/13/2018							0.25 (J)	0.19 (J)	0.099 (J)
11/6/2018					<0.1				
11/7/2018						<0.1			
11/8/2018	<0.3 (J)	<0.3 (J)	<0.1	<0.1			0.5	<0.3 (J)	<0.3 (J)
3/12/2019					<0.1				
3/13/2019	0.15 (J)	0.085 (J)	0.084 (J)	0.08 (J)		0.13 (J)	0.07 (J)	0.086 (J)	0.12 (J)
8/27/2019					<0.1				
8/28/2019	0.14	0.086 (J)	0.066 (J)	0.074 (J)		0.42	<0.1	0.07 (J)	0.1
10/15/2019					<0.1				
10/16/2019						0.11 (J)		0.13 (J)	0.093 (J)
10/17/2019							0.038 (J)		
10/18/2019	0.13 (J)	0.14 (J)	0.073 (J)	0.075 (J)					
3/2/2020					<0.1				
3/4/2020	0.11 (J)								
3/9/2020		0.075 (J)	0.064 (J)	0.054 (J)		0.1 (J)	<0.1	0.068 (J)	0.082 (J)
8/11/2020					<0.1				
8/13/2020	0.16	0.076 (J)	0.06 (J)	0.068 (J)		0.062 (J)	<0.1	0.084 (J)	0.076 (J)
9/22/2020					<0.1	0.099 (J)			
9/23/2020	0.054 (J)						<0.1	0.064 (J)	0.07 (J)
9/24/2020			0.057 (J)	0.061 (J)					
9/25/2020		0.086 (J)							
3/1/2021					<0.1				
3/8/2021	0.17								
3/10/2021								0.055 (J)	0.07 (J)
3/11/2021		0.083 (J)	0.058 (J)	0.057 (J)			<0.1		
3/12/2021						0.076 (J)			
9/8/2021					<0.1				
9/9/2021						0.099 (J)			

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/14/2021	0.13								
9/15/2021			0.06 (J)						
9/16/2021				0.084 (J)			0.069 (J)	0.11	0.55
9/17/2021		0.13							

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	1.2 (O)
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	
5/15/2017	0.005 (J)
6/15/2017	0.02 (J)
6/16/2017	
7/11/2017	0.06 (J)
7/12/2017	
7/13/2017	
8/8/2017	0.04 (J)
10/24/2017	<0.1
10/26/2017	
11/15/2017	
2/27/2018	<0.1
3/1/2018	
3/2/2018	
3/8/2018	
7/12/2018	
7/13/2018	
11/6/2018	<0.1
11/7/2018	
11/8/2018	
3/12/2019	0.039 (J)
3/13/2019	
8/27/2019	<0.1
8/28/2019	
10/15/2019	<0.1
10/16/2019	
10/17/2019	
10/18/2019	
3/2/2020	<0.1
3/4/2020	
3/9/2020	
8/11/2020	<0.1
8/13/2020	
9/22/2020	<0.1
9/23/2020	
9/24/2020	
9/25/2020	
3/1/2021	<0.1
3/8/2021	
3/10/2021	
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	<0.1

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/14/2021
9/15/2021
9/16/2021
9/17/2021

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-69	DGWC-67	DGWC-68A
9/2/2016	4.77								
9/8/2016		6.47	6.01	6.32					
12/7/2016		6.43	6.07	6.32					
12/8/2016	4.77								
3/28/2017					5.94	6.29			
3/30/2017	4.84	6.42	5.97	6.22					
3/31/2017							6.26	6.25	
4/12/2017							6.19		
5/11/2017						6.6			
5/12/2017					5.46		6.2	6.23	6.63
5/15/2017									
6/15/2017						6.41			
6/16/2017					5.81		6.22	6.22	6.63
7/11/2017					5.74				
7/12/2017						5.91			
7/13/2017	4.85	6.47	6.11	6.3			6.35	6.15	6.84
8/8/2017									6.57
10/24/2017					5.86	5.51			
10/26/2017	4.86	6.49	6.06				6.69	6.64	7.01
11/15/2017					5.77	6.5	6.22		
2/27/2018					5.66				
3/1/2018		6.37	6.05	6.28					
3/2/2018	4.67						6.1	6.18	6.58
3/8/2018						6.18			
7/10/2018					5.63				
7/12/2018	4.63	6.45	6.05	6.43		6.33			
7/13/2018							5.95	6.19	6.62
11/6/2018					5.79				
11/7/2018						6.22			
11/8/2018	4.79	6.49	6.07	6.36			6	6.23	6.5
3/12/2019					5.74				
3/13/2019	4.6	6.28	6.05	6.26		6	6.08	6.19	6.57
8/27/2019					5.87				
8/28/2019	4.68	6.41	5.98	6.27		6.04	6.09	6.22	6.6
10/15/2019					5.88				
10/16/2019						6.69	6.19		6.6
10/17/2019								6.14	
10/18/2019	4.71	6.35	6	6.26					
3/2/2020					5.77				
3/4/2020	4.64								
3/9/2020		6.37	6.12	6.34		6.41	6.12	6.23	6.6
8/11/2020					5.96				
8/13/2020	4.65	6.39	6.05	6.34		6.17	6.26	6.28	6.63
9/22/2020					6.06	6.43			
9/23/2020	4.78						6.08	6.23	6.6
9/24/2020			6.05	6.3					
9/25/2020		6.38							
3/1/2021					5.8				
3/8/2021	4.79								
3/10/2021							6.13		6.74
3/11/2021		6.66	6.22	6.49				6.28	
3/12/2021						6.38			

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
4/12/2017	
5/11/2017	
5/12/2017	
5/15/2017	5.72
6/15/2017	5.74
6/16/2017	
7/11/2017	5.62
7/12/2017	
7/13/2017	
8/8/2017	5.6
10/24/2017	5.71
10/26/2017	
11/15/2017	
2/27/2018	5.5
3/1/2018	
3/2/2018	
3/8/2018	
7/10/2018	5.44
7/12/2018	
7/13/2018	
11/6/2018	5.71
11/7/2018	
11/8/2018	
3/12/2019	5.52
3/13/2019	
8/27/2019	5.53
8/28/2019	
10/15/2019	5.61
10/16/2019	
10/17/2019	
10/18/2019	
3/2/2020	5.54
3/4/2020	
3/9/2020	
8/11/2020	5.86
8/13/2020	
9/22/2020	6.01
9/23/2020	
9/24/2020	
9/25/2020	
3/1/2021	5.43
3/8/2021	
3/10/2021	
3/11/2021	
3/12/2021	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/8/2021
9/9/2021
9/14/2021
9/15/2021
9/16/2021
9/17/2021
10/27/2021

5.5

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016	230								
9/8/2016		280	270	97					
12/7/2016		250	250	100					
12/8/2016	270								
3/28/2017					17	2.7	49		
3/30/2017	240	310	290	110					
3/31/2017								110	21
5/11/2017							21		
5/12/2017					17			100	17
5/15/2017						1			
6/15/2017						0.86 (J)	16		
6/16/2017					11			100	20
7/11/2017					11	1.4			
7/12/2017							10		
7/13/2017	220	220	270	200 (O)				110	17
8/8/2017						1.5			
10/24/2017					9.6	1.4	15		
10/26/2017	220	210	260	97				100	31
11/15/2017					7.8		3.8		29
2/27/2018					7.4	0.54 (J)			
3/1/2018		166	242	94.6					
3/2/2018	219							98.5	10.1
3/8/2018							9.7		
7/12/2018	222	169	256	89.2			8		
7/13/2018								136	8.6
11/6/2018					7.3	<1 (J)			
11/7/2018							12.8		
11/8/2018	273	200	291	102				118	9.7
3/12/2019					7	0.35 (J)			
3/13/2019	445	265	300	92.2			23.7	233	8.4
10/15/2019					7.4	0.16 (J)			
10/16/2019							15.1		13.3
10/17/2019								99.4	
10/18/2019	205	182	239	76.4					
3/2/2020					8.5	<1			
3/4/2020	177								
3/9/2020		171	244	90.3			9.5	100	7.6
9/22/2020					6.5	<1	13.5		
9/23/2020	190							99.8	5.9
9/24/2020			240	84.1					
9/25/2020		153							
3/1/2021					5.2	<1			
3/8/2021	191								
3/10/2021									6.4
3/11/2021		123	154	81.9				76.7	
3/12/2021							8.8		
9/8/2021					6.1				
9/9/2021						<1	11.9		
9/14/2021	186								
9/15/2021			219						
9/16/2021				95				101	17.9
9/17/2021		156							

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	50
5/15/2017	
6/15/2017	
6/16/2017	47
7/11/2017	
7/12/2017	
7/13/2017	49
8/8/2017	48
10/24/2017	
10/26/2017	48
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	44.7
3/8/2018	
7/12/2018	
7/13/2018	43.3
11/6/2018	
11/7/2018	
11/8/2018	43.5
3/12/2019	
3/13/2019	44.1
10/15/2019	
10/16/2019	32.1
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	37.4
9/22/2020	
9/23/2020	38.7
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	38.4
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	22.3
9/17/2021	

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-37	DGWC-39	DGWC-40	DGWA-70A (bg)	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016				583 (O)					
9/8/2016	437	279	522						
12/7/2016	478	300	565						
12/8/2016				319					
3/28/2017					39	90	202		
3/30/2017	448	273	496	344					
3/31/2017								270	138
5/11/2017							241		
5/12/2017						92		287	243
5/15/2017					88				
6/15/2017					65		251		
6/16/2017						100		309	155
7/11/2017					25	59			
7/12/2017							218		
7/13/2017	504	312	508	386				275	122
8/8/2017					53				
10/24/2017					49	117	671 (O)		
10/26/2017	554	340	532	373				319	234
11/15/2017						90	241		188
2/27/2018					43	79			
3/1/2018	492	311	440						
3/2/2018				359				264	73
3/8/2018							213		
7/12/2018	478	290	463	365			198		
7/13/2018								297	95
11/6/2018					65	85			
11/7/2018							200		
11/8/2018	507	295	485	399				295	112
3/12/2019					43	74			
3/13/2019	487	286	526	351			201	278	95
10/15/2019					70	89			
10/16/2019							126		108
10/17/2019								281	
10/18/2019	494	269	489	360					
3/2/2020					52	67			
3/4/2020				400					
3/9/2020	554	357	508				171	209	115
9/22/2020					46	74	142		
9/23/2020				357				296	102
9/24/2020	489	280							
9/25/2020			460						
3/1/2021					25	62			
3/8/2021				346					
3/10/2021									78
3/11/2021	463	255	440					265	
3/12/2021							124		
9/8/2021						75			
9/9/2021					53		131		
9/14/2021				347					
9/15/2021	474								
9/16/2021		278						282	113
9/17/2021			446						

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/16/2021 2:18 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	300
5/15/2017	
6/15/2017	
6/16/2017	271
7/11/2017	
7/12/2017	
7/13/2017	246
8/8/2017	278
10/24/2017	
10/26/2017	287
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	252
3/8/2018	
7/12/2018	
7/13/2018	275
11/6/2018	
11/7/2018	
11/8/2018	277
3/12/2019	
3/13/2019	267
10/15/2019	
10/16/2019	218
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	188
9/22/2020	
9/23/2020	251
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	232
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	259
9/17/2021	

FIGURE E.

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	DGWA-53 (bg)	-4.533	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1941	-59	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.263	-53	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.4926	71	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.2582	-50	-48	Yes	14	35.71	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.564	-72	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-25.51	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-26.59	-62	-48	Yes	14	0	n/a	n/a	0.01	NP

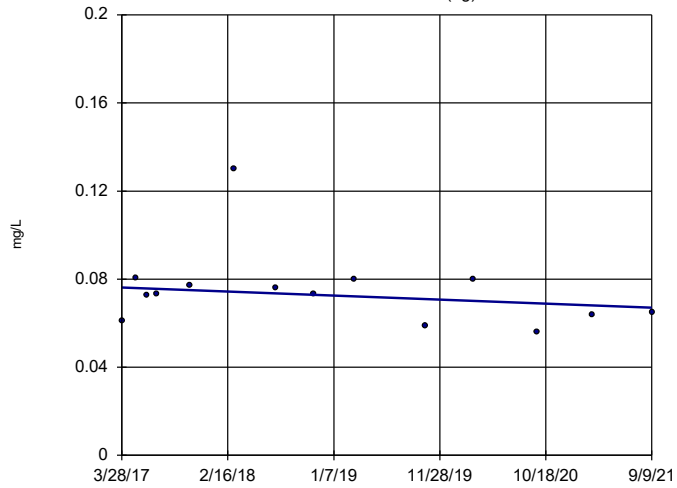
Appendix III Trend Tests - Prediction Limits Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:24 PM

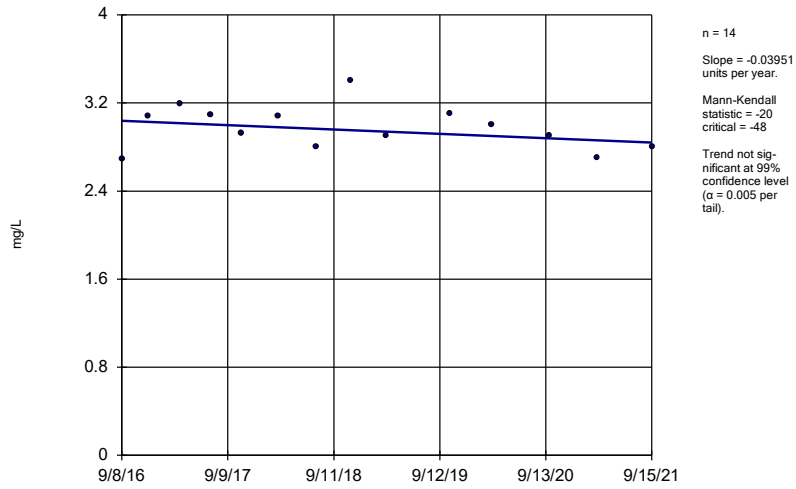
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	DGWA-53 (bg)	-0.002041	-16	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-70A (bg)	0	14	48	No	14	57.14	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-71 (bg)	0	-2	-43	No	13	23.08	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-37	-0.08919	-35	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-38	-0.03951	-20	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-39	-0.1094	-41	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-40	-0.03842	-48	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-67	0.0544	26	48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-68A	-0.1038	-42	-48	No	14	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-69	-0.06702	-48	-58	No	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-53 (bg)	-4.533	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-70A (bg)	-0.1515	-29	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-71 (bg)	-0.6883	-36	-43	No	13	7.692	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-37	0.5433	10	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-38	3.389	43	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-39	0.8605	15	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-40	0.9025	32	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-67	0.776	31	48	No	14	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-68A	0.9653	37	48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1941	-59	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-70A (bg)	-0.08417	-33	-48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-71 (bg)	0.07636	12	48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-37	-0.1431	-42	-48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-38	0.1365	29	48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.263	-53	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-40	-0.1993	-32	-48	No	14	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.4926	71	48	Yes	14	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWA-53 (bg)	-0.001259	-9	-63	No	17	11.76	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWA-70A (bg)	0.01092	48	53	No	15	66.67	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWA-71 (bg)	0	32	58	No	16	81.25	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	DGWC-68A	-0.01382	-57	-58	No	16	6.25	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-53 (bg)	0.02897	13	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02535	-22	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.03005	28	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02032	-21	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-68A	-0.007008	-16	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-53 (bg)	-1.708	-31	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.2582	-50	-48	Yes	14	35.71	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.564	-72	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-37	-3.418	-37	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-38	-9.784	-40	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-25.51	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-40	-9.852	-42	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-67	-0.2466	-14	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-26.59	-62	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	-1.029	-7	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-5.605	-39	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	-4.604	-23	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	2.895	9	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	-15.12	-39	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-0.1363	0	43	No	13	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	-3.971	-11	-48	No	14	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

DGWA-53 (bg)

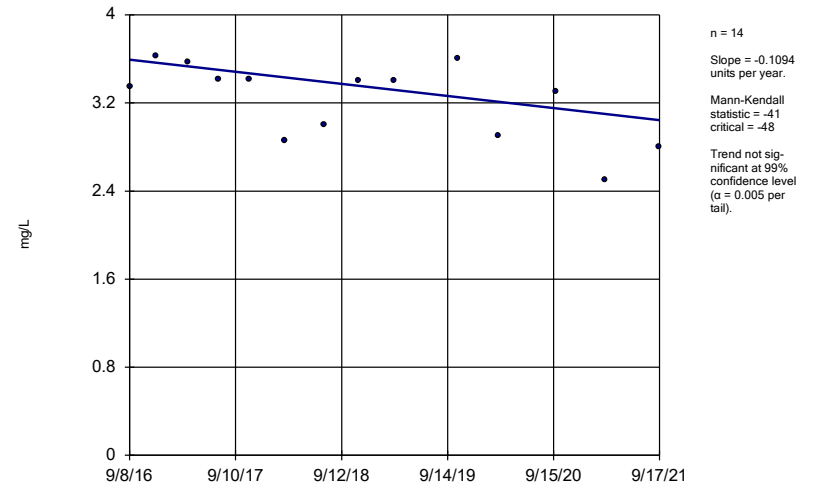


Sen's Slope Estimator
DGWC-38



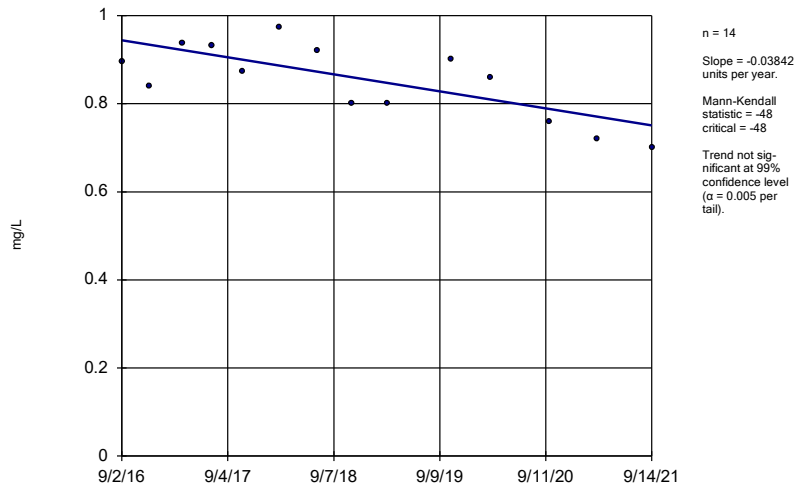
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-39



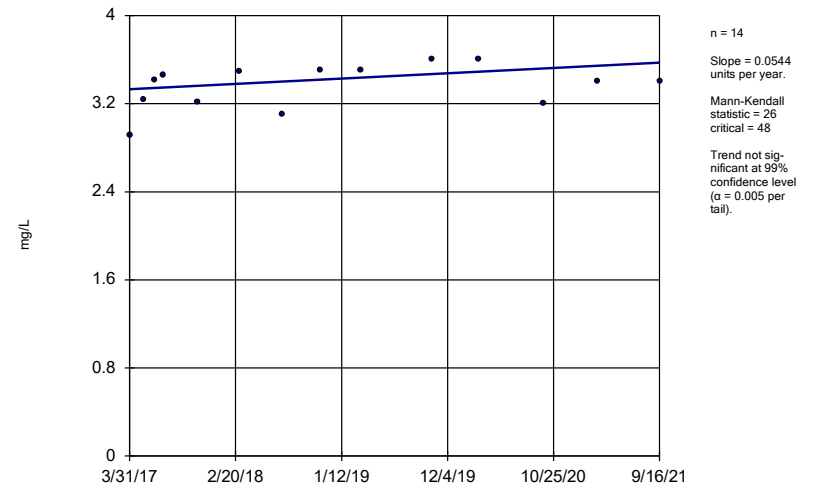
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



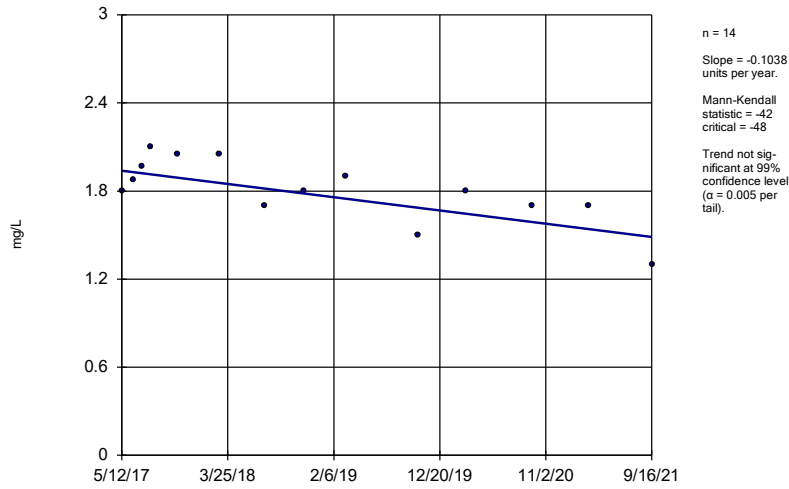
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



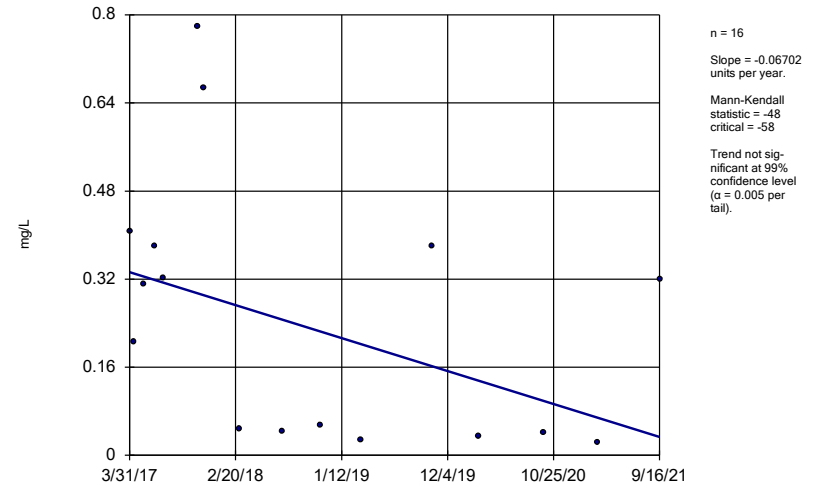
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-68A



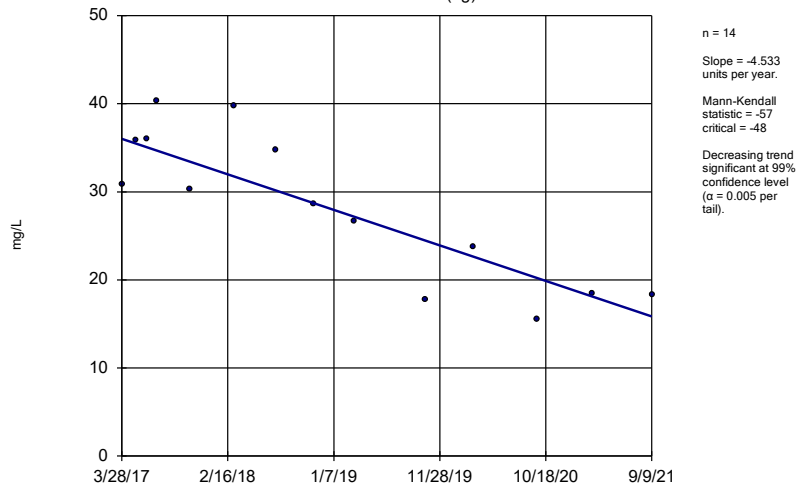
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-69



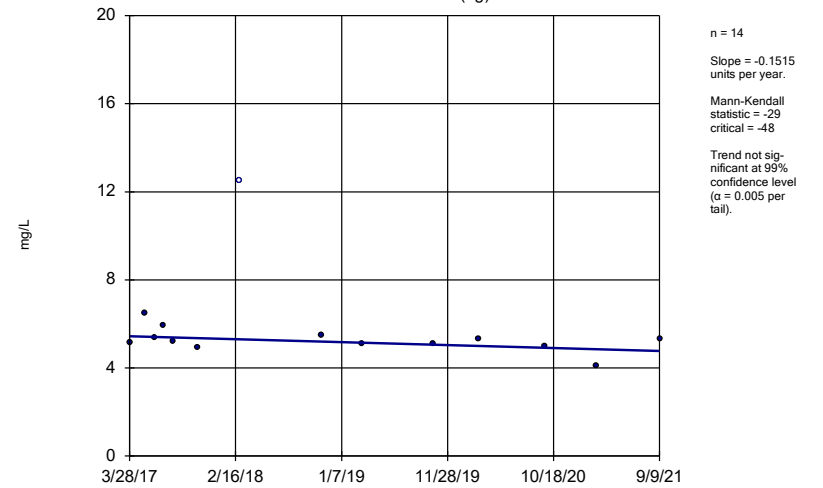
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



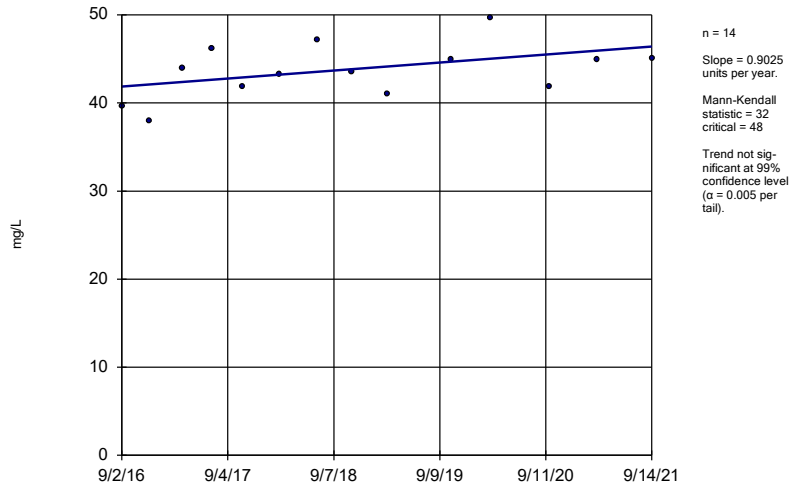
Constituent: Calcium, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



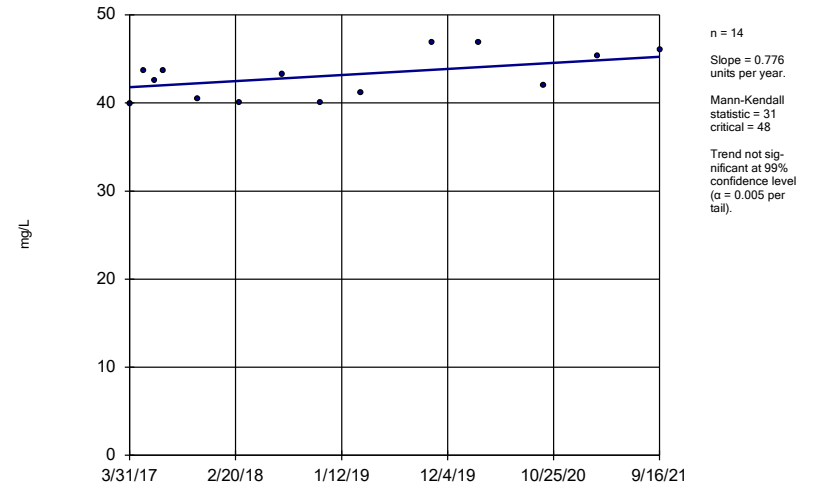
Constituent: Calcium, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



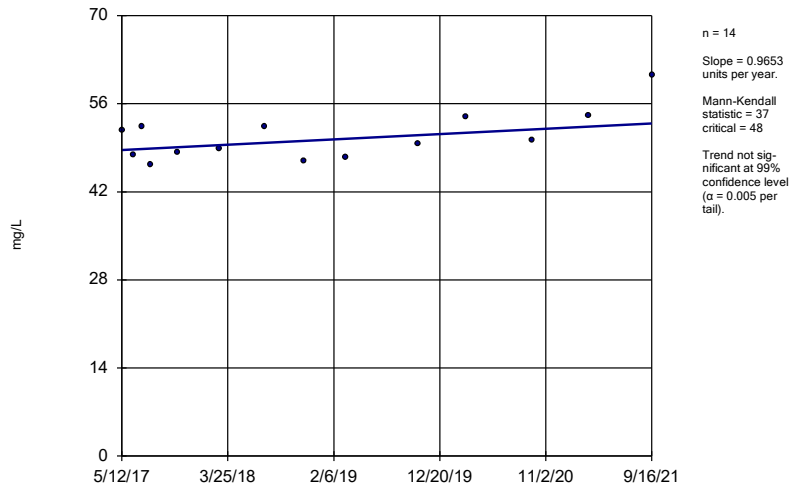
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



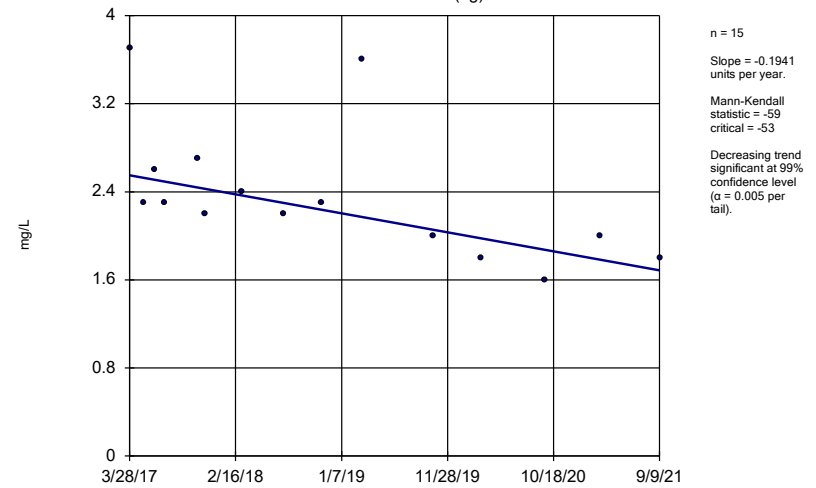
Constituent: Calcium, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-68A



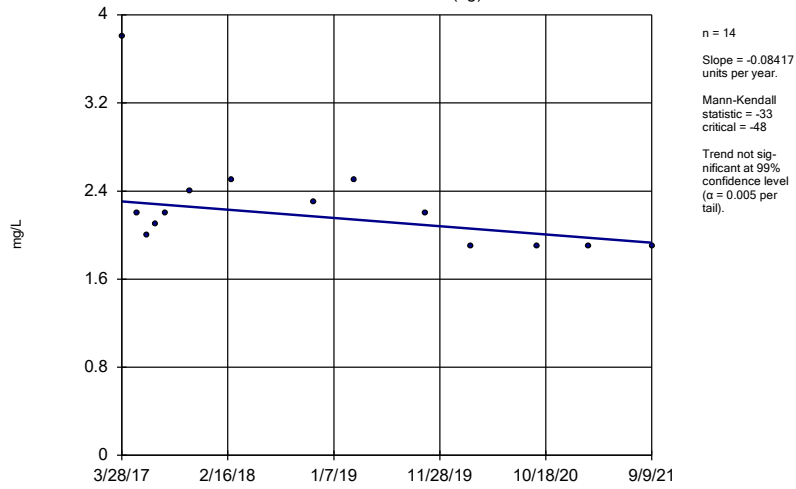
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



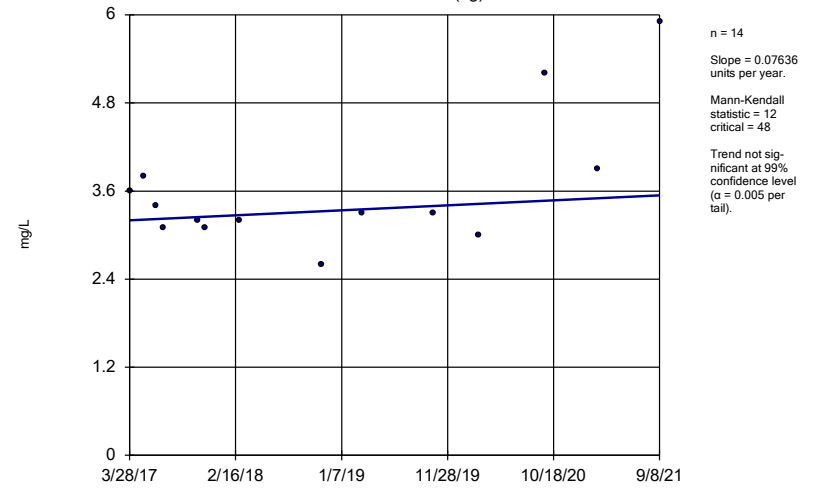
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



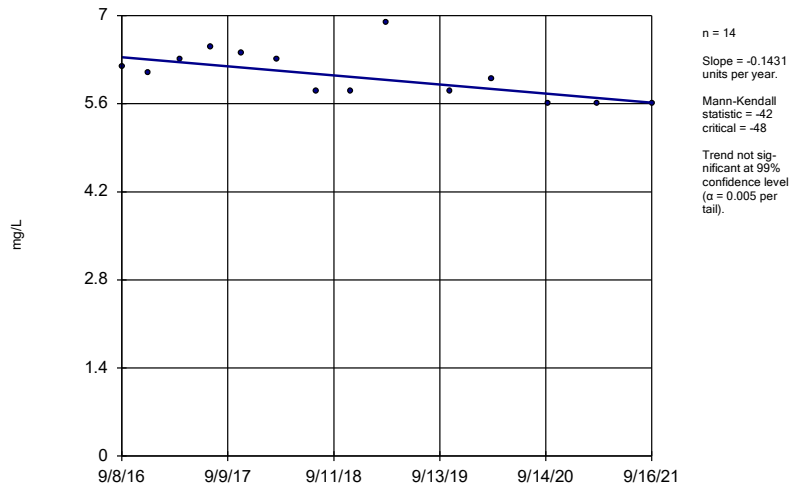
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-71 (bg)



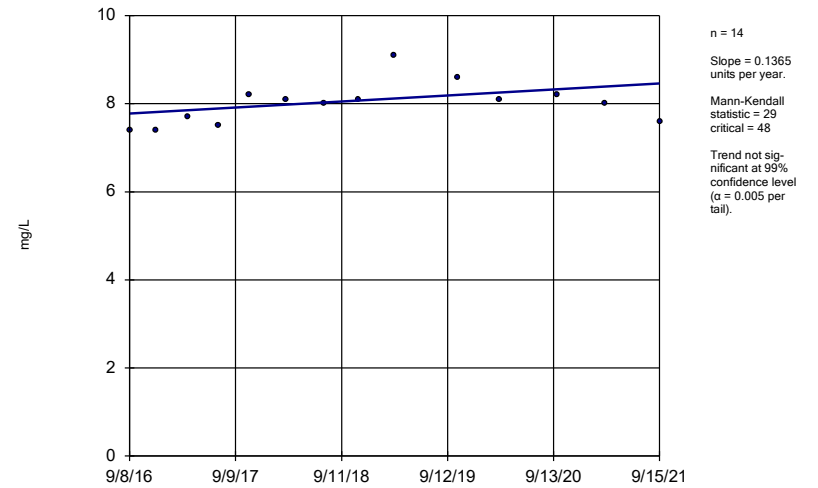
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-37



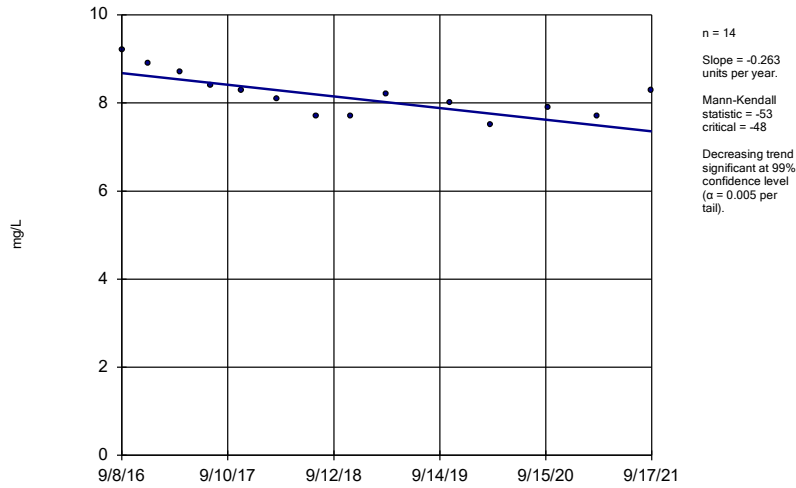
Constituent: Chloride, Total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-38



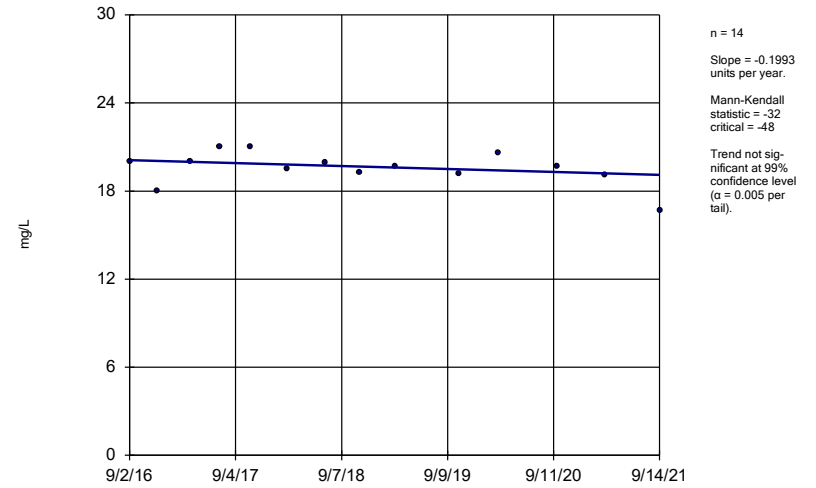
Constituent: Chloride, Total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-39



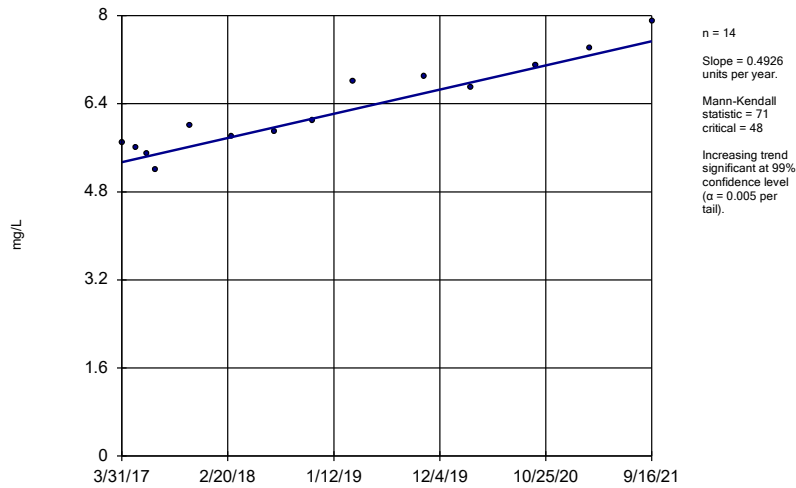
Constituent: Chloride, Total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



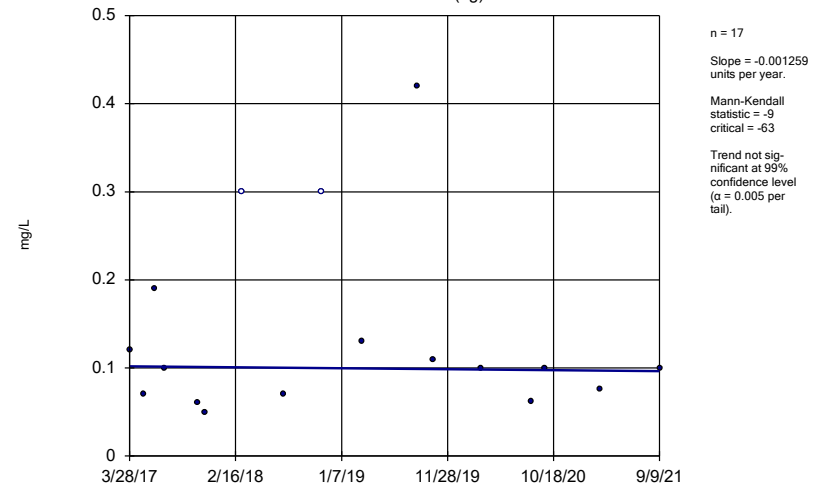
Constituent: Chloride, Total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



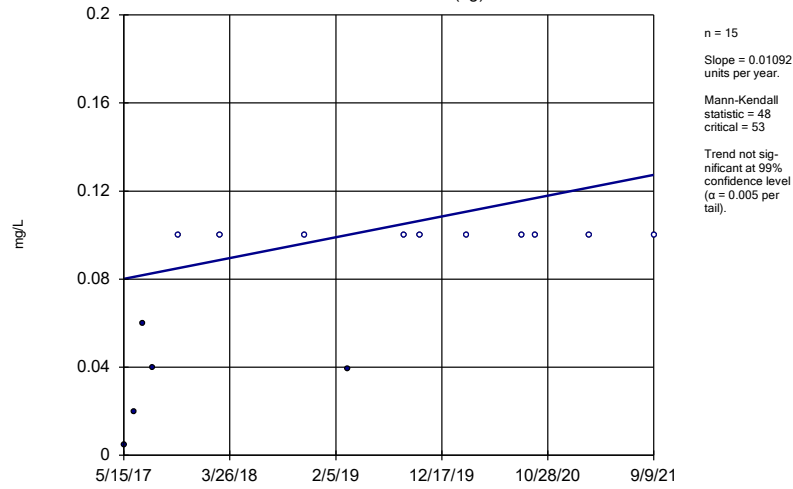
Constituent: Chloride, Total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



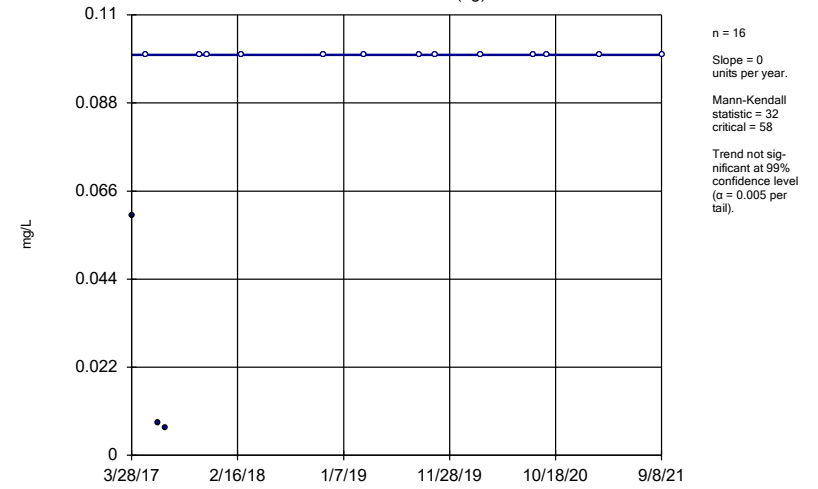
Constituent: Fluoride, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



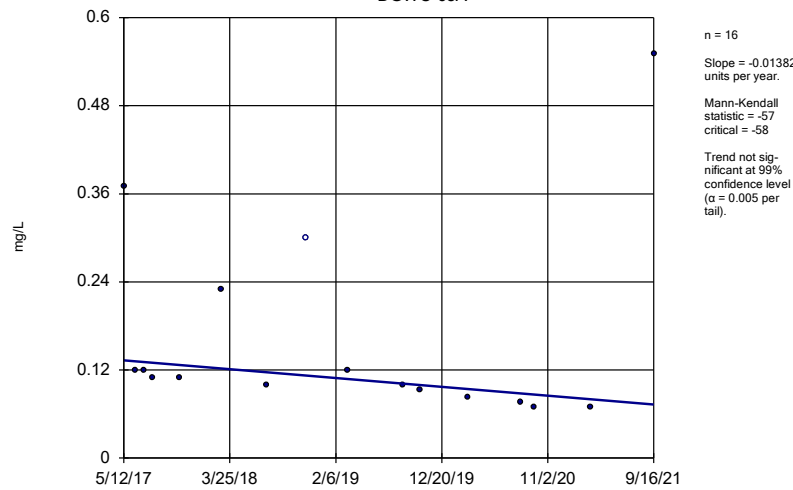
Constituent: Fluoride, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-71 (bg)



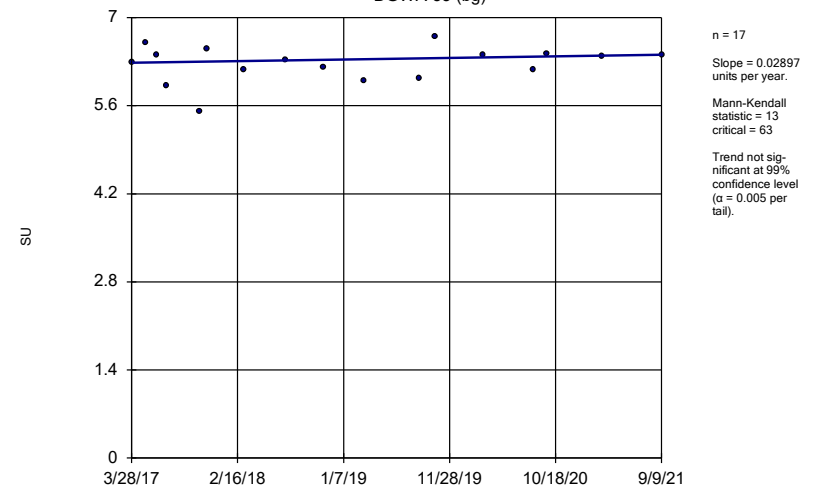
Constituent: Fluoride, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-68A



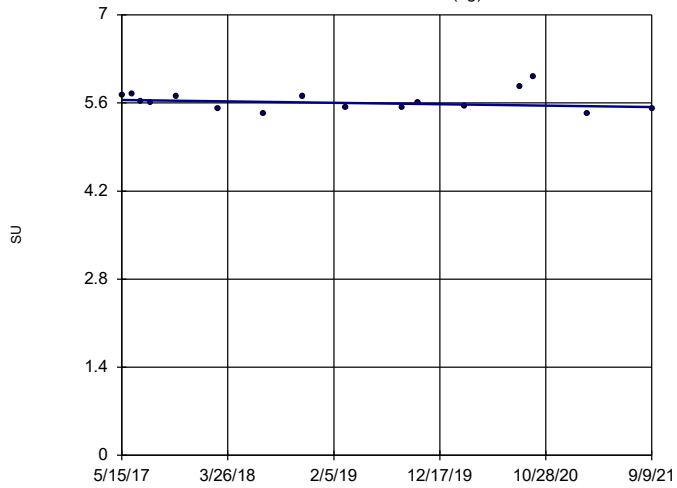
Constituent: Fluoride, total Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



Constituent: pH, Field Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

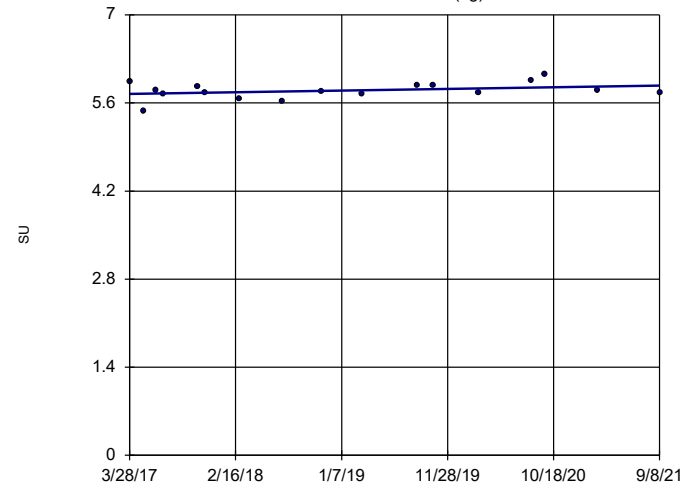
Sen's Slope Estimator
DGWA-70A (bg)



n = 16
Slope = -0.02535
units per year.
Mann-Kendall
statistic = -22
critical = -58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

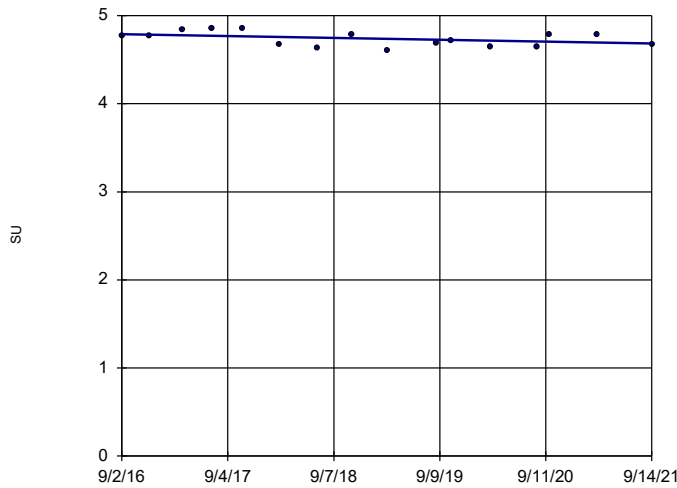
Sen's Slope Estimator
DGWA-71 (bg)



n = 17
Slope = 0.03005
units per year.
Mann-Kendall
statistic = 28
critical = 63
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

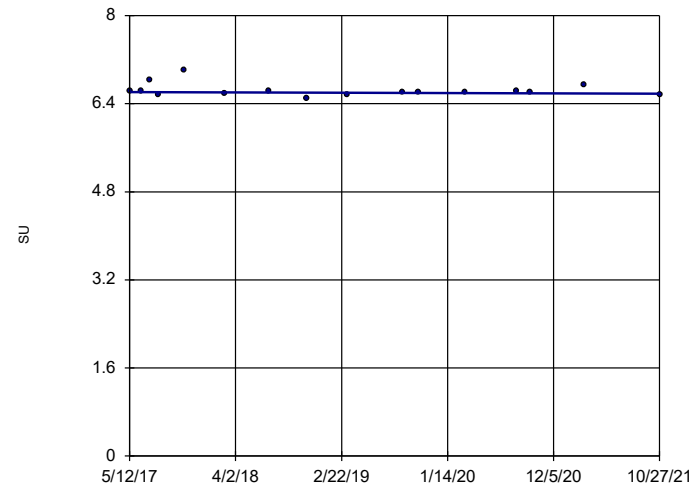
Sen's Slope Estimator
DGWC-40



n = 16
Slope = -0.02032
units per year.
Mann-Kendall
statistic = -21
critical = -58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-68A

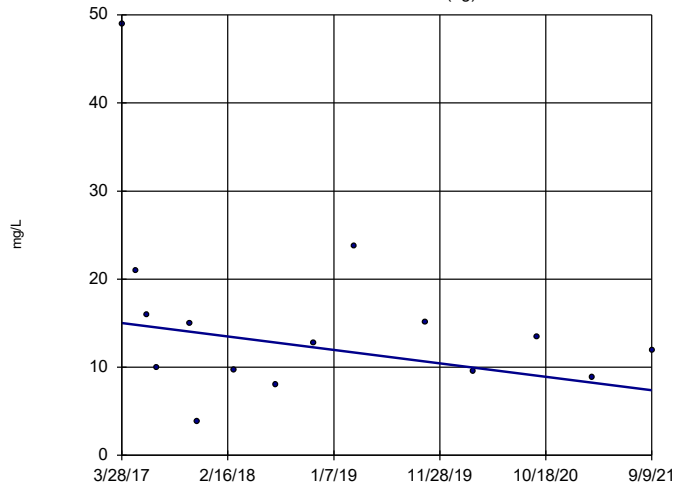


n = 16
Slope = -0.007008
units per year.
Mann-Kendall
statistic = -16
critical = -58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, Field Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)

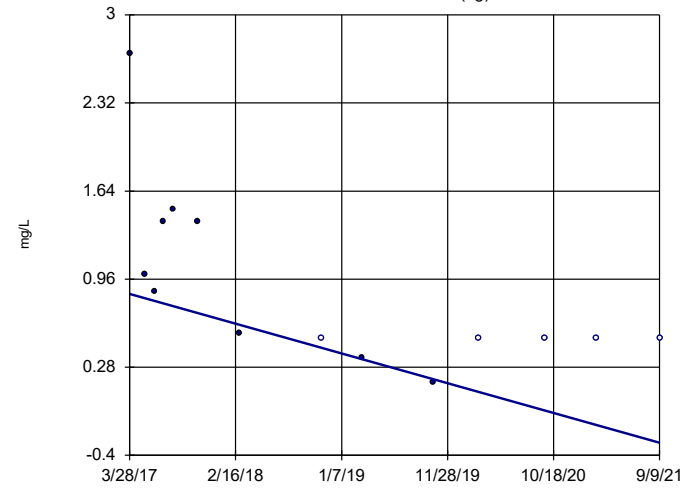


n = 15
 Slope = -1.708
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)

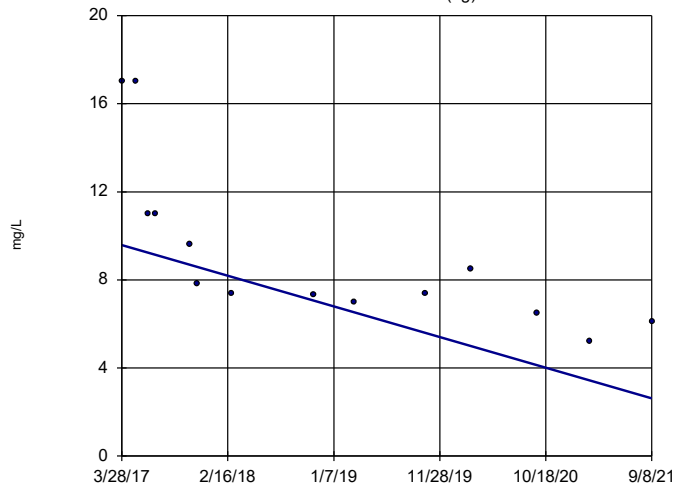


n = 14
 Slope = -0.2582
 units per year.
 Mann-Kendall
 statistic = -50
 critical = -48
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

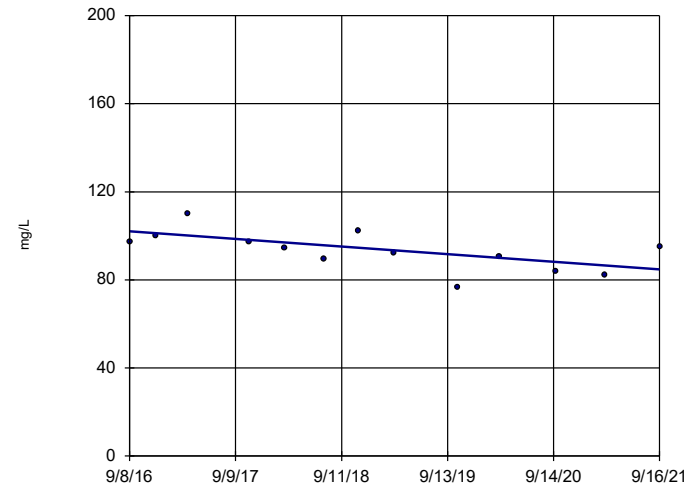


n = 14
 Slope = -1.564
 units per year.
 Mann-Kendall
 statistic = -72
 critical = -48
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-37

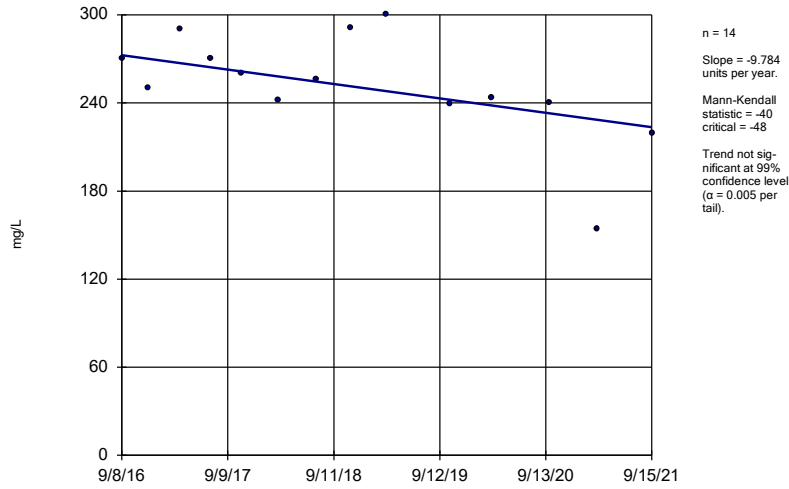


n = 13
 Slope = -3.418
 units per year.
 Mann-Kendall
 statistic = -37
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

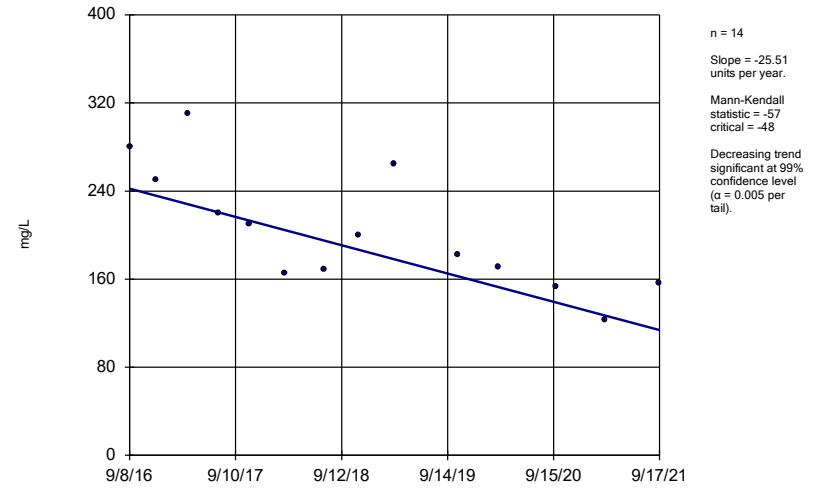
DGWC-38



Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

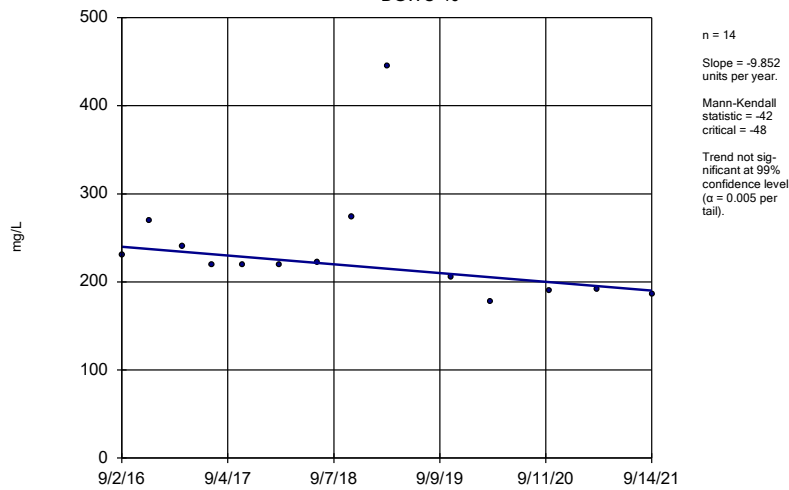
DGWC-39



Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

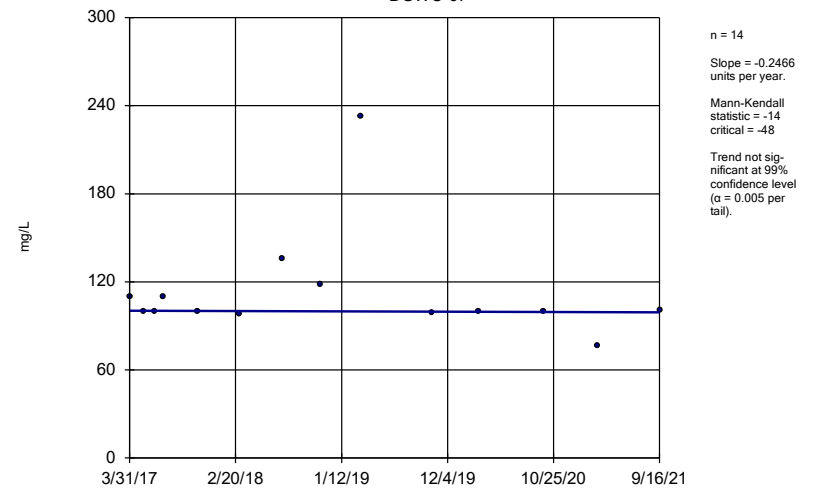
DGWC-40



Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

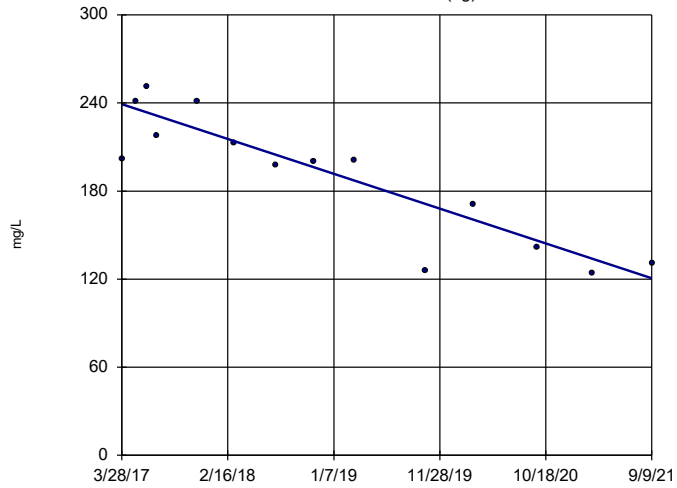
DGWC-67



Constituent: Sulfate as SO4 Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)

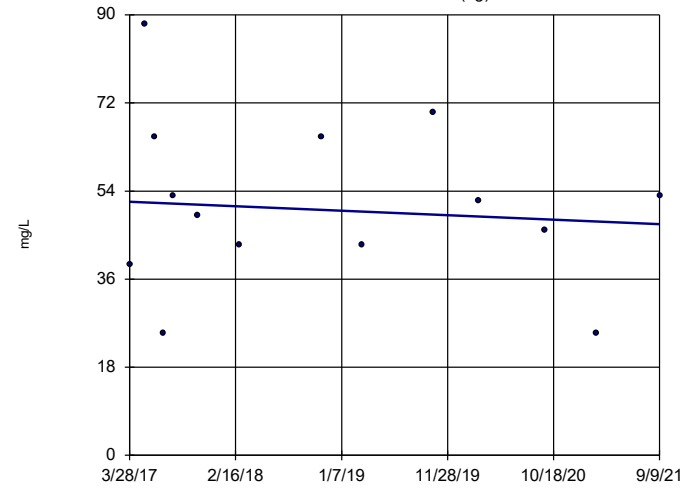


n = 14
 Slope = -26.59 units per year.
 Mann-Kendall statistic = -62
 critical = -48
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)

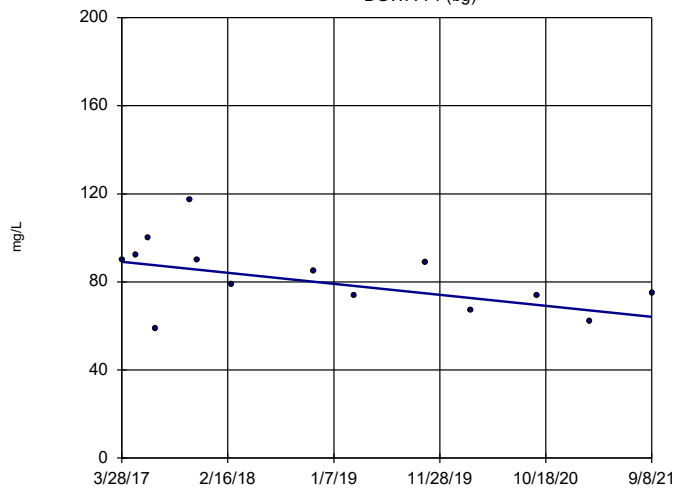


n = 14
 Slope = -1.029 units per year.
 Mann-Kendall statistic = -7
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

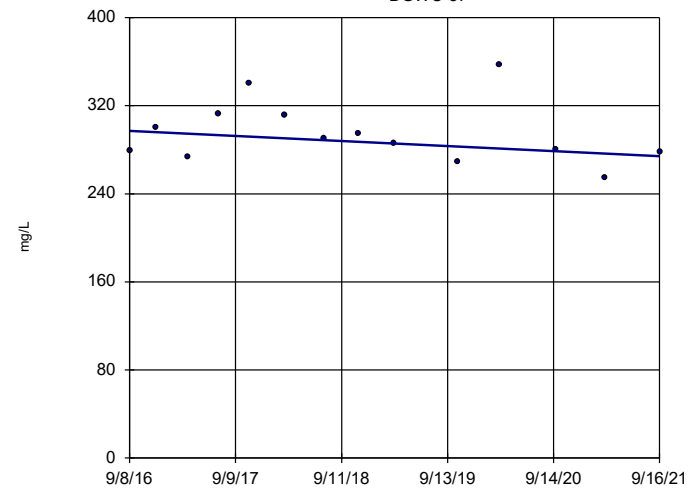


n = 14
 Slope = -5.605 units per year.
 Mann-Kendall statistic = -39
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

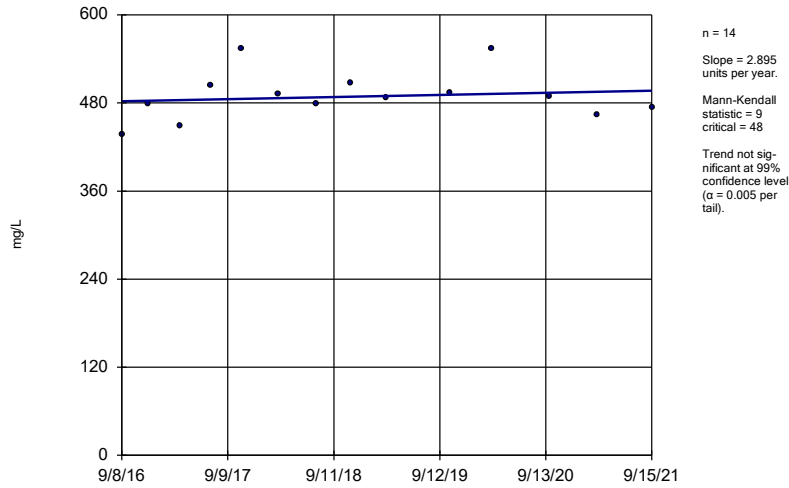
DGWC-37



n = 14
 Slope = -4.604 units per year.
 Mann-Kendall statistic = -23
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

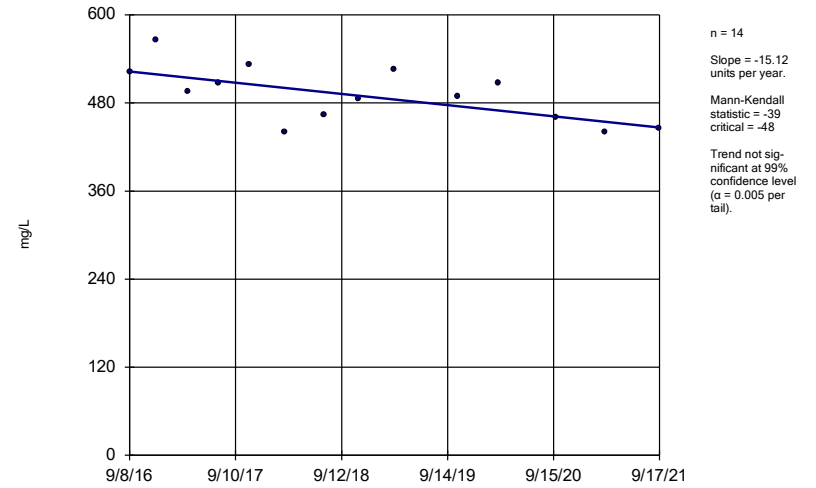
Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-38



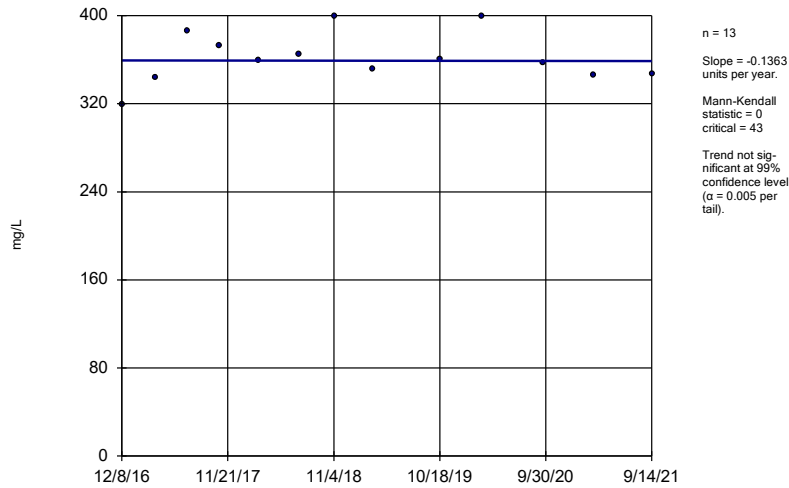
Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-39



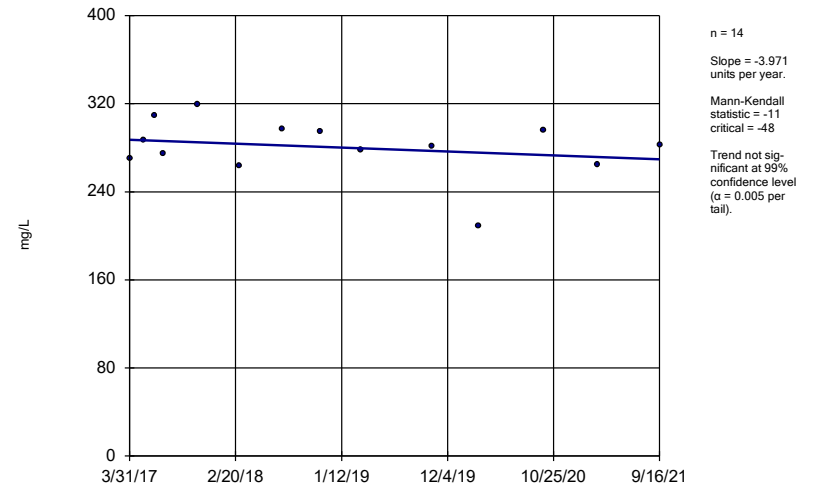
Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/16/2021 2:23 PM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE F.

Upper Tolerance Limits Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/8/2021, 10:17 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>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	44	n/a	n/a	79.55	n/a	n/a	0.1047	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	44	n/a	n/a	81.82	n/a	n/a	0.1047	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	44	n/a	n/a	0	n/a	n/a	0.1047	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0009	n/a	n/a	n/a	45	n/a	n/a	62.22	n/a	n/a	0.09944	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	44	n/a	n/a	93.18	n/a	n/a	0.1047	NP Inter(NDs)
Chromium (mg/L)	n/a	0.005	n/a	n/a	n/a	43	n/a	n/a	60.47	n/a	n/a	0.1102	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	5.605	n/a	n/a	n/a	46	1.041	0.3523	0	None	x ^(1/3)	0.05	Inter
Fluoride, total (mg/L)	n/a	0.42	n/a	n/a	n/a	48	n/a	n/a	52.08	n/a	n/a	0.08526	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	44	n/a	n/a	79.55	n/a	n/a	0.1047	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	44	n/a	n/a	86.36	n/a	n/a	0.1047	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	44	n/a	n/a	63.64	n/a	n/a	0.1047	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	44	n/a	n/a	95.45	n/a	n/a	0.1047	NP Inter(NDs)

FIGURE G.

PLANT MCDONOUGH ASH POND 1 GWPS TABLE - FEDERAL				
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		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.032	0.032
Combined Radium, Total (pCi/L)	5		5.61	5.61
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE H.

PLANT MCDONOUGH ASH POND 1 GWPS TABLE - STATE				
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		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.032	0.032
Combined Radium, Total (pCi/L)	5		5.61	5.61
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.001
Lithium, Total (mg/L)		0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.041
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE I.

Federal Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes 17	0.03366	0.04147	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes 15	0.04176	0.005898	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.1	Yes 15	0.2089	0.02252	0	None	In(x)	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.001954	0.001046	0.006	No	4	0.00225	0.0008813	50	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	7	0.002637	0.00096	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	14	0.002809	0.0007136	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.003	0.0023	0.006	No	14	0.002607	0.000874	78.57	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	14	0.002651	0.000891	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	15	0.002693	0.0006829	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.0007	0.01	No	15	0.003019	0.002198	53.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.0011	0.01	No	15	0.004157	0.001749	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0008	0.01	No	15	0.004415	0.001546	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	15	0.004773	0.0008779	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	ln(x)	0.01	Param.
Barium (mg/L)	B-100	0.022	0.015	2	No	4	0.02	0.003367	0	None	No	0.0625	NP (selected)
Barium (mg/L)	B-62	0.02758	0.01985	2	No	7	0.02371	0.003251	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1106	0.08922	2	No	15	0.09993	0.0158	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.0336	0.032	2	No	15	0.03288	0.0009143	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-39	0.09601	0.08399	2	No	15	0.09	0.008868	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.019	0.0168	2	No	15	0.01805	0.002624	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1121	0.1001	2	No	15	0.1061	0.008863	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.09023	0.08687	2	No	15	0.08855	0.00248	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-69	0.1021	0.06835	2	No	16	0.08523	0.02594	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0006113	0.0002587	0.004	No	4	0.000435	0.00007767	0	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0005	0.000078	0.004	No	8	0.0002085	0.000181	25	None	No	0.004	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.000086	0.004	No	15	0.0003602	0.0002048	66.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	15	0.0004705	0.0001141	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003315	0.002898	0.004	No	15	0.003107	0.0003081	6.667	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	15	0.000443	0.0001505	86.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000061	0.004	No	16	0.0003361	0.0002186	62.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	4	0.000355	0.000157	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00013	0.005	No	15	0.0003867	0.0001705	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	15	0.00034	0.0002553	20	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008845	0.0007248	0.005	No	15	0.0008047	0.0001178	13.33	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00018	0.005	No	15	0.000416	0.0001495	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.001	0.00017	0.005	No	15	0.000388	0.0002332	53.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	16	0.0004169	0.0001502	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.001223	0.0003828	0.1	No	4	0.002877	0.002456	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	7	0.004426	0.001519	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	15	0.004419	0.001534	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	15	0.004124	0.001816	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.00061	0.1	No	15	0.002267	0.002034	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.00088	0.1	No	15	0.003899	0.001899	73.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0011	0.1	No	16	0.003981	0.001829	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.087	0.029	0.032	No	6	0.058	0.02804	0	None	No	0.0155	NP (selected)
Cobalt (mg/L)	B-62	0.005	0.0003	0.032	No	7	0.003659	0.002291	71.43	None	No	0.008	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	15	0.004073	0.001919	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	15	0.002353	0.002296	13.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.007286	0.005895	0.032	No	15	0.006633	0.001136	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-67	0.003862	0.001505	0.032	No	15	0.003087	0.002508	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	15	0.004153	0.00177	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0016	0.032	No	16	0.003812	0.001698	62.5	None	No	0.01	NP (NDs)

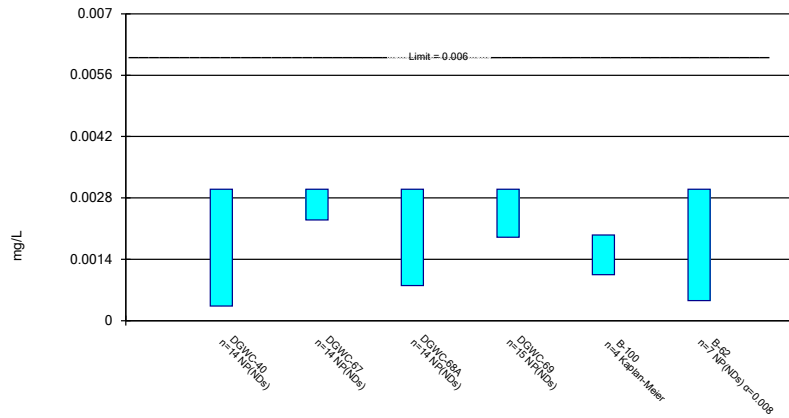
Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-100	1.4	0.168	5.61	No	4	0.7853	0.5031	0	None	No	0.0625	NP (selected)
Combined Radium 226 + 228 (pCi/L)	B-62	2.02	1.173	5.61	No	6	1.597	0.3082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.115	0.5395	5.61	No	15	0.8273	0.4247	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	1.193	0.3928	5.61	No	15	0.7931	0.5907	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.353	0.6709	5.61	No	15	1.012	0.5031	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.546	0.6118	5.61	No	15	1.079	0.6893	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.996	0.4419	5.61	No	15	0.7189	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.426	0.5976	5.61	No	15	1.012	0.6109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.844	1.178	5.61	No	16	1.511	0.5122	0	None	No	0.01	Param.
Fluoride, total (mg/L)	B-62	0.3546	0.06003	4	No	6	0.1855	0.1295	0	None	x^(1/3)	0.01	Param.
Fluoride, total (mg/L)	DGWC-37	0.21	0.054	4	No	16	0.1014	0.07777	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-38	0.23	0.057	4	No	16	0.1214	0.1131	12.5	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-39	0.17	0.083	4	No	16	0.1576	0.1194	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-40	0.3219	0.1358	4	No	16	0.2409	0.1592	6.25	None	sqrt(x)	0.01	Param.
Fluoride, total (mg/L)	DGWC-67	0.07	0.038	4	No	16	0.08794	0.1217	50	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-68A	0.23	0.076	4	No	16	0.1544	0.1295	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-69	0.1805	0.09325	4	No	17	0.1369	0.06963	5.882	None	No	0.01	Param.
Lead (mg/L)	B-100	0.0003036	0.00005528	0.015	No	4	0.0003695	0.0004235	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	15	0.0009641	0.0002702	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.0001	0.015	No	15	0.000701	0.0004381	66.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	15	0.0008867	0.0003003	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.00007	0.015	No	15	0.0005283	0.0004602	46.67	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-67	0.001	0.00009	0.015	No	15	0.0007629	0.0004094	73.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	15	0.0008945	0.0002836	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.00009	0.015	No	16	0.0006631	0.0004498	62.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.003519	0.0007815	0.04	No	4	0.00215	0.0006028	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.03	0.0078	0.04	No	7	0.01154	0.008158	14.29	None	No	0.008	NP (normality)
Lithium (mg/L)	DGWC-37	0.03	0.0021	0.04	No	15	0.009707	0.01267	26.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0035	0.0029	0.04	No	15	0.005	0.00692	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.003	0.0022	0.04	No	15	0.00602	0.009739	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.0052	0.0043	0.04	No	15	0.00634	0.006555	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	15	0.02616	0.01013	86.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0024	0.04	No	16	0.004525	0.006804	6.25	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	14	0.0001711	0.00005824	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	14	0.0001711	0.00005818	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	14	0.0001899	0.00003768	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	14	0.0001699	0.00006064	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-38	0.01	0.00099	0.1	No	15	0.005219	0.004629	46.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.1	Yes	15	0.2089	0.02252	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	DGWC-69	0.01236	0.006699	0.1	No	16	0.01023	0.005862	6.25	None	ln(x)	0.01	Param.
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	4	0.004225	0.00155	75	Kaplan-Meier	No	0.0625	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003517	0.001857	0.05	No	15	0.003607	0.002356	20	Kaplan-Meier	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	15	0.004847	0.0005939	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	15	0.00478	0.0008521	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.0001	0.002	No	15	0.000534	0.0004517	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-39	0.001	0.00009	0.002	No	15	0.0006953	0.0004461	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.000068	0.002	No	15	0.0006885	0.0004559	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	15	0.0009433	0.0002195	93.33	None	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

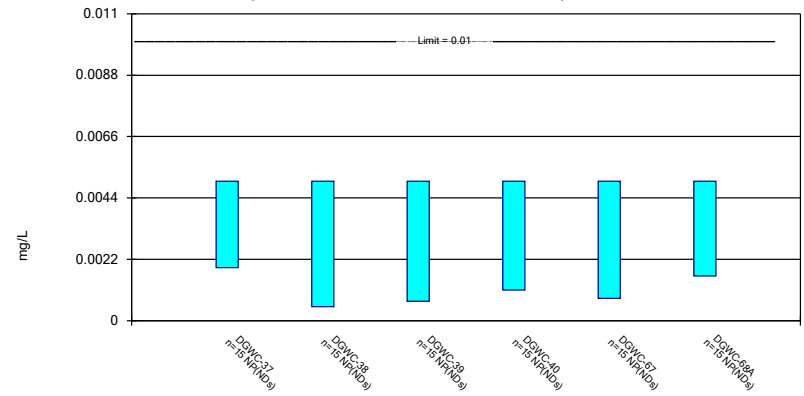
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Constituent: Antimony Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

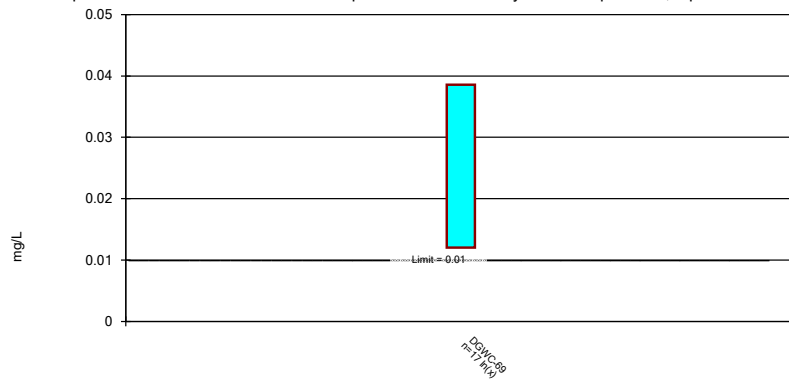
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Constituent: Arsenic Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

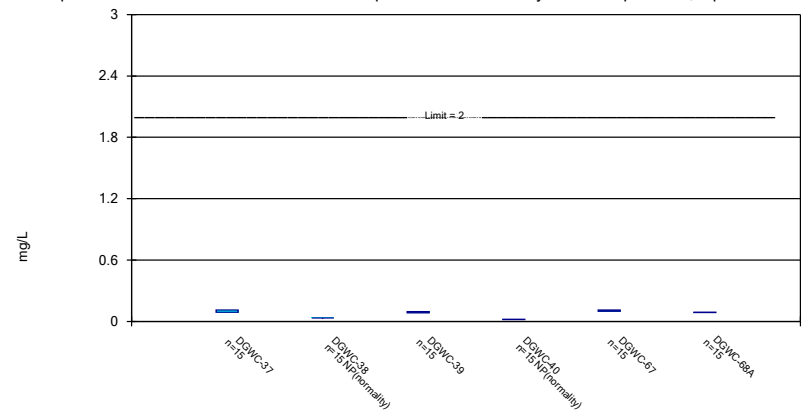
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Constituent: Arsenic Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

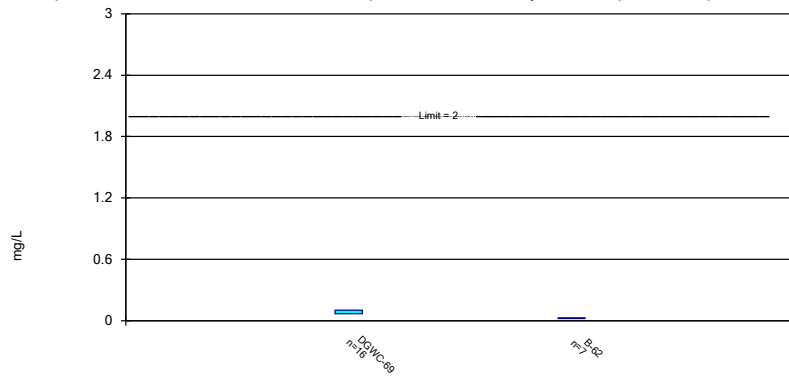
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Constituent: Barium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

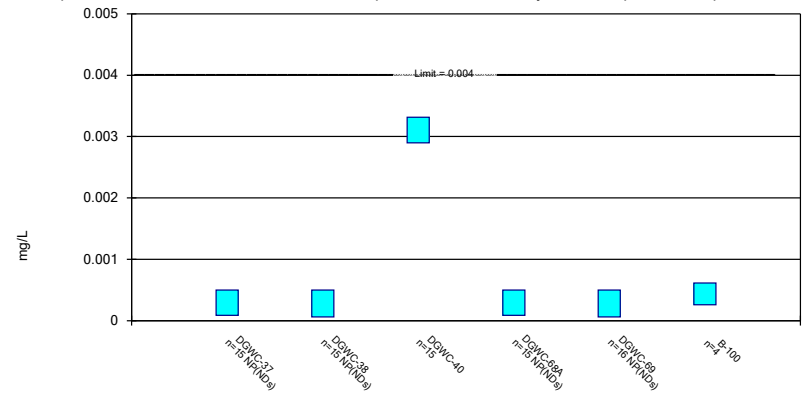
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Constituent: Barium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

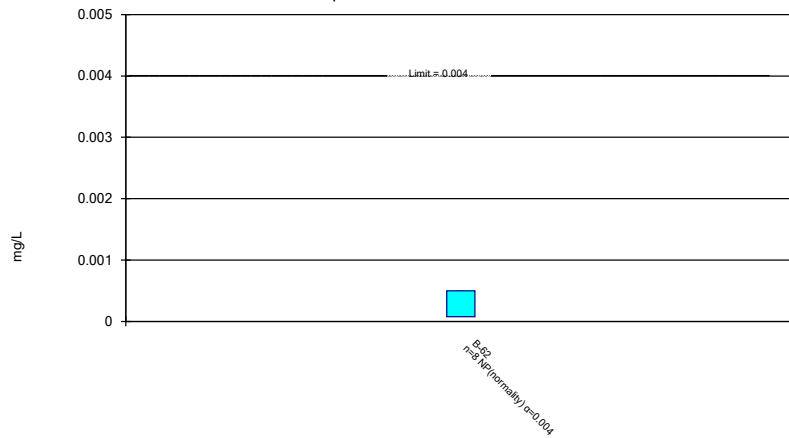
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Constituent: Beryllium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

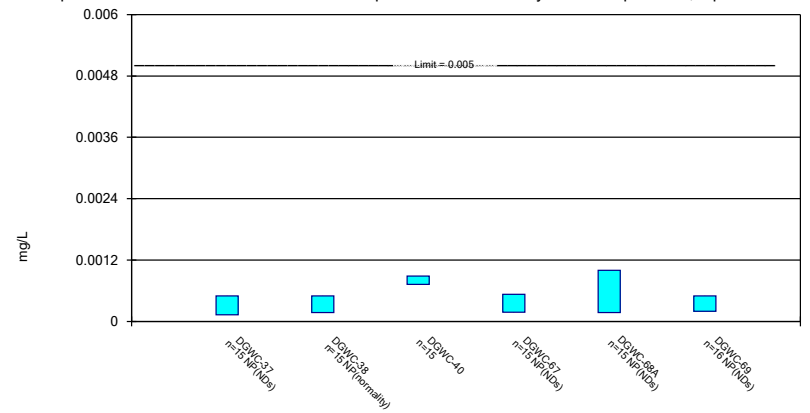
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Constituent: Beryllium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

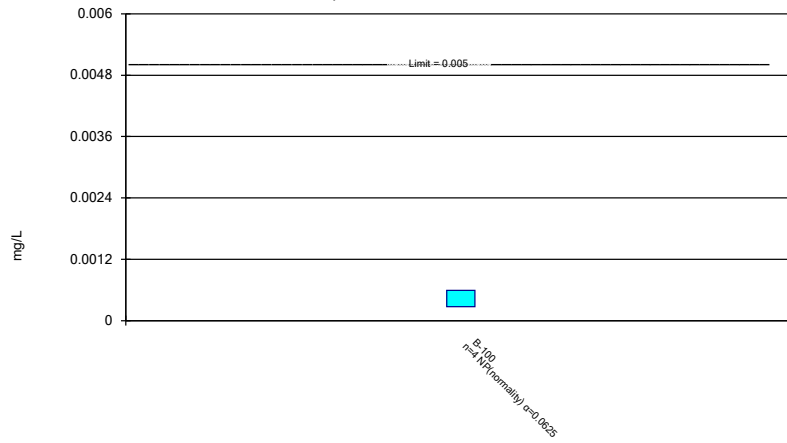
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Constituent: Cadmium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

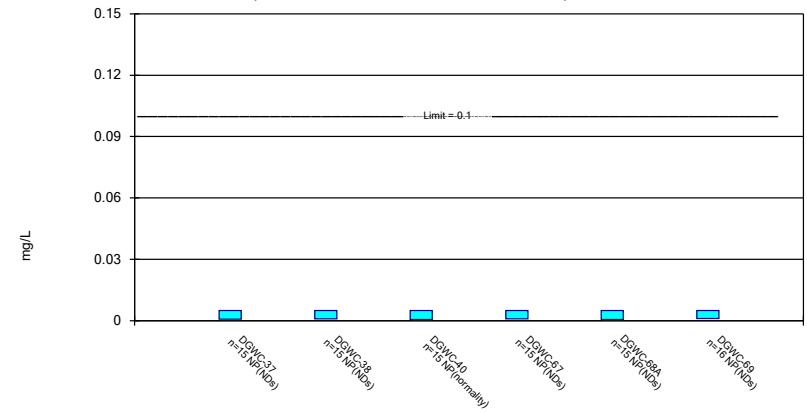
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Constituent: Cadmium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

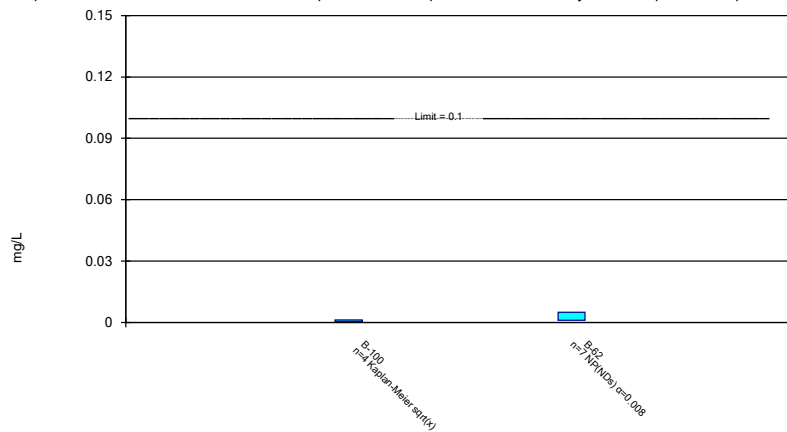
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Constituent: Chromium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

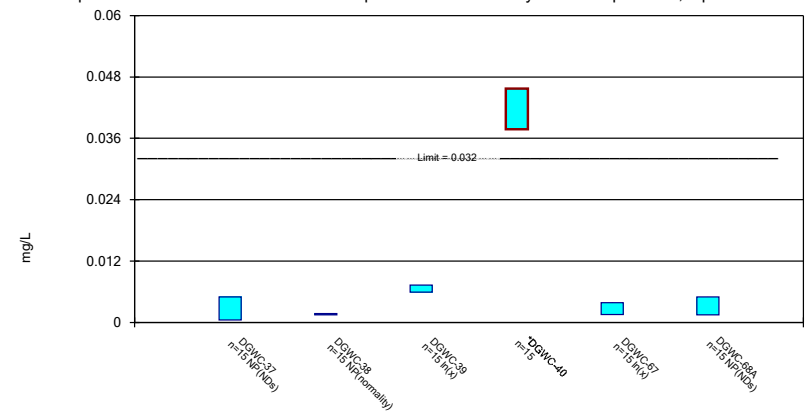
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Constituent: Chromium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

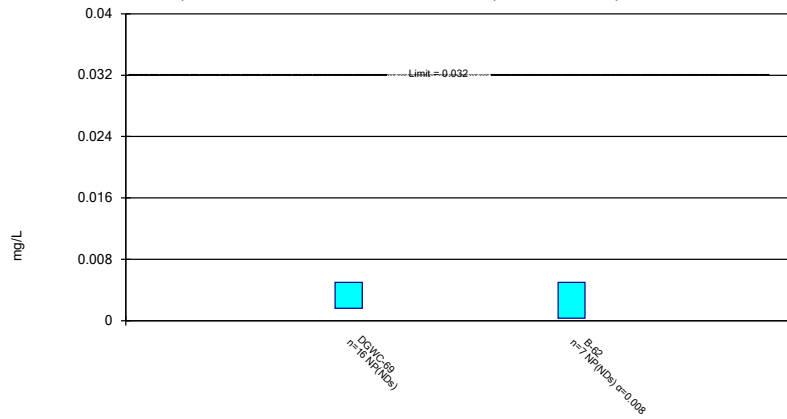
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Constituent: Cobalt Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

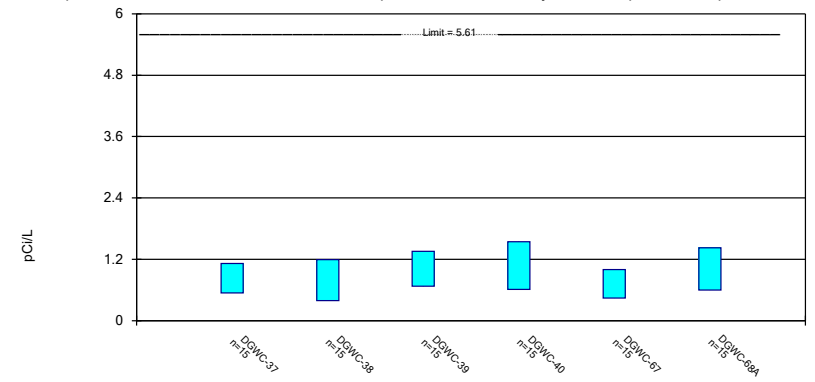
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Constituent: Cobalt Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

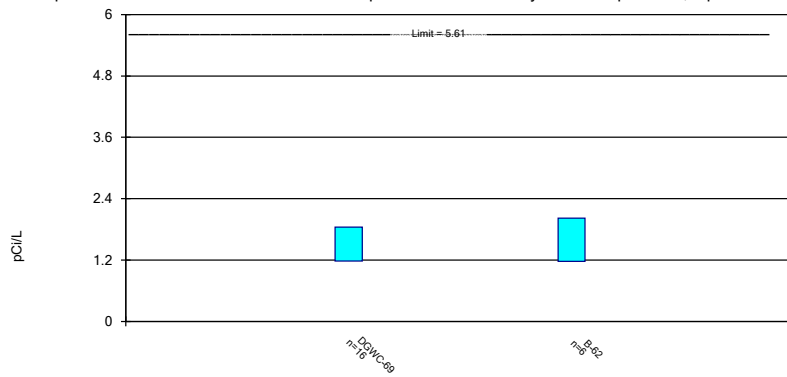
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Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

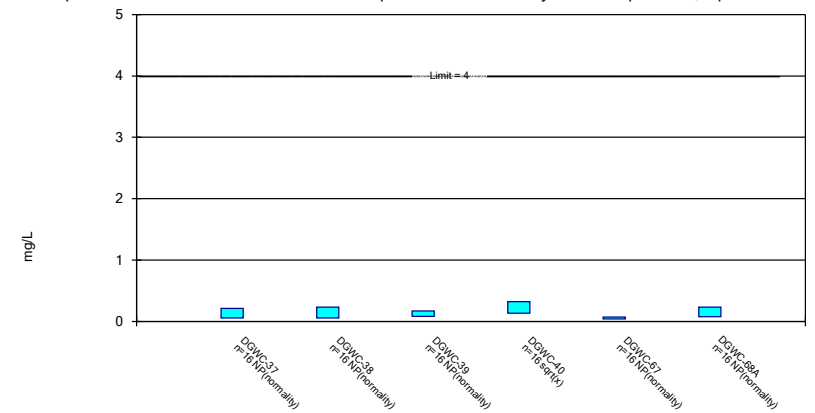
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Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

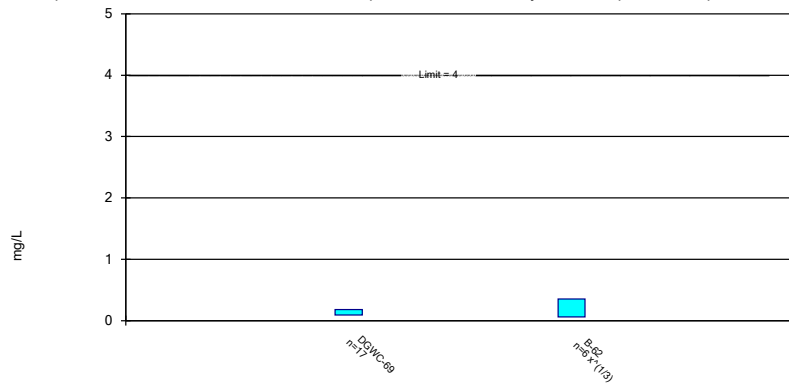
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Constituent: Fluoride, total Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

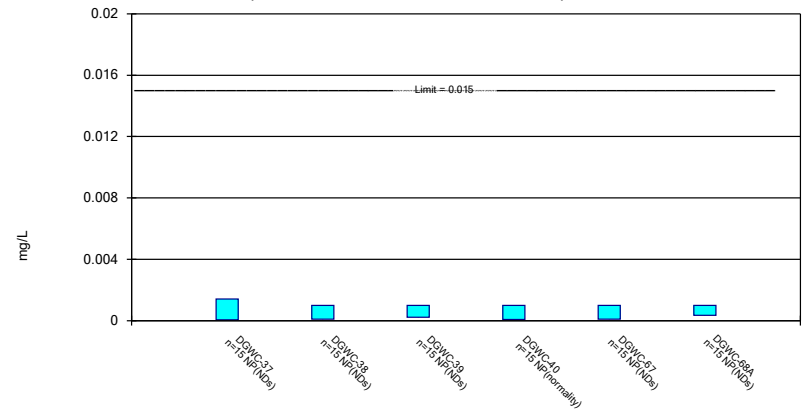
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

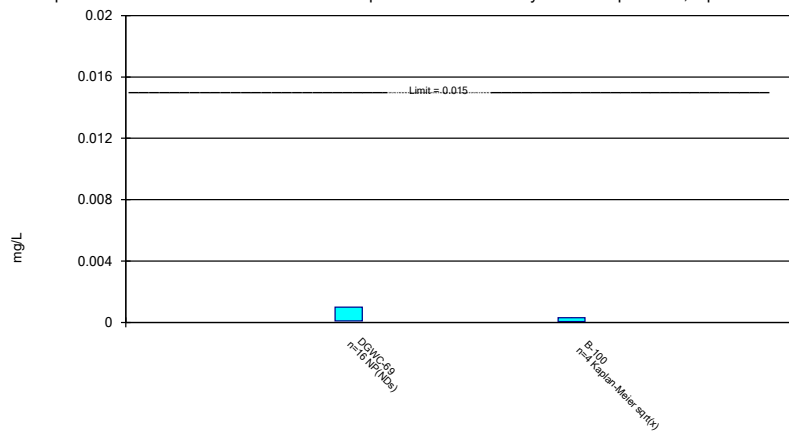
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

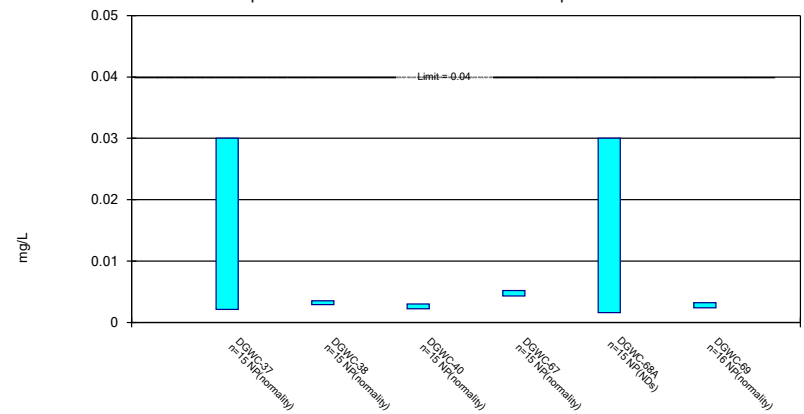
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

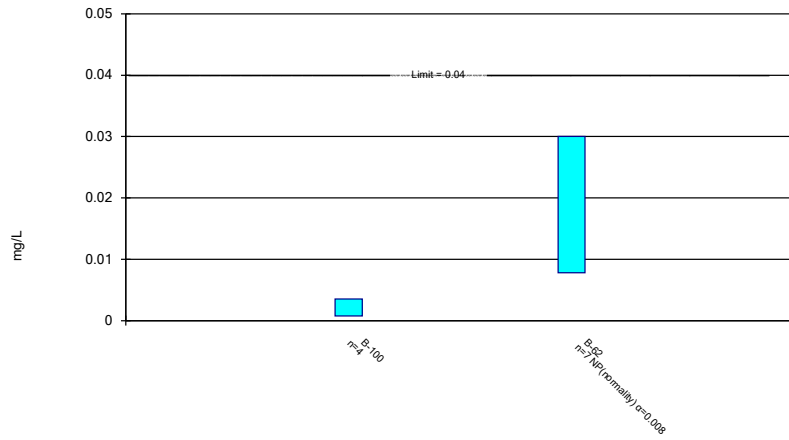
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

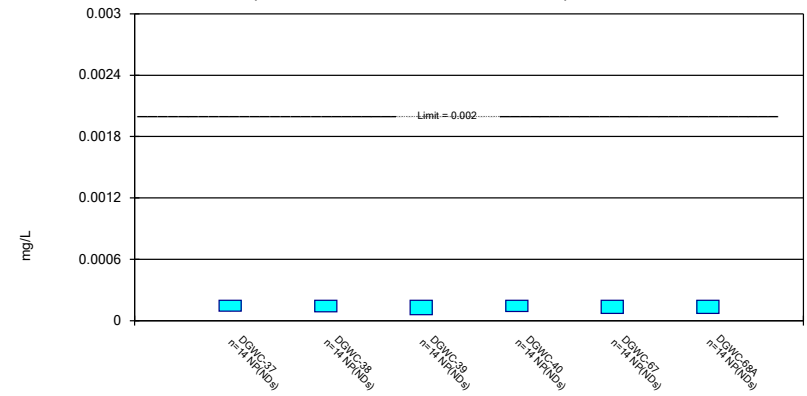
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

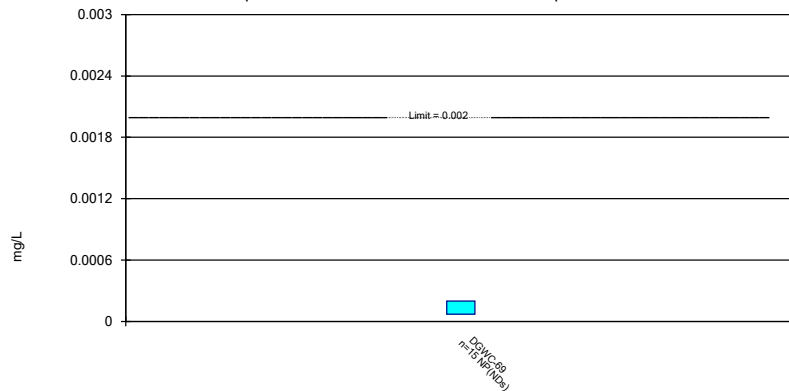
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

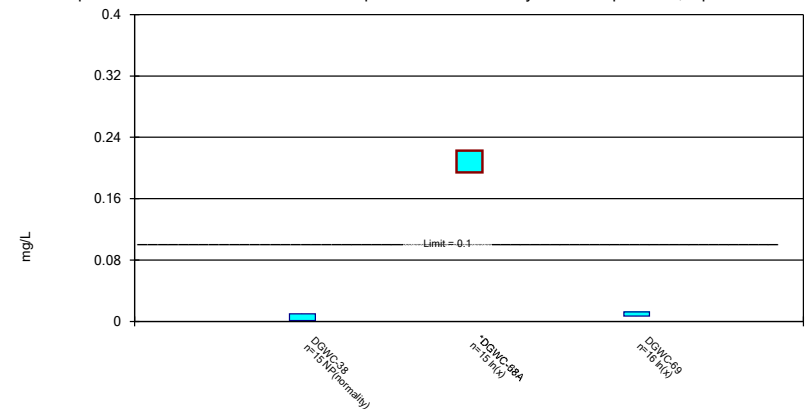
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

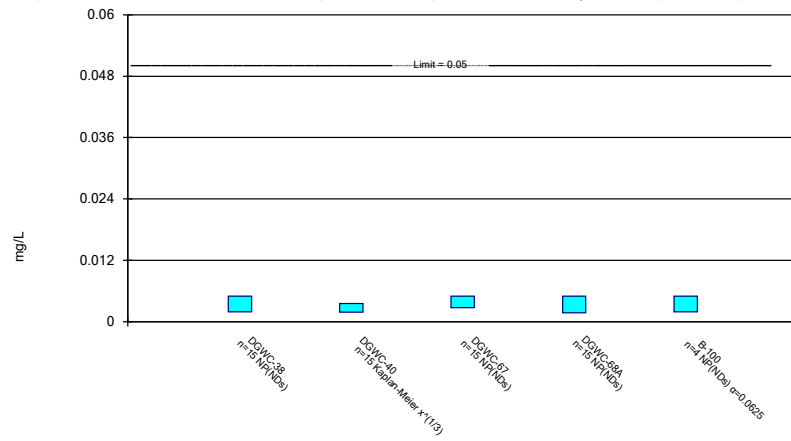
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

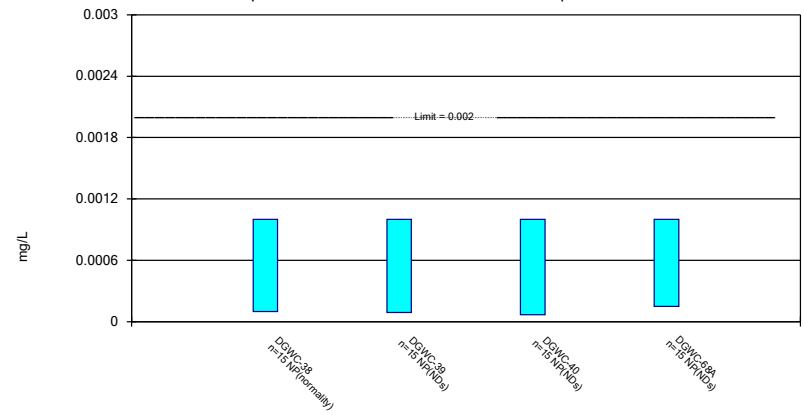
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/16/2021 2:27 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69	B-100	B-62
9/2/2016	<0.003					
12/8/2016	<0.003					
3/30/2017	<0.003					
3/31/2017		0.0004 (J)		<0.003		
5/12/2017		<0.003	<0.003	<0.003		
6/16/2017		0.0008 (J)	0.0008 (J)	0.0007 (J)		
7/13/2017	<0.003	<0.003	<0.003	<0.003		
8/8/2017			<0.003			
10/26/2017	<0.003	<0.003	<0.003	<0.003		
11/15/2017				<0.003		
3/2/2018	<0.003	<0.003	<0.003	<0.003		
7/12/2018	<0.003					
7/13/2018		0.0023 (J)	<0.003	<0.003		
11/8/2018	<0.003	<0.003	<0.003	<0.003		
1/30/2019						<0.003
8/28/2019	<0.003	<0.003	<0.003	<0.003		
9/11/2019						<0.003
10/21/2019						<0.003
3/4/2020	<0.003					
3/9/2020		<0.003	<0.003	<0.003		
8/13/2020	<0.003	<0.003	<0.003	0.0019 (J)		<0.003
8/17/2020					0.0013 (J)	
9/23/2020	<0.003	<0.003	<0.003	<0.003		
9/24/2020						0.00046 (J)
9/25/2020					<0.003	
3/8/2021	0.00033 (J)				0.0017 (J)	
3/10/2021			0.00032 (J)	0.0018 (J)		
3/11/2021		<0.003				
3/12/2021						<0.003
9/9/2021						<0.003
9/13/2021					<0.003	
9/14/2021	<0.003					
9/16/2021		<0.003	<0.003	<0.003		
Mean	0.002809	0.002607	0.002651	0.002693	0.00225	0.002637
Std. Dev.	0.0007136	0.000874	0.000891	0.0006829	0.0008813	0.00096
Upper Lim.	0.003	0.003	0.003	0.003	0.001954	0.003
Lower Lim.	0.00033	0.0023	0.0008	0.0019	0.001046	0.00046

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				<0.005		
9/8/2016	<0.005	<0.005	<0.005			
12/7/2016	0.0019 (J)	<0.005	<0.005			
12/8/2016				<0.005		
3/30/2017	<0.005	<0.005	0.0007 (J)	0.0006 (J)		
3/31/2017					<0.005	
5/12/2017					<0.005	<0.005
6/16/2017					<0.005	<0.005
7/13/2017	<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005	<0.005
8/8/2017						<0.005
10/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2018	<0.005	<0.005	0.0011 (J)			
3/2/2018				0.0011 (J)	<0.005	<0.005
7/12/2018	<0.005	<0.005	0.00057 (J)	<0.005		
7/13/2018					<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (J)
8/28/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/16/2019						<0.005
10/17/2019					0.00042 (J)	
10/18/2019	<0.005	<0.005	0.00075 (J)	<0.005		
3/4/2020				0.00065 (J)		
3/9/2020	<0.005	<0.005	0.00039 (J)		<0.005	<0.005
8/13/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/23/2020				<0.005	<0.005	<0.005
9/24/2020	<0.005	<0.005				
9/25/2020			0.00087 (J)			
3/8/2021				<0.005		
3/10/2021						<0.005
3/11/2021	<0.005	<0.005	<0.005		0.0008 (J)	
9/14/2021				<0.005		
9/15/2021		<0.005				
9/16/2021	<0.005				<0.005	0.46 (o)
9/17/2021			<0.005			
10/27/2021						0.0016 (J)
Mean	0.004793	0.0047	0.003019	0.004157	0.004415	0.004773
Std. Dev.	0.0008004	0.001162	0.002198	0.001749	0.001546	0.0008779
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0019	0.0005	0.0007	0.0011	0.0008	0.0016

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69
3/31/2017	0.0239
4/12/2017	0.0077
5/12/2017	0.0097
6/16/2017	0.0113
7/13/2017	0.0029 (J)
10/26/2017	0.114
11/15/2017	0.164
3/2/2018	0.0127
7/13/2018	0.017
11/8/2018	0.02
8/28/2019	0.025
10/16/2019	0.023
3/9/2020	0.029
8/13/2020	0.029
9/23/2020	0.032
3/10/2021	0.028
9/16/2021	0.023
Mean	0.03366
Std. Dev.	0.04147
Upper Lim.	0.0386
Lower Lim.	0.01205

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0171		
9/8/2016	0.123	0.0333	0.0978			
12/7/2016	0.125	0.0336	0.0844			
12/8/2016				0.0163		
3/30/2017	0.11	0.0325	0.0858	0.0177		
3/31/2017					0.111	
5/12/2017					0.127	0.089
6/16/2017					0.11	0.0855
7/13/2017	0.11	0.0332	0.0919	0.017	0.102	0.0859
8/8/2017						0.0852
10/26/2017	0.112	0.0333	0.0899	0.0168	0.105	0.0878
3/1/2018	0.102	0.0333	0.0742			
3/2/2018				0.0169	0.104	0.0878
7/12/2018	0.11	0.034	0.094	0.018		
7/13/2018					0.11	0.091
11/8/2018	0.11	0.035	0.1	0.017	0.11	0.092
8/28/2019	0.086	0.033	0.099	0.017	0.11	0.089
10/16/2019						0.089
10/17/2019					0.1	
10/18/2019	0.079	0.032	0.1	0.019		
3/4/2020				0.018		
3/9/2020	0.092	0.032	0.076		0.11	0.088
8/13/2020	0.088	0.032	0.089	0.018	0.095	0.088
9/23/2020				0.019	0.1	0.094
9/24/2020	0.094	0.032				
9/25/2020			0.1			
3/8/2021				0.016		
3/10/2021						0.09
3/11/2021	0.075	0.032	0.078		0.11	
9/14/2021				0.027		
9/15/2021		0.032				
9/16/2021	0.083				0.088	0.13 (o)
9/17/2021			0.09			
10/27/2021						0.086
Mean	0.09993	0.03288	0.09	0.01805	0.1061	0.08855
Std. Dev.	0.0158	0.0009143	0.008868	0.002624	0.008863	0.00248
Upper Lim.	0.1106	0.0336	0.09601	0.019	0.1121	0.09023
Lower Lim.	0.08922	0.032	0.08399	0.0168	0.1001	0.08687

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	0.0872	
5/12/2017	0.0929	
6/16/2017	0.1	
7/13/2017	0.0985	
10/26/2017	0.136	
11/15/2017	0.107	
3/2/2018	0.0671	
7/13/2018	0.074	
11/8/2018	0.072	
1/30/2019		0.018
8/28/2019	0.061	
9/11/2019		0.023
10/16/2019	0.1	
10/21/2019		0.026
3/9/2020	0.057	
8/13/2020	0.13	0.026
9/23/2020	0.055	
9/24/2020		0.025
3/10/2021	0.048	
3/12/2021		0.027
9/9/2021		0.021
9/16/2021	0.078	
Mean	0.08523	0.02371
Std. Dev.	0.02594	0.003251
Upper Lim.	0.1021	0.02758
Lower Lim.	0.06835	0.01985

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-68A	DGWC-69	B-100
9/2/2016			0.0028 (J)			
9/8/2016	<0.0005	<0.0005				
12/7/2016	<0.0005	<0.0005				
12/8/2016			0.0026 (J)			
3/30/2017	<0.0005	<0.0005	0.003			
3/31/2017					7E-05 (J)	
5/12/2017				<0.0005	<0.0005	
6/16/2017				<0.0005	<0.0005	
7/13/2017	<0.0005	<0.0005	0.003 (J)	<0.0005	<0.0005	
8/8/2017				<0.0005		
10/26/2017	<0.0005	<0.0005	0.0027 (J)	<0.0005	<0.0005	
11/15/2017					<0.0005	
3/1/2018	<0.0005	<0.0005				
3/2/2018			0.0033	<0.0005	<0.0005	
7/12/2018	7E-05 (J)	<0.0005	0.0032			
7/13/2018				8.4E-05 (J)	5.8E-05 (J)	
11/8/2018	<0.0005	<0.0005	<0.003 (J)	<0.0005	<0.0005	
8/28/2019	8.6E-05 (J)	<0.0005	0.0032	<0.0005	<0.0005	
10/16/2019				<0.0005	<0.0005	
10/18/2019	<0.0005	<0.0005	0.0033			
3/4/2020			0.0039			
3/9/2020	<0.0005	<0.0005		<0.0005	7.5E-05 (J)	
8/13/2020	0.0001 (J)	<0.0005	0.0033	<0.0005	6.3E-05 (J)	
8/17/2020						0.0004 (J)
9/23/2020			0.0031	<0.0005	6.1E-05 (J)	
9/24/2020	8.8E-05 (J)	5.8E-05 (J)				
9/25/2020						0.00035 (J)
3/8/2021			0.003			0.00046 (J)
3/10/2021				6.1E-05 (J)	5E-05 (J)	
3/11/2021	<0.0005	<0.0005				
9/13/2021						0.00053
9/14/2021			0.0032			
9/15/2021		<0.0005				
9/16/2021	5.9E-05 (J)			<0.0005	<0.0005	
Mean	0.0003602	0.0004705	0.003107	0.000443	0.0003361	0.000435
Std. Dev.	0.0002048	0.0001141	0.0003081	0.0001505	0.0002186	7.767E-05
Upper Lim.	0.0005	0.0005	0.003315	0.0005	0.0005	0.0006113
Lower Lim.	8.6E-05	5.8E-05	0.002898	8.4E-05	6.1E-05	0.0002587

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-62
10/6/2016	9E-05 (J)
1/30/2019	<0.0005
9/11/2019	0.00012 (J)
10/21/2019	7.8E-05 (J)
8/13/2020	0.00011 (J)
9/24/2020	0.00013 (J)
3/12/2021	<0.0005
9/9/2021	0.00014 (J)
Mean	0.0002085
Std. Dev.	0.000181
Upper Lim.	0.0005
Lower Lim.	7.8E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0008 (J)			
9/8/2016	0.0002 (J)	0.0002 (J)				
12/7/2016	0.0001 (J)	0.0002 (J)				
12/8/2016			0.0007 (J)			
3/30/2017	0.0001 (J)	0.0002 (J)	0.0007 (J)			
3/31/2017				<0.0005		0.0001 (J)
5/12/2017				<0.0005	8E-05 (J)	0.0002 (J)
6/16/2017				<0.0005	<0.0005	0.0002 (J)
7/13/2017	<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005	<0.0005
8/8/2017					<0.0005	
10/26/2017	<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005	<0.0005
11/15/2017						<0.0005
3/1/2018	<0.0005	<0.0005				
3/2/2018			<0.0005	<0.0005	<0.0005	<0.0005
7/12/2018	<0.0005	0.00024 (J)	0.00087 (J)			
7/13/2018				<0.0005	0.00019 (J)	<0.0005
11/8/2018	<0.0005	<0.001 (J)	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/28/2019	<0.0005	0.0003 (J)	0.00087 (J)	0.00017 (J)	0.00017 (J)	<0.0005
10/16/2019					0.00017 (J)	0.00017 (J)
10/17/2019				<0.0005		
10/18/2019	<0.0005	0.00016 (J)	0.00088 (J)			
3/4/2020			0.00093 (J)			
3/9/2020	<0.0005	0.00017 (J)		0.00021 (J)	0.00026 (J)	<0.0005
8/13/2020	<0.0005	0.00021 (J)	0.00084 (J)	0.00015 (J)	0.00021 (J)	<0.0005
9/23/2020			0.0008 (J)	0.00018 (J)	0.00024 (J)	<0.0005
9/24/2020	0.00027 (J)	0.00081 (J)				
3/8/2021			0.00072			
3/10/2021					<0.0005	<0.0005
3/11/2021	<0.0005	<0.0005		0.00053		
9/14/2021			0.00086			
9/15/2021		0.00021 (J)				
9/16/2021	0.00013 (J)			<0.0005	<0.0005	<0.0005
Mean	0.0003867	0.00034	0.0008047	0.000416	0.000388	0.0004169
Std. Dev.	0.0001705	0.0002553	0.0001178	0.0001495	0.0002332	0.0001502
Upper Lim.	0.0005	0.0005	0.0008845	0.00053	0.001	0.0005
Lower Lim.	0.00013	0.00017	0.0007248	0.00018	0.00017	0.0002

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	0.00059 (J)
9/25/2020	0.00027 (J)
3/8/2021	0.00027 (J)
9/13/2021	0.00029 (J)
Mean	0.000355
Std. Dev.	0.000157
Upper Lim.	0.00059
Lower Lim.	0.00027

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			<0.005			
9/8/2016	<0.005	<0.005				
12/7/2016	<0.005	<0.005				
12/8/2016			<0.005			
3/30/2017	<0.005	<0.005	0.0007 (J)			
3/31/2017				0.0005 (J)		<0.005
5/12/2017				0.0007 (J)	<0.005	<0.005
6/16/2017				<0.005	<0.005	<0.005
7/13/2017	<0.005	<0.005	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017					<0.005	
10/26/2017	0.0007 (J)	0.0005 (J)	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017						<0.005
3/1/2018	<0.005	<0.005				
3/2/2018			<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<0.005	<0.005			
7/13/2018				<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/28/2019	<0.005	<0.005	0.00061 (J)	<0.005	<0.005	0.00049 (J)
10/16/2019					<0.005	<0.005
10/17/2019				<0.005		
10/18/2019	<0.005	0.00092 (J)	0.00078 (J)			
3/4/2020			0.0011 (J)			
3/9/2020	<0.005	0.00044 (J)		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00058 (J)	<0.005	0.00072 (J)	<0.005	<0.005	<0.005
9/23/2020			0.0011 (J)	<0.005	<0.005	0.0011 (J)
9/24/2020	<0.005	<0.005				
3/8/2021			0.0006 (J)			
3/10/2021					<0.005	0.0009 (J)
3/11/2021	<0.005	<0.005		0.0014 (J)		
9/14/2021			0.0021 (J)			
9/15/2021		<0.005				
9/16/2021	<0.005			<0.005	0.0014 (J,o)	<0.005
10/27/2021					<0.005	
Mean	0.004419	0.004124	0.002267	0.003899	0.0047	0.003981
Std. Dev.	0.001534	0.001816	0.002034	0.001899	0.001162	0.001829
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0007	0.00092	0.00061	0.00088	0.0005	0.0011

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-62
1/30/2019		<0.005
9/11/2019		<0.005
10/21/2019		0.00098 (J)
8/13/2020		<0.005
8/17/2020	<0.005	
9/24/2020		<0.005
9/25/2020	0.00094 (J)	
3/8/2021	0.00057 (J)	
3/12/2021		<0.005
9/9/2021		<0.005
9/13/2021	<0.005	
Mean	0.002877	0.004426
Std. Dev.	0.002456	0.001519
Upper Lim.	0.001223	0.005
Lower Lim.	0.0003828	0.00098

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:29 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0382		
9/8/2016	<0.005	0.0015 (J)	0.0068 (J)			
12/7/2016	0.0005 (J)	0.0017 (J)	0.0071 (J)			
12/8/2016				0.0318		
3/30/2017	<0.005	0.0016 (J)	0.006 (J)	0.0364		
3/31/2017					0.0064 (J)	
5/12/2017					0.0037 (J)	0.0015 (J)
6/16/2017					0.0041 (J)	0.0003 (J)
7/13/2017	0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)
8/8/2017						<0.005
10/26/2017	0.0003 (J)	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)	<0.005
3/1/2018	<0.005	<0.005	<0.005			
3/2/2018				0.0425	<0.005	<0.005
7/12/2018	<0.005	0.0015 (J)	0.0059 (J)	0.044		
7/13/2018					0.0017 (J)	<0.005
11/8/2018	<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)	<0.005
8/28/2019	<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)	<0.005
10/16/2019						<0.005
10/17/2019					0.0013 (J)	
10/18/2019	<0.005	0.0016 (J)	0.007	0.043		
3/4/2020				0.055		
3/9/2020	<0.005	0.0016 (J)	0.007		0.0015 (J)	<0.005
8/13/2020	<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)	<0.005
9/23/2020				0.046	0.0011 (J)	<0.005
9/24/2020	<0.005	0.0013 (J)				
9/25/2020			0.0061			
3/8/2021				0.039		
3/10/2021						<0.005
3/11/2021	<0.005	0.0017 (J)	0.0058		0.0016 (J)	
9/14/2021				0.05		
9/15/2021		0.0016 (J)				
9/16/2021	<0.005				0.0012 (J)	0.0032 (J,o)
9/17/2021			0.0076			
10/27/2021						<0.005
Mean	0.004073	0.002353	0.006633	0.04176	0.003087	0.004153
Std. Dev.	0.001919	0.002296	0.001136	0.005898	0.002508	0.00177
Upper Lim.	0.005	0.0017	0.007286	0.04576	0.003862	0.005
Lower Lim.	0.0005	0.0015	0.005895	0.03776	0.001505	0.0015

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	0.0022 (J)	
5/12/2017	0.0016 (J)	
6/16/2017	0.0009 (J)	
7/13/2017	0.0004 (J)	
10/26/2017	0.0031 (J)	
11/15/2017	0.0028 (J)	
3/2/2018	<0.005	
7/13/2018	<0.005	
11/8/2018	<0.005	
1/30/2019		<0.005
8/28/2019	<0.005	
9/11/2019		0.0003 (J)
10/16/2019	<0.005	
10/21/2019		0.00031 (J)
3/9/2020	<0.005	
8/13/2020	<0.005	<0.005
9/23/2020	<0.005	
9/24/2020		<0.005
3/10/2021	<0.005	
3/12/2021		<0.005
9/9/2021		<0.005
9/16/2021	<0.005	
Mean	0.003812	0.003659
Std. Dev.	0.001698	0.002291
Upper Lim.	0.005	0.005
Lower Lim.	0.0016	0.0003

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				1.44		
9/8/2016	0.827 (U)	1.48	1.44			
12/7/2016	0.56 (U)	0.22 (U)	2.16			
12/8/2016				2.56		
3/30/2017	0.302 (U)	0.519 (U)	0.264 (U)	0.0844 (U)		
3/31/2017					0.404 (U)	
5/12/2017					0.206 (U)	1.18
6/16/2017					0.966 (U)	0.332 (U)
7/13/2017	0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)	0.304 (U)
8/8/2017						1.4
10/26/2017	1.04 (U)	1.13 (U)	0.875 (U)	0.748 (U)	0.619 (U)	0.477 (U)
3/1/2018	0.344 (U)	0.985 (U)	1.24			
3/2/2018				0.485 (U)	1.31	1.13
7/12/2018	0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)		
7/13/2018					0.667 (U)	0.407 (U)
11/8/2018	0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)	0.393 (U)
8/28/2019	1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)	1.77
10/16/2019						2.12
1/6/2020	2.01	0.527 (U)	1.4	1.6	0.965 (U)	
3/4/2020				1.62		
3/9/2020	0.499 (U)	1.04	1.36		0.819 (U)	1.33
8/13/2020	0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)	1.46
9/23/2020				1.28 (U)	0.131 (U)	0.563 (U)
9/24/2020	1.03 (U)	0.593 (U)				
9/25/2020			0.181 (U)			
3/8/2021				0.714 (U)		
3/10/2021						0.568 (U)
3/11/2021	0.956 (U)	0.0784 (U)	0.969 (U)		1.55	
9/14/2021				1.8		
9/15/2021		2.37				
9/16/2021	0.691 (U)				0.201 (U)	1.74
9/17/2021			0.911 (U)			
Mean	0.8273	0.7931	1.012	1.079	0.7189	1.012
Std. Dev.	0.4247	0.5907	0.5031	0.6893	0.4089	0.6109
Upper Lim.	1.115	1.193	1.353	1.546	0.996	1.426
Lower Lim.	0.5395	0.3928	0.6709	0.6118	0.4419	0.5976

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	1.39	
5/12/2017	1.29	
6/16/2017	1.61	
7/13/2017	1.14	
10/26/2017	2.04	
11/15/2017	1.99	
3/2/2018	0.918 (U)	
7/13/2018	1.36 (U)	
11/8/2018	0.719 (U)	
1/30/2019		1.97 (U)
8/28/2019	1.38	
10/16/2019	0.826 (U)	
10/21/2019		1.82
3/9/2020	1.39	
8/13/2020	2.66	1.63
9/23/2020	1.8	
9/24/2020		1.28 (U)
3/10/2021	1.6	
3/12/2021		1.18 (U)
9/9/2021		1.7
9/16/2021	2.06	
Mean	1.511	1.597
Std. Dev.	0.5122	0.3082
Upper Lim.	1.844	2.02
Lower Lim.	1.178	1.173

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.5		
9/8/2016	0.08 (J)	0.1 (J)	0.17 (J)			
12/7/2016	0.21 (J)	0.27 (J)	0.33			
12/8/2016				0.35		
3/30/2017	0.05 (J)	0.12 (J)	0.17 (J)	0.21 (J)		
3/31/2017					0.02 (J)	
5/12/2017					<0.1	0.37
6/16/2017					0.03 (J)	0.12 (J)
7/13/2017	0.06 (J)	0.13 (J)	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)
8/8/2017						0.11 (J)
10/26/2017	0.08 (J)	0.47	0.54	0.5	<0.1	0.11 (J)
3/1/2018	0.22	<0.1	0.13			
3/2/2018				0.33	<0.1	0.23
7/12/2018	0.32	0.23 (J)	0.13 (J)	0.57		
7/13/2018					0.25 (J)	0.099 (J)
11/8/2018	<0.1	<0.1	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)
3/13/2019	0.08 (J)	0.084 (J)	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)
8/28/2019	0.074 (J)	0.066 (J)	0.086 (J)	0.14	<0.1	0.1
10/16/2019						0.093 (J)
10/17/2019					0.038 (J)	
10/18/2019	0.075 (J)	0.073 (J)	0.14 (J)	0.13 (J)		
3/4/2020				0.11 (J)		
3/9/2020	0.054 (J)	0.064 (J)	0.075 (J)		<0.1	0.082 (J)
8/13/2020	0.068 (J)	0.06 (J)	0.076 (J)	0.16	<0.1	0.076 (J)
9/23/2020				0.054 (J)	<0.1	0.07 (J)
9/24/2020	0.061 (J)	0.057 (J)				
9/25/2020			0.086 (J)			
3/8/2021				0.17		
3/10/2021						0.07 (J)
3/11/2021	0.057 (J)	0.058 (J)	0.083 (J)		<0.1	
9/14/2021				0.13		
9/15/2021		0.06 (J)				
9/16/2021	0.084 (J)				0.069 (J)	0.55
9/17/2021			0.13			
Mean	0.1014	0.1214	0.1576	0.2409	0.08794	0.1544
Std. Dev.	0.07777	0.1131	0.1194	0.1592	0.1217	0.1295
Upper Lim.	0.21	0.23	0.17	0.3219	0.07	0.23
Lower Lim.	0.054	0.057	0.083	0.1358	0.038	0.076

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	0.16 (J)	
5/12/2017	0.12 (J)	
6/16/2017	0.16 (J)	
7/13/2017	0.13 (J)	
10/26/2017	0.29 (J)	
11/15/2017	0.28 (J)	
3/2/2018	0.18	
7/13/2018	0.19 (J)	
11/8/2018	<0.3 (J)	
1/30/2019		0.43
3/13/2019	0.086 (J)	
8/28/2019	0.07 (J)	
10/16/2019	0.13 (J)	
10/21/2019		0.23 (J)
3/9/2020	0.068 (J)	
8/13/2020	0.084 (J)	0.11
9/23/2020	0.064 (J)	
9/24/2020		0.093 (J)
3/10/2021	0.055 (J)	
3/12/2021		0.11
9/9/2021		0.14
9/16/2021	0.11	
Mean	0.1369	0.1855
Std. Dev.	0.06963	0.1295
Upper Lim.	0.1805	0.3546
Lower Lim.	0.09325	0.06003

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				<0.001		
9/8/2016	<0.001	<0.001	<0.001			
12/7/2016	<0.001	<0.001	<0.001			
12/8/2016				<0.001		
3/30/2017	0.0014 (J)	<0.001	<0.001	7E-05 (J)		
3/31/2017					<0.001	
5/12/2017					9E-05 (J)	<0.001
6/16/2017					<0.001	<0.001
7/13/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2017						<0.001
10/26/2017	<0.001	0.0001 (J)	<0.001	7E-05 (J)	<0.001	<0.001
3/1/2018	<0.001	<0.001	<0.001			
3/2/2018				<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001		
7/13/2018					<0.001	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/28/2019	6.1E-05 (J)	<0.001	8E-05 (J)	8.1E-05 (J)	<0.001	<0.001
10/16/2019						<0.001
10/17/2019					<0.001	
10/18/2019	<0.001	7.4E-05 (J)	<0.001	0.00015 (J)		
3/4/2020				0.00017 (J)		
3/9/2020	<0.001	6.1E-05 (J)	<0.001		4.7E-05 (J)	<0.001
8/13/2020	<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)	<0.001
9/23/2020				0.00028 (J)	<0.001	0.00035 (J)
9/24/2020	<0.001	0.00014 (J)				
9/25/2020			0.00022 (J)			
3/8/2021				5.4E-05 (J)		
3/10/2021						6.7E-05 (J)
3/11/2021	<0.001	0.00014 (J)	<0.001		0.00025 (J)	
9/14/2021				<0.001		
9/15/2021		<0.001				
9/16/2021	<0.001				<0.001	<0.001
9/17/2021			<0.001			
Mean	0.0009641	0.000701	0.0008867	0.0005283	0.0007629	0.0008945
Std. Dev.	0.0002702	0.0004381	0.0003003	0.0004602	0.0004094	0.0002836
Upper Lim.	0.0014	0.001	0.001	0.001	0.001	0.001
Lower Lim.	6.1E-05	0.0001	0.00022	7E-05	9E-05	0.00035

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-100
3/31/2017	<0.001	
5/12/2017	0.0001 (J)	
6/16/2017	<0.001	
7/13/2017	<0.001	
10/26/2017	<0.001	
11/15/2017	9E-05 (J)	
3/2/2018	<0.001	
7/13/2018	<0.001	
11/8/2018	<0.001	
8/28/2019	<0.001	
10/16/2019	<0.001	
3/9/2020	9E-05 (J)	
8/13/2020	5.9E-05 (J)	
8/17/2020		8.8E-05 (J)
9/23/2020	0.00017 (J)	
9/25/2020		0.00021 (J)
3/8/2021		0.00018 (J)
3/10/2021	0.0001 (J)	
9/13/2021		<0.001
9/16/2021	<0.001	
Mean	0.0006631	0.0003695
Std. Dev.	0.0004498	0.0004235
Upper Lim.	0.001	0.0003036
Lower Lim.	9E-05	5.528E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0022 (J)			
9/8/2016	<0.03	0.0032 (J)				
12/7/2016	<0.03	0.0035 (J)				
12/8/2016			<0.03			
3/30/2017	0.0029 (J)	0.0035 (J)	0.0023 (J)			
3/31/2017				0.0052 (J)		0.0031 (J)
5/12/2017				0.0054 (J)	0.0016 (J)	0.003 (J)
6/16/2017				0.0048 (J)	<0.03	0.0031 (J)
7/13/2017	<0.03	0.0032 (J)	0.0023 (J)	0.0044 (J)	<0.03	0.0029 (J)
8/8/2017					<0.03	
10/26/2017	0.0018 (J)	0.0034 (J)	0.0021 (J)	0.0043 (J)	<0.03	0.0034 (J)
11/15/2017						0.0034 (J)
3/1/2018	0.0024 (J)	0.0033 (J)				
3/2/2018			0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0028 (J)	0.0034 (J)	0.0022 (J)			
7/13/2018				0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
8/28/2019	0.0025 (J)	0.0034 (J)	0.0022 (J)	0.0046 (J)	<0.03	0.0024 (J)
10/16/2019					<0.03	0.0032 (J)
10/17/2019				0.0047 (J)		
10/18/2019	0.0026 (J)	0.0032 (J)	0.0024 (J)			
3/4/2020			0.0027 (J)			
3/9/2020	0.0017 (J)	0.0033 (J)		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	0.0023 (J)	0.0028 (J)	0.0022 (J)	0.0044 (J)	<0.03	0.0031 (J)
9/23/2020			0.0022 (J)	0.0043 (J)	<0.03	0.0023 (J)
9/24/2020	0.0021 (J)	0.0029 (J)				
3/8/2021			0.0022 (J)			
3/10/2021					<0.03	0.0023 (J)
3/11/2021	0.0024 (J)	0.003 (J)		0.005 (J)		
9/14/2021			0.003 (J)			
9/15/2021		0.0029 (J)				
9/16/2021	0.0021 (J)			0.0044 (J)	0.00082 (J)	0.0023 (J)
Mean	0.009707	0.005	0.00602	0.00634	0.02616	0.004525
Std. Dev.	0.01267	0.00692	0.009739	0.006555	0.01013	0.006804
Upper Lim.	0.03	0.0035	0.003	0.0052	0.03	0.0032
Lower Lim.	0.0021	0.0029	0.0022	0.0043	0.0016	0.0024

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-62
1/30/2019		<0.03
9/11/2019		0.0078 (J)
10/21/2019		0.0078 (J)
8/13/2020		0.0087 (J)
8/17/2020	0.0013 (J)	
9/24/2020		0.0084 (J)
9/25/2020	0.0027 (J)	
3/8/2021	0.0024 (J)	
3/12/2021		0.0087 (J)
9/9/2021		0.0094 (J)
9/13/2021	0.0022 (J)	
Mean	0.00215	0.01154
Std. Dev.	0.0006028	0.008158
Upper Lim.	0.003519	0.03
Lower Lim.	0.0007815	0.0078

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				4.4E-05 (J)		
9/8/2016	<0.0002	<0.0002	<0.0002			
12/7/2016	<0.0002	<0.0002	<0.0002			
12/8/2016				<0.0002		
3/30/2017	6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)		
3/31/2017					<0.0002	
5/12/2017					<0.0002	<0.0002
6/16/2017					7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2017						<0.0002
10/26/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2018	<0.0002	<0.0002	<0.0002			
3/2/2018				<0.0002	<0.0002	<0.0002
7/12/2018	4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)		
7/13/2018					<0.0002	<0.0002
11/8/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019						<0.0002
10/17/2019					<0.0002	
10/18/2019	<0.0002	<0.0002	<0.0002	<0.0002		
3/4/2020				<0.0002		
3/9/2020	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/23/2020				<0.0002	<0.0002	<0.0002
9/24/2020	9.1E-05 (J)	8.5E-05 (J)				
9/25/2020			<0.0002			
9/14/2021				<0.0002		
9/15/2021		<0.0002				
9/16/2021	<0.0002				<0.0002	<0.0002
9/17/2021			<0.0002			
Mean	0.0001711	0.0001711	0.0001899	0.0001699	0.0001907	0.0001907
Std. Dev.	5.824E-05	5.818E-05	3.768E-05	6.064E-05	3.474E-05	3.474E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	9.1E-05	8.5E-05	5.9E-05	9E-05	7E-05	7E-05

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69
3/31/2017	<0.0002
5/12/2017	<0.0002
6/16/2017	7E-05 (J)
7/13/2017	<0.0002
10/26/2017	<0.0002
11/15/2017	<0.0002
3/2/2018	<0.0002
7/13/2018	<0.0002
11/8/2018	<0.0002
8/28/2019	<0.0002
10/16/2019	<0.0002
3/9/2020	<0.0002
8/13/2020	<0.0002
9/23/2020	<0.0002
9/16/2021	<0.0002
Mean	0.0001913
Std. Dev.	3.357E-05
Upper Lim.	0.0002
Lower Lim.	7E-05

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-68A	DGWC-69
9/8/2016	<0.01		
12/7/2016	<0.01		
3/30/2017	0.0011 (J)		
3/31/2017			0.0124
5/12/2017		0.275	0.0117
6/16/2017		0.19	0.0087 (J)
7/13/2017	0.0012 (J)	0.211	0.0053 (J)
8/8/2017		0.207	
10/26/2017	0.0011 (J)	0.226	0.0244
11/15/2017			0.0237
3/1/2018	<0.01		
3/2/2018		0.215	0.0072 (J)
7/12/2018	<0.01		
7/13/2018		0.22	0.007 (J)
11/8/2018	<0.01	0.2	<0.01 (J)
8/28/2019	<0.01	0.21	0.0059 (J)
10/16/2019		0.22	0.01
10/18/2019	<0.01		
3/9/2020	0.001 (J)	0.19	0.0062 (J)
8/13/2020	0.00098 (J)	0.19	0.011
9/23/2020		0.2	0.0056 (J)
9/24/2020	0.001 (J)		
3/10/2021		0.2	0.0056 (J)
3/11/2021	0.00092 (J)		
9/15/2021	0.00099 (J)		
9/16/2021		0.18	0.009 (J)
Mean	0.005219	0.2089	0.01023
Std. Dev.	0.004629	0.02252	0.005862
Upper Lim.	0.01	0.2226	0.01236
Lower Lim.	0.00099	0.1942	0.006699

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	B-100
9/2/2016		0.0019 (J)			
9/8/2016	<0.005				
12/7/2016	<0.005				
12/8/2016		0.0022 (J)			
3/30/2017	<0.005	0.0023 (J)			
3/31/2017			<0.005		
5/12/2017			<0.005	<0.005	
6/16/2017			<0.005	<0.005	
7/13/2017	<0.005	0.0025 (J)	<0.005	<0.005	
8/8/2017				<0.005	
10/26/2017	<0.005	0.0036 (J)	<0.005	<0.005	
3/1/2018	<0.005				
3/2/2018		<0.005	<0.005	<0.005	
7/12/2018	<0.005	<0.005			
7/13/2018			<0.005	<0.005	
11/8/2018	<0.005	<0.01 (J)	<0.005	<0.005	
8/28/2019	<0.005	0.0017 (J)	<0.005	<0.005	
10/16/2019				<0.005	
10/17/2019			<0.005		
10/18/2019	<0.005	0.0027 (J)			
3/4/2020		0.0049 (J)			
3/9/2020	<0.005		<0.005	<0.005	
8/13/2020	<0.005	0.0018 (J)	<0.005	<0.005	
8/17/2020					<0.005
9/23/2020		0.0067 (J)	<0.005	<0.005	
9/24/2020	<0.005				
9/25/2020					<0.005
3/8/2021		0.0023 (J)			0.0019 (J)
3/10/2021				0.0017 (J)	
3/11/2021	0.0019 (J)		0.0027 (J)		
9/13/2021					<0.005
9/14/2021		0.0015 (J)			
9/15/2021	<0.005				
9/16/2021			<0.005	<0.005	
Mean	0.004793	0.003607	0.004847	0.00478	0.004225
Std. Dev.	0.0008004	0.002356	0.0005939	0.0008521	0.00155
Upper Lim.	0.005	0.003517	0.005	0.005	0.005
Lower Lim.	0.0019	0.001857	0.0027	0.0017	0.0019

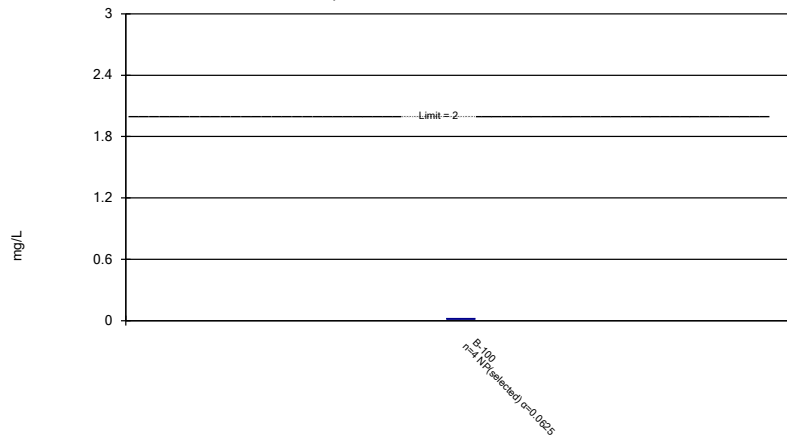
Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-68A
9/2/2016			<0.001	
9/8/2016	<0.001	<0.001		
12/7/2016	<0.001	<0.001		
12/8/2016			<0.001	
3/30/2017	0.0001 (J)	0.0001 (J)	6E-05 (J)	
5/12/2017				<0.001
6/16/2017				<0.001
7/13/2017	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001
8/8/2017				<0.001
10/26/2017	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001
3/1/2018	<0.001	<0.001		
3/2/2018			<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	
7/13/2018				0.00015 (J)
11/8/2018	<0.001	<0.001	<0.001	<0.001
8/28/2019	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001
10/16/2019				<0.001
10/18/2019	0.0001 (J)	<0.001	<0.001	
3/4/2020			6.8E-05 (J)	
3/9/2020	0.00016 (J)	7.1E-05 (J)		<0.001
8/13/2020	0.00016 (J)	<0.001	<0.001	<0.001
9/23/2020			<0.001	<0.001
9/24/2020	0.00015 (J)			
9/25/2020		<0.001		
3/8/2021			<0.001	
3/10/2021				<0.001
3/11/2021	<0.001	<0.001		
9/14/2021			<0.001	
9/15/2021	<0.001			
9/16/2021				<0.001
9/17/2021		<0.001		
Mean	0.000534	0.0006953	0.0006885	0.0009433
Std. Dev.	0.0004517	0.0004461	0.0004559	0.0002195
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.0001	9E-05	6.8E-05	0.00015

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

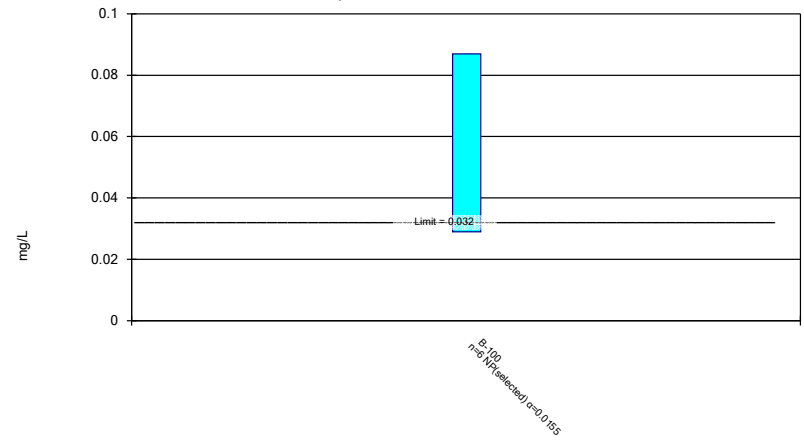


Normality testing disabled.

Constituent: Barium Analysis Run 12/16/2021 2:28 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

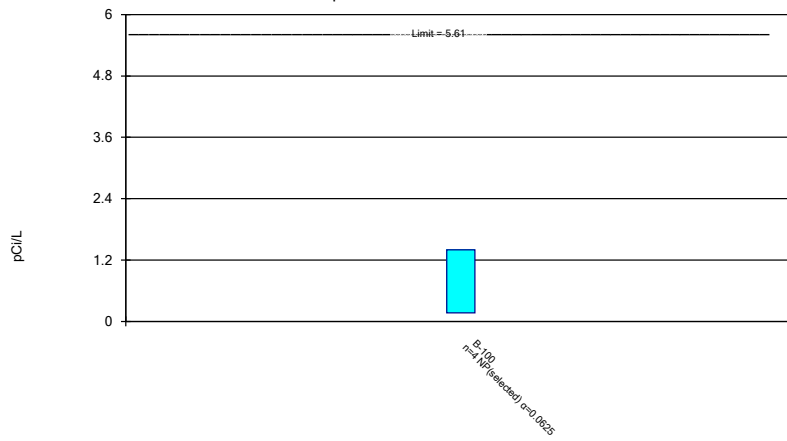


Normality testing disabled.

Constituent: Cobalt Analysis Run 12/16/2021 2:28 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Normality testing disabled.

Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:28 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	0.015
9/25/2020	0.022
3/8/2021	0.022
9/13/2021	0.021
Mean	0.02
Std. Dev.	0.003367
Upper Lim.	0.022
Lower Lim.	0.015

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
7/23/2020	0.086
8/3/2020	0.087
8/17/2020	0.077
9/25/2020	0.034
3/8/2021	0.029
9/13/2021	0.035
Mean	0.058
Std. Dev.	0.02804
Upper Lim.	0.087
Lower Lim.	0.029

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:30 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	1.4 (U)
9/25/2020	0.799 (U)
3/8/2021	0.168 (U)
9/13/2021	0.774 (U)
Mean	0.7853
Std. Dev.	0.5031
Upper Lim.	1.4
Lower Lim.	0.168

FIGURE J.

State Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.041	Yes	15	0.2089	0.02252	0	None	In(x)	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.001954	0.001046	0.006	No	4	0.00225	0.0008813	50	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	7	0.002637	0.00096	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	14	0.002809	0.0007136	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.003	0.0023	0.006	No	14	0.002607	0.000874	78.57	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	14	0.002651	0.000891	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	15	0.002693	0.0006829	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.0007	0.01	No	15	0.003019	0.002198	53.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.0011	0.01	No	15	0.004157	0.001749	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0008	0.01	No	15	0.004415	0.001546	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	15	0.004773	0.0008779	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-69	0.0386	0.01205	0.01	Yes	17	0.03366	0.04147	0	None	ln(x)	0.01	Param.
Barium (mg/L)	B-100	0.022	0.015	2	No	4	0.02	0.003367	0	None	No	0.0625	NP (selected)
Barium (mg/L)	B-62	0.02758	0.01985	2	No	7	0.02371	0.003251	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1106	0.08922	2	No	15	0.09993	0.0158	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.0336	0.032	2	No	15	0.03288	0.0009143	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-39	0.09601	0.08399	2	No	15	0.09	0.008868	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.019	0.0168	2	No	15	0.01805	0.002624	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1121	0.1001	2	No	15	0.1061	0.008863	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.09023	0.08687	2	No	15	0.08855	0.00248	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-69	0.1021	0.06835	2	No	16	0.08523	0.02594	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0006113	0.0002587	0.004	No	4	0.000435	0.00007767	0	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0005	0.000078	0.004	No	8	0.0002085	0.000181	25	None	No	0.004	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.000086	0.004	No	15	0.0003602	0.0002048	66.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	15	0.0004705	0.0001141	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003315	0.002898	0.004	No	15	0.003107	0.0003081	6.667	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	15	0.000443	0.0001505	86.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000061	0.004	No	16	0.0003361	0.0002186	62.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	4	0.000355	0.000157	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00013	0.005	No	15	0.0003867	0.0001705	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	15	0.00034	0.0002553	20	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008845	0.0007248	0.005	No	15	0.0008047	0.0001178	13.33	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00018	0.005	No	15	0.000416	0.0001495	66.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.001	0.00017	0.005	No	15	0.000388	0.0002332	53.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	16	0.0004169	0.0001502	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.001223	0.0003828	0.1	No	4	0.002877	0.002456	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	7	0.004426	0.001519	85.71	Kaplan-Meier	No	0.008	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	15	0.004419	0.001534	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	15	0.004124	0.001816	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.00061	0.1	No	15	0.002267	0.002034	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.00088	0.1	No	15	0.003899	0.001899	73.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	15	0.0047	0.001162	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0011	0.1	No	16	0.003981	0.001829	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.087	0.029	0.032	No	6	0.058	0.02804	0	None	No	0.0155	NP (selected)
Cobalt (mg/L)	B-62	0.005	0.0003	0.032	No	7	0.003659	0.002291	71.43	None	No	0.008	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	15	0.004073	0.001919	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	15	0.002353	0.002296	13.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.007286	0.005895	0.032	No	15	0.006633	0.001136	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04576	0.03776	0.032	Yes	15	0.04176	0.005898	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-67	0.003862	0.001505	0.032	No	15	0.003087	0.002508	13.33	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	15	0.004153	0.00177	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0016	0.032	No	16	0.003812	0.001698	62.5	None	No	0.01	NP (NDs)

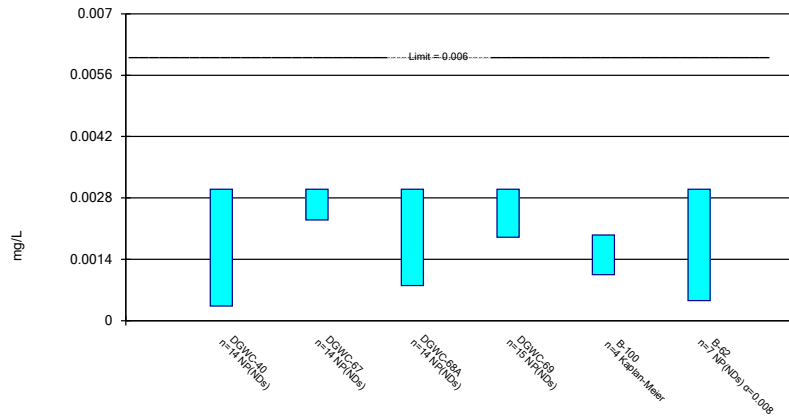
State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/16/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-100	1.4	0.168	5.61	No	4	0.7853	0.5031	0	None	No	0.0625	NP (selected)
Combined Radium 226 + 228 (pCi/L)	B-62	2.02	1.173	5.61	No	6	1.597	0.3082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.115	0.5395	5.61	No	15	0.8273	0.4247	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	1.193	0.3928	5.61	No	15	0.7931	0.5907	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.353	0.6709	5.61	No	15	1.012	0.5031	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.546	0.6118	5.61	No	15	1.079	0.6893	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.996	0.4419	5.61	No	15	0.7189	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.426	0.5976	5.61	No	15	1.012	0.6109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.844	1.178	5.61	No	16	1.511	0.5122	0	None	No	0.01	Param.
Fluoride, total (mg/L)	B-62	0.3546	0.06003	4	No	6	0.1855	0.1295	0	None	x^(1/3)	0.01	Param.
Fluoride, total (mg/L)	DGWC-37	0.21	0.054	4	No	16	0.1014	0.07777	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-38	0.23	0.057	4	No	16	0.1214	0.1131	12.5	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-39	0.17	0.083	4	No	16	0.1576	0.1194	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-40	0.3219	0.1358	4	No	16	0.2409	0.1592	6.25	None	sqrt(x)	0.01	Param.
Fluoride, total (mg/L)	DGWC-67	0.07	0.038	4	No	16	0.08794	0.1217	50	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-68A	0.23	0.076	4	No	16	0.1544	0.1295	6.25	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-69	0.1805	0.09325	4	No	17	0.1369	0.06963	5.882	None	No	0.01	Param.
Lead (mg/L)	B-100	0.0003036	0.00005528	0.001	No	4	0.0003695	0.0004235	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.001	No	15	0.0009641	0.0002702	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.0001	0.001	No	15	0.000701	0.0004381	66.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.001	No	15	0.0008867	0.0003003	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.00007	0.001	No	15	0.0005283	0.0004602	46.67	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-67	0.001	0.00009	0.001	No	15	0.0007629	0.0004094	73.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.001	No	15	0.0008945	0.0002836	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.00009	0.001	No	16	0.0006631	0.0004498	62.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.003519	0.0007815	0.03	No	4	0.00215	0.0006028	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.03	0.0078	0.03	No	7	0.01154	0.008158	14.29	None	No	0.008	NP (normality)
Lithium (mg/L)	DGWC-37	0.03	0.0021	0.03	No	15	0.009707	0.01267	26.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0035	0.0029	0.03	No	15	0.005	0.00692	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.003	0.0022	0.03	No	15	0.00602	0.009739	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.0052	0.0043	0.03	No	15	0.00634	0.006555	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.03	No	15	0.02616	0.01013	86.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0024	0.03	No	16	0.004525	0.006804	6.25	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	14	0.0001711	0.00005824	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	14	0.0001711	0.00005818	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	14	0.0001899	0.00003768	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	14	0.0001699	0.00006064	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-38	0.01	0.00099	0.041	No	15	0.005219	0.004629	46.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-68A	0.2226	0.1942	0.041	Yes	15	0.2089	0.02252	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	DGWC-69	0.01236	0.006699	0.041	No	16	0.01023	0.005862	6.25	None	ln(x)	0.01	Param.
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	4	0.004225	0.00155	75	Kaplan-Meier	No	0.0625	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	15	0.004793	0.0008004	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003517	0.001857	0.05	No	15	0.003607	0.002356	20	Kaplan-Meier	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	15	0.004847	0.0005939	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	15	0.00478	0.0008521	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.0001	0.002	No	15	0.000534	0.0004517	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-39	0.001	0.00009	0.002	No	15	0.0006953	0.0004461	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.000068	0.002	No	15	0.0006885	0.0004559	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	15	0.0009433	0.0002195	93.33	None	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

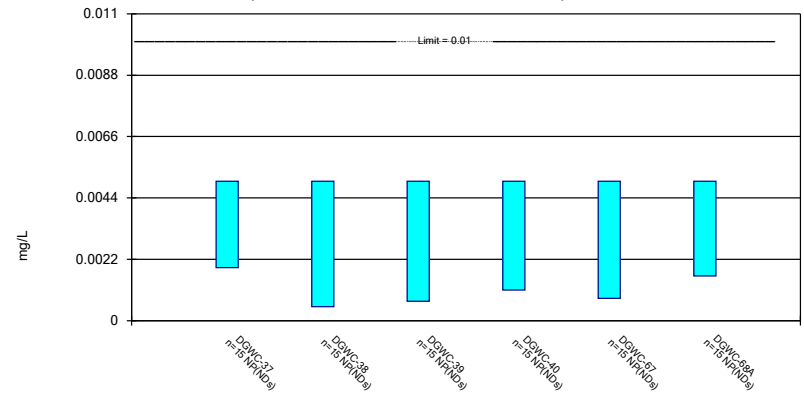
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Antimony Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

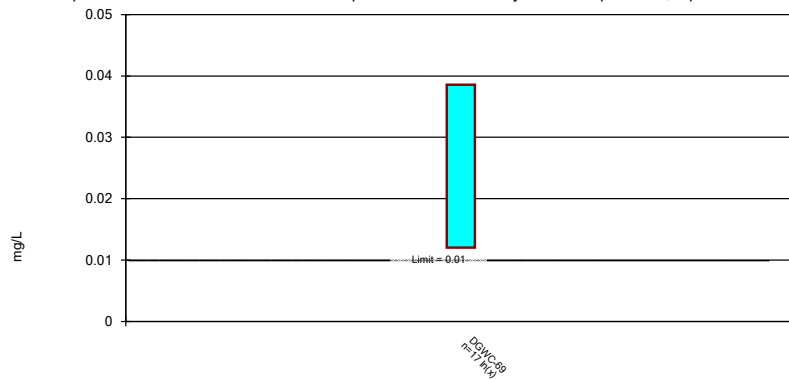
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

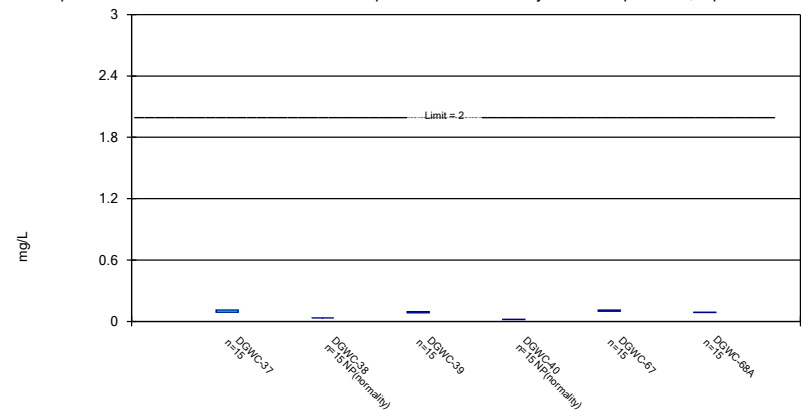
Compliance limit is exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

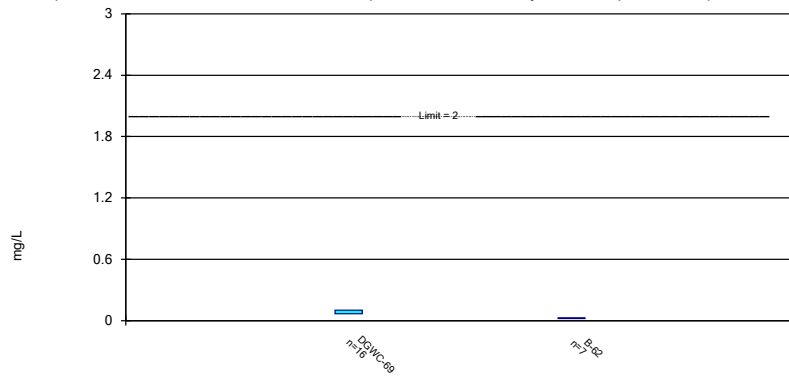
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

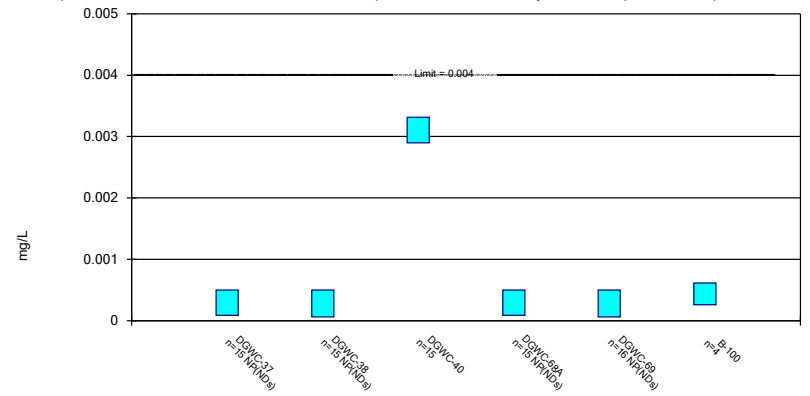
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

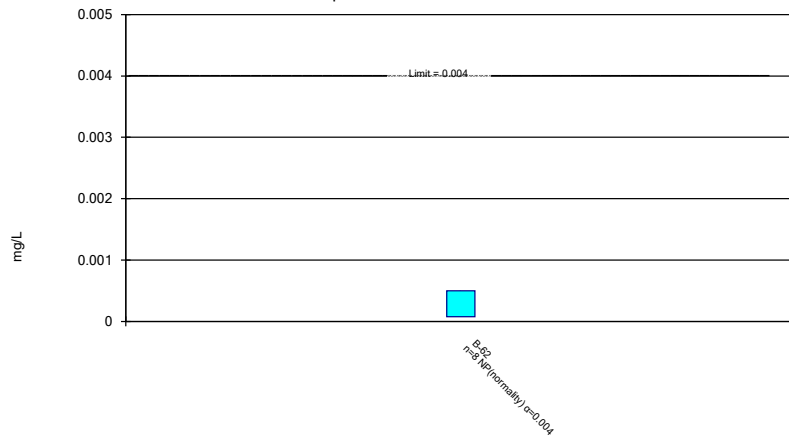
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

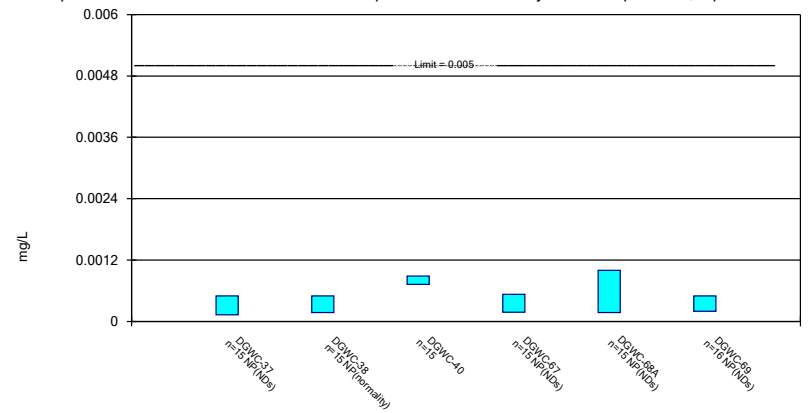
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

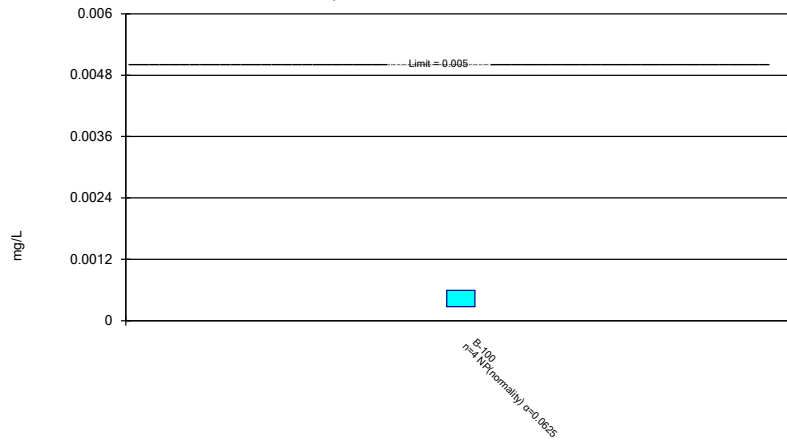
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

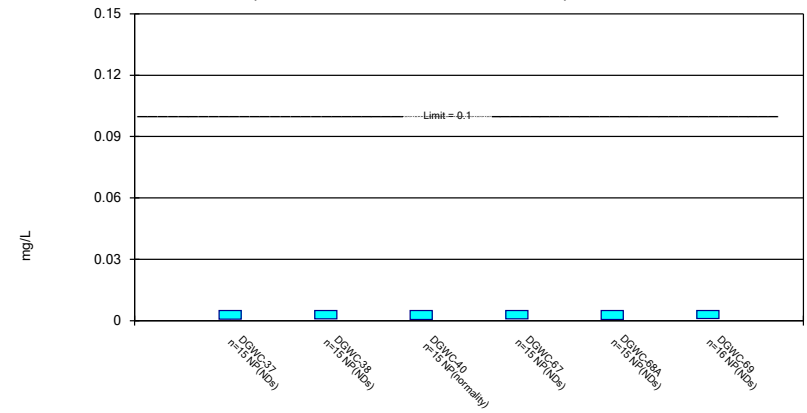
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

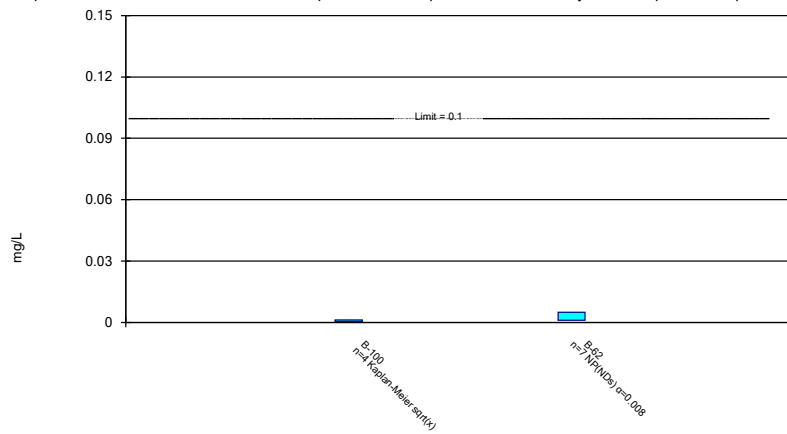
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

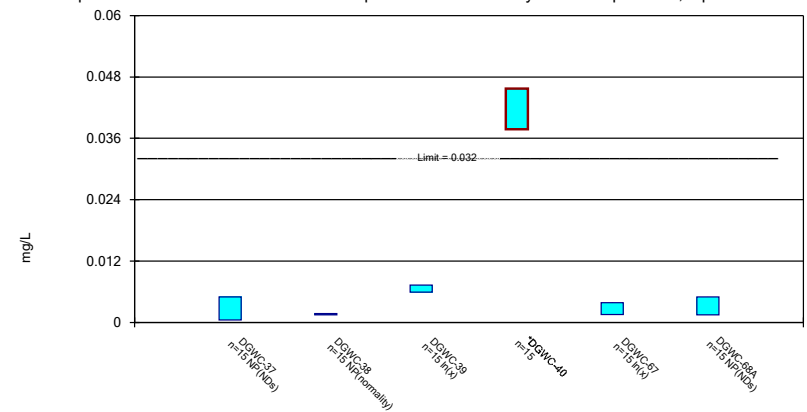
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

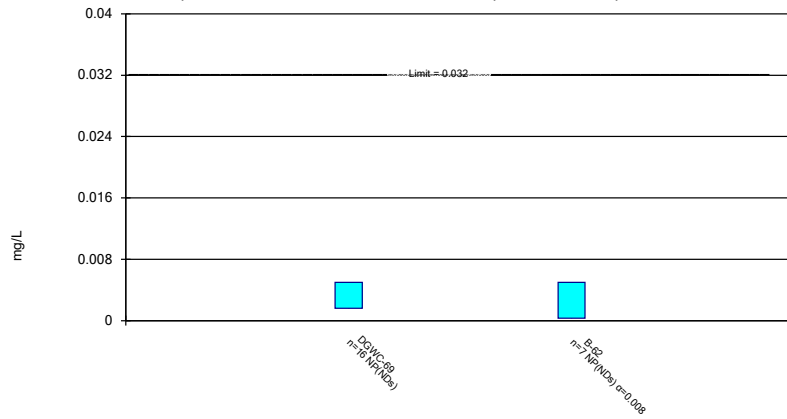
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

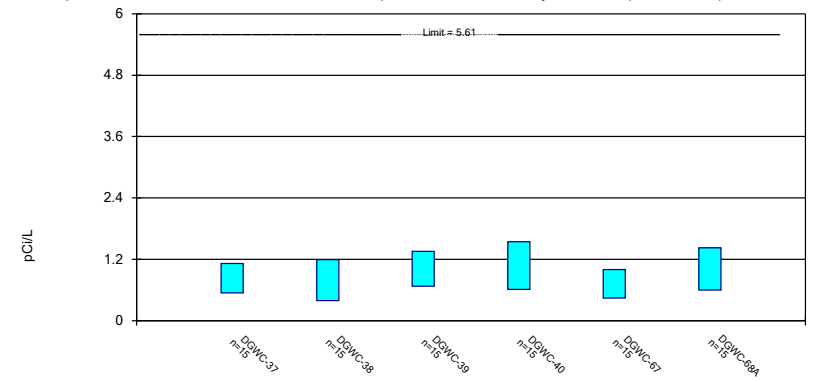
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Cobalt Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

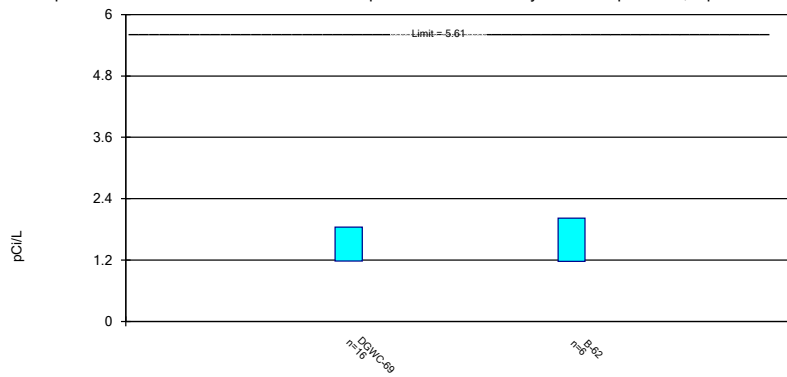
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

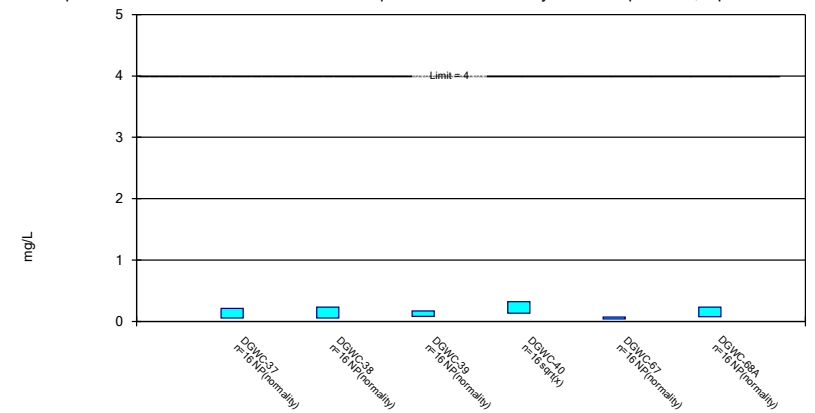
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

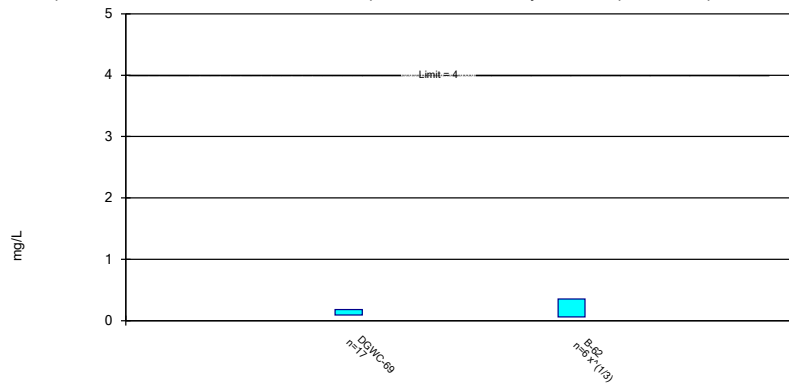
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

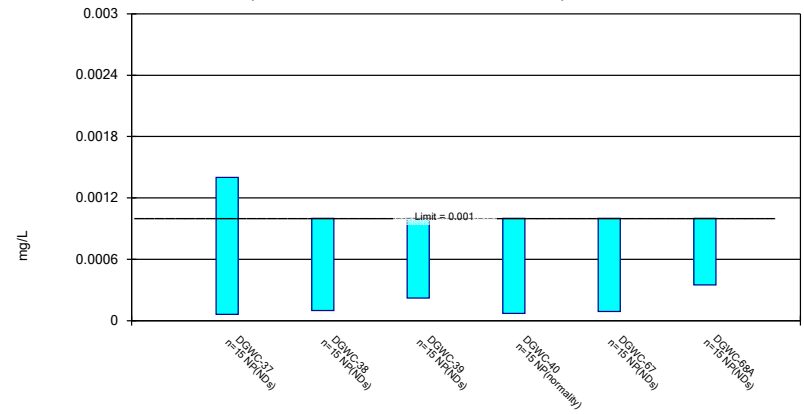
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

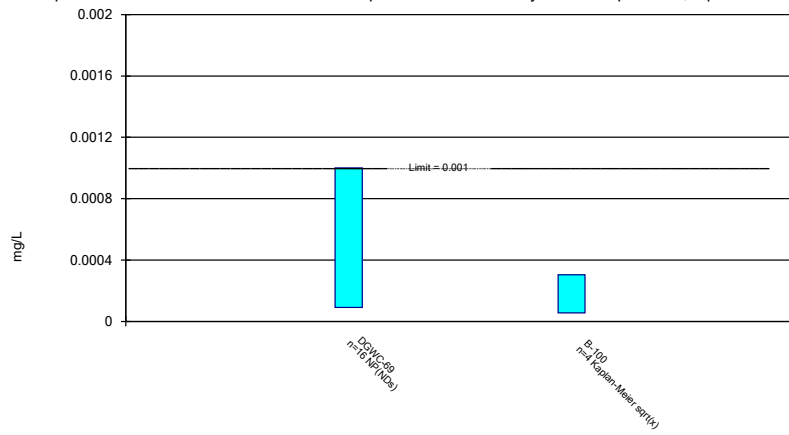
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

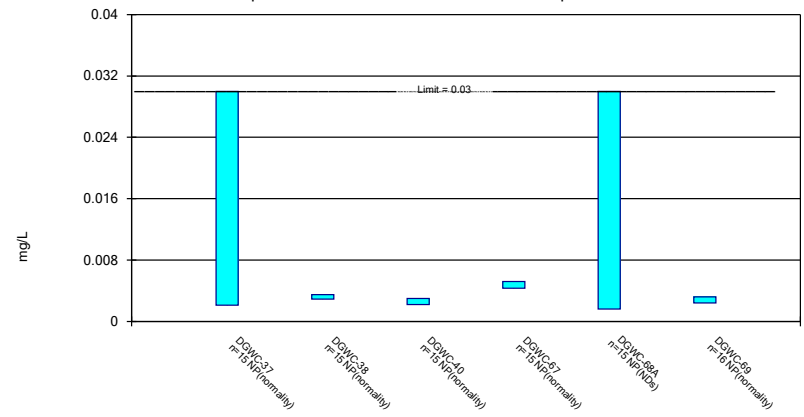
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

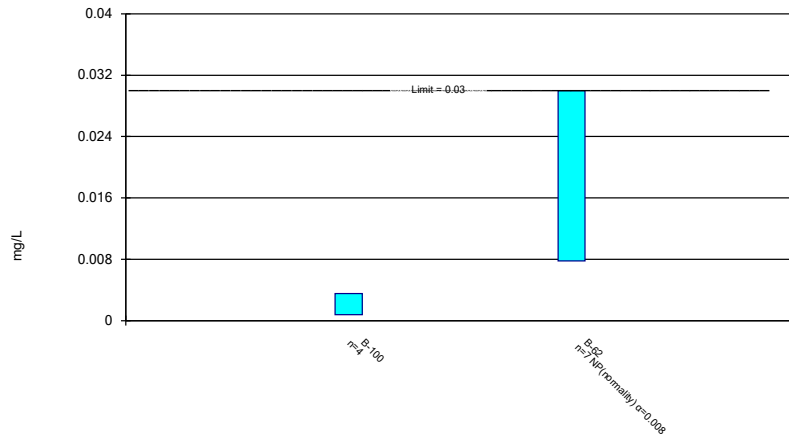
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

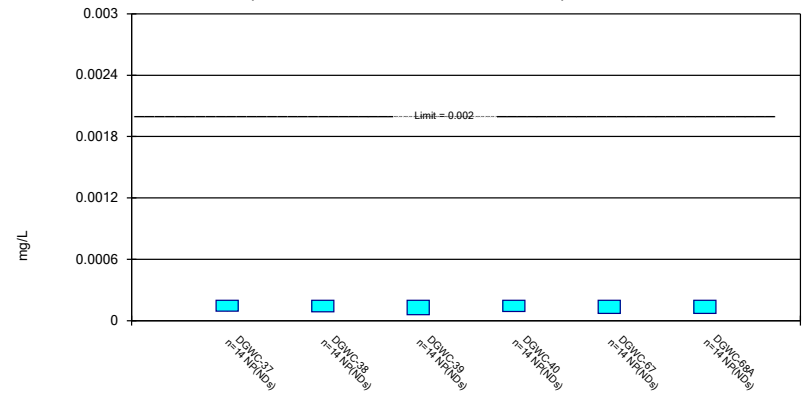
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

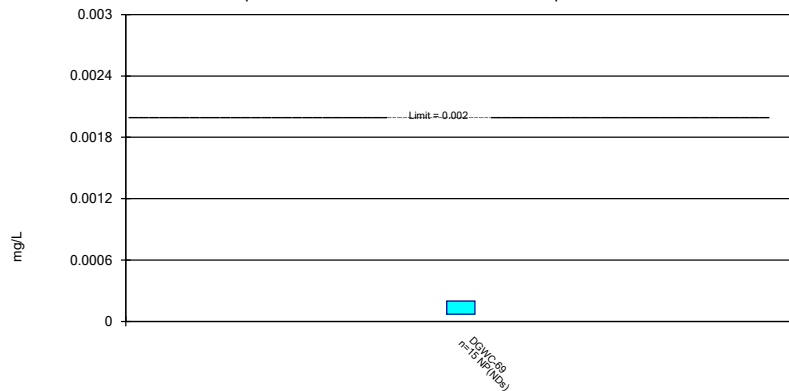
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

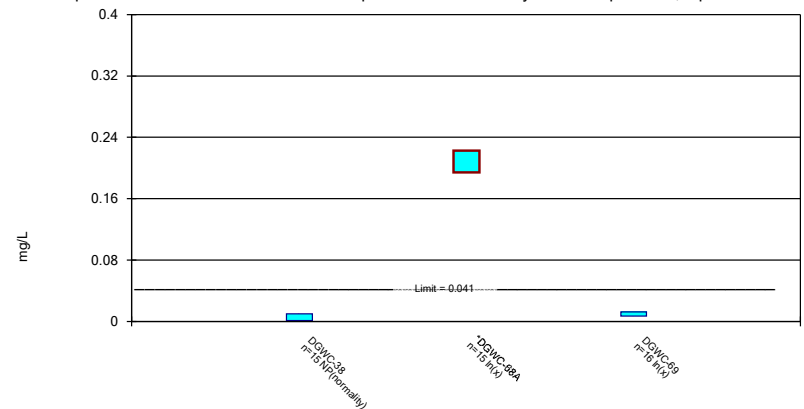
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

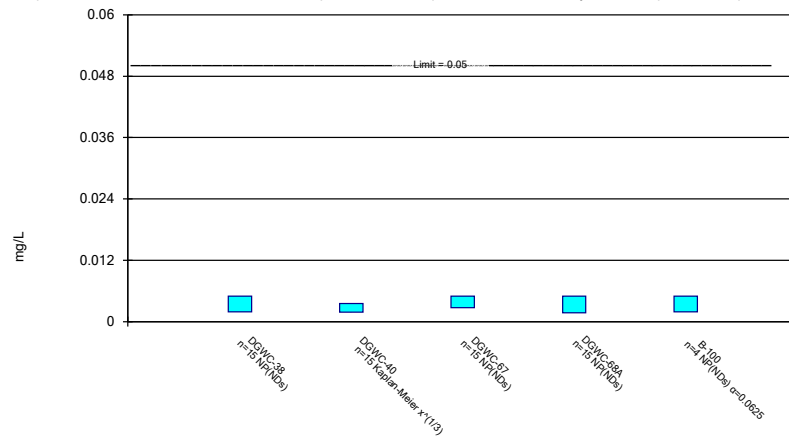
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

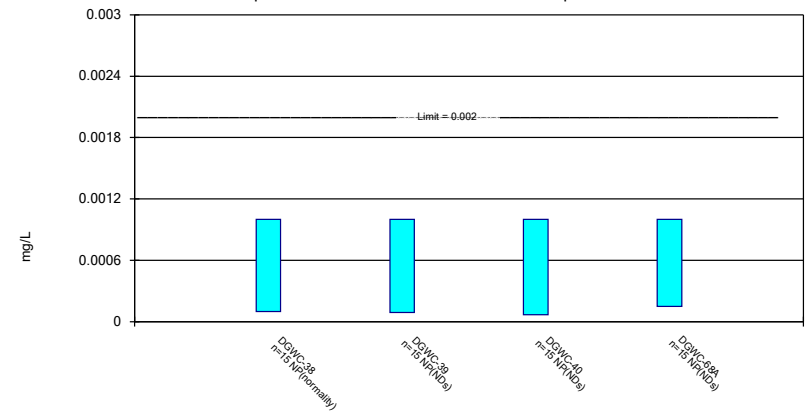
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69	B-100	B-62
9/2/2016	<0.003					
12/8/2016	<0.003					
3/30/2017	<0.003					
3/31/2017		0.0004 (J)		<0.003		
5/12/2017		<0.003	<0.003	<0.003		
6/16/2017		0.0008 (J)	0.0008 (J)	0.0007 (J)		
7/13/2017	<0.003	<0.003	<0.003	<0.003		
8/8/2017			<0.003			
10/26/2017	<0.003	<0.003	<0.003	<0.003		
11/15/2017				<0.003		
3/2/2018	<0.003	<0.003	<0.003	<0.003		
7/12/2018	<0.003					
7/13/2018		0.0023 (J)	<0.003	<0.003		
11/8/2018	<0.003	<0.003	<0.003	<0.003		
1/30/2019						<0.003
8/28/2019	<0.003	<0.003	<0.003	<0.003		
9/11/2019						<0.003
10/21/2019						<0.003
3/4/2020	<0.003					
3/9/2020		<0.003	<0.003	<0.003		
8/13/2020	<0.003	<0.003	<0.003	0.0019 (J)		<0.003
8/17/2020					0.0013 (J)	
9/23/2020	<0.003	<0.003	<0.003	<0.003		
9/24/2020						0.00046 (J)
9/25/2020					<0.003	
3/8/2021	0.00033 (J)				0.0017 (J)	
3/10/2021			0.00032 (J)	0.0018 (J)		
3/11/2021		<0.003				
3/12/2021						<0.003
9/9/2021						<0.003
9/13/2021					<0.003	
9/14/2021	<0.003					
9/16/2021		<0.003	<0.003	<0.003		
Mean	0.002809	0.002607	0.002651	0.002693	0.00225	0.002637
Std. Dev.	0.0007136	0.000874	0.000891	0.0006829	0.0008813	0.00096
Upper Lim.	0.003	0.003	0.003	0.003	0.001954	0.003
Lower Lim.	0.00033	0.0023	0.0008	0.0019	0.001046	0.00046

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				<0.005		
9/8/2016	<0.005	<0.005	<0.005			
12/7/2016	0.0019 (J)	<0.005	<0.005			
12/8/2016				<0.005		
3/30/2017	<0.005	<0.005	0.0007 (J)	0.0006 (J)		
3/31/2017					<0.005	
5/12/2017					<0.005	<0.005
6/16/2017					<0.005	<0.005
7/13/2017	<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005	<0.005
8/8/2017						<0.005
10/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2018	<0.005	<0.005	0.0011 (J)			
3/2/2018				0.0011 (J)	<0.005	<0.005
7/12/2018	<0.005	<0.005	0.00057 (J)	<0.005		
7/13/2018					<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (J)
8/28/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/16/2019						<0.005
10/17/2019					0.00042 (J)	
10/18/2019	<0.005	<0.005	0.00075 (J)	<0.005		
3/4/2020				0.00065 (J)		
3/9/2020	<0.005	<0.005	0.00039 (J)		<0.005	<0.005
8/13/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/23/2020				<0.005	<0.005	<0.005
9/24/2020	<0.005	<0.005				
9/25/2020			0.00087 (J)			
3/8/2021				<0.005		
3/10/2021						<0.005
3/11/2021	<0.005	<0.005	<0.005		0.0008 (J)	
9/14/2021				<0.005		
9/15/2021		<0.005				
9/16/2021	<0.005				<0.005	0.46 (o)
9/17/2021			<0.005			
10/27/2021						0.0016 (J)
Mean	0.004793	0.0047	0.003019	0.004157	0.004415	0.004773
Std. Dev.	0.0008004	0.001162	0.002198	0.001749	0.001546	0.0008779
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0019	0.0005	0.0007	0.0011	0.0008	0.0016

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69
3/31/2017	0.0239
4/12/2017	0.0077
5/12/2017	0.0097
6/16/2017	0.0113
7/13/2017	0.0029 (J)
10/26/2017	0.114
11/15/2017	0.164
3/2/2018	0.0127
7/13/2018	0.017
11/8/2018	0.02
8/28/2019	0.025
10/16/2019	0.023
3/9/2020	0.029
8/13/2020	0.029
9/23/2020	0.032
3/10/2021	0.028
9/16/2021	0.023
Mean	0.03366
Std. Dev.	0.04147
Upper Lim.	0.0386
Lower Lim.	0.01205

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0171		
9/8/2016	0.123	0.0333	0.0978			
12/7/2016	0.125	0.0336	0.0844			
12/8/2016				0.0163		
3/30/2017	0.11	0.0325	0.0858	0.0177		
3/31/2017					0.111	
5/12/2017					0.127	0.089
6/16/2017					0.11	0.0855
7/13/2017	0.11	0.0332	0.0919	0.017	0.102	0.0859
8/8/2017						0.0852
10/26/2017	0.112	0.0333	0.0899	0.0168	0.105	0.0878
3/1/2018	0.102	0.0333	0.0742			
3/2/2018				0.0169	0.104	0.0878
7/12/2018	0.11	0.034	0.094	0.018		
7/13/2018					0.11	0.091
11/8/2018	0.11	0.035	0.1	0.017	0.11	0.092
8/28/2019	0.086	0.033	0.099	0.017	0.11	0.089
10/16/2019						0.089
10/17/2019					0.1	
10/18/2019	0.079	0.032	0.1	0.019		
3/4/2020				0.018		
3/9/2020	0.092	0.032	0.076		0.11	0.088
8/13/2020	0.088	0.032	0.089	0.018	0.095	0.088
9/23/2020				0.019	0.1	0.094
9/24/2020	0.094	0.032				
9/25/2020			0.1			
3/8/2021				0.016		
3/10/2021						0.09
3/11/2021	0.075	0.032	0.078		0.11	
9/14/2021				0.027		
9/15/2021		0.032				
9/16/2021	0.083				0.088	0.13 (o)
9/17/2021			0.09			
10/27/2021						0.086
Mean	0.09993	0.03288	0.09	0.01805	0.1061	0.08855
Std. Dev.	0.0158	0.0009143	0.008868	0.002624	0.008863	0.00248
Upper Lim.	0.1106	0.0336	0.09601	0.019	0.1121	0.09023
Lower Lim.	0.08922	0.032	0.08399	0.0168	0.1001	0.08687

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	0.0872	
5/12/2017	0.0929	
6/16/2017	0.1	
7/13/2017	0.0985	
10/26/2017	0.136	
11/15/2017	0.107	
3/2/2018	0.0671	
7/13/2018	0.074	
11/8/2018	0.072	
1/30/2019		0.018
8/28/2019	0.061	
9/11/2019		0.023
10/16/2019	0.1	
10/21/2019		0.026
3/9/2020	0.057	
8/13/2020	0.13	0.026
9/23/2020	0.055	
9/24/2020		0.025
3/10/2021	0.048	
3/12/2021		0.027
9/9/2021		0.021
9/16/2021	0.078	
Mean	0.08523	0.02371
Std. Dev.	0.02594	0.003251
Upper Lim.	0.1021	0.02758
Lower Lim.	0.06835	0.01985

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-68A	DGWC-69	B-100
9/2/2016			0.0028 (J)			
9/8/2016	<0.0005	<0.0005				
12/7/2016	<0.0005	<0.0005				
12/8/2016			0.0026 (J)			
3/30/2017	<0.0005	<0.0005	0.003			
3/31/2017					7E-05 (J)	
5/12/2017				<0.0005	<0.0005	
6/16/2017				<0.0005	<0.0005	
7/13/2017	<0.0005	<0.0005	0.003 (J)	<0.0005	<0.0005	
8/8/2017				<0.0005		
10/26/2017	<0.0005	<0.0005	0.0027 (J)	<0.0005	<0.0005	
11/15/2017					<0.0005	
3/1/2018	<0.0005	<0.0005				
3/2/2018			0.0033	<0.0005	<0.0005	
7/12/2018	7E-05 (J)	<0.0005	0.0032			
7/13/2018				8.4E-05 (J)	5.8E-05 (J)	
11/8/2018	<0.0005	<0.0005	<0.003 (J)	<0.0005	<0.0005	
8/28/2019	8.6E-05 (J)	<0.0005	0.0032	<0.0005	<0.0005	
10/16/2019				<0.0005	<0.0005	
10/18/2019	<0.0005	<0.0005	0.0033			
3/4/2020			0.0039			
3/9/2020	<0.0005	<0.0005		<0.0005	7.5E-05 (J)	
8/13/2020	0.0001 (J)	<0.0005	0.0033	<0.0005	6.3E-05 (J)	
8/17/2020						0.0004 (J)
9/23/2020			0.0031	<0.0005	6.1E-05 (J)	
9/24/2020	8.8E-05 (J)	5.8E-05 (J)				
9/25/2020						0.00035 (J)
3/8/2021			0.003			0.00046 (J)
3/10/2021				6.1E-05 (J)	5E-05 (J)	
3/11/2021	<0.0005	<0.0005				
9/13/2021						0.00053
9/14/2021			0.0032			
9/15/2021		<0.0005				
9/16/2021	5.9E-05 (J)			<0.0005	<0.0005	
Mean	0.0003602	0.0004705	0.003107	0.000443	0.0003361	0.000435
Std. Dev.	0.0002048	0.0001141	0.0003081	0.0001505	0.0002186	7.767E-05
Upper Lim.	0.0005	0.0005	0.003315	0.0005	0.0005	0.0006113
Lower Lim.	8.6E-05	5.8E-05	0.002898	8.4E-05	6.1E-05	0.0002587

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-62
10/6/2016	9E-05 (J)
1/30/2019	<0.0005
9/11/2019	0.00012 (J)
10/21/2019	7.8E-05 (J)
8/13/2020	0.00011 (J)
9/24/2020	0.00013 (J)
3/12/2021	<0.0005
9/9/2021	0.00014 (J)
Mean	0.0002085
Std. Dev.	0.000181
Upper Lim.	0.0005
Lower Lim.	7.8E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0008 (J)			
9/8/2016	0.0002 (J)	0.0002 (J)				
12/7/2016	0.0001 (J)	0.0002 (J)				
12/8/2016			0.0007 (J)			
3/30/2017	0.0001 (J)	0.0002 (J)	0.0007 (J)			
3/31/2017				<0.0005		0.0001 (J)
5/12/2017				<0.0005	8E-05 (J)	0.0002 (J)
6/16/2017				<0.0005	<0.0005	0.0002 (J)
7/13/2017	<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005	<0.0005
8/8/2017					<0.0005	
10/26/2017	<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005	<0.0005
11/15/2017						<0.0005
3/1/2018	<0.0005	<0.0005				
3/2/2018			<0.0005	<0.0005	<0.0005	<0.0005
7/12/2018	<0.0005	0.00024 (J)	0.00087 (J)			
7/13/2018				<0.0005	0.00019 (J)	<0.0005
11/8/2018	<0.0005	<0.001 (J)	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/28/2019	<0.0005	0.0003 (J)	0.00087 (J)	0.00017 (J)	0.00017 (J)	<0.0005
10/16/2019					0.00017 (J)	0.00017 (J)
10/17/2019				<0.0005		
10/18/2019	<0.0005	0.00016 (J)	0.00088 (J)			
3/4/2020			0.00093 (J)			
3/9/2020	<0.0005	0.00017 (J)		0.00021 (J)	0.00026 (J)	<0.0005
8/13/2020	<0.0005	0.00021 (J)	0.00084 (J)	0.00015 (J)	0.00021 (J)	<0.0005
9/23/2020			0.0008 (J)	0.00018 (J)	0.00024 (J)	<0.0005
9/24/2020	0.00027 (J)	0.00081 (J)				
3/8/2021			0.00072			
3/10/2021					<0.0005	<0.0005
3/11/2021	<0.0005	<0.0005		0.00053		
9/14/2021			0.00086			
9/15/2021		0.00021 (J)				
9/16/2021	0.00013 (J)			<0.0005	<0.0005	<0.0005
Mean	0.0003867	0.00034	0.0008047	0.000416	0.000388	0.0004169
Std. Dev.	0.0001705	0.0002553	0.0001178	0.0001495	0.0002332	0.0001502
Upper Lim.	0.0005	0.0005	0.0008845	0.00053	0.001	0.0005
Lower Lim.	0.00013	0.00017	0.0007248	0.00018	0.00017	0.0002

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	0.00059 (J)
9/25/2020	0.00027 (J)
3/8/2021	0.00027 (J)
9/13/2021	0.00029 (J)
Mean	0.000355
Std. Dev.	0.000157
Upper Lim.	0.00059
Lower Lim.	0.00027

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			<0.005			
9/8/2016	<0.005	<0.005				
12/7/2016	<0.005	<0.005				
12/8/2016			<0.005			
3/30/2017	<0.005	<0.005	0.0007 (J)			
3/31/2017				0.0005 (J)		<0.005
5/12/2017				0.0007 (J)	<0.005	<0.005
6/16/2017				<0.005	<0.005	<0.005
7/13/2017	<0.005	<0.005	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017					<0.005	
10/26/2017	0.0007 (J)	0.0005 (J)	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017						<0.005
3/1/2018	<0.005	<0.005				
3/2/2018			<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<0.005	<0.005			
7/13/2018				<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/28/2019	<0.005	<0.005	0.00061 (J)	<0.005	<0.005	0.00049 (J)
10/16/2019					<0.005	<0.005
10/17/2019				<0.005		
10/18/2019	<0.005	0.00092 (J)	0.00078 (J)			
3/4/2020			0.0011 (J)			
3/9/2020	<0.005	0.00044 (J)		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00058 (J)	<0.005	0.00072 (J)	<0.005	<0.005	<0.005
9/23/2020			0.0011 (J)	<0.005	<0.005	0.0011 (J)
9/24/2020	<0.005	<0.005				
3/8/2021			0.0006 (J)			
3/10/2021					<0.005	0.0009 (J)
3/11/2021	<0.005	<0.005		0.0014 (J)		
9/14/2021			0.0021 (J)			
9/15/2021		<0.005				
9/16/2021	<0.005			<0.005	0.0014 (J,o)	<0.005
10/27/2021					<0.005	
Mean	0.004419	0.004124	0.002267	0.003899	0.0047	0.003981
Std. Dev.	0.001534	0.001816	0.002034	0.001899	0.001162	0.001829
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0007	0.00092	0.00061	0.00088	0.0005	0.0011

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-62
1/30/2019		<0.005
9/11/2019		<0.005
10/21/2019		0.00098 (J)
8/13/2020		<0.005
8/17/2020	<0.005	
9/24/2020		<0.005
9/25/2020	0.00094 (J)	
3/8/2021	0.00057 (J)	
3/12/2021		<0.005
9/9/2021		<0.005
9/13/2021	<0.005	
Mean	0.002877	0.004426
Std. Dev.	0.002456	0.001519
Upper Lim.	0.001223	0.005
Lower Lim.	0.0003828	0.00098

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0382		
9/8/2016	<0.005	0.0015 (J)	0.0068 (J)			
12/7/2016	0.0005 (J)	0.0017 (J)	0.0071 (J)			
12/8/2016				0.0318		
3/30/2017	<0.005	0.0016 (J)	0.006 (J)	0.0364		
3/31/2017					0.0064 (J)	
5/12/2017					0.0037 (J)	0.0015 (J)
6/16/2017					0.0041 (J)	0.0003 (J)
7/13/2017	0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)
8/8/2017						<0.005
10/26/2017	0.0003 (J)	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)	<0.005
3/1/2018	<0.005	<0.005	<0.005			
3/2/2018				0.0425	<0.005	<0.005
7/12/2018	<0.005	0.0015 (J)	0.0059 (J)	0.044		
7/13/2018					0.0017 (J)	<0.005
11/8/2018	<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)	<0.005
8/28/2019	<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)	<0.005
10/16/2019						<0.005
10/17/2019					0.0013 (J)	
10/18/2019	<0.005	0.0016 (J)	0.007	0.043		
3/4/2020				0.055		
3/9/2020	<0.005	0.0016 (J)	0.007		0.0015 (J)	<0.005
8/13/2020	<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)	<0.005
9/23/2020				0.046	0.0011 (J)	<0.005
9/24/2020	<0.005	0.0013 (J)				
9/25/2020			0.0061			
3/8/2021				0.039		
3/10/2021						<0.005
3/11/2021	<0.005	0.0017 (J)	0.0058		0.0016 (J)	
9/14/2021				0.05		
9/15/2021		0.0016 (J)				
9/16/2021	<0.005				0.0012 (J)	0.0032 (J,o)
9/17/2021			0.0076			
10/27/2021						<0.005
Mean	0.004073	0.002353	0.006633	0.04176	0.003087	0.004153
Std. Dev.	0.001919	0.002296	0.001136	0.005898	0.002508	0.00177
Upper Lim.	0.005	0.0017	0.007286	0.04576	0.003862	0.005
Lower Lim.	0.0005	0.0015	0.005895	0.03776	0.001505	0.0015

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	0.0022 (J)	
5/12/2017	0.0016 (J)	
6/16/2017	0.0009 (J)	
7/13/2017	0.0004 (J)	
10/26/2017	0.0031 (J)	
11/15/2017	0.0028 (J)	
3/2/2018	<0.005	
7/13/2018	<0.005	
11/8/2018	<0.005	
1/30/2019		<0.005
8/28/2019	<0.005	
9/11/2019		0.0003 (J)
10/16/2019	<0.005	
10/21/2019		0.00031 (J)
3/9/2020	<0.005	
8/13/2020	<0.005	<0.005
9/23/2020	<0.005	
9/24/2020		<0.005
3/10/2021	<0.005	
3/12/2021		<0.005
9/9/2021		<0.005
9/16/2021	<0.005	
Mean	0.003812	0.003659
Std. Dev.	0.001698	0.002291
Upper Lim.	0.005	0.005
Lower Lim.	0.0016	0.0003

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				1.44		
9/8/2016	0.827 (U)	1.48	1.44			
12/7/2016	0.56 (U)	0.22 (U)	2.16			
12/8/2016				2.56		
3/30/2017	0.302 (U)	0.519 (U)	0.264 (U)	0.0844 (U)		
3/31/2017					0.404 (U)	
5/12/2017					0.206 (U)	1.18
6/16/2017					0.966 (U)	0.332 (U)
7/13/2017	0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)	0.304 (U)
8/8/2017						1.4
10/26/2017	1.04 (U)	1.13 (U)	0.875 (U)	0.748 (U)	0.619 (U)	0.477 (U)
3/1/2018	0.344 (U)	0.985 (U)	1.24			
3/2/2018				0.485 (U)	1.31	1.13
7/12/2018	0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)		
7/13/2018					0.667 (U)	0.407 (U)
11/8/2018	0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)	0.393 (U)
8/28/2019	1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)	1.77
10/16/2019						2.12
1/6/2020	2.01	0.527 (U)	1.4	1.6	0.965 (U)	
3/4/2020				1.62		
3/9/2020	0.499 (U)	1.04	1.36		0.819 (U)	1.33
8/13/2020	0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)	1.46
9/23/2020				1.28 (U)	0.131 (U)	0.563 (U)
9/24/2020	1.03 (U)	0.593 (U)				
9/25/2020			0.181 (U)			
3/8/2021				0.714 (U)		
3/10/2021						0.568 (U)
3/11/2021	0.956 (U)	0.0784 (U)	0.969 (U)		1.55	
9/14/2021				1.8		
9/15/2021		2.37				
9/16/2021	0.691 (U)				0.201 (U)	1.74
9/17/2021			0.911 (U)			
Mean	0.8273	0.7931	1.012	1.079	0.7189	1.012
Std. Dev.	0.4247	0.5907	0.5031	0.6893	0.4089	0.6109
Upper Lim.	1.115	1.193	1.353	1.546	0.996	1.426
Lower Lim.	0.5395	0.3928	0.6709	0.6118	0.4419	0.5976

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	1.39	
5/12/2017	1.29	
6/16/2017	1.61	
7/13/2017	1.14	
10/26/2017	2.04	
11/15/2017	1.99	
3/2/2018	0.918 (U)	
7/13/2018	1.36 (U)	
11/8/2018	0.719 (U)	
1/30/2019		1.97 (U)
8/28/2019	1.38	
10/16/2019	0.826 (U)	
10/21/2019		1.82
3/9/2020	1.39	
8/13/2020	2.66	1.63
9/23/2020	1.8	
9/24/2020		1.28 (U)
3/10/2021	1.6	
3/12/2021		1.18 (U)
9/9/2021		1.7
9/16/2021	2.06	
Mean	1.511	1.597
Std. Dev.	0.5122	0.3082
Upper Lim.	1.844	2.02
Lower Lim.	1.178	1.173

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.5		
9/8/2016	0.08 (J)	0.1 (J)	0.17 (J)			
12/7/2016	0.21 (J)	0.27 (J)	0.33			
12/8/2016				0.35		
3/30/2017	0.05 (J)	0.12 (J)	0.17 (J)	0.21 (J)		
3/31/2017					0.02 (J)	
5/12/2017					<0.1	0.37
6/16/2017					0.03 (J)	0.12 (J)
7/13/2017	0.06 (J)	0.13 (J)	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)
8/8/2017						0.11 (J)
10/26/2017	0.08 (J)	0.47	0.54	0.5	<0.1	0.11 (J)
3/1/2018	0.22	<0.1	0.13			
3/2/2018				0.33	<0.1	0.23
7/12/2018	0.32	0.23 (J)	0.13 (J)	0.57		
7/13/2018					0.25 (J)	0.099 (J)
11/8/2018	<0.1	<0.1	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)
3/13/2019	0.08 (J)	0.084 (J)	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)
8/28/2019	0.074 (J)	0.066 (J)	0.086 (J)	0.14	<0.1	0.1
10/16/2019						0.093 (J)
10/17/2019					0.038 (J)	
10/18/2019	0.075 (J)	0.073 (J)	0.14 (J)	0.13 (J)		
3/4/2020				0.11 (J)		
3/9/2020	0.054 (J)	0.064 (J)	0.075 (J)		<0.1	0.082 (J)
8/13/2020	0.068 (J)	0.06 (J)	0.076 (J)	0.16	<0.1	0.076 (J)
9/23/2020				0.054 (J)	<0.1	0.07 (J)
9/24/2020	0.061 (J)	0.057 (J)				
9/25/2020			0.086 (J)			
3/8/2021				0.17		
3/10/2021						0.07 (J)
3/11/2021	0.057 (J)	0.058 (J)	0.083 (J)		<0.1	
9/14/2021				0.13		
9/15/2021		0.06 (J)				
9/16/2021	0.084 (J)				0.069 (J)	0.55
9/17/2021			0.13			
Mean	0.1014	0.1214	0.1576	0.2409	0.08794	0.1544
Std. Dev.	0.07777	0.1131	0.1194	0.1592	0.1217	0.1295
Upper Lim.	0.21	0.23	0.17	0.3219	0.07	0.23
Lower Lim.	0.054	0.057	0.083	0.1358	0.038	0.076

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-62
3/31/2017	0.16 (J)	
5/12/2017	0.12 (J)	
6/16/2017	0.16 (J)	
7/13/2017	0.13 (J)	
10/26/2017	0.29 (J)	
11/15/2017	0.28 (J)	
3/2/2018	0.18	
7/13/2018	0.19 (J)	
11/8/2018	<0.3 (J)	
1/30/2019		0.43
3/13/2019	0.086 (J)	
8/28/2019	0.07 (J)	
10/16/2019	0.13 (J)	
10/21/2019		0.23 (J)
3/9/2020	0.068 (J)	
8/13/2020	0.084 (J)	0.11
9/23/2020	0.064 (J)	
9/24/2020		0.093 (J)
3/10/2021	0.055 (J)	
3/12/2021		0.11
9/9/2021		0.14
9/16/2021	0.11	
Mean	0.1369	0.1855
Std. Dev.	0.06963	0.1295
Upper Lim.	0.1805	0.3546
Lower Lim.	0.09325	0.06003

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				<0.001		
9/8/2016	<0.001	<0.001	<0.001			
12/7/2016	<0.001	<0.001	<0.001			
12/8/2016				<0.001		
3/30/2017	0.0014 (J)	<0.001	<0.001	7E-05 (J)		
3/31/2017					<0.001	
5/12/2017					9E-05 (J)	<0.001
6/16/2017					<0.001	<0.001
7/13/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2017						<0.001
10/26/2017	<0.001	0.0001 (J)	<0.001	7E-05 (J)	<0.001	<0.001
3/1/2018	<0.001	<0.001	<0.001			
3/2/2018				<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001		
7/13/2018					<0.001	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/28/2019	6.1E-05 (J)	<0.001	8E-05 (J)	8.1E-05 (J)	<0.001	<0.001
10/16/2019						<0.001
10/17/2019					<0.001	
10/18/2019	<0.001	7.4E-05 (J)	<0.001	0.00015 (J)		
3/4/2020				0.00017 (J)		
3/9/2020	<0.001	6.1E-05 (J)	<0.001		4.7E-05 (J)	<0.001
8/13/2020	<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)	<0.001
9/23/2020				0.00028 (J)	<0.001	0.00035 (J)
9/24/2020	<0.001	0.00014 (J)				
9/25/2020			0.00022 (J)			
3/8/2021				5.4E-05 (J)		
3/10/2021						6.7E-05 (J)
3/11/2021	<0.001	0.00014 (J)	<0.001		0.00025 (J)	
9/14/2021				<0.001		
9/15/2021		<0.001				
9/16/2021	<0.001				<0.001	<0.001
9/17/2021			<0.001			
Mean	0.0009641	0.000701	0.0008867	0.0005283	0.0007629	0.0008945
Std. Dev.	0.0002702	0.0004381	0.0003003	0.0004602	0.0004094	0.0002836
Upper Lim.	0.0014	0.001	0.001	0.001	0.001	0.001
Lower Lim.	6.1E-05	0.0001	0.00022	7E-05	9E-05	0.00035

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-100
3/31/2017	<0.001	
5/12/2017	0.0001 (J)	
6/16/2017	<0.001	
7/13/2017	<0.001	
10/26/2017	<0.001	
11/15/2017	9E-05 (J)	
3/2/2018	<0.001	
7/13/2018	<0.001	
11/8/2018	<0.001	
8/28/2019	<0.001	
10/16/2019	<0.001	
3/9/2020	9E-05 (J)	
8/13/2020	5.9E-05 (J)	
8/17/2020		8.8E-05 (J)
9/23/2020	0.00017 (J)	
9/25/2020		0.00021 (J)
3/8/2021		0.00018 (J)
3/10/2021	0.0001 (J)	
9/13/2021		<0.001
9/16/2021	<0.001	
Mean	0.0006631	0.0003695
Std. Dev.	0.0004498	0.0004235
Upper Lim.	0.001	0.0003036
Lower Lim.	9E-05	5.528E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0022 (J)			
9/8/2016	<0.03	0.0032 (J)				
12/7/2016	<0.03	0.0035 (J)				
12/8/2016			<0.03			
3/30/2017	0.0029 (J)	0.0035 (J)	0.0023 (J)			
3/31/2017				0.0052 (J)		0.0031 (J)
5/12/2017				0.0054 (J)	0.0016 (J)	0.003 (J)
6/16/2017				0.0048 (J)	<0.03	0.0031 (J)
7/13/2017	<0.03	0.0032 (J)	0.0023 (J)	0.0044 (J)	<0.03	0.0029 (J)
8/8/2017					<0.03	
10/26/2017	0.0018 (J)	0.0034 (J)	0.0021 (J)	0.0043 (J)	<0.03	0.0034 (J)
11/15/2017						0.0034 (J)
3/1/2018	0.0024 (J)	0.0033 (J)				
3/2/2018			0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0028 (J)	0.0034 (J)	0.0022 (J)			
7/13/2018				0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
8/28/2019	0.0025 (J)	0.0034 (J)	0.0022 (J)	0.0046 (J)	<0.03	0.0024 (J)
10/16/2019					<0.03	0.0032 (J)
10/17/2019				0.0047 (J)		
10/18/2019	0.0026 (J)	0.0032 (J)	0.0024 (J)			
3/4/2020			0.0027 (J)			
3/9/2020	0.0017 (J)	0.0033 (J)		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	0.0023 (J)	0.0028 (J)	0.0022 (J)	0.0044 (J)	<0.03	0.0031 (J)
9/23/2020			0.0022 (J)	0.0043 (J)	<0.03	0.0023 (J)
9/24/2020	0.0021 (J)	0.0029 (J)				
3/8/2021			0.0022 (J)			
3/10/2021					<0.03	0.0023 (J)
3/11/2021	0.0024 (J)	0.003 (J)		0.005 (J)		
9/14/2021			0.003 (J)			
9/15/2021		0.0029 (J)				
9/16/2021	0.0021 (J)			0.0044 (J)	0.00082 (J)	0.0023 (J)
Mean	0.009707	0.005	0.00602	0.00634	0.02616	0.004525
Std. Dev.	0.01267	0.00692	0.009739	0.006555	0.01013	0.006804
Upper Lim.	0.03	0.0035	0.003	0.0052	0.03	0.0032
Lower Lim.	0.0021	0.0029	0.0022	0.0043	0.0016	0.0024

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-62
1/30/2019		<0.03
9/11/2019		0.0078 (J)
10/21/2019		0.0078 (J)
8/13/2020		0.0087 (J)
8/17/2020	0.0013 (J)	
9/24/2020		0.0084 (J)
9/25/2020	0.0027 (J)	
3/8/2021	0.0024 (J)	
3/12/2021		0.0087 (J)
9/9/2021		0.0094 (J)
9/13/2021	0.0022 (J)	
Mean	0.00215	0.01154
Std. Dev.	0.0006028	0.008158
Upper Lim.	0.003519	0.03
Lower Lim.	0.0007815	0.0078

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				4.4E-05 (J)		
9/8/2016	<0.0002	<0.0002	<0.0002			
12/7/2016	<0.0002	<0.0002	<0.0002			
12/8/2016				<0.0002		
3/30/2017	6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)		
3/31/2017					<0.0002	
5/12/2017					<0.0002	<0.0002
6/16/2017					7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2017						<0.0002
10/26/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2018	<0.0002	<0.0002	<0.0002			
3/2/2018				<0.0002	<0.0002	<0.0002
7/12/2018	4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)		
7/13/2018					<0.0002	<0.0002
11/8/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019						<0.0002
10/17/2019					<0.0002	
10/18/2019	<0.0002	<0.0002	<0.0002	<0.0002		
3/4/2020				<0.0002		
3/9/2020	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/23/2020				<0.0002	<0.0002	<0.0002
9/24/2020	9.1E-05 (J)	8.5E-05 (J)				
9/25/2020			<0.0002			
9/14/2021				<0.0002		
9/15/2021		<0.0002				
9/16/2021	<0.0002				<0.0002	<0.0002
9/17/2021			<0.0002			
Mean	0.0001711	0.0001711	0.0001899	0.0001699	0.0001907	0.0001907
Std. Dev.	5.824E-05	5.818E-05	3.768E-05	6.064E-05	3.474E-05	3.474E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	9.1E-05	8.5E-05	5.9E-05	9E-05	7E-05	7E-05

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69
3/31/2017	<0.0002
5/12/2017	<0.0002
6/16/2017	7E-05 (J)
7/13/2017	<0.0002
10/26/2017	<0.0002
11/15/2017	<0.0002
3/2/2018	<0.0002
7/13/2018	<0.0002
11/8/2018	<0.0002
8/28/2019	<0.0002
10/16/2019	<0.0002
3/9/2020	<0.0002
8/13/2020	<0.0002
9/23/2020	<0.0002
9/16/2021	<0.0002
Mean	0.0001913
Std. Dev.	3.357E-05
Upper Lim.	0.0002
Lower Lim.	7E-05

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-68A	DGWC-69
9/8/2016	<0.01		
12/7/2016	<0.01		
3/30/2017	0.0011 (J)		
3/31/2017			0.0124
5/12/2017		0.275	0.0117
6/16/2017		0.19	0.0087 (J)
7/13/2017	0.0012 (J)	0.211	0.0053 (J)
8/8/2017		0.207	
10/26/2017	0.0011 (J)	0.226	0.0244
11/15/2017			0.0237
3/1/2018	<0.01		
3/2/2018		0.215	0.0072 (J)
7/12/2018	<0.01		
7/13/2018		0.22	0.007 (J)
11/8/2018	<0.01	0.2	<0.01 (J)
8/28/2019	<0.01	0.21	0.0059 (J)
10/16/2019		0.22	0.01
10/18/2019	<0.01		
3/9/2020	0.001 (J)	0.19	0.0062 (J)
8/13/2020	0.00098 (J)	0.19	0.011
9/23/2020		0.2	0.0056 (J)
9/24/2020	0.001 (J)		
3/10/2021		0.2	0.0056 (J)
3/11/2021	0.00092 (J)		
9/15/2021	0.00099 (J)		
9/16/2021		0.18	0.009 (J)
Mean	0.005219	0.2089	0.01023
Std. Dev.	0.004629	0.02252	0.005862
Upper Lim.	0.01	0.2226	0.01236
Lower Lim.	0.00099	0.1942	0.006699

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	B-100
9/2/2016		0.0019 (J)			
9/8/2016	<0.005				
12/7/2016	<0.005				
12/8/2016		0.0022 (J)			
3/30/2017	<0.005	0.0023 (J)			
3/31/2017			<0.005		
5/12/2017			<0.005	<0.005	
6/16/2017			<0.005	<0.005	
7/13/2017	<0.005	0.0025 (J)	<0.005	<0.005	
8/8/2017				<0.005	
10/26/2017	<0.005	0.0036 (J)	<0.005	<0.005	
3/1/2018	<0.005				
3/2/2018		<0.005	<0.005	<0.005	
7/12/2018	<0.005	<0.005			
7/13/2018			<0.005	<0.005	
11/8/2018	<0.005	<0.01 (J)	<0.005	<0.005	
8/28/2019	<0.005	0.0017 (J)	<0.005	<0.005	
10/16/2019				<0.005	
10/17/2019			<0.005		
10/18/2019	<0.005	0.0027 (J)			
3/4/2020		0.0049 (J)			
3/9/2020	<0.005		<0.005	<0.005	
8/13/2020	<0.005	0.0018 (J)	<0.005	<0.005	
8/17/2020					<0.005
9/23/2020		0.0067 (J)	<0.005	<0.005	
9/24/2020	<0.005				
9/25/2020					<0.005
3/8/2021		0.0023 (J)			0.0019 (J)
3/10/2021				0.0017 (J)	
3/11/2021	0.0019 (J)		0.0027 (J)		
9/13/2021					<0.005
9/14/2021		0.0015 (J)			
9/15/2021	<0.005				
9/16/2021			<0.005	<0.005	
Mean	0.004793	0.003607	0.004847	0.00478	0.004225
Std. Dev.	0.0008004	0.002356	0.0005939	0.0008521	0.00155
Upper Lim.	0.005	0.003517	0.005	0.005	0.005
Lower Lim.	0.0019	0.001857	0.0027	0.0017	0.0019

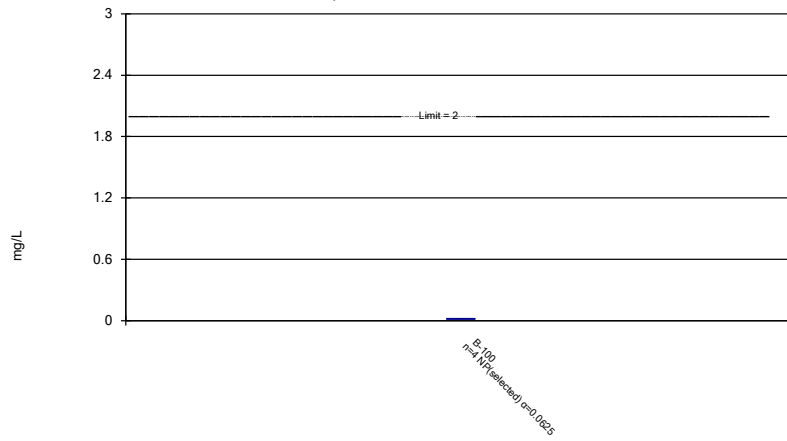
Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-68A
9/2/2016			<0.001	
9/8/2016	<0.001	<0.001		
12/7/2016	<0.001	<0.001		
12/8/2016			<0.001	
3/30/2017	0.0001 (J)	0.0001 (J)	6E-05 (J)	
5/12/2017				<0.001
6/16/2017				<0.001
7/13/2017	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001
8/8/2017				<0.001
10/26/2017	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001
3/1/2018	<0.001	<0.001		
3/2/2018			<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	
7/13/2018				0.00015 (J)
11/8/2018	<0.001	<0.001	<0.001	<0.001
8/28/2019	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001
10/16/2019				<0.001
10/18/2019	0.0001 (J)	<0.001	<0.001	
3/4/2020			6.8E-05 (J)	
3/9/2020	0.00016 (J)	7.1E-05 (J)		<0.001
8/13/2020	0.00016 (J)	<0.001	<0.001	<0.001
9/23/2020			<0.001	<0.001
9/24/2020	0.00015 (J)			
9/25/2020		<0.001		
3/8/2021			<0.001	
3/10/2021				<0.001
3/11/2021	<0.001	<0.001		
9/14/2021			<0.001	
9/15/2021	<0.001			
9/16/2021				<0.001
9/17/2021		<0.001		
Mean	0.000534	0.0006953	0.0006885	0.0009433
Std. Dev.	0.0004517	0.0004461	0.0004559	0.0002195
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.0001	9E-05	6.8E-05	0.00015

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

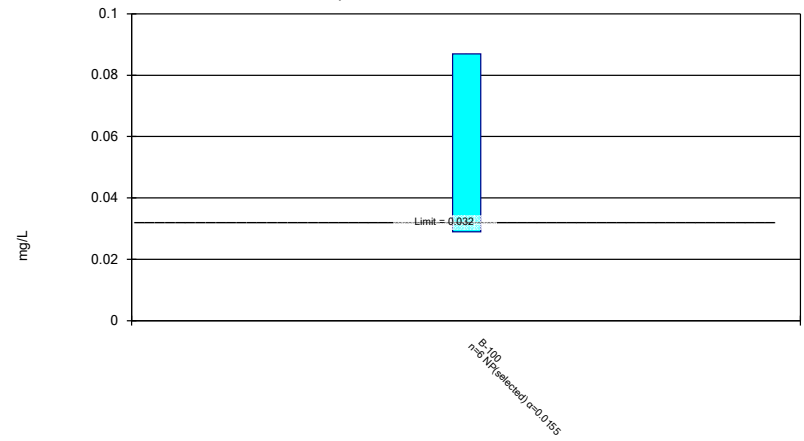


Normality testing disabled.

Constituent: Barium Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

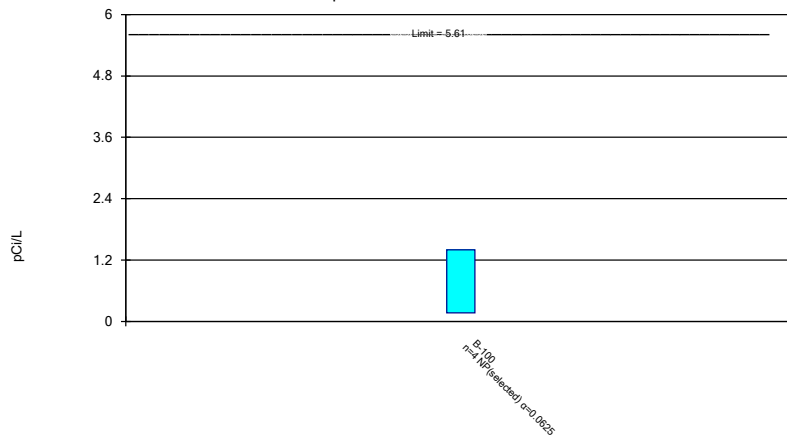


Normality testing disabled.

Constituent: Cobalt Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Normality testing disabled.

Constituent: Combined Radium 226 + 228 Analysis Run 12/16/2021 2:31 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	0.015
9/25/2020	0.022
3/8/2021	0.022
9/13/2021	0.021
Mean	0.02
Std. Dev.	0.003367
Upper Lim.	0.022
Lower Lim.	0.015

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
7/23/2020	0.086
8/3/2020	0.087
8/17/2020	0.077
9/25/2020	0.034
3/8/2021	0.029
9/13/2021	0.035
Mean	0.058
Std. Dev.	0.02804
Upper Lim.	0.087
Lower Lim.	0.029

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/16/2021 2:32 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	1.4 (U)
9/25/2020	0.799 (U)
3/8/2021	0.168 (U)
9/13/2021	0.774 (U)
Mean	0.7853
Std. Dev.	0.5031
Upper Lim.	1.4
Lower Lim.	0.168

FIGURE K.

Appendix IV Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/8/2021, 11:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	DGWA-53 (bg)	-0.005485	-77	-53	Yes	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.002343	56	53	Yes	15	0	n/a	n/a	0.01	NP

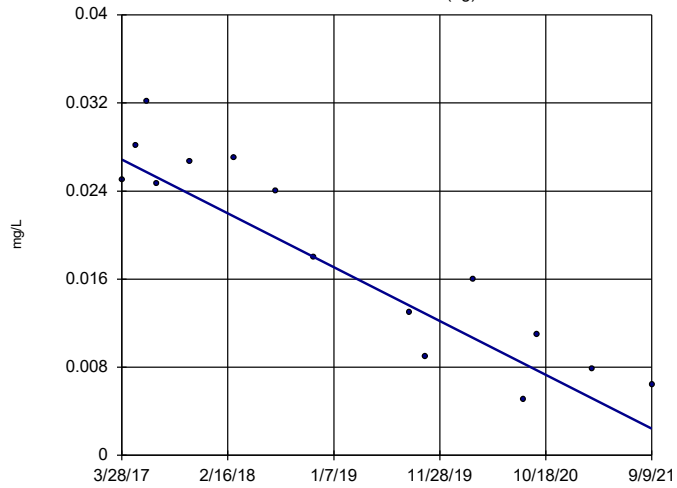
Appendix IV Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/8/2021, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	11	53	No	15	66.67	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-4	-53	No	15	93.33	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	9	48	No	14	85.71	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWC-69	0.00508	52	63	No	17	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.005485	-77	-53	Yes	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-70A (bg)	0	13	53	No	15	46.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-71 (bg)	0	35	48	No	14	64.29	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.002343	56	53	Yes	15	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.002607	-25	-53	No	15	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	13	48	No	14	92.86	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWC-68A	-0.006801	-42	-53	No	15	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

DGWA-53 (bg)

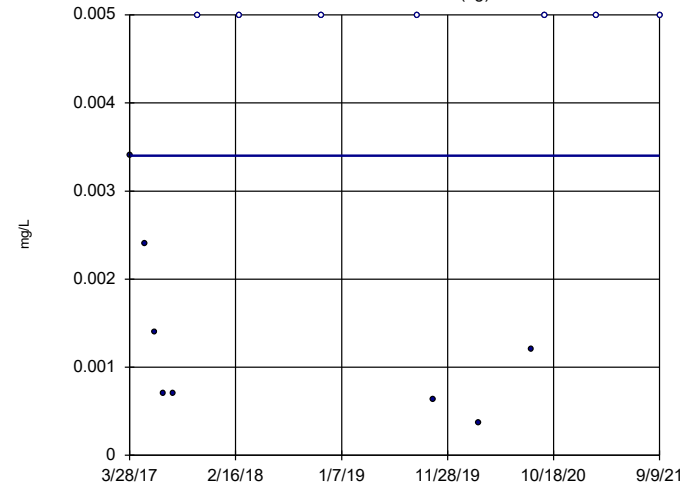


n = 15
 Slope = -0.005485 units per year.
 Mann-Kendall statistic = -77
 critical = -53
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/8/2021 10:58 AM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)



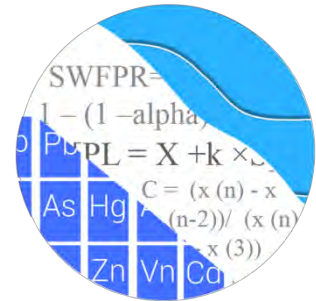
APPENDIX E

**Statistical Analysis
January 2022**

GROUNDWATER STATS CONSULTING

July 29, 2022

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374



Re: Plant McDonough Ash Pond (AP-1)
January 2022 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the January 2022 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of groundwater data for Georgia Power Company's Plant McDonough AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. The delineation wells were installed at various times since 2020 and have limited data. Semi-annual sampling of the majority of Appendix IV constituents has been performed for the groundwater monitoring wells 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 wells:** DGWA-53, DGWA-70A, and DGWA-71
- **Downgradient wells:** DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, and DGWC-69
- **Delineation wells:** B-62, B-100, B-105D, B-112D, and B-113D

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician of Groundwater Stats Consulting. The analysis is prepared according to the recommended statistical methodology prepared in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance.

The Coal Combustion Residual (CCR) 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 delineation 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. Note that due to flooding in well DGWC-68A during the September 2021 sample event, this well was, reportedly, re-developed and resamples were collected in October 2021 for arsenic, barium, chromium, cobalt, and pH. While the September 2021 reported results remain in the database for this well, these measurements were flagged as outliers. 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 method was 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. Non-detects are handled as follows:

- 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 the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion

of data may require deselection 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 are used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified, and the reports were submitted with the screening. In cases where the most recent value was identified as an outlier, values were not flagged in the database at that time 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 laboratory's 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.

Of the outliers identified by Tukey's method, only a few of these values were flagged in the database as all other values are similar to remaining measurements within a given well or neighboring wells or were non-detects.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. When the reporting limit was higher than the Regional Screening Levels discussed below, non-detects were substituted with one half the reporting limit.

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 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, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any 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 were included with the previous screening and showed two statistically significant decreasing trends for the Appendix III parameters. The only trend identified in the upgradient wells was a statistically significant decreasing trend for sulfate in well DGWA-71. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets.

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 are not representative of the current background data population; 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 which would indicate intrawell analyses may be most appropriate for these parameters. 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.

Statistical Analysis of Appendix III Parameters – January 2022

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through January 2022 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The January 2022 sample event from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result. Therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Several prediction limit exceedances were noted for Appendix III parameters. A summary table of the interwell prediction limits follows this letter.

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 to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells. Similar patterns that are present in both upgradient and downgradient wells are an indication of natural variability in groundwater quality, unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Chloride: DGWC-67

Decreasing trends:

- Calcium: DGWA-53 (upgradient)
- Chloride: DGWA-53 (upgradient) and DGWC-39
- Sulfate: DGWA-70A (upgradient), DGWA-71 (upgradient), DGWC-39, DGWC-40, and DGWC-68A
- TDS: DGWA-53 (upgradient)

Statistical Analysis of Appendix IV Parameters – January 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. Downgradient well/constituent pairs that have 100% non-detects do not require analysis. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis prior to constructing statistical limits. No new values were flagged during this analysis and a complete list of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through January 2022 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for combined radium. 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 accordance with the state requirements in each downgradient well (Figure H). Note that confidence intervals require a minimum of 4 samples and, in many cases, the delineation wells had insufficient samples at this time. The Sanitas software was used to calculate the tolerance limits and the confidence intervals.

Due to the required transformations to fit the data to a transformed normal distribution, the lower confidence limits resulted in negative numbers for some well/constituent pairs. Therefore, non-parametric confidence intervals, which are bound by reported high and low measurements within a given well, were constructed for these particular cases and may be found at the end of Figure H. This is a more conservative approach in that the lower confidence limit reflects the lowest reported measurement in the data set rather than a negative number.

Confidence intervals were 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. A summary of the confidence intervals follows this letter. Exceedances were noted for the following well/constituent pairs:

- Arsenic: DGWC-69
- Cobalt: DGWC-40
- Molybdenum: DGWC-68A

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. 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. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- None

Decreasing

- Cobalt: DGWA-53 (upgradient)

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for McDonough Ash Pond 1. 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 & Delineation

Analysis Run 4/13/2022 3:42 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Antimony (mg/L)

DGWC-37, DGWC-38, DGWC-39

Arsenic (mg/L)

B-100

Beryllium (mg/L)

DGWC-39, DGWC-67, B-105D, B-112D, B-113D

Cadmium (mg/L)

DGWC-39, B-105D, B-112D, B-62

Chromium (mg/L)

DGWC-39

Cobalt (mg/L)

B-113D

Fluoride, total (mg/L)

B-100

Lead (mg/L)

B-62

Lithium (mg/L)

DGWC-39

Mercury (mg/L)

B-112D, B-113D, B-62

Molybdenum (mg/L)

DGWC-37, DGWC-39, DGWC-40, DGWC-67, B-100, B-62

Selenium (mg/L)

DGWC-37, DGWC-39, DGWC-69, B-105D, B-112D, B-113D, B-62

Thallium (mg/L)

DGWC-37, DGWC-67, DGWC-69, B-100, B-105D, B-112D, B-113D, B-62

Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:38 PM

Constituent	Well	Upper Lim.	Lower LimDate	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method	
Boron, total (mg/L)	DGWC-37	0.13	n/a	1/21/2022	1.4	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	1/21/2022	2.8	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	1/20/2022	2.8	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	1/19/2022	0.82	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	1/19/2022	4.1	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	1/25/2022	2.2	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	1/21/2022	64.4	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	1/21/2022	91	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	1/20/2022	96.2	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	1/19/2022	44.7	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	1/19/2022	48.8	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	1/25/2022	60.4	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-38	5.9	n/a	1/21/2022	8.5	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-39	5.9	n/a	1/20/2022	8	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-40	5.9	n/a	1/19/2022	16.5	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-67	5.9	n/a	1/19/2022	8.3	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-40	6.557	5.231	1/19/2022	4.66	Yes	53	5.894	0.3426	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.34	n/a	1/21/2022	89.8	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-38	28.34	n/a	1/21/2022	188	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-39	28.34	n/a	1/20/2022	123	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-40	28.34	n/a	1/19/2022	177	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-67	28.34	n/a	1/19/2022	97.2	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-68A	28.34	n/a	1/25/2022	36.3	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	259.9	n/a	1/21/2022	316	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	259.9	n/a	1/21/2022	482	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	259.9	n/a	1/20/2022	416	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	259.9	n/a	1/19/2022	336	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	259.9	n/a	1/19/2022	272	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2

Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:38 PM

Constituent	Well	Upper Lim.	Lower Lim	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	DGWC-37	0.13	n/a	1/21/2022	1.4	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	1/21/2022	2.8	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	1/20/2022	2.8	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	1/19/2022	0.82	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	1/19/2022	4.1	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	1/25/2022	2.2	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-69	0.13	n/a	1/25/2022	0.035J	No	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	1/21/2022	64.4	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	1/21/2022	91	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	1/20/2022	96.2	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	1/19/2022	44.7	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	1/19/2022	48.8	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	1/25/2022	60.4	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-69	40.3	n/a	1/25/2022	9.2	No	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-37	5.9	n/a	1/21/2022	5.7	No	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-38	5.9	n/a	1/21/2022	8.5	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-39	5.9	n/a	1/20/2022	8	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-40	5.9	n/a	1/19/2022	16.5	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-67	5.9	n/a	1/19/2022	8.3	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-68A	5.9	n/a	1/25/2022	3.8	No	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-69	5.9	n/a	1/25/2022	5.4	No	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	DGWC-37	0.42	n/a	1/21/2022	0.053J	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-38	0.42	n/a	1/21/2022	0.1	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-39	0.42	n/a	1/20/2022	0.1	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-40	0.42	n/a	1/19/2022	0.12	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-67	0.42	n/a	1/19/2022	0.1ND	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-68A	0.42	n/a	1/25/2022	0.067J	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-69	0.42	n/a	1/25/2022	0.054J	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
pH, Field (SU)	DGWC-37	6.557	5.231	1/21/2022	6.31	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-38	6.557	5.231	1/21/2022	6.08	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-39	6.557	5.231	1/20/2022	6.52	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-40	6.557	5.231	1/19/2022	4.66	Yes	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-67	6.557	5.231	1/19/2022	6.21	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-68A	6.557	5.231	1/25/2022	6.53	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-69	6.557	5.231	1/25/2022	6.02	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.34	n/a	1/21/2022	89.8	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-38	28.34	n/a	1/21/2022	188	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-39	28.34	n/a	1/20/2022	123	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-40	28.34	n/a	1/19/2022	177	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-67	28.34	n/a	1/19/2022	97.2	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-68A	28.34	n/a	1/25/2022	36.3	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-69	28.34	n/a	1/25/2022	7.1	No	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	259.9	n/a	1/21/2022	316	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	259.9	n/a	1/21/2022	482	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	259.9	n/a	1/20/2022	416	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	259.9	n/a	1/19/2022	336	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	259.9	n/a	1/19/2022	272	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	259.9	n/a	1/25/2022	259	No	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	259.9	n/a	1/25/2022	84	No	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	DGWA-53 (bg)	-4.275	-63	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1763	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.2147	-56	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.5287	85	53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.216	-55	-53	Yes	15	40	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.312	-82	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-24.97	-70	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-40	-10.15	-55	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-68A	-3.353	-78	-53	Yes	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-23.75	-68	-53	Yes	15	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	DGWA-53 (bg)	-0.002527	-24	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-70A (bg)	0	28	53	No	15	53.33	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-71 (bg)	0.0001023	5	48	No	14	21.43	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-37	-0.08919	-44	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-38	-0.0398	-28	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-39	-0.1188	-52	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-40	-0.03325	-52	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-67	0.07702	40	53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-68A	-0.07376	-28	-53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-53 (bg)	-4.275	-63	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-70A (bg)	-0.06518	-19	-53	No	15	6.667	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-71 (bg)	-0.5623	-35	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-37	0.7766	24	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-38	3.089	53	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-39	0.8605	17	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-40	0.6005	34	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-67	1.018	45	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-68A	1.76	49	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1763	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-70A (bg)	-0.079	-43	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-71 (bg)	0.1515	25	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-38	0.1416	39	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.2147	-56	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-40	-0.301	-46	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.5287	85	53	Yes	15	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-53 (bg)	0.02528	14	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02535	-32	-63	No	17	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.00911	13	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02087	-29	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-53 (bg)	-0.9208	-30	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.216	-55	-53	Yes	15	40	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.312	-82	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-37	-3.188	-42	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-38	-11.63	-52	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-24.97	-70	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-40	-10.15	-55	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-67	-0.6091	-26	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-68A	-3.353	-78	-53	Yes	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-23.75	-68	-53	Yes	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	0	-1	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-4.828	-41	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	-3.216	-13	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	1.225	7	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	-17.23	-53	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-3.39	-11	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	-3.971	-17	-53	No	15	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:39 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	47	n/a	n/a	80.85	n/a	n/a	0.08974	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0054	n/a	n/a	n/a	n/a	47	n/a	n/a	76.6	n/a	n/a	0.08974	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	47	n/a	n/a	0	n/a	n/a	0.08974	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0009	n/a	n/a	n/a	n/a	48	n/a	n/a	60.42	n/a	n/a	0.08526	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	47	n/a	n/a	93.62	n/a	n/a	0.08974	NP Inter(NDs)
Chromium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	46	n/a	n/a	63.04	n/a	n/a	0.09447	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	n/a	47	n/a	n/a	38.3	n/a	n/a	0.08974	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	4.983	n/a	n/a	n/a	n/a	49	1.109	0.5427	0	None	sqrt(x)	0.05	Inter
Fluoride, total (mg/L)	n/a	0.42	n/a	n/a	n/a	n/a	51	n/a	n/a	52.94	n/a	n/a	0.0731	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	47	n/a	n/a	80.85	n/a	n/a	0.08974	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	47	n/a	n/a	36.17	n/a	n/a	0.08974	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	47	n/a	n/a	85.11	n/a	n/a	0.08974	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	n/a	47	n/a	n/a	63.83	n/a	n/a	0.08974	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	47	n/a	n/a	100	n/a	n/a	0.08974	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	47	n/a	n/a	95.74	n/a	n/a	0.08974	NP Inter(NDs)

PLANT MCDONOUGH ASH POND 1 GWPS TABLE				
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		0.0054	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.032	0.032
Combined Radium, Total (pCi/L)	5		4.98	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:46 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-69	0.03779	0.01266	0.01	Yes	18	0.03334	0.04025	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04548	0.03807	0.032	Yes	16	0.04178	0.005698	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-68A	0.2241	0.1958	0.1	Yes	16	0.2103	0.02238	0	None	sqrt(x)	0.01	Param.

Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.003	0.0013	0.006	No	5	0.0024	0.0008337	60	None	No	0.031	NP (NDs)
Antimony (mg/L)	B-105D	0.0082	0.00069	0.006	No	4	0.003723	0.003177	50	None	No	0.0625	NP (selected)
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	8	0.002683	0.000898	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	15	0.002822	0.0006894	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.003	0.0023	0.006	No	15	0.002633	0.0008482	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	15	0.002675	0.0008633	86.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	16	0.002713	0.0006642	81.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	B-105D	0.0051	0.0025	0.01	No	4	0.0044	0.001268	50	None	No	0.0625	NP (normality)
Arsenic (mg/L)	B-62	0.005	0.0033	0.01	No	8	0.004787	0.000601	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	16	0.004806	0.000775	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	16	0.004719	0.001125	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.0007	0.01	No	16	0.002949	0.002142	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-40	0.005	0.0011	0.01	No	16	0.004084	0.001714	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0033	0.01	No	16	0.004345	0.00152	81.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	16	0.004787	0.00085	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-69	0.03779	0.01266	0.01	Yes	18	0.03334	0.04025	0	None	ln(x)	0.01	Param.
Barium (mg/L)	B-100	0.02464	0.01515	2	No	5	0.0206	0.003209	0	None	x^3	0.01	Param.
Barium (mg/L)	B-105D	0.04828	0.02572	2	No	4	0.037	0.004967	0	None	No	0.01	Param.
Barium (mg/L)	B-62	0.02672	0.02003	2	No	8	0.02338	0.003159	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1092	0.08877	2	No	16	0.099	0.01572	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.03341	0.03211	2	No	16	0.03276	0.001001	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-39	0.09578	0.08459	2	No	16	0.09019	0.008601	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.019	0.0168	2	No	16	0.01805	0.002535	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1113	0.0991	2	No	16	0.1052	0.009361	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.092	0.0859	2	No	16	0.08926	0.003733	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-69	0.09978	0.06642	2	No	17	0.0831	0.02661	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0005873	0.0003207	0.004	No	5	0.000454	0.00007956	0	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0005	0.000078	0.004	No	9	0.000202	0.0001705	22.22	None	No	0.002	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.00007	0.004	No	16	0.0003414	0.0002117	62.5	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	16	0.0004724	0.0001105	93.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003324	0.002926	0.004	No	16	0.003125	0.0003066	6.25	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	16	0.0004466	0.0001461	87.5	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000061	0.004	No	17	0.0003198	0.0002221	58.82	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	5	0.000402	0.0001718	0	None	No	0.031	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00013	0.005	No	16	0.0003938	0.0001672	68.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	16	0.0003313	0.0002491	18.75	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008819	0.0007331	0.005	No	16	0.0008075	0.0001144	12.5	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00018	0.005	No	16	0.0004213	0.000146	68.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.0002482	0.0001352	0.005	No	16	0.0003856	0.0002255	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	17	0.0004218	0.0001468	76.47	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.005	0.00057	0.1	No	5	0.003302	0.002329	60	None	No	0.031	NP (NDs)
Chromium (mg/L)	B-105D	0.005	0.0012	0.1	No	4	0.00405	0.0019	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	8	0.004497	0.001421	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	16	0.004455	0.001489	87.5	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	16	0.004179	0.001768	81.25	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.00061	0.1	No	16	0.002438	0.00208	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.00088	0.1	No	16	0.003967	0.001855	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	16	0.004719	0.001125	93.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0012	0.1	No	17	0.003823	0.001886	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.087	0.029	0.032	No	7	0.05457	0.02716	0	None	No	0.008	NP (normality)
Cobalt (mg/L)	B-105D	0.012	0.0042	0.032	No	4	0.007175	0.003365	0	None	No	0.0625	NP (selected)
Cobalt (mg/L)	B-62	0.005	0.0003	0.032	No	8	0.003826	0.002173	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	16	0.004131	0.001868	81.25	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	16	0.002312	0.002224	12.5	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.007203	0.00591	0.032	No	16	0.0066	0.001106	12.5	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04548	0.03807	0.032	Yes	16	0.04178	0.005698	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-67	0.005	0.0012	0.032	No	16	0.002962	0.002473	12.5	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	16	0.004206	0.001723	81.25	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0022	0.032	No	17	0.003882	0.001669	64.71	None	No	0.01	NP (NDs)

Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-100	1.4	0.168	5	No	5	0.782	0.4357	0	None	No	0.031	NP (selected)
Combined Radium 226 + 228 (pCi/L)	B-105D	3.021	0.769	5	No	4	1.895	0.496	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-62	1.951	1.275	5	No	7	1.613	0.2846	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.024	0.5176	5	No	16	0.797	0.4278	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	1.046	0.3294	5	No	16	0.749	0.5974	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.304	0.6149	5	No	16	0.9594	0.5295	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.563	0.6728	5	No	16	1.118	0.6838	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.9852	0.4694	5	No	16	0.7273	0.3964	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.74	0.332	5	No	16	0.9686	0.6148	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.798	1.144	5	No	17	1.471	0.5224	0	None	No	0.01	Param.
Fluoride, total (mg/L)	B-105D	0.32	0.058	4	No	4	0.1328	0.1251	0	None	No	0.0625	NP (normality)
Fluoride, total (mg/L)	B-62	0.43	0.093	4	No	7	0.1731	0.1226	0	None	No	0.008	NP (normality)
Fluoride, total (mg/L)	DGWC-37	0.084	0.054	4	No	17	0.09859	0.07622	5.882	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-38	0.13	0.058	4	No	17	0.1201	0.1096	11.76	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-39	0.17	0.085	4	No	17	0.1542	0.1164	5.882	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-40	0.3008	0.133	4	No	17	0.2338	0.1569	5.882	None	x^(1/3)	0.01	Param.
Fluoride, total (mg/L)	DGWC-67	0.069	0.038	4	No	17	0.08571	0.1182	52.94	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	DGWC-68A	0.15	0.076	4	No	17	0.1492	0.1272	5.882	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-69	0.1668	0.08778	4	No	18	0.1323	0.07032	5.556	None	sqrt(x)	0.01	Param.
Lead (mg/L)	B-100	0.0002658	0.00007745	0.015	No	5	0.0004956	0.0004626	40	Kaplan-Meier	x^(1/3)	0.01	Param.
Lead (mg/L)	B-105D	0.001	0.000052	0.015	No	4	0.000763	0.000474	75	Kaplan-Meier	No	0.0625	NP (NDs)
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	16	0.0009663	0.0002612	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.0001	0.015	No	16	0.0007197	0.0004298	68.75	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	16	0.0008938	0.0002915	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.00007	0.015	No	16	0.0005578	0.00046	50	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-67	0.001	0.00009	0.015	No	16	0.0007777	0.0003999	75	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	16	0.0009011	0.0002752	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.0001	0.015	No	17	0.0006829	0.0004431	64.71	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.003016	0.001264	0.04	No	5	0.00214	0.0005225	0	None	No	0.01	Param.
Lithium (mg/L)	B-105D	0.01585	0.01215	0.04	No	4	0.014	0.0008165	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.03	0.0078	0.04	No	8	0.01125	0.007598	12.5	None	No	0.004	NP (normality)
Lithium (mg/L)	DGWC-37	0.03	0.002	0.04	No	16	0.009225	0.01239	25	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0035	0.0029	0.04	No	16	0.004844	0.006714	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.003	0.0022	0.04	No	16	0.005794	0.009452	12.5	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.0052	0.0043	0.04	No	16	0.006231	0.006348	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	16	0.0264	0.009835	87.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0024	0.04	No	17	0.004412	0.006605	5.882	None	No	0.01	NP (normality)
Mercury (mg/L)	B-100	0.0002	0.00011	0.002	No	4	0.0001775	0.000045	75	None	No	0.0625	NP (NDs)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	15	0.000173	0.00005662	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	15	0.000173	0.00005656	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	15	0.0001906	0.00003641	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	15	0.0001719	0.00005895	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	16	0.0001919	0.0000325	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	B-105D	0.01	0.0011	0.1	No	4	0.007775	0.00445	75	None	No	0.0625	NP (NDs)
Molybdenum (mg/L)	B-113D	0.078	0.025	0.1	No	4	0.06275	0.02524	0	None	No	0.0625	NP (selected)
Molybdenum (mg/L)	DGWC-38	0.01	0.00099	0.1	No	16	0.004974	0.004578	43.75	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-68A	0.2241	0.1958	0.1	Yes	16	0.2103	0.02238	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	DGWC-69	0.0117	0.0057	0.1	No	17	0.009965	0.005781	5.882	None	No	0.01	NP (normality)
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	5	0.00438	0.001386	80	Kaplan-Meier	No	0.031	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	16	0.004806	0.000775	93.75	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003506	0.00187	0.05	No	16	0.003694	0.002302	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	16	0.004856	0.000575	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	16	0.004794	0.000825	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.0001	0.002	No	16	0.0005631	0.0004516	50	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-39	0.001	0.00009	0.002	No	16	0.0007144	0.0004376	68.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.000068	0.002	No	16	0.000708	0.0004473	68.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	16	0.0009469	0.0002125	93.75	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:53 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	DGWA-53 (bg)	-0.004889	-80	-58	Yes	16	0	n/a	n/a	0.01	NP

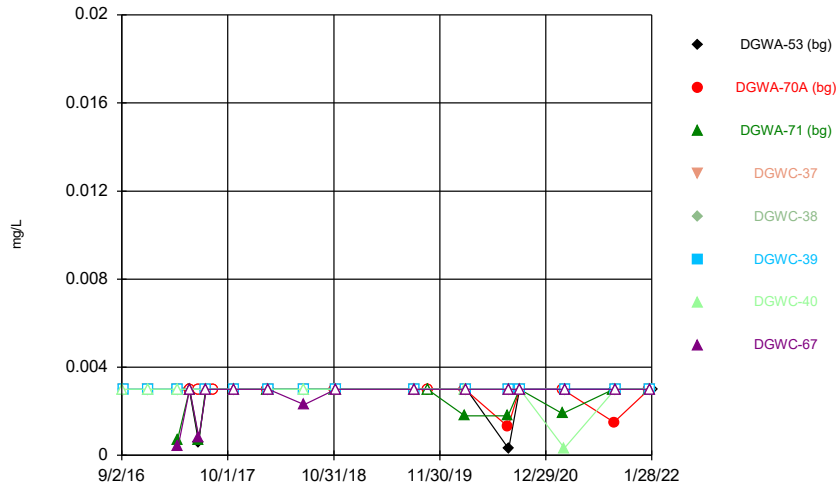
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:53 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	6	58	No	16	62.5	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-17	-58	No	16	87.5	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	23	53	No	15	80	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWC-69	0.004236	58	68	No	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.004889	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-70A (bg)	0	21	58	No	16	50	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-71 (bg)	0	40	53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.001968	55	58	No	16	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.002273	-29	-58	No	16	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	14	53	No	15	93.33	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWC-68A	-0.005652	-29	-58	No	16	0	n/a	n/a	0.01	NP

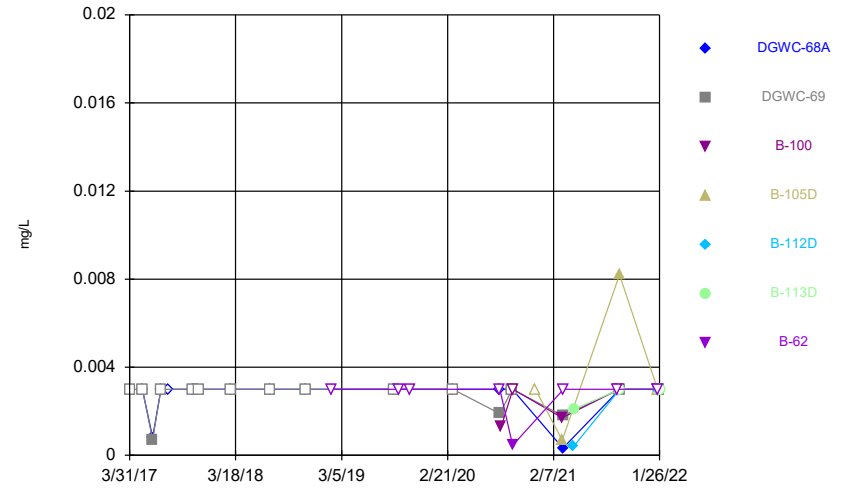
FIGURE A.

Time Series



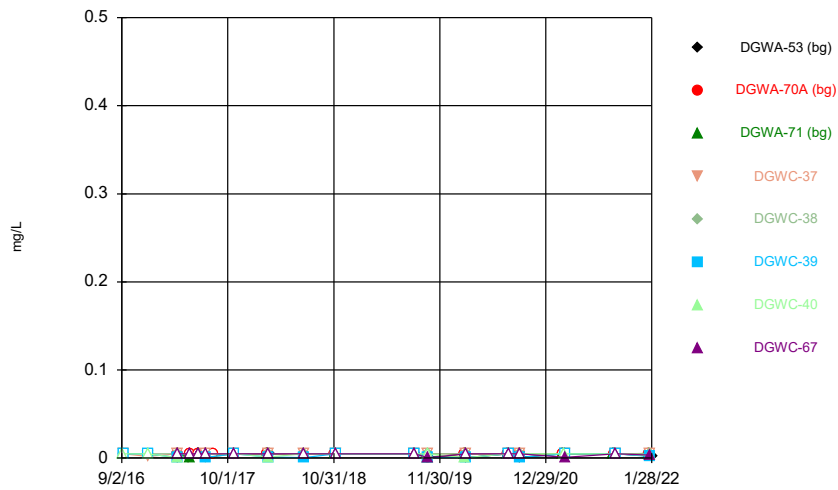
Constituent: Antimony Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



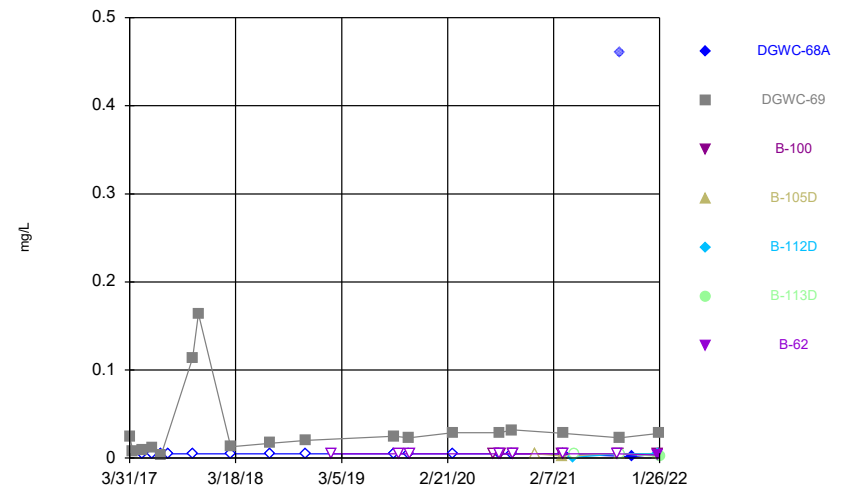
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



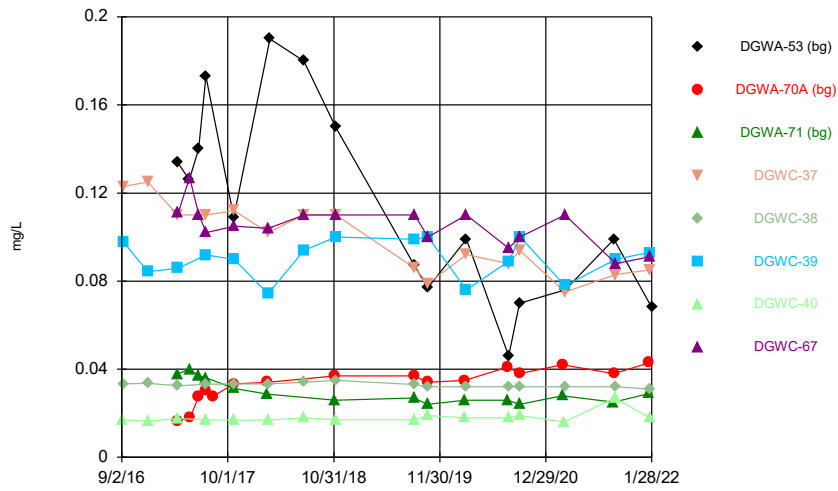
Constituent: Arsenic Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



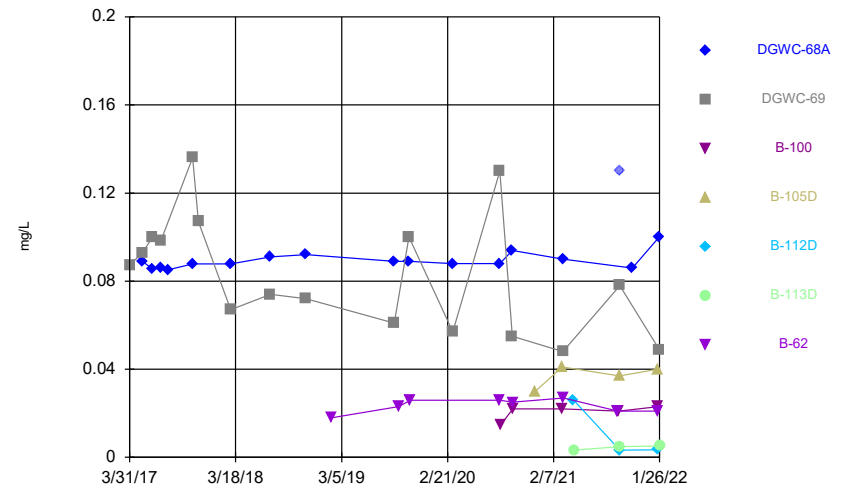
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



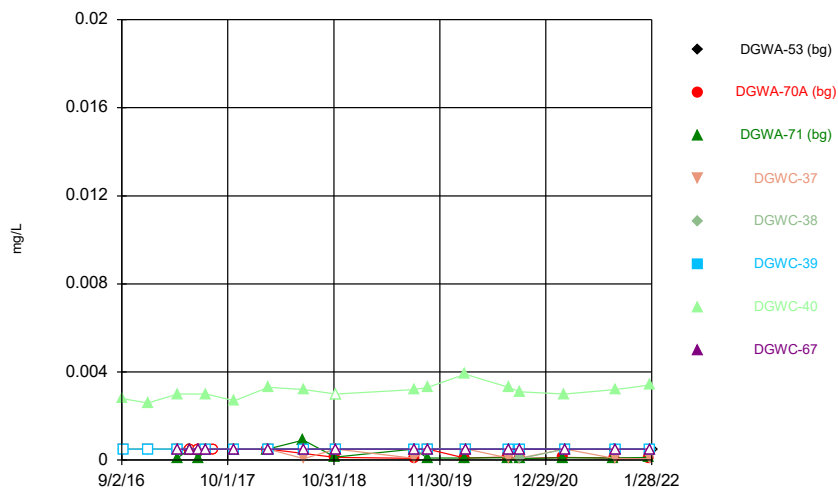
Constituent: Barium Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



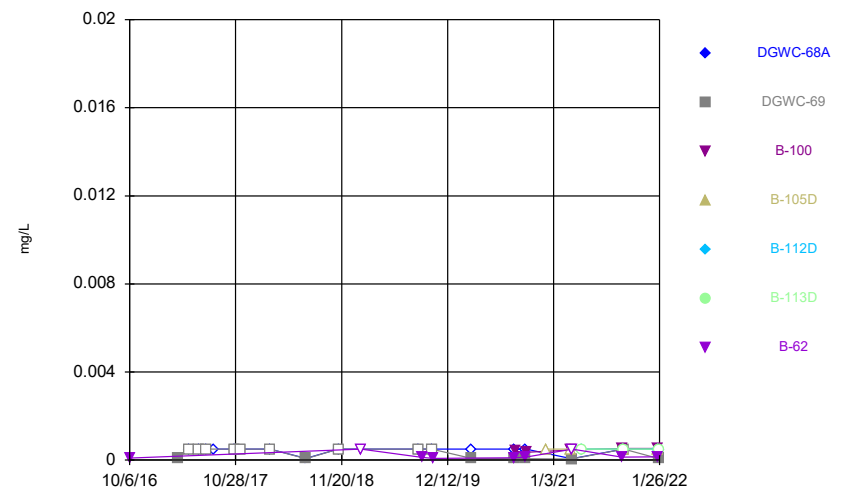
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



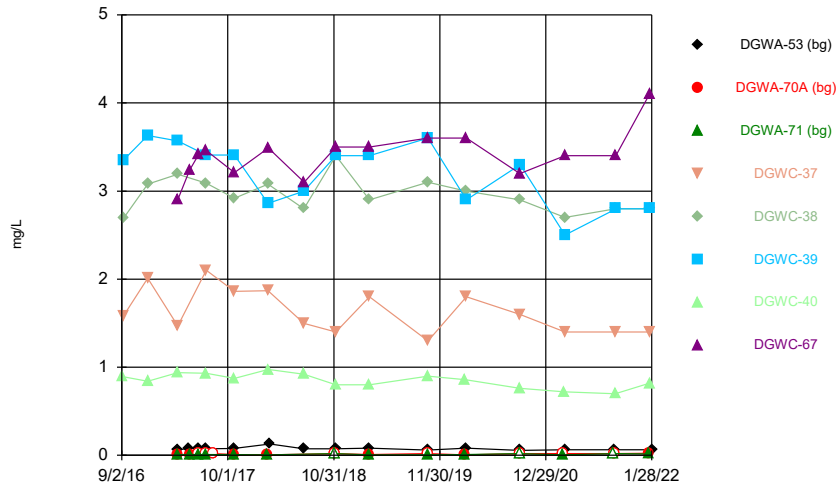
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



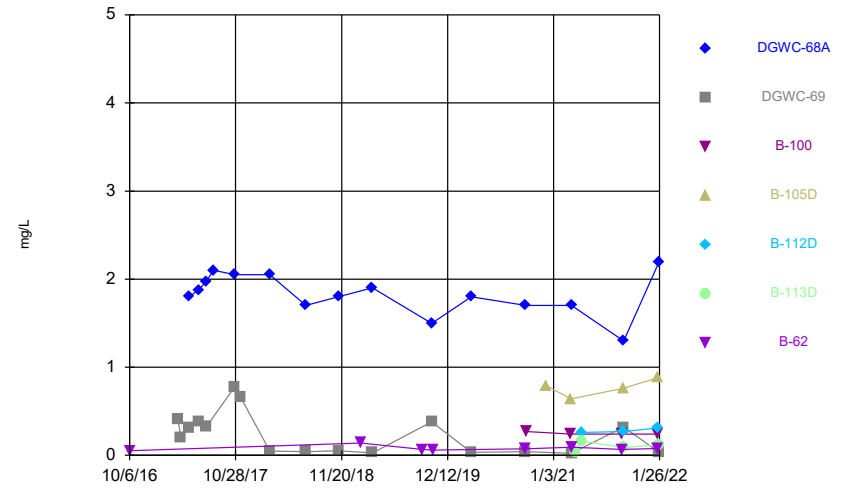
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



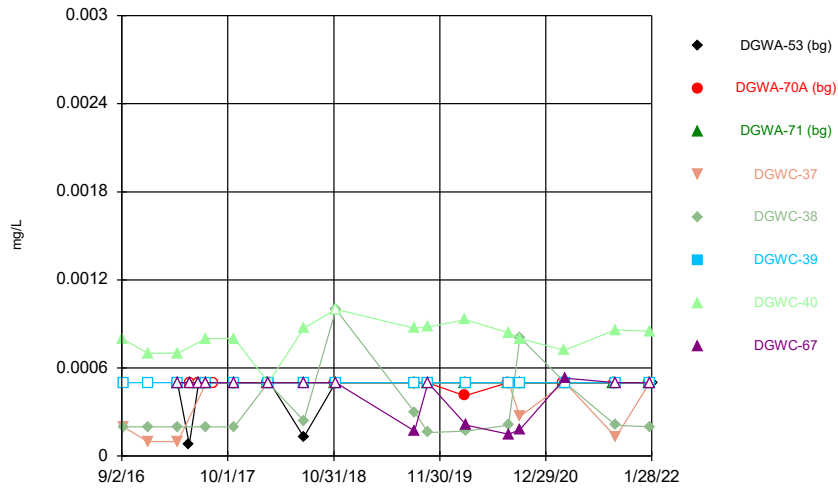
Constituent: Boron, total Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



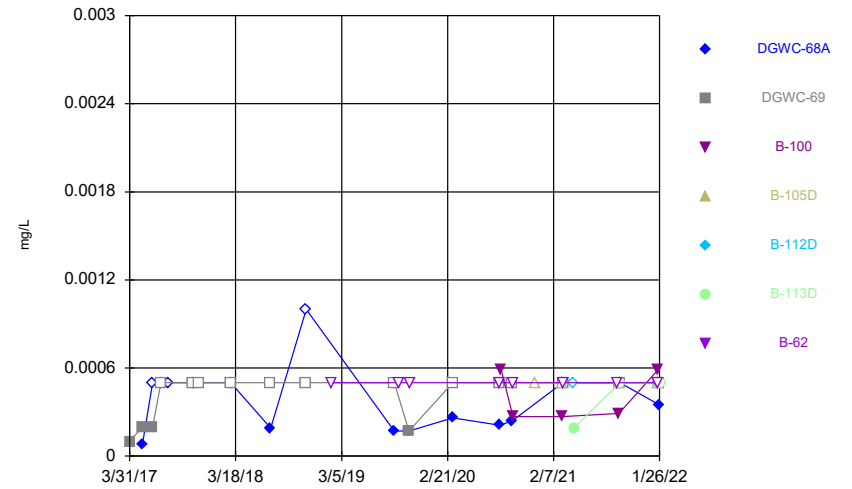
Constituent: Boron, total Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



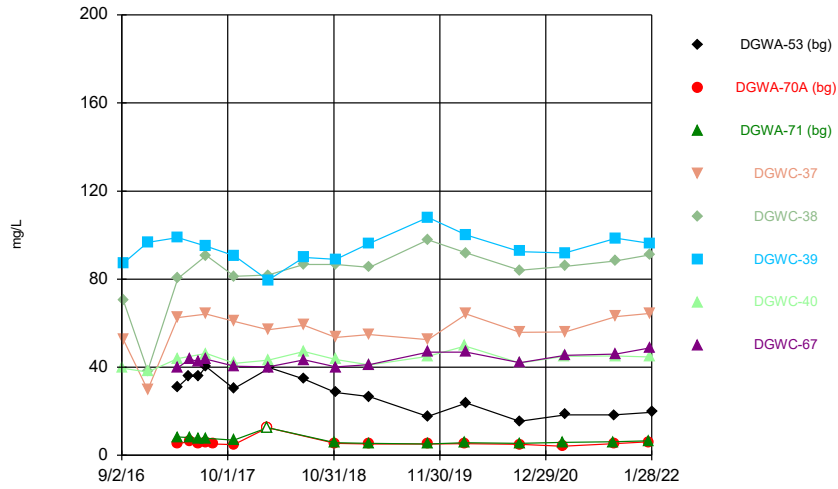
Constituent: Cadmium Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



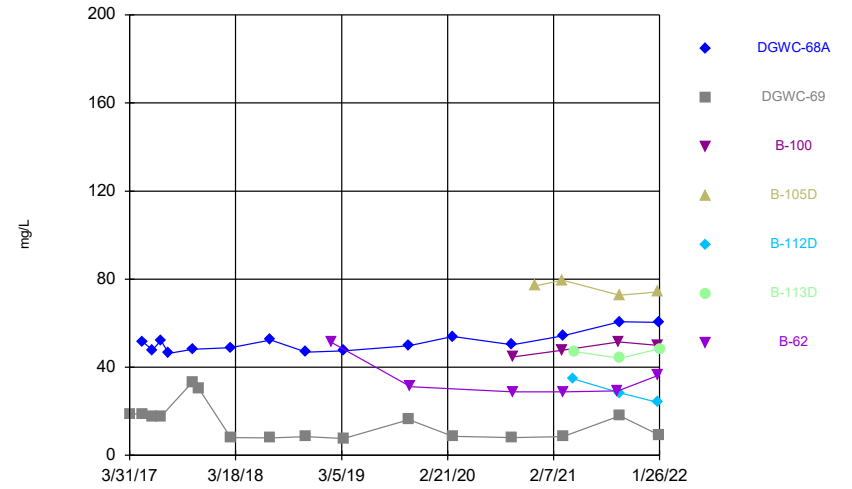
Constituent: Cadmium Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



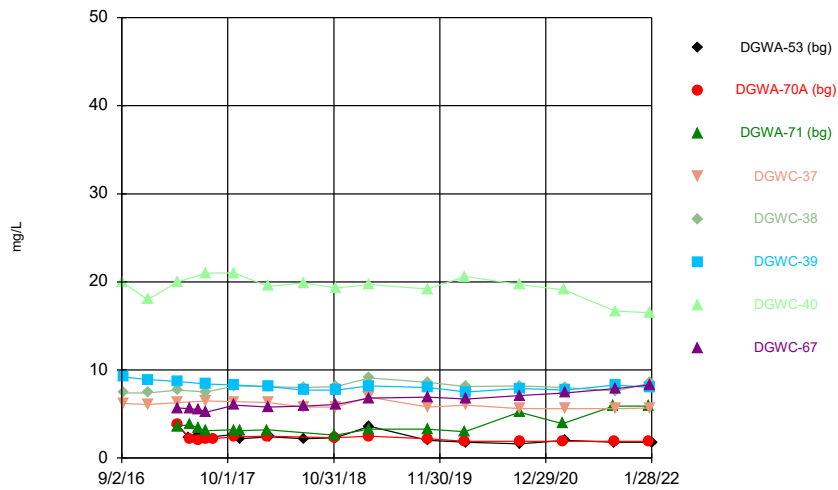
Constituent: Calcium, total Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



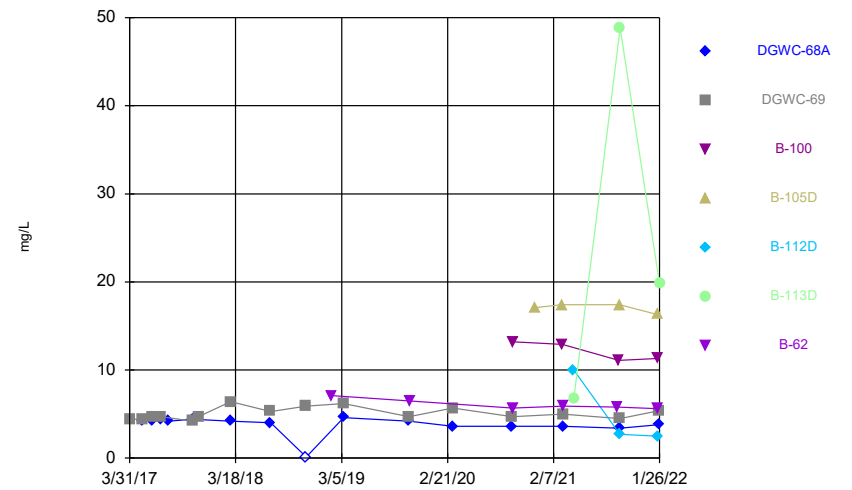
Constituent: Calcium, total Analysis Run 4/13/2022 3:30 PM View: AP 1
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Time Series



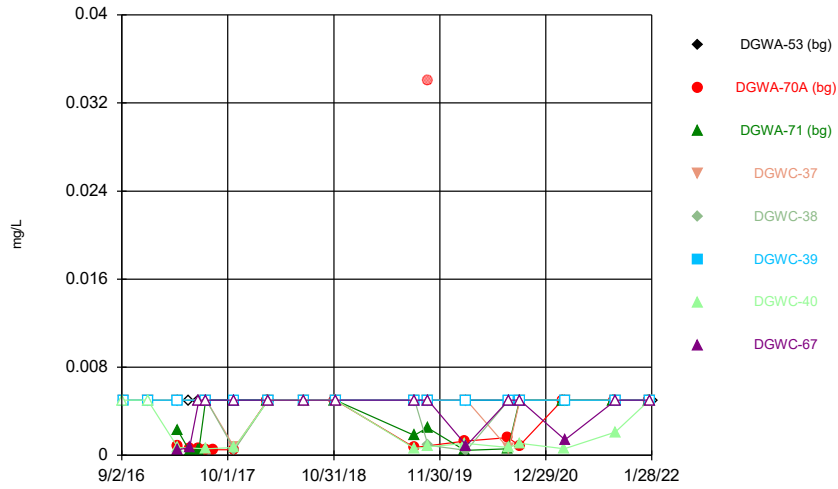
Constituent: Chloride, Total Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



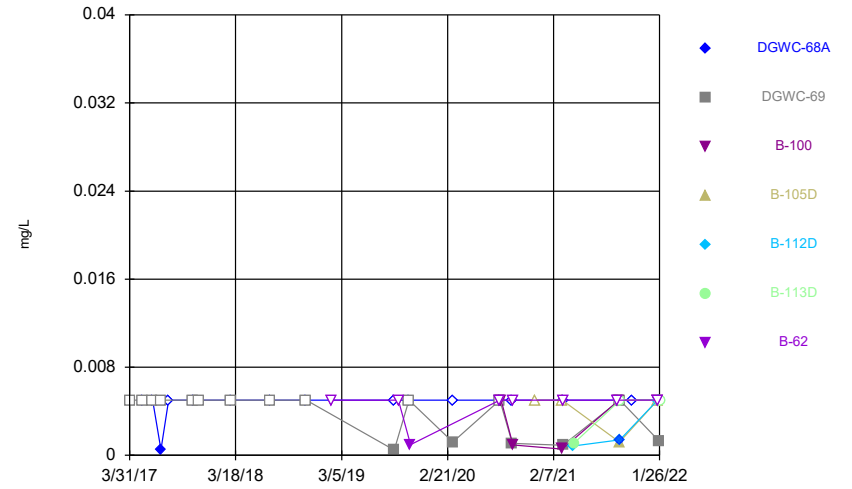
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



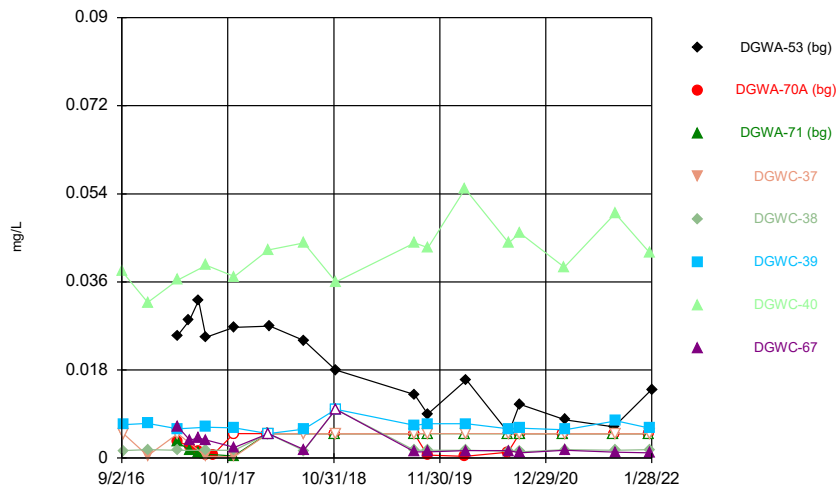
Constituent: Chromium Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



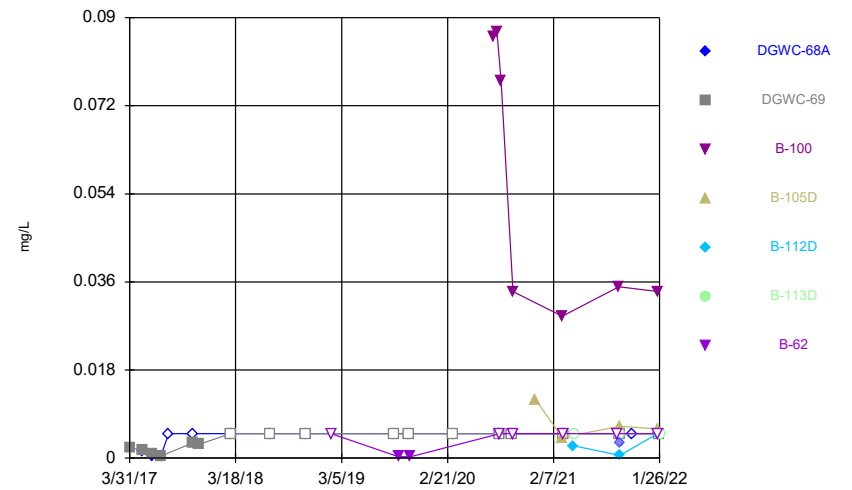
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



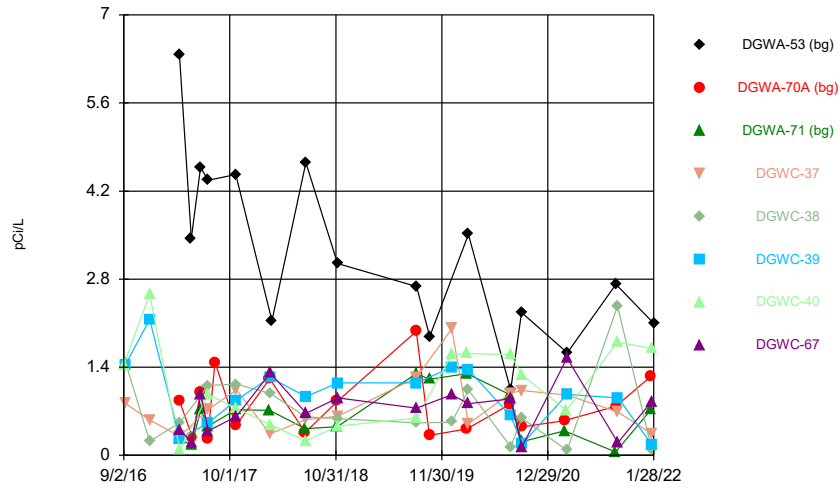
Constituent: Cobalt Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



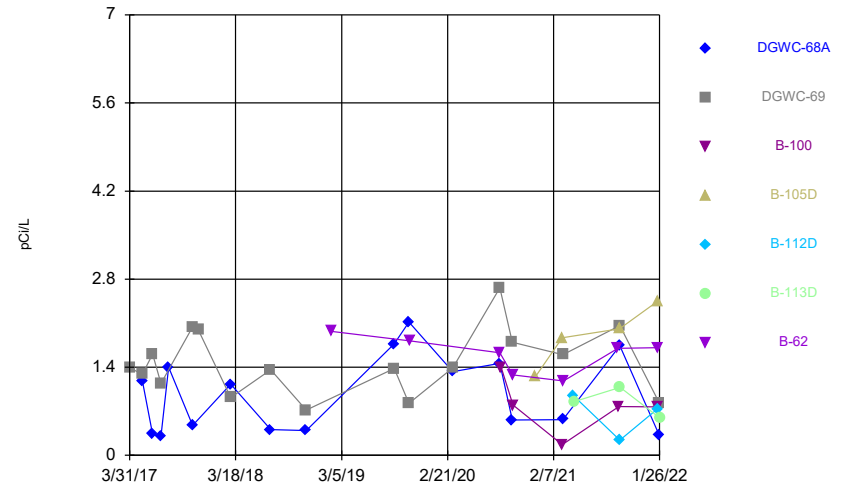
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



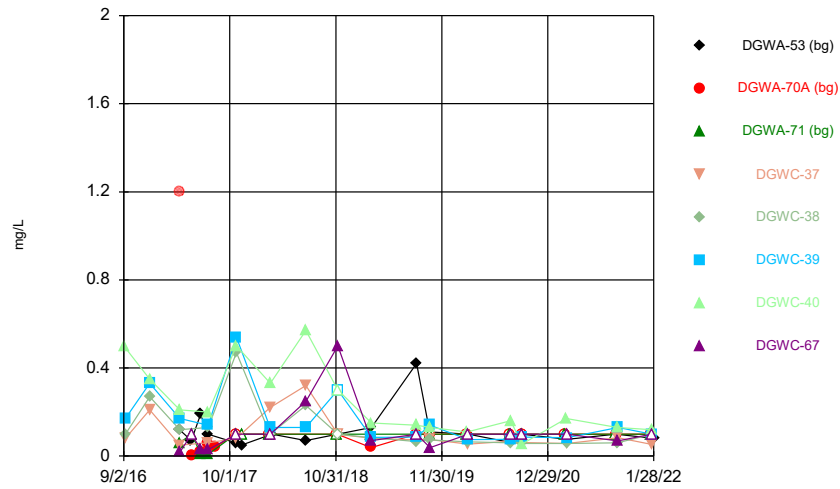
Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



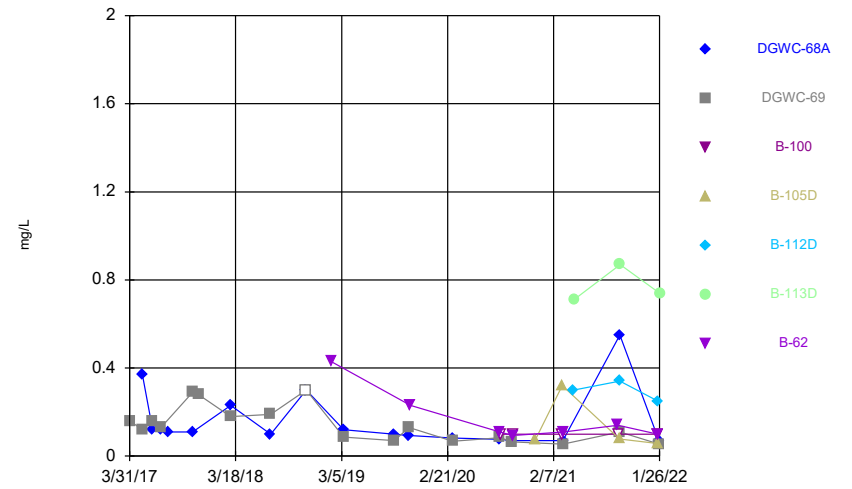
Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



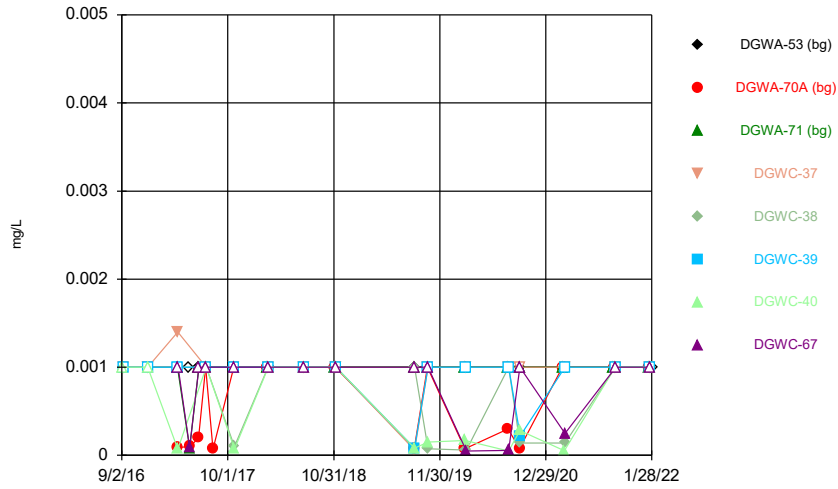
Constituent: Fluoride, total Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



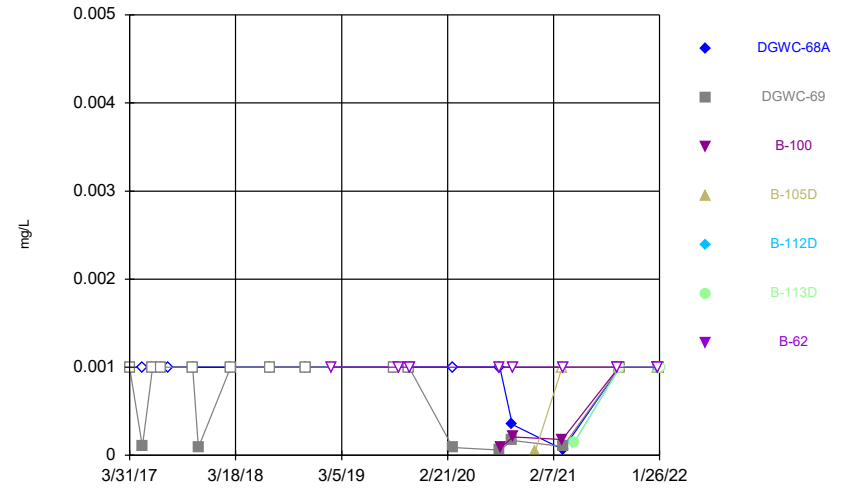
Constituent: Fluoride, total Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



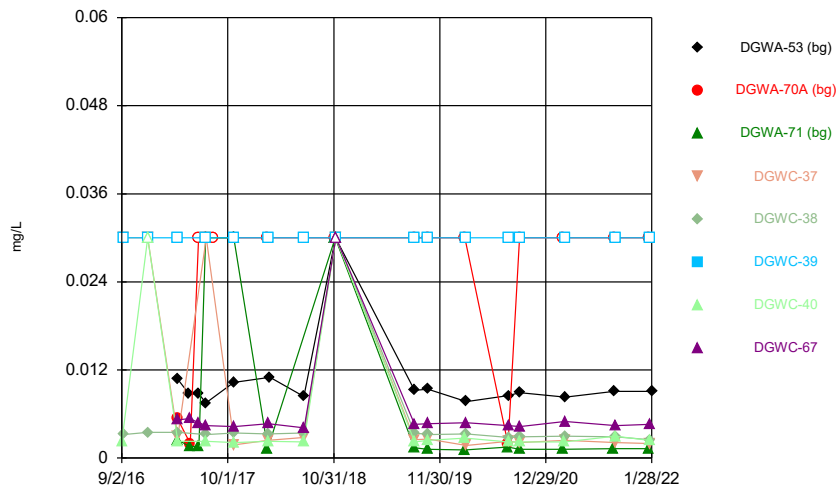
Constituent: Lead Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



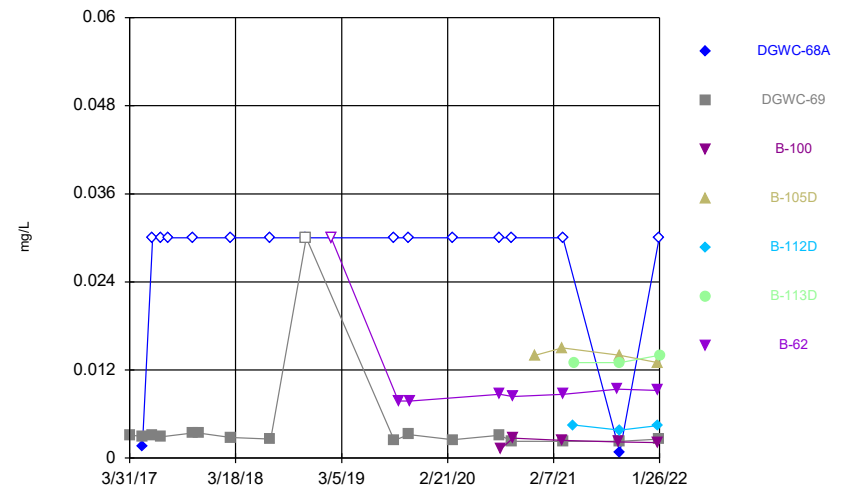
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



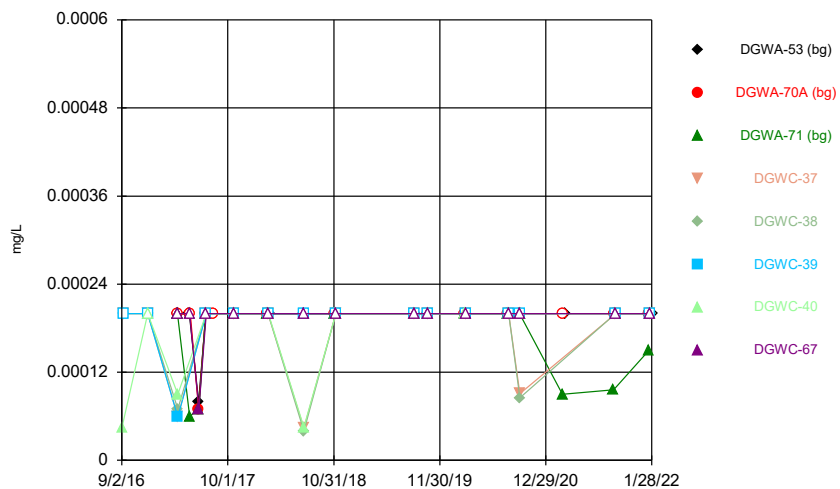
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



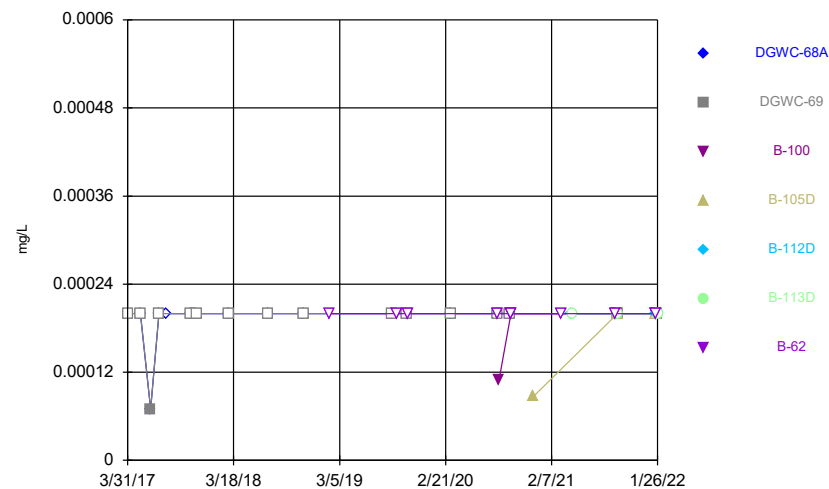
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



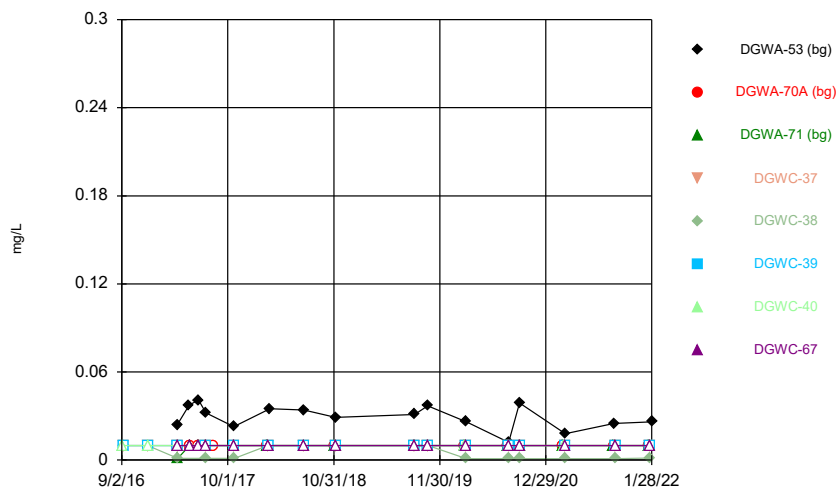
Constituent: Mercury Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



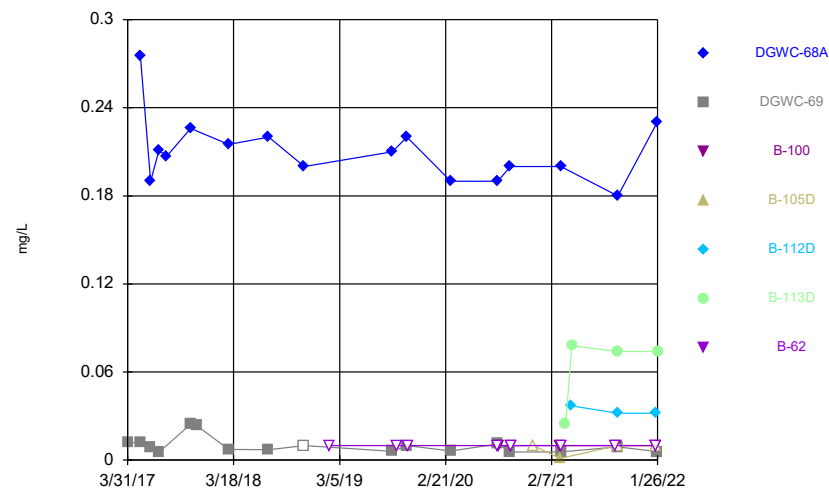
Constituent: Mercury Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



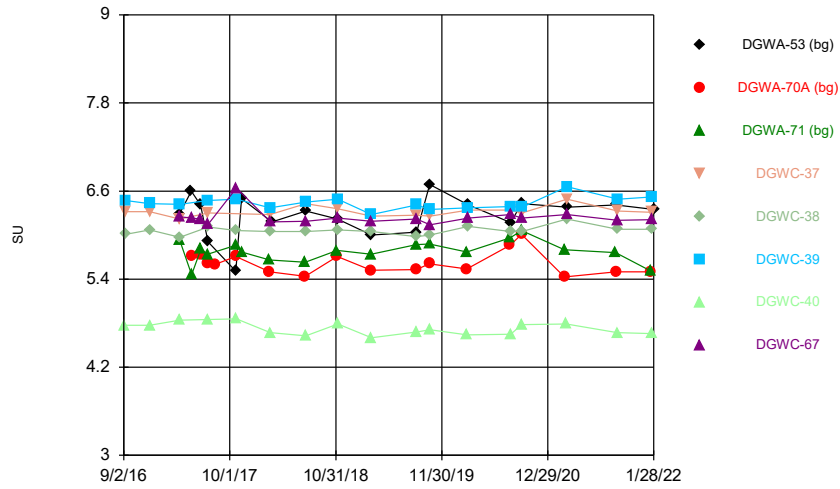
Constituent: Molybdenum Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



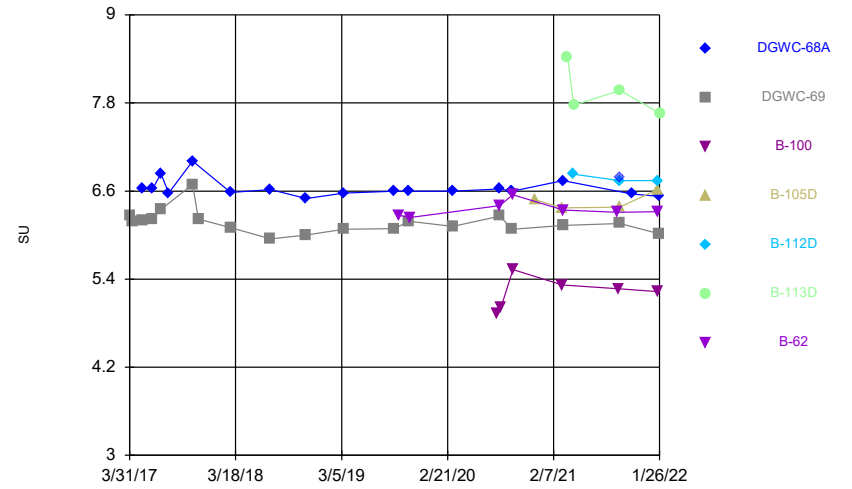
Constituent: Molybdenum Analysis Run 4/13/2022 3:30 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



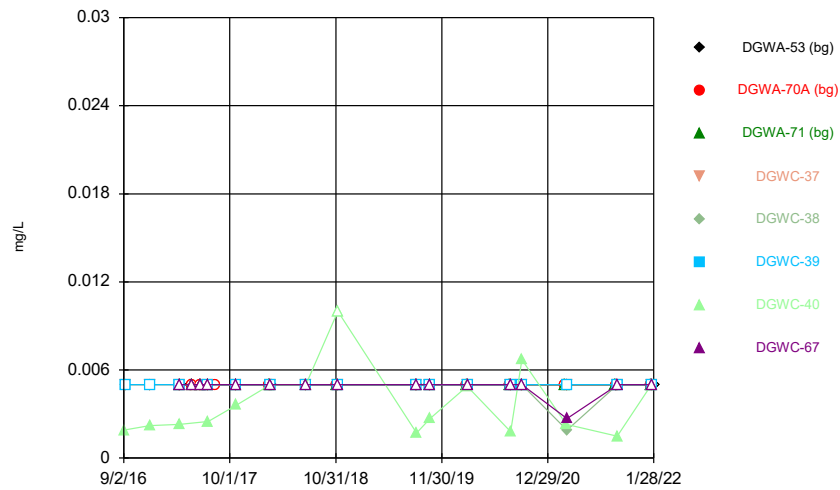
Constituent: pH, Field Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



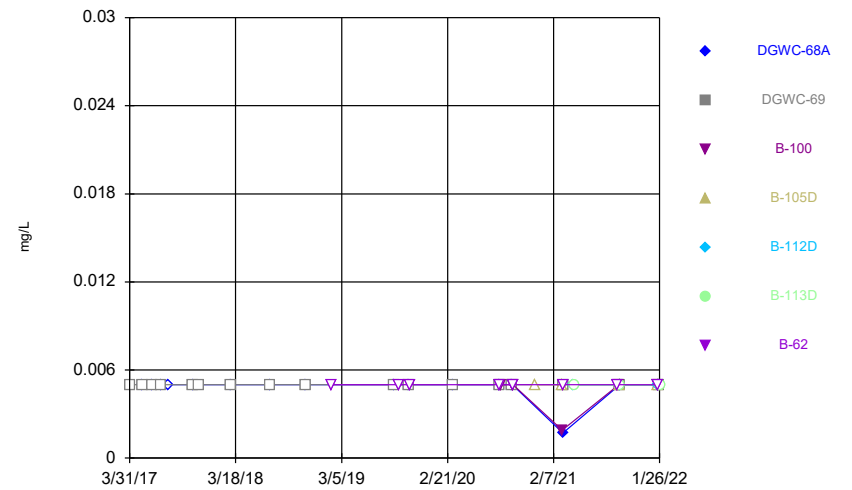
Constituent: pH, Field Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



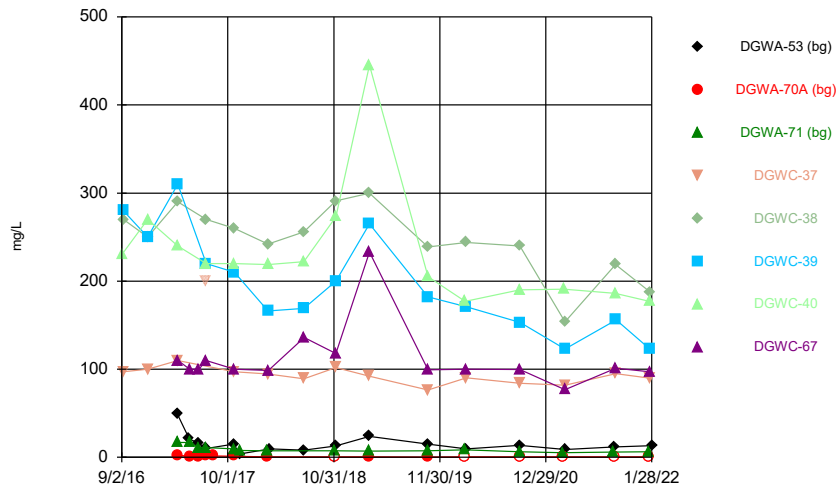
Constituent: Selenium Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



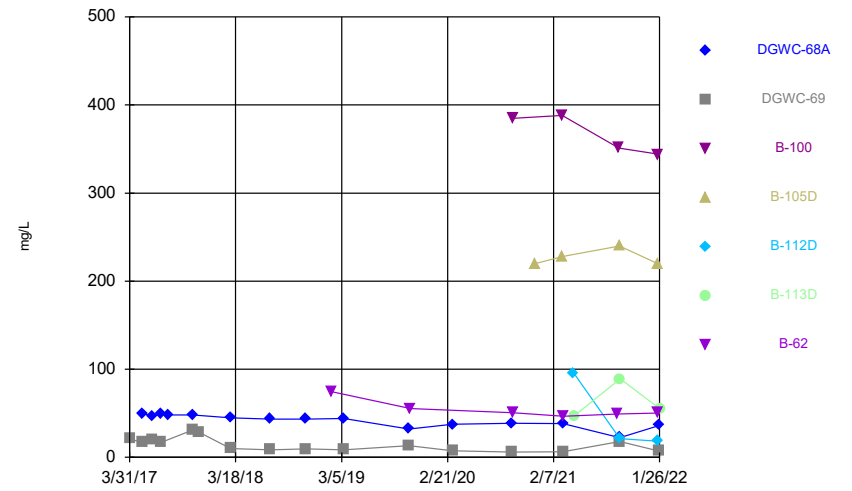
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



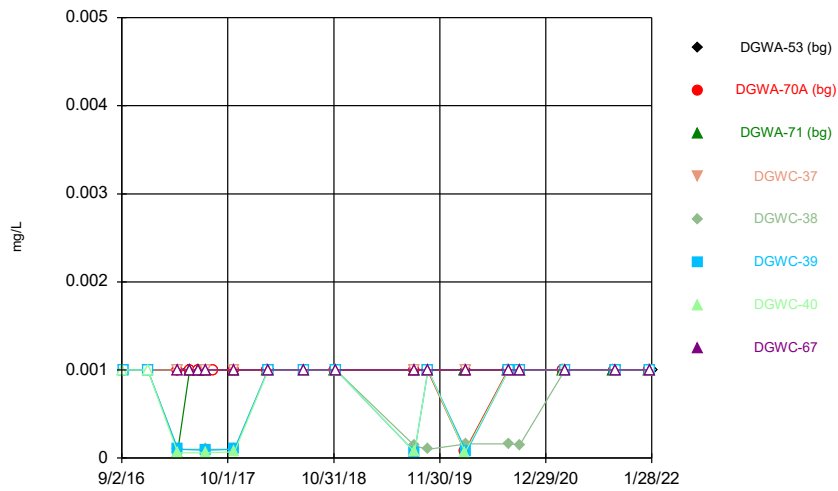
Constituent: Sulfate as SO4 Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



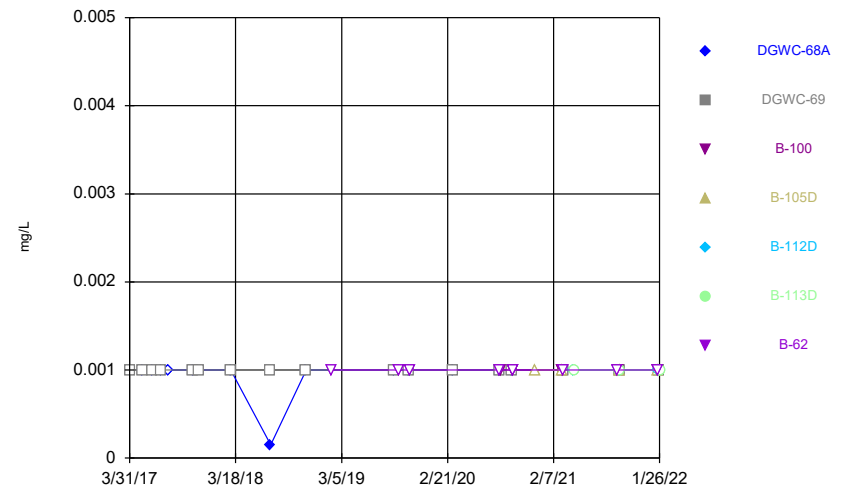
Constituent: Sulfate as SO4 Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



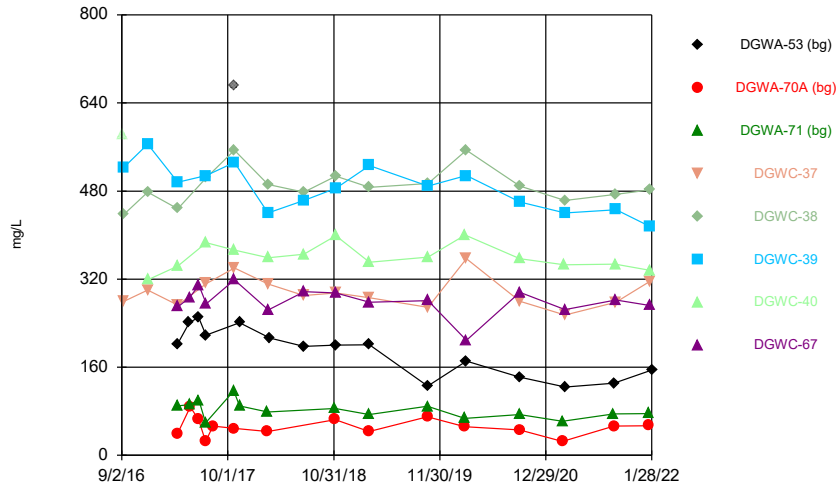
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



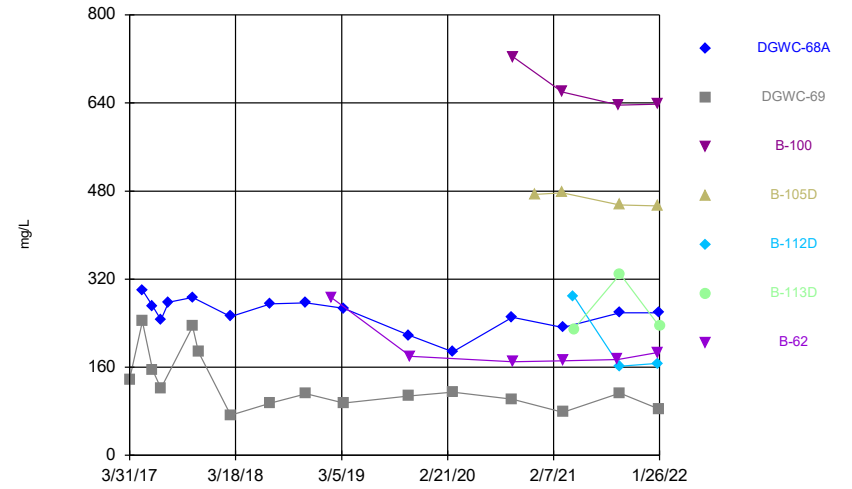
Constituent: Thallium Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/13/2022 3:30 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.003	
9/8/2016				<0.003	<0.003	<0.003		
12/7/2016				<0.003	<0.003	<0.003		
12/8/2016							<0.003	
3/28/2017	<0.003	<0.003	0.0007 (J)					
3/30/2017				<0.003	<0.003	<0.003	<0.003	
3/31/2017								0.0004 (J)
5/11/2017	<0.003							
5/12/2017			<0.003					<0.003
5/15/2017		<0.003						
6/15/2017	0.0006 (J)	<0.003						
6/16/2017			0.0007 (J)					0.0008 (J)
7/11/2017		<0.003	<0.003					
7/12/2017	<0.003							
7/13/2017				<0.003	<0.003	<0.003	<0.003	<0.003
8/8/2017		<0.003						
10/24/2017	<0.003	<0.003	<0.003					
10/26/2017				<0.003	<0.003	<0.003	<0.003	<0.003
2/27/2018		<0.003	<0.003					
3/1/2018				<0.003	<0.003	<0.003		
3/2/2018							<0.003	<0.003
3/8/2018	<0.003							
7/12/2018	<0.003			<0.003	<0.003	<0.003	<0.003	
7/13/2018								0.0023 (J)
11/6/2018		<0.003	<0.003					
11/7/2018	<0.003							
11/8/2018				<0.003	<0.003	<0.003	<0.003	<0.003
8/27/2019		<0.003	<0.003					
8/28/2019	<0.003			<0.003	<0.003	<0.003	<0.003	<0.003
10/15/2019		<0.003	<0.003					
10/16/2019	<0.003							
3/2/2020		<0.003	0.0018 (J)					
3/4/2020							<0.003	
3/9/2020	<0.003			<0.003	<0.003	<0.003		<0.003
8/11/2020		0.0013 (J)	0.0018 (J)					
8/13/2020	0.0003 (J)			<0.003	<0.003	<0.003	<0.003	<0.003
9/22/2020	<0.003	<0.003	<0.003					
9/23/2020							<0.003	<0.003
9/24/2020				<0.003	<0.003			
9/25/2020						<0.003		
3/1/2021		<0.003	0.0019 (J)					
3/8/2021							0.00033 (J)	
3/11/2021				<0.003	<0.003	<0.003		<0.003
3/12/2021	<0.003							
9/8/2021			<0.003					
9/9/2021	<0.003	0.0015 (J)						
9/14/2021							<0.003	
9/15/2021					<0.003			
9/16/2021				<0.003				<0.003
9/17/2021						<0.003		
1/18/2022		<0.003	<0.003					
1/19/2022							<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/20/2022						<0.003		
1/21/2022				<0.003	<0.003			
1/28/2022	<0.003							

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.003					
5/12/2017	<0.003	<0.003					
6/16/2017	0.0008 (J)	0.0007 (J)					
7/13/2017	<0.003	<0.003					
8/8/2017	<0.003						
10/26/2017	<0.003	<0.003					
11/15/2017		<0.003					
3/2/2018	<0.003	<0.003					
7/13/2018	<0.003	<0.003					
11/8/2018	<0.003	<0.003					
1/30/2019							<0.003
8/28/2019	<0.003	<0.003					
9/11/2019							<0.003
10/21/2019							<0.003
3/9/2020	<0.003	<0.003					
8/13/2020	<0.003	0.0019 (J)					<0.003
8/17/2020			0.0013 (J)				
9/23/2020	<0.003	<0.003					
9/24/2020							0.00046 (J)
9/25/2020			<0.003				
12/9/2020				<0.003			
3/8/2021			0.0017 (J)	0.00069 (J)			
3/10/2021	0.00032 (J)	0.0018 (J)					
3/12/2021							<0.003
4/15/2021					0.00041 (J)		
4/16/2021						0.0021 (J)	
9/9/2021							<0.003
9/13/2021			<0.003				
9/15/2021				0.0082			
9/16/2021	<0.003	<0.003			<0.003		
9/17/2021						<0.003	
1/19/2022				<0.003	<0.003		
1/20/2022							<0.003
1/21/2022			<0.003				
1/25/2022	<0.003	<0.003					
1/26/2022						<0.003	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.005	
9/8/2016				<0.005	<0.005	<0.005		
12/7/2016				0.0019 (J)	<0.005	<0.005		
12/8/2016							<0.005	
3/28/2017	0.0005 (J)	<0.005	<0.005					
3/30/2017				<0.005	<0.005	0.0007 (J)	0.0006 (J)	
3/31/2017								<0.005
5/11/2017	0.0005 (J)							
5/12/2017			0.0004 (J)					<0.005
5/15/2017		<0.005						
6/15/2017	<0.005	<0.005						
6/16/2017			<0.005					<0.005
7/11/2017		<0.005	<0.005					
7/12/2017	<0.005							
7/13/2017				<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005
8/8/2017		<0.005						
10/24/2017	<0.005	<0.005	<0.005					
10/26/2017				<0.005	<0.005	<0.005	<0.005	<0.005
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	0.0011 (J)		
3/2/2018							0.0011 (J)	<0.005
3/8/2018	<0.005							
7/12/2018	<0.005			<0.005	<0.005	0.00057 (J)	<0.005	
7/13/2018								<0.005
11/6/2018		<0.005	<0.005					
11/7/2018	<0.005 (J)							
11/8/2018				<0.005	<0.005	<0.005	<0.005	<0.005
8/27/2019		<0.005	<0.005					
8/28/2019	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005
10/15/2019		0.00052 (J)	0.00071 (J)					
10/16/2019	0.0018 (J)							
10/17/2019								0.00042 (J)
10/18/2019				<0.005	<0.005	0.00075 (J)	<0.005	
3/2/2020		<0.005	<0.005					
3/4/2020							0.00065 (J)	
3/9/2020	0.00068 (J)			<0.005	<0.005	0.00039 (J)		<0.005
8/11/2020		<0.005	<0.005					
8/13/2020	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005
9/22/2020	0.00093 (J)	<0.005	<0.005					
9/23/2020							<0.005	<0.005
9/24/2020				<0.005	<0.005			
9/25/2020						0.00087 (J)		
3/1/2021		<0.005	<0.005					
3/8/2021							<0.005	
3/11/2021				<0.005	<0.005	<0.005		0.0008 (J)
3/12/2021	<0.005							
9/8/2021			<0.005					
9/9/2021	<0.005	<0.005						
9/14/2021							<0.005	
9/15/2021					<0.005			
9/16/2021				<0.005				<0.005
9/17/2021						<0.005		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		0.0046 (J)	0.0054					
1/19/2022							0.003 (J)	0.0033 (J)
1/20/2022						0.0019 (J)		
1/21/2022				<0.005	<0.005			
1/28/2022	0.0024 (J)							

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0239					
4/12/2017		0.0077					
5/12/2017	<0.005	0.0097					
6/16/2017	<0.005	0.0113					
7/13/2017	<0.005	0.0029 (J)					
8/8/2017	<0.005						
10/26/2017	<0.005	0.114					
11/15/2017		0.164					
3/2/2018	<0.005	0.0127					
7/13/2018	<0.005	0.017					
11/8/2018	<0.005 (J)	0.02					
1/30/2019							<0.005
8/28/2019	<0.005	0.025					
9/11/2019							<0.005
10/16/2019	<0.005	0.023					
10/21/2019							<0.005
3/9/2020	<0.005	0.029					
7/23/2020			<0.005				
8/13/2020	<0.005	0.029					<0.005
8/17/2020			<0.005				
9/23/2020	<0.005	0.032					
9/24/2020							<0.005
9/25/2020			<0.005				
12/9/2020				<0.005			
3/8/2021			<0.005	0.0025 (J)			
3/10/2021	<0.005	0.028					
3/12/2021							<0.005
4/15/2021					0.00078 (J)		
4/16/2021						<0.005	
9/9/2021							<0.005
9/13/2021			<0.005				
9/15/2021				<0.005			
9/16/2021	0.46 (o)	0.023			<0.005		
9/17/2021						<0.005	
10/27/2021	0.0016 (J)						
1/19/2022				0.0051	0.005		
1/20/2022							0.0033 (J)
1/21/2022			<0.005				
1/25/2022	<0.005	0.028					
1/26/2022						0.0018 (J)	

Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0171	
9/8/2016				0.123	0.0333	0.0978		
12/7/2016				0.125	0.0336	0.0844		
12/8/2016							0.0163	
3/28/2017	0.134	0.0166	0.0378					
3/30/2017				0.11	0.0325	0.0858	0.0177	
3/31/2017								0.111
5/11/2017	0.126							
5/12/2017			0.04					0.127
5/15/2017		0.0181						
6/15/2017	0.14	0.0277						
6/16/2017			0.0369					0.11
7/11/2017		0.0306	0.0362					
7/12/2017	0.173							
7/13/2017				0.11	0.0332	0.0919	0.017	0.102
8/8/2017		0.0277						
10/24/2017	0.109	0.0333	0.0313					
10/26/2017				0.112	0.0333	0.0899	0.0168	0.105
2/27/2018		0.0341	0.0287					
3/1/2018				0.102	0.0333	0.0742		
3/2/2018							0.0169	0.104
3/8/2018	0.19							
7/12/2018	0.18			0.11	0.034	0.094	0.018	
7/13/2018								0.11
11/6/2018		0.037	0.026					
11/7/2018	0.15							
11/8/2018				0.11	0.035	0.1	0.017	0.11
8/27/2019		0.037	0.027					
8/28/2019	0.087			0.086	0.033	0.099	0.017	0.11
10/15/2019		0.034	0.024					
10/16/2019	0.077							
10/17/2019								0.1
10/18/2019				0.079	0.032	0.1	0.019	
3/2/2020		0.035	0.026					
3/4/2020							0.018	
3/9/2020	0.099			0.092	0.032	0.076		0.11
8/11/2020		0.041	0.026					
8/13/2020	0.046			0.088	0.032	0.089	0.018	0.095
9/22/2020	0.07	0.038	0.024					
9/23/2020							0.019	0.1
9/24/2020				0.094	0.032			
9/25/2020						0.1		
3/1/2021		0.042	0.028					
3/8/2021							0.016	
3/11/2021				0.075	0.032	0.078		0.11
3/12/2021	0.076							
9/8/2021			0.025					
9/9/2021	0.099	0.038						
9/14/2021							0.027	
9/15/2021					0.032			
9/16/2021				0.083				0.088
9/17/2021						0.09		

Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		0.043	0.029					
1/19/2022							0.018	0.091
1/20/2022						0.093		
1/21/2022				0.085	0.031			
1/28/2022	0.068							

Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0872					
5/12/2017	0.089	0.0929					
6/16/2017	0.0855	0.1					
7/13/2017	0.0859	0.0985					
8/8/2017	0.0852						
10/26/2017	0.0878	0.136					
11/15/2017		0.107					
3/2/2018	0.0878	0.0671					
7/13/2018	0.091	0.074					
11/8/2018	0.092	0.072					
1/30/2019							0.018
8/28/2019	0.089	0.061					
9/11/2019							0.023
10/16/2019	0.089	0.1					
10/21/2019							0.026
3/9/2020	0.088	0.057					
8/13/2020	0.088	0.13					0.026
8/17/2020			0.015				
9/23/2020	0.094	0.055					
9/24/2020							0.025
9/25/2020			0.022				
12/9/2020				0.03			
3/8/2021			0.022	0.041			
3/10/2021	0.09	0.048					
3/12/2021							0.027
4/15/2021					0.026		
4/16/2021						0.0032 (J)	
9/9/2021							0.021
9/13/2021			0.021				
9/15/2021				0.037			
9/16/2021	0.13 (o)	0.078			0.0032 (J)		
9/17/2021						0.0048 (J)	
10/27/2021	0.086						
1/19/2022				0.04	0.0034 (J)		
1/20/2022							0.021
1/21/2022			0.023				
1/25/2022	0.1	0.049					
1/26/2022						0.0051	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0028 (J)	
9/8/2016				<0.0005	<0.0005	<0.0005		
12/7/2016				<0.0005	<0.0005	<0.0005		
12/8/2016							0.0026 (J)	
3/28/2017	<0.0005	<0.0005	9E-05 (J)					
3/30/2017				<0.0005	<0.0005	<0.0005	0.003	
3/31/2017								<0.0005
5/11/2017	<0.0005							
5/12/2017			<0.0005					<0.0005
5/15/2017		<0.0005						
6/15/2017	<0.0005	<0.0005						
6/16/2017			0.0001 (J)					<0.0005
7/11/2017		<0.0005	<0.0005					
7/12/2017	<0.0005							
7/13/2017				<0.0005	<0.0005	<0.0005	0.003 (J)	<0.0005
8/8/2017		<0.0005						
10/24/2017	<0.0005	<0.0005	<0.0005					
10/26/2017				<0.0005	<0.0005	<0.0005	0.0027 (J)	<0.0005
2/27/2018		<0.0005	<0.0005					
3/1/2018				<0.0005	<0.0005	<0.0005		
3/2/2018							0.0033	<0.0005
3/8/2018	<0.0005							
7/10/2018			0.0009 (J)					
7/12/2018	<0.0005			7E-05 (J)	<0.0005	<0.0005	0.0032	
7/13/2018								<0.0005
11/6/2018		0.00012 (J)	0.00013 (J)					
11/7/2018	<0.0005							
11/8/2018				<0.0005	<0.0005	<0.0005	<0.003 (J)	<0.0005
8/27/2019		7.9E-05 (J)	<0.0005					
8/28/2019	<0.0005			8.6E-05 (J)	<0.0005	<0.0005	0.0032	<0.0005
10/15/2019		<0.0005	8.8E-05 (J)					
10/16/2019	<0.0005							
10/17/2019								<0.0005
10/18/2019				<0.0005	<0.0005	<0.0005	0.0033	
3/2/2020		9.6E-05 (J)	0.0001 (J)					
3/4/2020							0.0039	
3/9/2020	<0.0005			<0.0005	<0.0005	<0.0005		<0.0005
8/11/2020		0.00013 (J)	0.00011 (J)					
8/13/2020	<0.0005			0.0001 (J)	<0.0005	<0.0005	0.0033	<0.0005
9/22/2020	<0.0005	6.8E-05 (J)	6.9E-05 (J)					
9/23/2020							0.0031	<0.0005
9/24/2020				8.8E-05 (J)	5.8E-05 (J)			
9/25/2020						<0.0005		
3/1/2021		0.00012 (J)	0.00011 (J)					
3/8/2021							0.003	
3/11/2021				<0.0005	<0.0005	<0.0005		<0.0005
3/12/2021	<0.0005							
9/8/2021			9.1E-05 (J)					
9/9/2021	<0.0005	8.9E-05 (J)						
9/14/2021							0.0032	
9/15/2021					<0.0005			
9/16/2021				5.9E-05 (J)				<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/17/2021						<0.0005		
1/18/2022		9.2E-05 (J)	0.00012 (J)					
1/19/2022							0.0034	<0.0005
1/20/2022						<0.0005		
1/21/2022				5.9E-05 (J)	<0.0005			
1/28/2022	<0.0005							

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
10/6/2016							9E-05 (J)
3/31/2017		7E-05 (J)					
5/12/2017	<0.0005	<0.0005					
6/16/2017	<0.0005	<0.0005					
7/13/2017	<0.0005	<0.0005					
8/8/2017	<0.0005						
10/26/2017	<0.0005	<0.0005					
11/15/2017		<0.0005					
3/2/2018	<0.0005	<0.0005					
7/13/2018	8.4E-05 (J)	5.8E-05 (J)					
11/8/2018	<0.0005	<0.0005					
1/30/2019							<0.0005
8/28/2019	<0.0005	<0.0005					
9/11/2019							0.00012 (J)
10/16/2019	<0.0005	<0.0005					
10/21/2019							7.8E-05 (J)
3/9/2020	<0.0005	7.5E-05 (J)					
8/13/2020	<0.0005	6.3E-05 (J)					0.00011 (J)
8/17/2020			0.0004 (J)				
9/23/2020	<0.0005	6.1E-05 (J)					
9/24/2020							0.00013 (J)
9/25/2020			0.00035 (J)				
12/9/2020				<0.0005			
3/8/2021			0.00046 (J)	<0.0005			
3/10/2021	6.1E-05 (J)	5E-05 (J)					
3/12/2021							<0.0005
4/15/2021					<0.0005		
4/16/2021						<0.0005	
9/9/2021							0.00014 (J)
9/13/2021			0.00053				
9/15/2021				<0.0005			
9/16/2021	<0.0005	<0.0005			<0.0005		
9/17/2021						<0.0005	
1/19/2022				<0.0005	<0.0005		
1/20/2022							0.00015 (J)
1/21/2022			0.00053				
1/25/2022	<0.0005	5.9E-05 (J)					
1/26/2022						<0.0005	

Time Series

Constituent: Boron, total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.895	
9/8/2016				1.58	2.69	3.35		
12/7/2016				2.01	3.08	3.63		
12/8/2016							0.841	
3/28/2017	0.0612	0.0067 (J)	0.0097 (J)					
3/30/2017				1.47	3.19	3.57	0.937	
3/31/2017								2.91
5/11/2017	0.0805							
5/12/2017			0.0082 (J)					3.24
5/15/2017		0.0073 (J)						
6/15/2017	0.0725	<0.04						
6/16/2017			0.0085 (J)					3.42
7/11/2017		<0.04	0.0077 (J)					
7/12/2017	0.0735							
7/13/2017				2.1	3.09	3.41	0.933	3.46
8/8/2017		<0.04						
10/24/2017	0.077	0.0082 (J)	0.0083 (J)					
10/26/2017				1.86	2.92	3.41	0.873	3.21
2/27/2018		0.0062 (J)	0.0069 (J)					
3/1/2018				1.87	3.08	2.86		
3/2/2018							0.974	3.49
3/8/2018	0.13 (J)							
7/12/2018	0.076			1.5	2.8	3	0.92	
7/13/2018								3.1
11/6/2018		<0.04 (J)	<0.04 (J)					
11/7/2018	0.073							
11/8/2018				1.4	3.4	3.4	0.8	3.5
3/12/2019		0.0073 (J)	0.0068 (J)					
3/13/2019	0.08			1.8	2.9	3.4	0.8	3.5
10/15/2019		<0.04	0.0054 (J)					
10/16/2019	0.059							
10/17/2019								3.6
10/18/2019				1.3	3.1	3.6	0.9	
3/2/2020		0.0055 (J)	0.01 (J)					
3/4/2020							0.86	
3/9/2020	0.08 (J)			1.8	3	2.9		3.6
9/22/2020	0.056 (J)	<0.04	<0.04					
9/23/2020							0.76	3.2
9/24/2020				1.6	2.9			
9/25/2020						3.3		
3/1/2021		<0.04	0.0054 (J)					
3/8/2021							0.72	
3/11/2021				1.4	2.7	2.5		3.4
3/12/2021	0.064							
9/8/2021			<0.04					
9/9/2021	0.065	<0.04						
9/14/2021							0.7	
9/15/2021					2.8			
9/16/2021				1.4				3.4
9/17/2021						2.8		
1/18/2022		0.024 (J)	0.015 (J)					
1/19/2022							0.82	4.1

Time Series

Constituent: Boron, total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/20/2022						2.8		
1/21/2022				1.4	2.8			
1/28/2022	0.062							

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0008 (J)	
9/8/2016				0.0002 (J)	0.0002 (J)	<0.0005		
12/7/2016				0.0001 (J)	0.0002 (J)	<0.0005		
12/8/2016							0.0007 (J)	
3/28/2017	<0.0005	<0.0005	<0.0005					
3/30/2017				0.0001 (J)	0.0002 (J)	<0.0005	0.0007 (J)	
3/31/2017								<0.0005
5/11/2017	8E-05 (J)							
5/12/2017			<0.0005					<0.0005
5/15/2017		<0.0005						
6/15/2017	<0.0005	<0.0005						
6/16/2017			<0.0005					<0.0005
7/11/2017		<0.0005	<0.0005					
7/12/2017	<0.0005							
7/13/2017				<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005
8/8/2017		<0.0005						
10/24/2017	<0.0005	<0.0005	<0.0005					
10/26/2017				<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005
2/27/2018		<0.0005	<0.0005					
3/1/2018				<0.0005	<0.0005	<0.0005		
3/2/2018							<0.0005	<0.0005
3/8/2018	<0.0005							
7/12/2018	0.00013 (J)			<0.0005	0.00024 (J)	<0.0005	0.00087 (J)	
7/13/2018								<0.0005
11/6/2018		<0.0005	<0.0005					
11/7/2018	<0.0005							
11/8/2018				<0.0005	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/27/2019		<0.0005	<0.0005					
8/28/2019	<0.0005			<0.0005	0.0003 (J)	<0.0005	0.00087 (J)	0.00017 (J)
10/15/2019		<0.0005	<0.0005					
10/16/2019	<0.0005							
10/17/2019								<0.0005
10/18/2019				<0.0005	0.00016 (J)	<0.0005	0.00088 (J)	
3/2/2020		0.00041 (J)	<0.0005					
3/4/2020							0.00093 (J)	
3/9/2020	<0.0005			<0.0005	0.00017 (J)	<0.0005		0.00021 (J)
8/11/2020		<0.0005	<0.0005					
8/13/2020	<0.0005			<0.0005	0.00021 (J)	<0.0005	0.00084 (J)	0.00015 (J)
9/22/2020	<0.0005	<0.0005	<0.0005					
9/23/2020							0.0008 (J)	0.00018 (J)
9/24/2020				0.00027 (J)	0.00081 (J)			
9/25/2020						<0.0005		
3/1/2021		<0.0005	<0.0005					
3/8/2021							0.00072	
3/11/2021				<0.0005	<0.0005	<0.0005		0.00053
3/12/2021	<0.0005							
9/8/2021			<0.0005					
9/9/2021	<0.0005	<0.0005						
9/14/2021							0.00086	
9/15/2021					0.00021 (J)			
9/16/2021				0.00013 (J)				<0.0005
9/17/2021						<0.0005		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.0005	<0.0005					
1/19/2022							0.00085	<0.0005
1/20/2022						<0.0005		
1/21/2022				<0.0005	0.0002 (J)			
1/28/2022	<0.0005							

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0001 (J)					
5/12/2017	8E-05 (J)	0.0002 (J)					
6/16/2017	<0.0005	0.0002 (J)					
7/13/2017	<0.0005	<0.0005					
8/8/2017	<0.0005						
10/26/2017	<0.0005	<0.0005					
11/15/2017		<0.0005					
3/2/2018	<0.0005	<0.0005					
7/13/2018	0.00019 (J)	<0.0005					
11/8/2018	<0.001 (J)	<0.0005					
1/30/2019							<0.0005
8/28/2019	0.00017 (J)	<0.0005					
9/11/2019							<0.0005
10/16/2019	0.00017 (J)	0.00017 (J)					
10/21/2019							<0.0005
3/9/2020	0.00026 (J)	<0.0005					
8/13/2020	0.00021 (J)	<0.0005					<0.0005
8/17/2020			0.00059 (J)				
9/23/2020	0.00024 (J)	<0.0005					
9/24/2020							<0.0005
9/25/2020			0.00027 (J)				
12/9/2020				<0.0005			
3/8/2021			0.00027 (J)	<0.0005			
3/10/2021	<0.0005	<0.0005					
3/12/2021							<0.0005
4/15/2021					<0.0005		
4/16/2021						0.00019 (J)	
9/9/2021							<0.0005
9/13/2021			0.00029 (J)				
9/15/2021				<0.0005			
9/16/2021	<0.0005	<0.0005			<0.0005		
9/17/2021						<0.0005	
1/19/2022				<0.0005	<0.0005		
1/20/2022							<0.0005
1/21/2022			0.00059				
1/25/2022	0.00035 (J)	<0.0005					
1/26/2022						<0.0005	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							39.6	
9/8/2016				52.5	70.3	87.2		
12/7/2016				29.7	38.4	96.7		
12/8/2016							37.9	
3/28/2017	30.8	5.14	8.31					
3/30/2017				62.6	80.3	98.9	43.9	
3/31/2017								39.9
5/11/2017	35.8							
5/12/2017			8.04					43.6
5/15/2017		6.5						
6/15/2017	36	5.38						
6/16/2017			7.66					42.5
7/11/2017		5.96	7.71					
7/12/2017	40.3							
7/13/2017				64.1	90.8	95	46.2	43.7
8/8/2017		5.2						
10/24/2017	30.3	4.93	6.86					
10/26/2017				60.8	81.3	90.6	41.8	40.4
2/27/2018		<25	<25					
3/1/2018				57	81.8	79.6		
3/2/2018							43.2	40.1
3/8/2018	39.8							
7/12/2018	34.7			59.1	86.7	89.8	47.1	
7/13/2018								43.3
11/6/2018		5.5	5.7					
11/7/2018	28.6							
11/8/2018				53.6	86.6	89	43.5	40.1
3/12/2019		5.1	5.5					
3/13/2019	26.7			54.8	85.3	96.3	41	41.2
10/15/2019		5.1	5.1					
10/16/2019	17.7							
10/17/2019								46.9
10/18/2019				52.5	97.8	108	44.9	
3/2/2020		5.3	5.8					
3/4/2020							49.6	
3/9/2020	23.7			64.2	91.9	100		46.9
9/22/2020	15.5	5	5.4					
9/23/2020							41.9	42
9/24/2020				55.9	84.1			
9/25/2020						92.5		
3/1/2021		4.1	5.9					
3/8/2021							44.9	
3/11/2021				56	85.8	91.9		45.4
3/12/2021	18.4							
9/8/2021			6.1					
9/9/2021	18.3	5.3						
9/14/2021							45.1	
9/15/2021					88.3			
9/16/2021				63				46
9/17/2021						98.6		
1/18/2022		6.1	6.6					
1/19/2022							44.7	48.8

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/20/2022						96.2		
1/21/2022				64.4	91			
1/28/2022	19.5							

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							20	
9/8/2016				6.2	7.4	9.2		
12/7/2016				6.1	7.4	8.9		
12/8/2016							18	
3/28/2017	3.7	3.8	3.6					
3/30/2017				6.3	7.7	8.7	20	
3/31/2017								5.7
5/11/2017	2.3							
5/12/2017			3.8					5.6
5/15/2017		2.2						
6/15/2017	2.6	2						
6/16/2017			3.4					5.5
7/11/2017		2.1	3.1					
7/12/2017	2.3							
7/13/2017				6.5	7.5	8.4	21	5.2
8/8/2017		2.2						
10/24/2017	2.7	2.4	3.2					
10/26/2017				6.4	8.2	8.3	21	6
11/15/2017	2.2		3.1					
2/27/2018		2.5	3.2					
3/1/2018				6.3	8.1	8.1		
3/2/2018							19.5	5.8
3/8/2018	2.4							
7/12/2018	2.2			5.8	8	7.7	19.9	
7/13/2018								5.9
11/6/2018		2.3	2.6					
11/7/2018	2.3							
11/8/2018				5.8	8.1	7.7	19.3	6.1
3/12/2019		2.5	3.3					
3/13/2019	3.6			6.9	9.1	8.2	19.7	6.8
10/15/2019		2.2	3.3					
10/16/2019	2							
10/17/2019								6.9
10/18/2019				5.8	8.6	8	19.2	
3/2/2020		1.9	3					
3/4/2020							20.6	
3/9/2020	1.8			6	8.1	7.5		6.7
9/22/2020	1.6	1.9	5.2					
9/23/2020							19.7	7.1
9/24/2020				5.6	8.2			
9/25/2020						7.9		
3/1/2021		1.9	3.9					
3/8/2021							19.1	
3/11/2021				5.6	8	7.7		7.4
3/12/2021	2							
9/8/2021			5.9					
9/9/2021	1.8	1.9						
9/14/2021							16.7	
9/15/2021					7.6			
9/16/2021				5.6				7.9
9/17/2021						8.3		
1/18/2022		1.9	5.9					

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/19/2022							16.5	8.3
1/20/2022						8		
1/21/2022				5.7	8.5			
1/28/2022	1.8							

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.005	
9/8/2016				<0.005	<0.005	<0.005		
12/7/2016				<0.005	<0.005	<0.005		
12/8/2016							<0.005	
3/28/2017	<0.005	0.0008 (J)	0.0023 (J)					
3/30/2017				<0.005	<0.005	<0.005	0.0007 (J)	
3/31/2017								0.0005 (J)
5/11/2017	<0.005							
5/12/2017			0.0004 (J)					0.0007 (J)
5/15/2017		0.0006 (J)						
6/15/2017	<0.005	0.0006 (J)						
6/16/2017			0.0005 (J)					<0.005
7/11/2017		0.0005 (J)	<0.005					
7/12/2017	<0.005							
7/13/2017				<0.005	<0.005	<0.005	0.0006 (J)	<0.005
8/8/2017		0.0005 (J)						
10/24/2017	<0.005	0.0005 (J)	<0.005					
10/26/2017				0.0007 (J)	0.0005 (J)	<0.005	0.0007 (J)	<0.005
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	<0.005		
3/2/2018							<0.005	<0.005
3/8/2018	<0.005							
7/12/2018	<0.005			<0.005	<0.005	<0.005	<0.005	
7/13/2018								<0.005
11/6/2018		<0.005	<0.005					
11/7/2018	<0.005							
11/8/2018				<0.005	<0.005	<0.005	<0.005	<0.005
8/27/2019		0.00071 (J)	0.0018 (J)					
8/28/2019	<0.005			<0.005	<0.005	<0.005	0.00061 (J)	<0.005
10/15/2019		0.034 (O)	0.0025 (J)					
10/16/2019	<0.005							
10/17/2019								<0.005
10/18/2019				<0.005	0.00092 (J)	<0.005	0.00078 (J)	
3/2/2020		0.0013 (J)	0.00045 (J)					
3/4/2020							0.0011 (J)	
3/9/2020	<0.005			<0.005	0.00044 (J)	<0.005		0.00088 (J)
8/11/2020		0.0016 (J)	0.0006 (J)					
8/13/2020	<0.005			0.00058 (J)	<0.005	<0.005	0.00072 (J)	<0.005
9/22/2020	<0.005	0.00089 (J)	<0.005					
9/23/2020							0.0011 (J)	<0.005
9/24/2020				<0.005	<0.005			
9/25/2020						<0.005		
3/1/2021		<0.005	<0.005					
3/8/2021							0.0006 (J)	
3/11/2021				<0.005	<0.005	<0.005		0.0014 (J)
3/12/2021	<0.005							
9/8/2021			<0.005					
9/9/2021	<0.005	<0.005						
9/14/2021							0.0021 (J)	
9/15/2021					<0.005			
9/16/2021				<0.005				<0.005
9/17/2021						<0.005		

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.005	<0.005					
1/19/2022							<0.005	<0.005
1/20/2022						<0.005		
1/21/2022				<0.005	<0.005			
1/28/2022	<0.005							

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.005					
5/12/2017	<0.005	<0.005					
6/16/2017	<0.005	<0.005					
7/13/2017	0.0005 (J)	<0.005					
8/8/2017	<0.005						
10/26/2017	<0.005	<0.005					
11/15/2017		<0.005					
3/2/2018	<0.005	<0.005					
7/13/2018	<0.005	<0.005					
11/8/2018	<0.005	<0.005					
1/30/2019							<0.005
8/28/2019	<0.005	0.00049 (J)					
9/11/2019							<0.005
10/16/2019	<0.005	<0.005					
10/21/2019							0.00098 (J)
3/9/2020	<0.005	0.0012 (J)					
8/13/2020	<0.005	<0.005					<0.005
8/17/2020			<0.005				
9/23/2020	<0.005	0.0011 (J)					
9/24/2020							<0.005
9/25/2020			0.00094 (J)				
12/9/2020				<0.005			
3/8/2021			0.00057 (J)	<0.005			
3/10/2021	<0.005	0.0009 (J)					
3/12/2021							<0.005
4/15/2021					0.00085 (J)		
4/16/2021						0.0011 (J)	
9/9/2021							<0.005
9/13/2021			<0.005				
9/15/2021				0.0012 (J)			
9/16/2021	0.0014 (J,o)	<0.005			0.0014 (J)		
9/17/2021						<0.005	
10/27/2021	<0.005						
1/19/2022				<0.005	<0.005		
1/20/2022							<0.005
1/21/2022			<0.005				
1/25/2022	<0.005	0.0013 (J)					
1/26/2022						<0.005	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0382	
9/8/2016				<0.005	0.0015 (J)	0.0068 (J)		
12/7/2016				0.0005 (J)	0.0017 (J)	0.0071 (J)		
12/8/2016							0.0318	
3/28/2017	0.025	0.0034 (J)	0.0033 (J)					
3/30/2017				<0.005	0.0016 (J)	0.006 (J)	0.0364	
3/31/2017								0.0064 (J)
5/11/2017	0.0281							
5/12/2017			0.0016 (J)					0.0037 (J)
5/15/2017		0.0024 (J)						
6/15/2017	0.0322	0.0014 (J)						
6/16/2017			0.0011 (J)					0.0041 (J)
7/11/2017		0.0007 (J)	0.0008 (J)					
7/12/2017	0.0247							
7/13/2017				0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)
8/8/2017		0.0007 (J)						
10/24/2017	0.0267	<0.005	0.0004 (J)					
10/26/2017				0.0003 (J)	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	<0.005		
3/2/2018							0.0425	<0.005
3/8/2018	0.027							
7/12/2018	0.024			<0.005	0.0015 (J)	0.0059 (J)	0.044	
7/13/2018								0.0017 (J)
11/6/2018		<0.005	<0.005					
11/7/2018	0.018							
11/8/2018				<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)
8/27/2019		<0.005	<0.005					
8/28/2019	0.013			<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)
10/15/2019		0.00064 (J)	<0.005					
10/16/2019	0.009							
10/17/2019								0.0013 (J)
10/18/2019				<0.005	0.0016 (J)	0.007	0.043	
3/2/2020		0.00037 (J)	<0.005					
3/4/2020							0.055	
3/9/2020	0.016			<0.005	0.0016 (J)	0.007		0.0015 (J)
8/11/2020		0.0012 (J)	<0.005					
8/13/2020	0.0051			<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)
9/22/2020	0.011	<0.005	<0.005					
9/23/2020							0.046	0.0011 (J)
9/24/2020				<0.005	0.0013 (J)			
9/25/2020						0.0061		
3/1/2021		<0.005	<0.005					
3/8/2021							0.039	
3/11/2021				<0.005	0.0017 (J)	0.0058		0.0016 (J)
3/12/2021	0.0078							
9/8/2021			<0.005					
9/9/2021	0.0064	<0.005						
9/14/2021							0.05	
9/15/2021					0.0016 (J)			
9/16/2021				<0.005				0.0012 (J)
9/17/2021						0.0076		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.005	<0.005					
1/19/2022							0.042	0.0011 (J)
1/20/2022						0.0061		
1/21/2022				<0.005	0.0017 (J)			
1/28/2022	0.014							

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0022 (J)					
5/12/2017	0.0015 (J)	0.0016 (J)					
6/16/2017	0.0003 (J)	0.0009 (J)					
7/13/2017	0.0005 (J)	0.0004 (J)					
8/8/2017	<0.005						
10/26/2017	<0.005	0.0031 (J)					
11/15/2017		0.0028 (J)					
3/2/2018	<0.005	<0.005					
7/13/2018	<0.005	<0.005					
11/8/2018	<0.005	<0.005					
1/30/2019							<0.005
8/28/2019	<0.005	<0.005					
9/11/2019							0.0003 (J)
10/16/2019	<0.005	<0.005					
10/21/2019							0.00031 (J)
3/9/2020	<0.005	<0.005					
7/23/2020			0.086				
8/3/2020			0.087				
8/13/2020	<0.005	<0.005					<0.005
8/17/2020			0.077				
9/23/2020	<0.005	<0.005					
9/24/2020							<0.005
9/25/2020			0.034				
12/9/2020				0.012			
3/8/2021			0.029	0.0042 (J)			
3/10/2021	<0.005	<0.005					
3/12/2021							<0.005
4/15/2021					0.0025 (J)		
4/16/2021						<0.005	
9/9/2021							<0.005
9/13/2021			0.035				
9/15/2021				0.0065			
9/16/2021	0.0032 (J,o)	<0.005			0.00054 (J)		
9/17/2021						<0.005	
10/27/2021	<0.005						
1/19/2022				0.006	<0.005		
1/20/2022							<0.005
1/21/2022			0.034				
1/25/2022	<0.005	<0.005					
1/26/2022						<0.005	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							1.44	
9/8/2016				0.827 (U)	1.48	1.44		
12/7/2016				0.56 (U)	0.22 (U)	2.16		
12/8/2016							2.56	
3/28/2017	6.36	0.866 (U)	0.257 (U)					
3/30/2017				0.302 (U)	0.519 (U)	0.264 (U)	0.0844 (U)	
3/31/2017								0.404 (U)
5/11/2017	3.45							
5/12/2017			0.165 (U)					0.206 (U)
5/15/2017		0.288 (U)						
6/15/2017	4.58	1.01 (U)						
6/16/2017			0.732 (U)					0.966 (U)
7/11/2017		0.254 (U)	0.461 (U)					
7/12/2017	4.37							
7/13/2017				0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)
8/8/2017		1.48						
10/24/2017	4.46	0.472 (U)	0.724 (U)					
10/26/2017				1.04 (U)	1.13 (U)	0.875 (U)	0.748 (U)	0.619 (U)
2/27/2018		1.22	0.714 (U)					
3/1/2018				0.344 (U)	0.985 (U)	1.24		
3/2/2018							0.485 (U)	1.31
3/8/2018	2.14							
7/10/2018		0.362 (U)	0.426 (U)					
7/12/2018	4.65			0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)	
7/13/2018								0.667 (U)
11/6/2018		0.859 (U)	0.455 (U)					
11/7/2018	3.05							
11/8/2018				0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)
8/27/2019		1.97	1.3 (U)					
8/28/2019	2.68			1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)
10/15/2019		0.319 (U)	1.21 (U)					
10/16/2019	1.89							
1/6/2020				2.01	0.527 (U)	1.4	1.6	0.965 (U)
3/2/2020		0.419 (U)	1.3					
3/4/2020							1.62	
3/9/2020	3.51			0.499 (U)	1.04	1.36		0.819 (U)
8/11/2020		0.812 (U)	0.965 (U)					
8/13/2020	1.04			0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)
9/22/2020	2.27	0.45 (U)	0.216 (U)					
9/23/2020							1.28 (U)	0.131 (U)
9/24/2020				1.03 (U)	0.593 (U)			
9/25/2020						0.181 (U)		
3/1/2021		0.552 (U)	0.389 (U)					
3/8/2021							0.714 (U)	
3/11/2021				0.956 (U)	0.0784 (U)	0.969 (U)		1.55
3/12/2021	1.63							
9/8/2021			0.051 (U)					
9/9/2021	2.72	0.779 (U)						
9/14/2021							1.8	
9/15/2021					2.37			
9/16/2021				0.691 (U)				0.201 (U)
9/17/2021						0.911 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		1.26	0.729 (U)					
1/19/2022							1.7	0.853 (U)
1/20/2022						0.172 (U)		
1/21/2022				0.343 (U)	0.0873 (U)			
1/28/2022	2.1							

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		1.39					
5/12/2017	1.18	1.29					
6/16/2017	0.332 (U)	1.61					
7/13/2017	0.304 (U)	1.14					
8/8/2017	1.4						
10/26/2017	0.477 (U)	2.04					
11/15/2017		1.99					
3/2/2018	1.13	0.918 (U)					
7/13/2018	0.407 (U)	1.36 (U)					
11/8/2018	0.393 (U)	0.719 (U)					
1/30/2019							1.97 (U)
8/28/2019	1.77	1.38					
10/16/2019	2.12	0.826 (U)					
10/21/2019							1.82
3/9/2020	1.33	1.39					
8/13/2020	1.46	2.66					1.63
8/17/2020			1.4 (U)				
9/23/2020	0.563 (U)	1.8					
9/24/2020							1.28 (U)
9/25/2020			0.799 (U)				
12/9/2020				1.25 (U)			
3/8/2021			0.168 (U)	1.87			
3/10/2021	0.568 (U)	1.6					
3/12/2021							1.18 (U)
4/15/2021					0.945 (U)		
4/16/2021						0.852 (U)	
9/9/2021							1.7
9/13/2021			0.774 (U)				
9/15/2021				2.01			
9/16/2021	1.74	2.06			0.241 (U)		
9/17/2021						1.08 (U)	
1/19/2022				2.45	0.738 (U)		
1/20/2022							1.71
1/21/2022			0.769 (U)				
1/25/2022	0.323 (U)	0.834 (U)					
1/26/2022						0.596 (U)	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/15/2021					0.06 (J)			
9/16/2021				0.084 (J)				0.069 (J)
9/17/2021						0.13		
1/18/2022		<0.1	<0.1					
1/19/2022							0.12	<0.1
1/20/2022						0.1		
1/21/2022				0.053 (J)	0.1			
1/28/2022	0.08 (J)							

Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.001	
9/8/2016				<0.001	<0.001	<0.001		
12/7/2016				<0.001	<0.001	<0.001		
12/8/2016							<0.001	
3/28/2017	<0.001	9E-05 (J)	<0.001					
3/30/2017				0.0014 (J)	<0.001	<0.001	7E-05 (J)	
3/31/2017								<0.001
5/11/2017	<0.001							
5/12/2017			8E-05 (J)					9E-05 (J)
5/15/2017		0.0001 (J)						
6/15/2017	<0.001	0.0002 (J)						
6/16/2017			<0.001					<0.001
7/11/2017		<0.001	<0.001					
7/12/2017	<0.001							
7/13/2017				<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2017		7E-05 (J)						
10/24/2017	<0.001	<0.001	<0.001					
10/26/2017				<0.001	0.0001 (J)	<0.001	7E-05 (J)	<0.001
2/27/2018		<0.001	<0.001					
3/1/2018				<0.001	<0.001	<0.001		
3/2/2018							<0.001	<0.001
3/8/2018	<0.001							
7/12/2018	<0.001			<0.001	<0.001	<0.001	<0.001	
7/13/2018								<0.001
11/6/2018		<0.001	<0.001					
11/7/2018	<0.001							
11/8/2018				<0.001	<0.001	<0.001	<0.001	<0.001
8/27/2019		7.8E-05 (J)	<0.001					
8/28/2019	<0.001			6.1E-05 (J)	<0.001	8E-05 (J)	8.1E-05 (J)	<0.001
10/15/2019		<0.001	<0.001					
10/16/2019	<0.001							
10/17/2019								<0.001
10/18/2019				<0.001	7.4E-05 (J)	<0.001	0.00015 (J)	
3/2/2020		7.4E-05 (J)	<0.001					
3/4/2020							0.00017 (J)	
3/9/2020	<0.001			<0.001	6.1E-05 (J)	<0.001		4.7E-05 (J)
8/11/2020		0.0003 (J)	<0.001					
8/13/2020	<0.001			<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)
9/22/2020	<0.001	7.8E-05 (J)	<0.001					
9/23/2020							0.00028 (J)	<0.001
9/24/2020				<0.001	0.00014 (J)			
9/25/2020						0.00022 (J)		
3/1/2021		<0.001	<0.001					
3/8/2021							5.4E-05 (J)	
3/11/2021				<0.001	0.00014 (J)	<0.001		0.00025 (J)
3/12/2021	<0.001							
9/8/2021			<0.001					
9/9/2021	<0.001	<0.001						
9/14/2021							<0.001	
9/15/2021					<0.001			
9/16/2021				<0.001				<0.001
9/17/2021						<0.001		

Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.001	<0.001					
1/19/2022							<0.001	<0.001
1/20/2022						<0.001		
1/21/2022				<0.001	<0.001			
1/28/2022	<0.001							

Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.001					
5/12/2017	<0.001	0.0001 (J)					
6/16/2017	<0.001	<0.001					
7/13/2017	<0.001	<0.001					
8/8/2017	<0.001						
10/26/2017	<0.001	<0.001					
11/15/2017		9E-05 (J)					
3/2/2018	<0.001	<0.001					
7/13/2018	<0.001	<0.001					
11/8/2018	<0.001	<0.001					
1/30/2019							<0.001
8/28/2019	<0.001	<0.001					
9/11/2019							<0.001
10/16/2019	<0.001	<0.001					
10/21/2019							<0.001
3/9/2020	<0.001	9E-05 (J)					
8/13/2020	<0.001	5.9E-05 (J)					<0.001
8/17/2020			8.8E-05 (J)				
9/23/2020	0.00035 (J)	0.00017 (J)					
9/24/2020							<0.001
9/25/2020			0.00021 (J)				
12/9/2020				5.2E-05 (J)			
3/8/2021			0.00018 (J)	<0.001			
3/10/2021	6.7E-05 (J)	0.0001 (J)					
3/12/2021							<0.001
4/15/2021					0.00014 (J)		
4/16/2021						0.00014 (J)	
9/9/2021							<0.001
9/13/2021			<0.001				
9/15/2021				<0.001			
9/16/2021	<0.001	<0.001			<0.001		
9/17/2021						<0.001	
1/19/2022				<0.001	<0.001		
1/20/2022							<0.001
1/21/2022			<0.001				
1/25/2022	<0.001	<0.001					
1/26/2022						<0.001	

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0022 (J)	
9/8/2016				<0.03	0.0032 (J)	<0.03		
12/7/2016				<0.03	0.0035 (J)	<0.03		
12/8/2016							<0.03	
3/28/2017	0.0108 (J)	0.0054 (J)	0.0025 (J)					
3/30/2017				0.0029 (J)	0.0035 (J)	<0.03	0.0023 (J)	
3/31/2017								0.0052 (J)
5/11/2017	0.0087 (J)							
5/12/2017			0.0016 (J)					0.0054 (J)
5/15/2017		0.002 (J)						
6/15/2017	0.0088 (J)	<0.03						
6/16/2017			0.0016 (J)					0.0048 (J)
7/11/2017		<0.03	<0.03					
7/12/2017	0.0075 (J)							
7/13/2017				<0.03	0.0032 (J)	<0.03	0.0023 (J)	0.0044 (J)
8/8/2017		<0.03						
10/24/2017	0.0103 (J)	<0.03	<0.03					
10/26/2017				0.0018 (J)	0.0034 (J)	<0.03	0.0021 (J)	0.0043 (J)
2/27/2018		<0.03	0.0013 (J)					
3/1/2018				0.0024 (J)	0.0033 (J)	<0.03		
3/2/2018							0.0023 (J)	0.0047 (J)
3/8/2018	0.011 (J)							
7/12/2018	0.0084 (J)			0.0028 (J)	0.0034 (J)	<0.03	0.0022 (J)	
7/13/2018								0.0041 (J)
11/6/2018		<0.03	<0.03					
11/7/2018	<0.03							
11/8/2018				<0.03	<0.03	<0.03	<0.03	<0.03
8/27/2019		<0.03	0.0014 (J)					
8/28/2019	0.0092 (J)			0.0025 (J)	0.0034 (J)	<0.03	0.0022 (J)	0.0046 (J)
10/15/2019		<0.03	0.0012 (J)					
10/16/2019	0.0094 (J)							
10/17/2019								0.0047 (J)
10/18/2019				0.0026 (J)	0.0032 (J)	<0.03	0.0024 (J)	
3/2/2020		<0.03	0.0011 (J)					
3/4/2020							0.0027 (J)	
3/9/2020	0.0077 (J)			0.0017 (J)	0.0033 (J)	<0.03		0.0048 (J)
8/11/2020		0.0019 (J)	0.0015 (J)					
8/13/2020	0.0085 (J)			0.0023 (J)	0.0028 (J)	<0.03	0.0022 (J)	0.0044 (J)
9/22/2020	0.0089 (J)	<0.03	0.0012 (J)					
9/23/2020							0.0022 (J)	0.0043 (J)
9/24/2020				0.0021 (J)	0.0029 (J)			
9/25/2020						<0.03		
3/1/2021		<0.03	0.0012 (J)					
3/8/2021							0.0022 (J)	
3/11/2021				0.0024 (J)	0.003 (J)	<0.03		0.005 (J)
3/12/2021	0.0083 (J)							
9/8/2021			0.0013 (J)					
9/9/2021	0.0091 (J)	<0.03						
9/14/2021							0.003 (J)	
9/15/2021					0.0029 (J)			
9/16/2021				0.0021 (J)				0.0044 (J)
9/17/2021						<0.03		

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.03	0.0013 (J)					
1/19/2022							0.0024 (J)	0.0046 (J)
1/20/2022						<0.03		
1/21/2022				0.002 (J)	0.0025 (J)			
1/28/2022	0.0091 (J)							

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0031 (J)					
5/12/2017	0.0016 (J)	0.003 (J)					
6/16/2017	<0.03	0.0031 (J)					
7/13/2017	<0.03	0.0029 (J)					
8/8/2017	<0.03						
10/26/2017	<0.03	0.0034 (J)					
11/15/2017		0.0034 (J)					
3/2/2018	<0.03	0.0028 (J)					
7/13/2018	<0.03	0.0026 (J)					
11/8/2018	<0.03	<0.03					
1/30/2019							<0.03
8/28/2019	<0.03	0.0024 (J)					
9/11/2019							0.0078 (J)
10/16/2019	<0.03	0.0032 (J)					
10/21/2019							0.0078 (J)
3/9/2020	<0.03	0.0025 (J)					
8/13/2020	<0.03	0.0031 (J)					0.0087 (J)
8/17/2020			0.0013 (J)				
9/23/2020	<0.03	0.0023 (J)					
9/24/2020							0.0084 (J)
9/25/2020			0.0027 (J)				
12/9/2020				0.014 (J)			
3/8/2021			0.0024 (J)	0.015 (J)			
3/10/2021	<0.03	0.0023 (J)					
3/12/2021							0.0087 (J)
4/15/2021					0.0045 (J)		
4/16/2021						0.013 (J)	
9/9/2021							0.0094 (J)
9/13/2021			0.0022 (J)				
9/15/2021				0.014 (J)			
9/16/2021	0.00082 (J)	0.0023 (J)			0.0038 (J)		
9/17/2021						0.013 (J)	
1/19/2022				0.013 (J)	0.0044 (J)		
1/20/2022							0.0092 (J)
1/21/2022			0.0021 (J)				
1/25/2022	<0.03	0.0026 (J)					
1/26/2022						0.014 (J)	

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							4.4E-05 (J)	
9/8/2016				<0.0002	<0.0002	<0.0002		
12/7/2016				<0.0002	<0.0002	<0.0002		
12/8/2016							<0.0002	
3/28/2017	<0.0002	<0.0002	<0.0002					
3/30/2017				6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)	
3/31/2017								<0.0002
5/11/2017	<0.0002							
5/12/2017			6E-05 (J)					<0.0002
5/15/2017		<0.0002						
6/15/2017	8E-05 (J)	7E-05 (J)						
6/16/2017			7E-05 (J)					7E-05 (J)
7/11/2017		<0.0002	<0.0002					
7/12/2017	<0.0002							
7/13/2017				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2017		<0.0002						
10/24/2017	<0.0002	<0.0002	<0.0002					
10/26/2017				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/27/2018		<0.0002	<0.0002					
3/1/2018				<0.0002	<0.0002	<0.0002		
3/2/2018							<0.0002	<0.0002
3/8/2018	<0.0002							
7/12/2018	<0.0002			4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)	
7/13/2018								<0.0002
11/6/2018		<0.0002	<0.0002					
11/7/2018	<0.0002							
11/8/2018				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/27/2019		<0.0002	<0.0002					
8/28/2019	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/15/2019		<0.0002	<0.0002					
10/16/2019	<0.0002							
10/17/2019								<0.0002
10/18/2019				<0.0002	<0.0002	<0.0002	<0.0002	
3/2/2020		<0.0002	<0.0002					
3/4/2020							<0.0002	
3/9/2020	<0.0002			<0.0002	<0.0002	<0.0002		<0.0002
8/11/2020		<0.0002	<0.0002					
8/13/2020	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/22/2020	<0.0002	<0.0002	<0.0002					
9/23/2020							<0.0002	<0.0002
9/24/2020				9.1E-05 (J)	8.5E-05 (J)			
9/25/2020						<0.0002		
3/1/2021		<0.0002	9E-05 (J)					
3/12/2021	<0.0002							
9/8/2021			9.6E-05 (J)					
9/9/2021	<0.0002	<0.0002						
9/14/2021							<0.0002	
9/15/2021					<0.0002			
9/16/2021				<0.0002				<0.0002
9/17/2021						<0.0002		
1/18/2022		<0.0002	0.00015 (J)					
1/19/2022							<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/20/2022						<0.0002		
1/21/2022				<0.0002	<0.0002			
1/28/2022	<0.0002							

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.0002					
5/12/2017	<0.0002	<0.0002					
6/16/2017	7E-05 (J)	7E-05 (J)					
7/13/2017	<0.0002	<0.0002					
8/8/2017	<0.0002						
10/26/2017	<0.0002	<0.0002					
11/15/2017		<0.0002					
3/2/2018	<0.0002	<0.0002					
7/13/2018	<0.0002	<0.0002					
11/8/2018	<0.0002	<0.0002					
1/30/2019							<0.0002
8/28/2019	<0.0002	<0.0002					
9/11/2019							<0.0002
10/16/2019	<0.0002	<0.0002					
10/21/2019							<0.0002
3/9/2020	<0.0002	<0.0002					
8/13/2020	<0.0002	<0.0002					<0.0002
8/17/2020			0.00011 (J)				
9/23/2020	<0.0002	<0.0002					
9/24/2020							<0.0002
9/25/2020			<0.0002				
12/9/2020				8.7E-05 (J)			
3/12/2021							<0.0002
4/15/2021					<0.0002		
4/16/2021						<0.0002	
9/9/2021							<0.0002
9/13/2021			<0.0002				
9/15/2021				<0.0002			
9/16/2021	<0.0002	<0.0002			<0.0002		
9/17/2021						<0.0002	
1/19/2022				<0.0002	<0.0002		
1/20/2022							<0.0002
1/21/2022			<0.0002				
1/25/2022	<0.0002	<0.0002					
1/26/2022						<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.01	
9/8/2016				<0.01	<0.01	<0.01		
12/7/2016				<0.01	<0.01	<0.01		
12/8/2016							<0.01	
3/28/2017	0.0242	<0.01	0.0009 (J)					
3/30/2017				<0.01	0.0011 (J)	<0.01	<0.01	
3/31/2017								<0.01
5/11/2017	0.0375							
5/12/2017			<0.01					<0.01
5/15/2017		<0.01						
6/15/2017	0.0409	<0.01						
6/16/2017			<0.01					<0.01
7/11/2017		<0.01	<0.01					
7/12/2017	0.0321							
7/13/2017				<0.01	0.0012 (J)	<0.01	<0.01	<0.01
8/8/2017		<0.01						
10/24/2017	0.0227	<0.01	<0.01					
10/26/2017				<0.01	0.0011 (J)	<0.01	<0.01	<0.01
2/27/2018		<0.01	<0.01					
3/1/2018				<0.01	<0.01	<0.01		
3/2/2018							<0.01	<0.01
3/8/2018	0.035							
7/12/2018	0.034			<0.01	<0.01	<0.01	<0.01	
7/13/2018								<0.01
11/6/2018		<0.01	<0.01					
11/7/2018	0.029							
11/8/2018				<0.01	<0.01	<0.01	<0.01	<0.01
8/27/2019		<0.01	<0.01					
8/28/2019	0.031			<0.01	<0.01	<0.01	<0.01	<0.01
10/15/2019		<0.01	<0.01					
10/16/2019	0.037							
10/17/2019								<0.01
10/18/2019				<0.01	<0.01	<0.01	<0.01	
3/2/2020		<0.01	<0.01					
3/4/2020							<0.01	
3/9/2020	0.026			<0.01	0.001 (J)	<0.01		<0.01
8/11/2020		<0.01	<0.01					
8/13/2020	0.012			<0.01	0.00098 (J)	<0.01	<0.01	<0.01
9/22/2020	0.039	<0.01	<0.01					
9/23/2020							<0.01	<0.01
9/24/2020				<0.01	0.001 (J)			
9/25/2020						<0.01		
3/1/2021		<0.01	<0.01					
3/8/2021							<0.01	
3/11/2021				<0.01	0.00092 (J)	<0.01		<0.01
3/12/2021	0.018							
9/8/2021			<0.01					
9/9/2021	0.025	<0.01						
9/14/2021							<0.01	
9/15/2021					0.00099 (J)			
9/16/2021				<0.01				<0.01
9/17/2021						<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.01	<0.01					
1/19/2022							<0.01	<0.01
1/20/2022						<0.01		
1/21/2022				<0.01	0.0013 (J)			
1/28/2022	0.026							

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		0.0124					
5/12/2017	0.275	0.0117					
6/16/2017	0.19	0.0087 (J)					
7/13/2017	0.211	0.0053 (J)					
8/8/2017	0.207						
10/26/2017	0.226	0.0244					
11/15/2017		0.0237					
3/2/2018	0.215	0.0072 (J)					
7/13/2018	0.22	0.007 (J)					
11/8/2018	0.2	<0.01 (J)					
1/30/2019							<0.01
8/28/2019	0.21	0.0059 (J)					
9/11/2019							<0.01
10/16/2019	0.22	0.01					
10/21/2019							<0.01
3/9/2020	0.19	0.0062 (J)					
8/13/2020	0.19	0.011					<0.01
8/17/2020			<0.01				
9/23/2020	0.2	0.0056 (J)					
9/24/2020							<0.01
9/25/2020			<0.01				
12/9/2020				<0.01			
3/8/2021			<0.01	0.0011 (J)			
3/10/2021	0.2	0.0056 (J)					
3/12/2021							<0.01
3/26/2021						0.025	
4/15/2021					0.037		
4/16/2021						0.078	
9/9/2021							<0.01
9/13/2021			<0.01				
9/15/2021				<0.01			
9/16/2021	0.18	0.009 (J)			0.032		
9/17/2021						0.074	
1/19/2022				<0.01	0.032		
1/20/2022							<0.01
1/21/2022			<0.01				
1/25/2022	0.23	0.0057 (J)					
1/26/2022						0.074	

Time Series

Constituent: pH, Field (SU) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							4.77	
9/8/2016				6.32	6.01	6.47		
12/7/2016				6.32	6.07	6.43		
12/8/2016							4.77	
3/28/2017	6.29		5.94					
3/30/2017				6.22	5.97	6.42	4.84	
3/31/2017								6.25
5/11/2017	6.6							
5/12/2017			5.46					6.23
5/15/2017		5.72						
6/15/2017	6.41	5.74						
6/16/2017			5.81					6.22
7/11/2017		5.62	5.74					
7/12/2017	5.91							
7/13/2017				6.3	6.11	6.47	4.85	6.15
8/8/2017		5.6						
10/24/2017	5.51	5.71	5.86					
10/26/2017					6.06	6.49	4.86	6.64
11/15/2017	6.5		5.77					
2/27/2018		5.5	5.66					
3/1/2018				6.28	6.05	6.37		
3/2/2018							4.67	6.18
3/8/2018	6.18							
7/10/2018		5.44	5.63					
7/12/2018	6.33			6.43	6.05	6.45	4.63	
7/13/2018								6.19
11/6/2018		5.71	5.79					
11/7/2018	6.22							
11/8/2018				6.36	6.07	6.49	4.79	6.23
3/12/2019		5.52	5.74					
3/13/2019	6			6.26	6.05	6.28	4.6	6.19
8/27/2019		5.53	5.87					
8/28/2019	6.04			6.27	5.98	6.41	4.68	6.22
10/15/2019		5.61	5.88					
10/16/2019	6.69							
10/17/2019								6.14
10/18/2019				6.26	6	6.35	4.71	
3/2/2020		5.54	5.77					
3/4/2020							4.64	
3/9/2020	6.41			6.34	6.12	6.37		6.23
8/11/2020		5.86	5.96					
8/13/2020	6.17			6.34	6.05	6.39	4.65	6.28
9/22/2020	6.43	6.01	6.06					
9/23/2020							4.78	6.23
9/24/2020				6.3	6.05			
9/25/2020						6.38		
3/1/2021		5.43	5.8					
3/8/2021							4.79	
3/11/2021				6.49	6.22	6.66		6.28
3/12/2021	6.38							
9/8/2021			5.76					
9/9/2021	6.41	5.5						

Time Series

Constituent: pH, Field (SU) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/14/2021							4.67	
9/15/2021					6.08			
9/16/2021				6.33				6.2
9/17/2021						6.49		
1/18/2022		5.5	5.51					
1/19/2022							4.66	6.21
1/20/2022						6.52		
1/21/2022				6.31	6.08			
1/28/2022	6.35							

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							0.0019 (J)	
9/8/2016				<0.005	<0.005	<0.005		
12/7/2016				<0.005	<0.005	<0.005		
12/8/2016							0.0022 (J)	
3/28/2017	<0.005	<0.005	<0.005					
3/30/2017				<0.005	<0.005	<0.005	0.0023 (J)	
3/31/2017								<0.005
5/11/2017	<0.005							
5/12/2017			<0.005					<0.005
5/15/2017		<0.005						
6/15/2017	<0.005	<0.005						
6/16/2017			<0.005					<0.005
7/11/2017		<0.005	<0.005					
7/12/2017	<0.005							
7/13/2017				<0.005	<0.005	<0.005	0.0025 (J)	<0.005
8/8/2017		<0.005						
10/24/2017	<0.005	<0.005	<0.005					
10/26/2017				<0.005	<0.005	<0.005	0.0036 (J)	<0.005
2/27/2018		<0.005	<0.005					
3/1/2018				<0.005	<0.005	<0.005		
3/2/2018							<0.005	<0.005
3/8/2018	<0.005							
7/12/2018	<0.005			<0.005	<0.005	<0.005	<0.005	
7/13/2018								<0.005
11/6/2018		<0.005	<0.005					
11/7/2018	<0.005							
11/8/2018				<0.005	<0.005	<0.005	<0.01 (J)	<0.005
8/27/2019		<0.005	<0.005					
8/28/2019	<0.005			<0.005	<0.005	<0.005	0.0017 (J)	<0.005
10/15/2019		<0.005	<0.005					
10/16/2019	<0.005							
10/17/2019								<0.005
10/18/2019				<0.005	<0.005	<0.005	0.0027 (J)	
3/2/2020		<0.005	<0.005					
3/4/2020							0.0049 (J)	
3/9/2020	<0.005			<0.005	<0.005	<0.005		<0.005
8/11/2020		<0.005	<0.005					
8/13/2020	<0.005			<0.005	<0.005	<0.005	0.0018 (J)	<0.005
9/22/2020	<0.005	<0.005	<0.005					
9/23/2020							0.0067 (J)	<0.005
9/24/2020				<0.005	<0.005			
9/25/2020						<0.005		
3/1/2021		<0.005	<0.005					
3/8/2021							0.0023 (J)	
3/11/2021				<0.005	0.0019 (J)	<0.005		0.0027 (J)
3/12/2021	<0.005							
9/8/2021			<0.005					
9/9/2021	<0.005	<0.005						
9/14/2021							0.0015 (J)	
9/15/2021					<0.005			
9/16/2021				<0.005				<0.005
9/17/2021						<0.005		

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.005	<0.005					
1/19/2022							<0.005	<0.005
1/20/2022						<0.005		
1/21/2022				<0.005	<0.005			
1/28/2022	<0.005							

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.005					
5/12/2017	<0.005	<0.005					
6/16/2017	<0.005	<0.005					
7/13/2017	<0.005	<0.005					
8/8/2017	<0.005						
10/26/2017	<0.005	<0.005					
11/15/2017		<0.005					
3/2/2018	<0.005	<0.005					
7/13/2018	<0.005	<0.005					
11/8/2018	<0.005	<0.005					
1/30/2019							<0.005
8/28/2019	<0.005	<0.005					
9/11/2019							<0.005
10/16/2019	<0.005	<0.005					
10/21/2019							<0.005
3/9/2020	<0.005	<0.005					
8/13/2020	<0.005	<0.005					<0.005
8/17/2020			<0.005				
9/23/2020	<0.005	<0.005					
9/24/2020							<0.005
9/25/2020			<0.005				
12/9/2020				<0.005			
3/8/2021			0.0019 (J)	<0.005			
3/10/2021	0.0017 (J)	<0.005					
3/12/2021							<0.005
4/15/2021					<0.005		
4/16/2021						<0.005	
9/9/2021							<0.005
9/13/2021			<0.005				
9/15/2021				<0.005			
9/16/2021	<0.005	<0.005			<0.005		
9/17/2021						<0.005	
1/19/2022				<0.005	<0.005		
1/20/2022							<0.005
1/21/2022			<0.005				
1/25/2022	<0.005	<0.005					
1/26/2022						<0.005	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							230	
9/8/2016				97	270	280		
12/7/2016				100	250	250		
12/8/2016							270	
3/28/2017	49	2.7	17					
3/30/2017				110	290	310	240	
3/31/2017								110
5/11/2017	21							
5/12/2017			17					100
5/15/2017		1						
6/15/2017	16	0.86 (J)						
6/16/2017			11					100
7/11/2017		1.4	11					
7/12/2017	10							
7/13/2017				200 (O)	270	220	220	110
8/8/2017		1.5						
10/24/2017	15	1.4	9.6					
10/26/2017				97	260	210	220	100
11/15/2017	3.8		7.8					
2/27/2018		0.54 (J)	7.4					
3/1/2018				94.6	242	166		
3/2/2018							219	98.5
3/8/2018	9.7							
7/12/2018	8			89.2	256	169	222	
7/13/2018								136
11/6/2018		<1 (J)	7.3					
11/7/2018	12.8							
11/8/2018				102	291	200	273	118
3/12/2019		0.35 (J)	7					
3/13/2019	23.7			92.2	300	265	445	233
10/15/2019		0.16 (J)	7.4					
10/16/2019	15.1							
10/17/2019								99.4
10/18/2019				76.4	239	182	205	
3/2/2020		<1	8.5					
3/4/2020							177	
3/9/2020	9.5			90.3	244	171		100
9/22/2020	13.5	<1	6.5					
9/23/2020							190	99.8
9/24/2020				84.1	240			
9/25/2020						153		
3/1/2021		<1	5.2					
3/8/2021							191	
3/11/2021				81.9	154	123		76.7
3/12/2021	8.8							
9/8/2021			6.1					
9/9/2021	11.9	<1						
9/14/2021							186	
9/15/2021					219			
9/16/2021				95				101
9/17/2021						156		
1/18/2022		<1	6.3					

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/19/2022							177	97.2
1/20/2022						123		
1/21/2022				89.8	188			
1/28/2022	13.1							

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		21					
5/12/2017	50	17					
6/16/2017	47	20					
7/13/2017	49	17					
8/8/2017	48						
10/26/2017	48	31					
11/15/2017		29					
3/2/2018	44.7	10.1					
7/13/2018	43.3	8.6					
11/8/2018	43.5	9.7					
1/30/2019							74.7
3/13/2019	44.1	8.4					
10/16/2019	32.1	13.3					
10/21/2019							55.3
3/9/2020	37.4	7.6					
9/23/2020	38.7	5.9					
9/24/2020							50.6
9/25/2020			385				
12/9/2020				220			
3/8/2021			388	228			
3/10/2021	38.4	6.4					
3/12/2021							46.5
4/15/2021					95.6		
4/16/2021						46.5	
9/9/2021							49.2
9/13/2021			351				
9/15/2021				240			
9/16/2021	22.3	17.9			21.2		
9/17/2021						89.1	
1/19/2022				220	18.4		
1/20/2022							50.3
1/21/2022			344				
1/25/2022	36.3	7.1					
1/26/2022						55.5	

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							<0.001	
9/8/2016				<0.001	<0.001	<0.001		
12/7/2016				<0.001	<0.001	<0.001		
12/8/2016							<0.001	
3/28/2017	<0.001	<0.001	6E-05 (J)					
3/30/2017				<0.001	0.0001 (J)	0.0001 (J)	6E-05 (J)	
3/31/2017								<0.001
5/11/2017	<0.001							
5/12/2017			<0.001					<0.001
5/15/2017		<0.001						
6/15/2017	<0.001	<0.001						
6/16/2017			<0.001					<0.001
7/11/2017		<0.001	<0.001					
7/12/2017	<0.001							
7/13/2017				<0.001	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001
8/8/2017		<0.001						
10/24/2017	<0.001	<0.001	<0.001					
10/26/2017				<0.001	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001
2/27/2018		<0.001	<0.001					
3/1/2018				<0.001	<0.001	<0.001		
3/2/2018							<0.001	<0.001
3/8/2018	<0.001							
7/12/2018	<0.001			<0.001	<0.001	<0.001	<0.001	
7/13/2018								<0.001
11/6/2018		<0.001	<0.001					
11/7/2018	<0.001							
11/8/2018				<0.001	<0.001	<0.001	<0.001	<0.001
8/27/2019		<0.001	<0.001					
8/28/2019	<0.001			<0.001	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001
10/15/2019		<0.001	<0.001					
10/16/2019	<0.001							
10/17/2019								<0.001
10/18/2019				<0.001	0.0001 (J)	<0.001	<0.001	
3/2/2020		7.8E-05 (J)	<0.001					
3/4/2020							6.8E-05 (J)	
3/9/2020	<0.001			<0.001	0.00016 (J)	7.1E-05 (J)		<0.001
8/11/2020		<0.001	<0.001					
8/13/2020	<0.001			<0.001	0.00016 (J)	<0.001	<0.001	<0.001
9/22/2020	<0.001	<0.001	<0.001					
9/23/2020							<0.001	<0.001
9/24/2020				<0.001	0.00015 (J)			
9/25/2020						<0.001		
3/1/2021		<0.001	<0.001					
3/8/2021							<0.001	
3/11/2021				<0.001	<0.001	<0.001		<0.001
3/12/2021	<0.001							
9/8/2021			<0.001					
9/9/2021	<0.001	<0.001						
9/14/2021							<0.001	
9/15/2021					<0.001			
9/16/2021				<0.001				<0.001
9/17/2021						<0.001		

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/18/2022		<0.001	<0.001					
1/19/2022							<0.001	<0.001
1/20/2022						<0.001		
1/21/2022				<0.001	<0.001			
1/28/2022	<0.001							

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		<0.001					
5/12/2017	<0.001	<0.001					
6/16/2017	<0.001	<0.001					
7/13/2017	<0.001	<0.001					
8/8/2017	<0.001						
10/26/2017	<0.001	<0.001					
11/15/2017		<0.001					
3/2/2018	<0.001	<0.001					
7/13/2018	0.00015 (J)	<0.001					
11/8/2018	<0.001	<0.001					
1/30/2019							<0.001
8/28/2019	<0.001	<0.001					
9/11/2019							<0.001
10/16/2019	<0.001	<0.001					
10/21/2019							<0.001
3/9/2020	<0.001	<0.001					
8/13/2020	<0.001	<0.001					<0.001
8/17/2020			<0.001				
9/23/2020	<0.001	<0.001					
9/24/2020							<0.001
9/25/2020			<0.001				
12/9/2020				<0.001			
3/8/2021			<0.001	<0.001			
3/10/2021	<0.001	<0.001					
3/12/2021							<0.001
4/15/2021					<0.001		
4/16/2021						<0.001	
9/9/2021							<0.001
9/13/2021			<0.001				
9/15/2021				<0.001			
9/16/2021	<0.001	<0.001			<0.001		
9/17/2021						<0.001	
1/19/2022				<0.001	<0.001		
1/20/2022							<0.001
1/21/2022			<0.001				
1/25/2022	<0.001	<0.001					
1/26/2022						<0.001	

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
9/2/2016							583 (O)	
9/8/2016				279	437	522		
12/7/2016				300	478	565		
12/8/2016							319	
3/28/2017	202	39	90					
3/30/2017				273	448	496	344	
3/31/2017								270
5/11/2017	241							
5/12/2017			92					287
5/15/2017		88						
6/15/2017	251	65						
6/16/2017			100					309
7/11/2017		25	59					
7/12/2017	218							
7/13/2017				312	504	508	386	275
8/8/2017		53						
10/24/2017	671 (O)	49	117					
10/26/2017				340	554	532	373	319
11/15/2017	241		90					
2/27/2018		43	79					
3/1/2018				311	492	440		
3/2/2018							359	264
3/8/2018	213							
7/12/2018	198			290	478	463	365	
7/13/2018								297
11/6/2018		65	85					
11/7/2018	200							
11/8/2018				295	507	485	399	295
3/12/2019		43	74					
3/13/2019	201			286	487	526	351	278
10/15/2019		70	89					
10/16/2019	126							
10/17/2019								281
10/18/2019				269	494	489	360	
3/2/2020		52	67					
3/4/2020							400	
3/9/2020	171			357	554	508		209
9/22/2020	142	46	74					
9/23/2020							357	296
9/24/2020				280	489			
9/25/2020						460		
3/1/2021		25	62					
3/8/2021							346	
3/11/2021				255	463	440		265
3/12/2021	124							
9/8/2021			75					
9/9/2021	131	53						
9/14/2021							347	
9/15/2021					474			
9/16/2021				278				282
9/17/2021						446		
1/18/2022		54	76					

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
1/19/2022								
1/20/2022						416	336	272
1/21/2022				316	482			
1/28/2022	155							

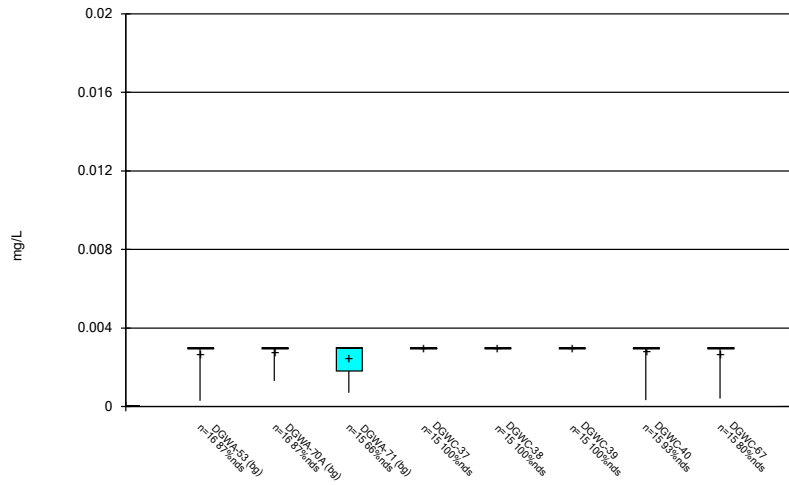
Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/13/2022 3:33 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-69	B-100	B-105D	B-112D	B-113D	B-62
3/31/2017		138					
5/12/2017	300	243					
6/16/2017	271	155					
7/13/2017	246	122					
8/8/2017	278						
10/26/2017	287	234					
11/15/2017		188					
3/2/2018	252	73					
7/13/2018	275	95					
11/8/2018	277	112					
1/30/2019							287
3/13/2019	267	95					
10/16/2019	218	108					
10/21/2019							180
3/9/2020	188	115					
9/23/2020	251	102					
9/24/2020							170
9/25/2020			724				
12/9/2020				474			
3/8/2021			660	477			
3/10/2021	232	78					
3/12/2021							172
4/15/2021					289		
4/16/2021						229	
9/9/2021							174
9/13/2021			636				
9/15/2021				455			
9/16/2021	259	113			162		
9/17/2021						329	
1/19/2022				453	167		
1/20/2022							187
1/21/2022			638				
1/25/2022	259	84					
1/26/2022						234	

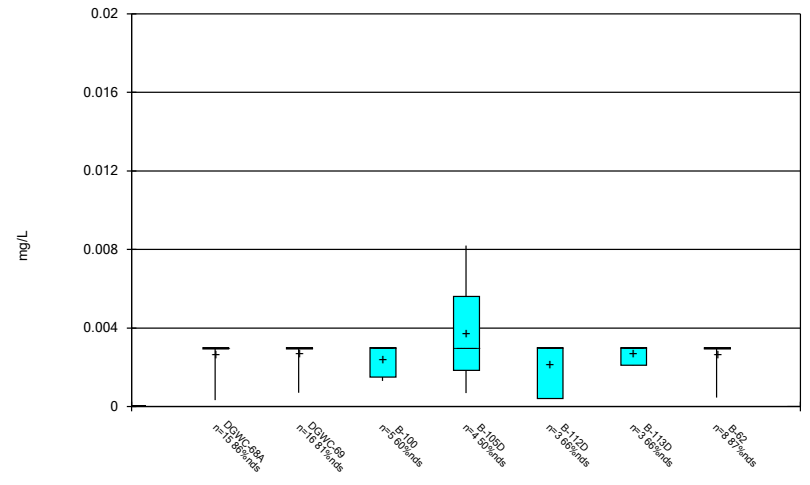
FIGURE B.

Box & Whiskers Plot



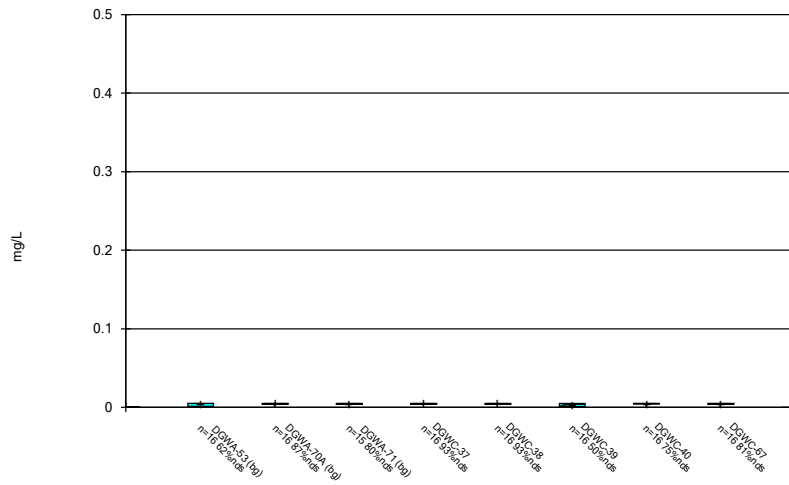
Constituent: Antimony Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



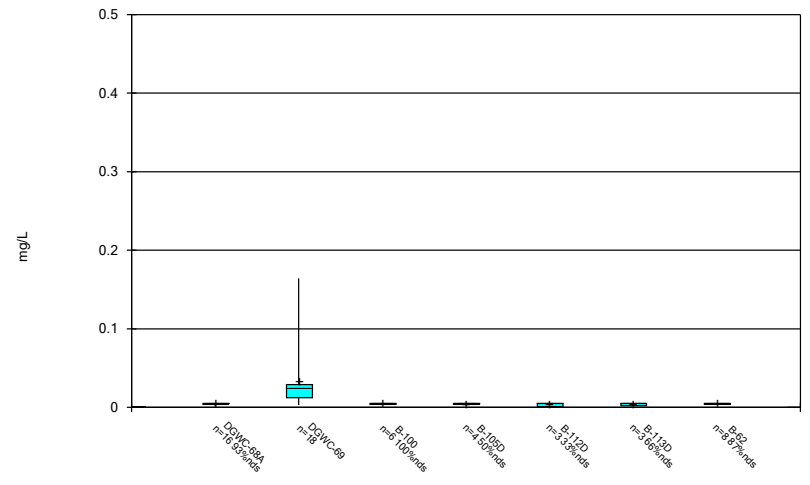
Constituent: Antimony Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



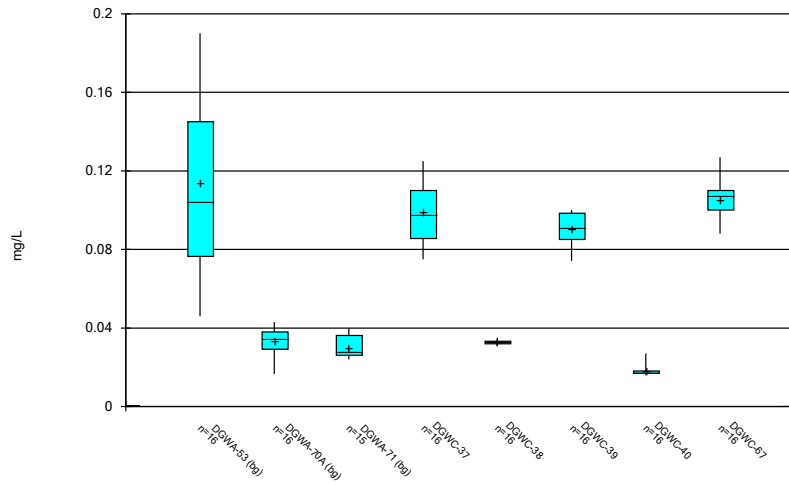
Constituent: Arsenic Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



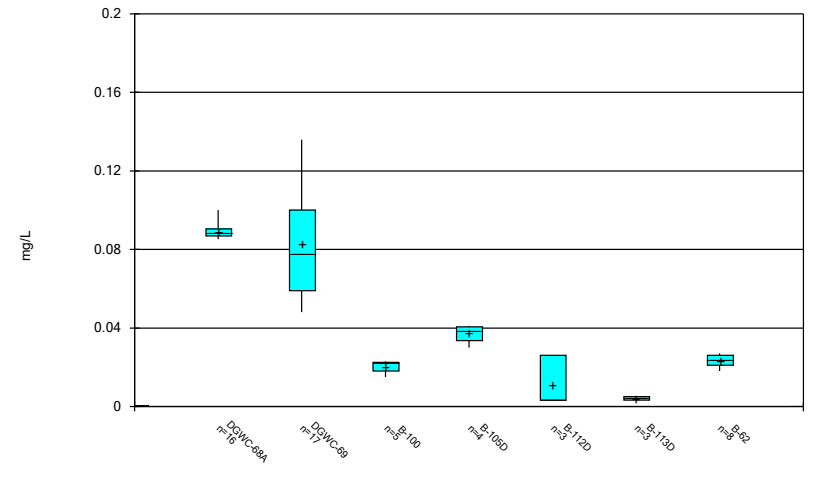
Constituent: Arsenic Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



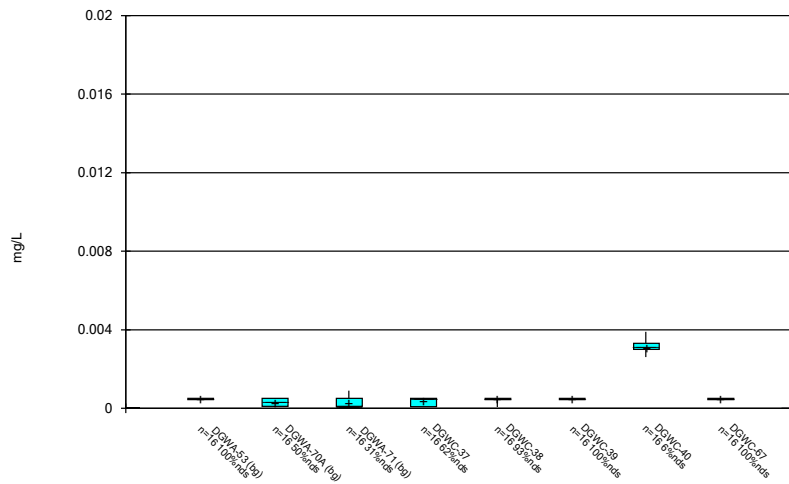
Constituent: Barium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



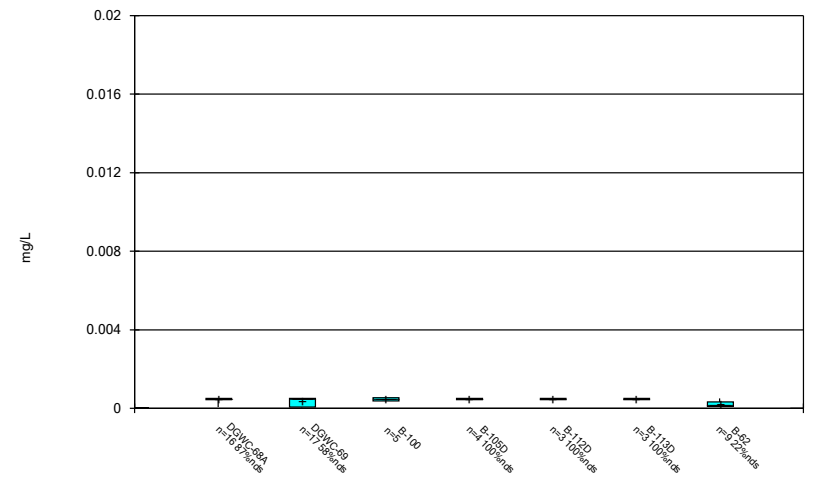
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



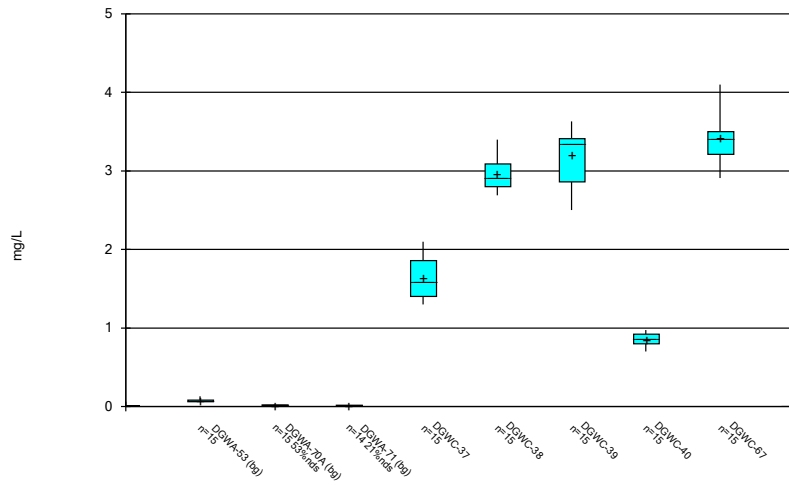
Constituent: Beryllium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



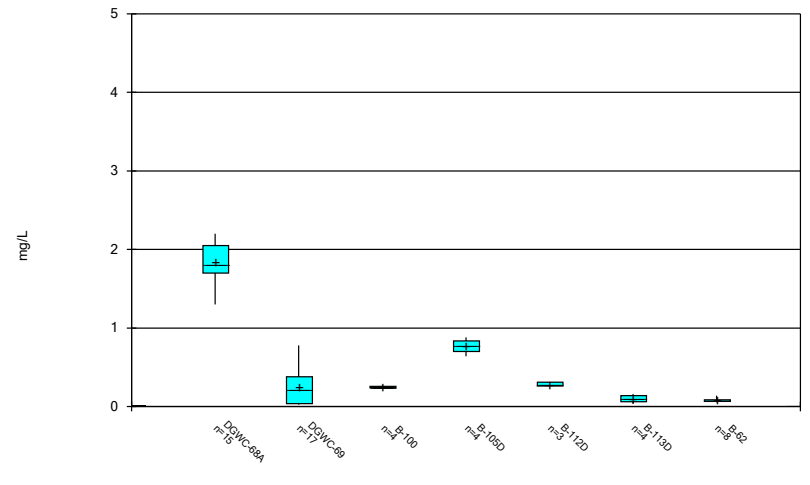
Constituent: Beryllium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



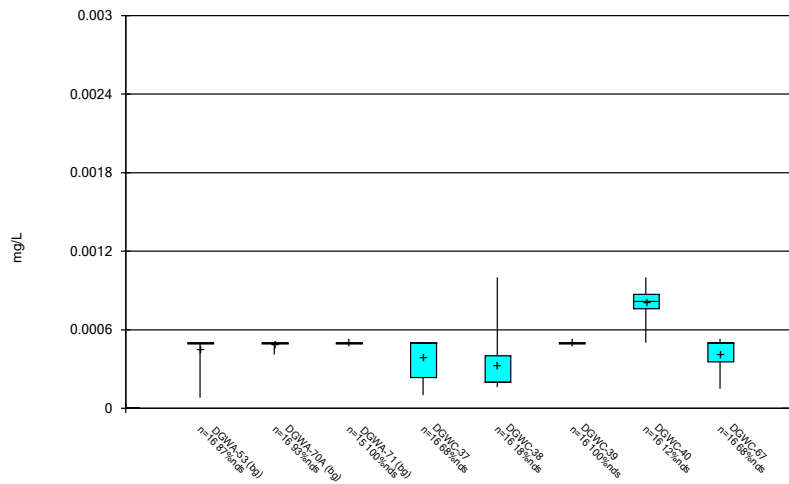
Constituent: Boron, total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



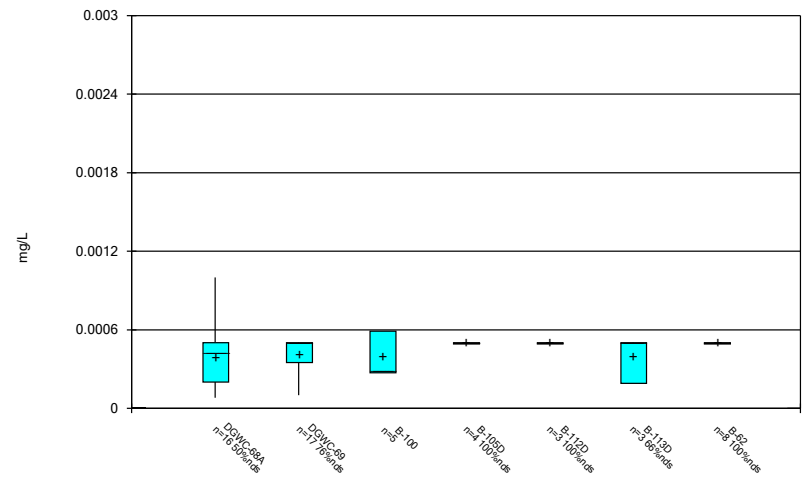
Constituent: Boron, total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



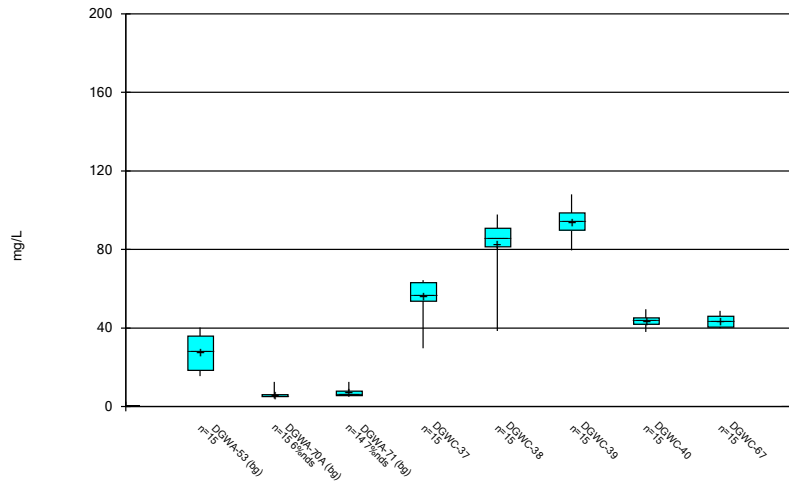
Constituent: Cadmium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



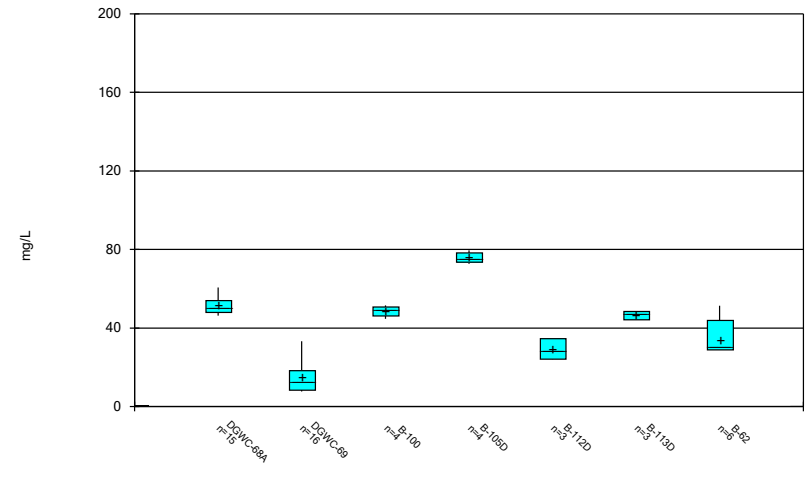
Constituent: Cadmium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



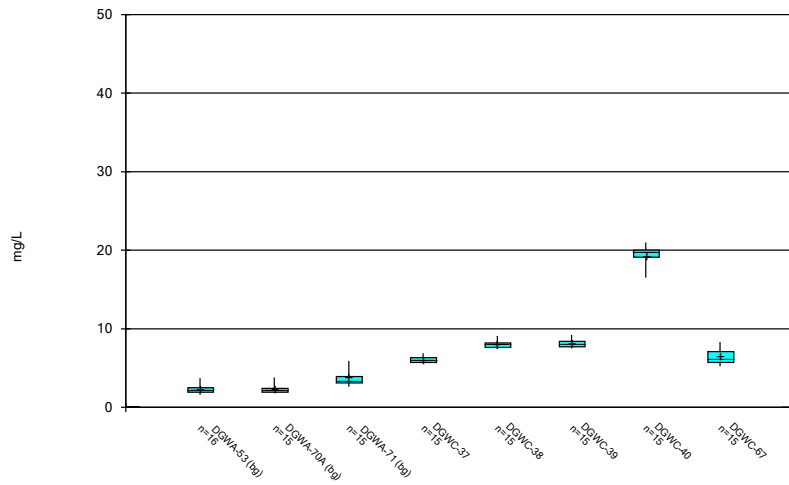
Constituent: Calcium, total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



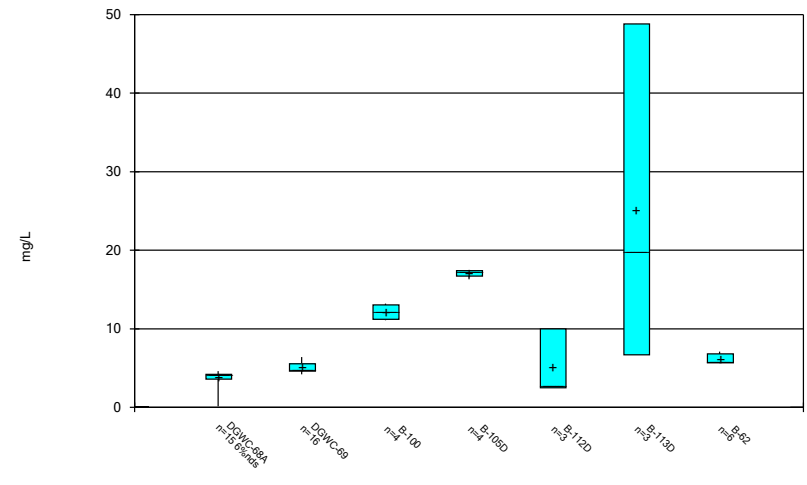
Constituent: Calcium, total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



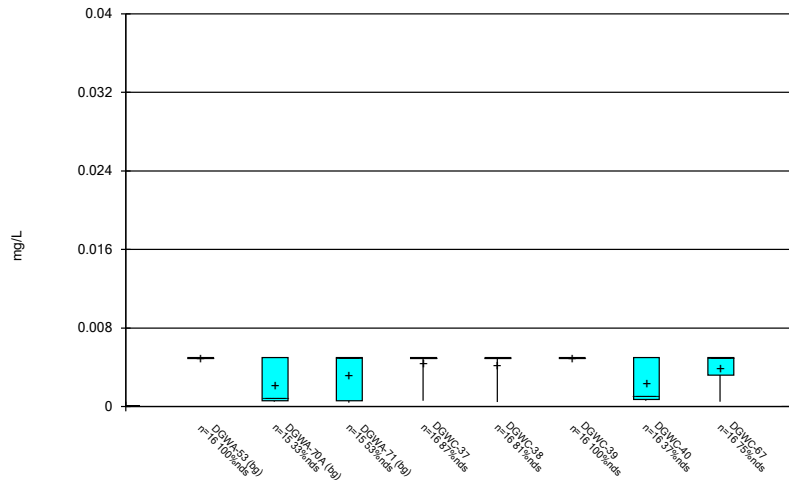
Constituent: Chloride, Total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



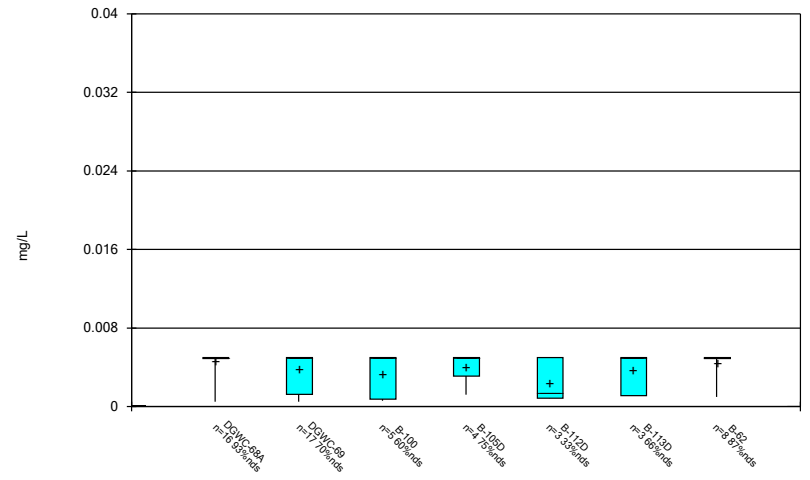
Constituent: Chloride, Total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



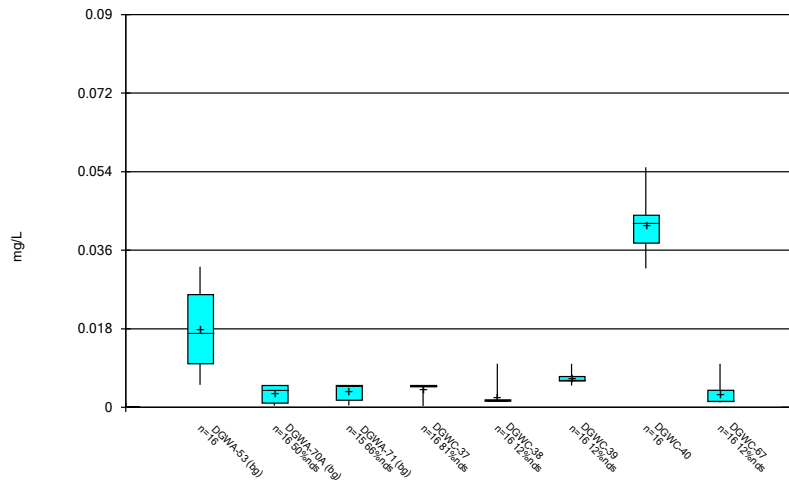
Constituent: Chromium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



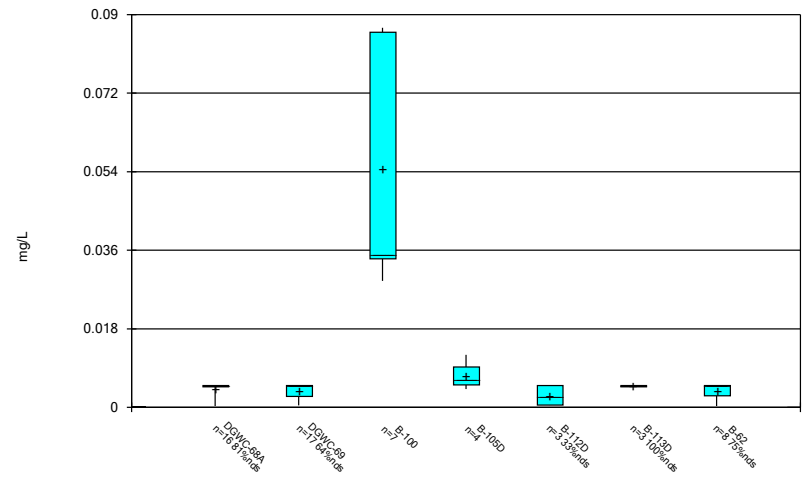
Constituent: Chromium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



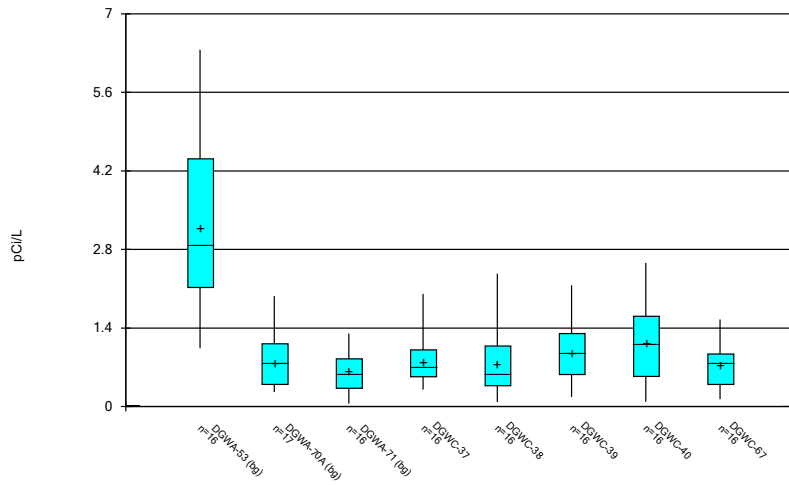
Constituent: Cobalt Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



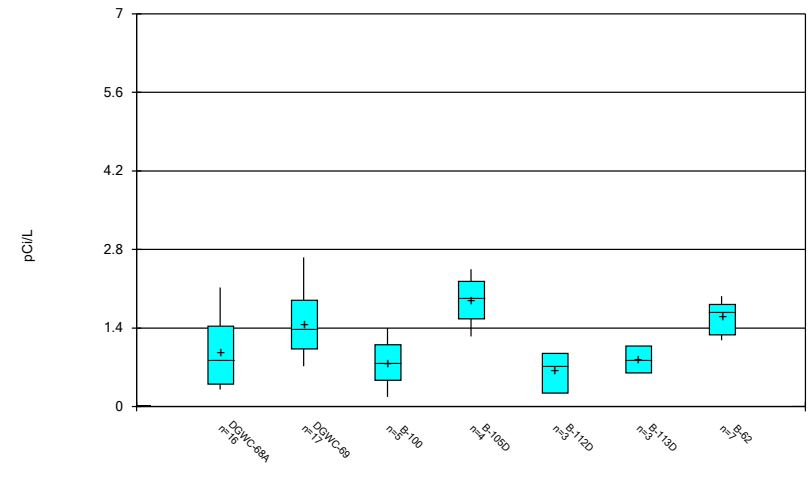
Constituent: Cobalt Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



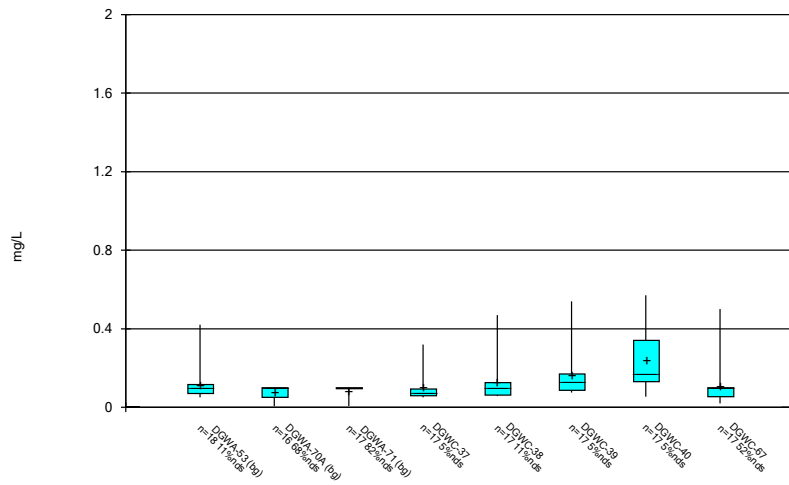
Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



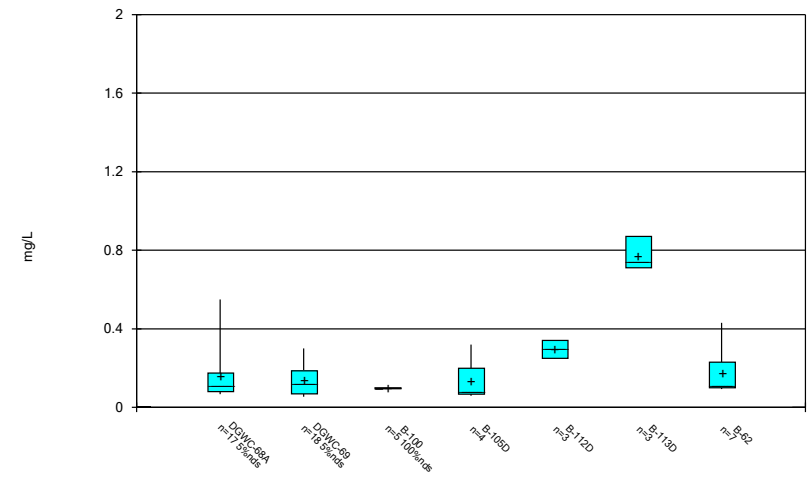
Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



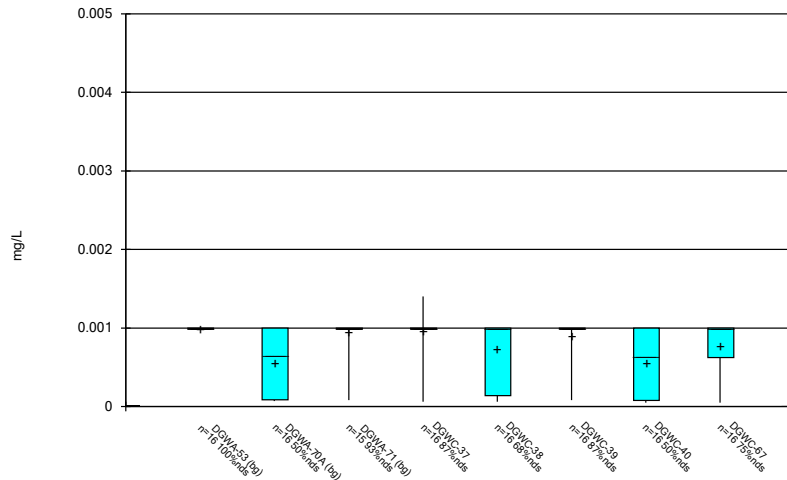
Constituent: Fluoride, total Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



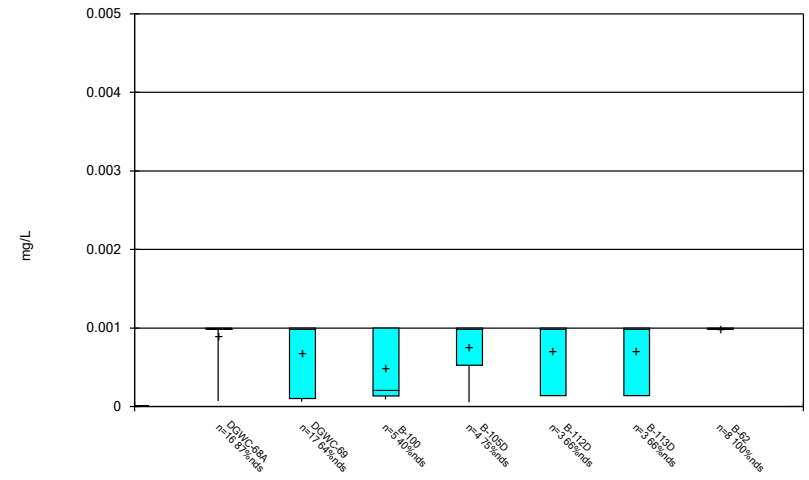
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



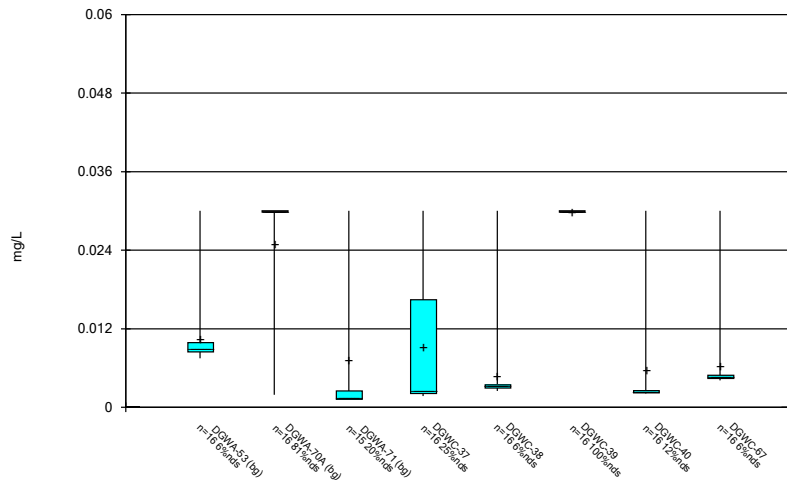
Constituent: Lead Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



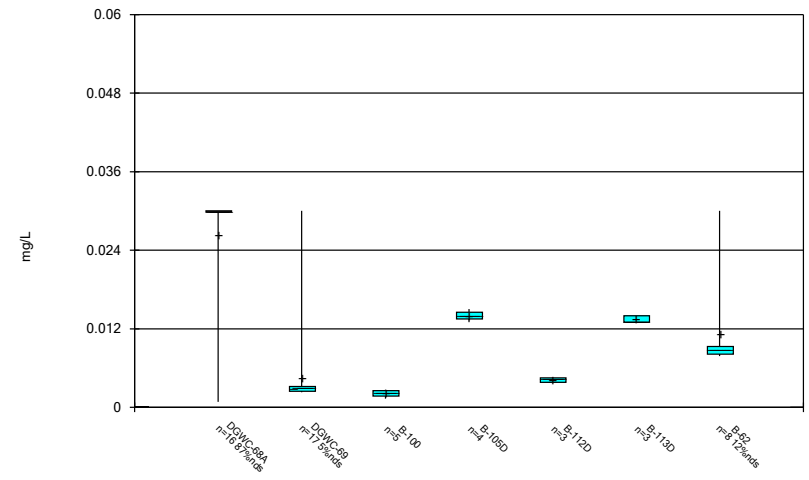
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



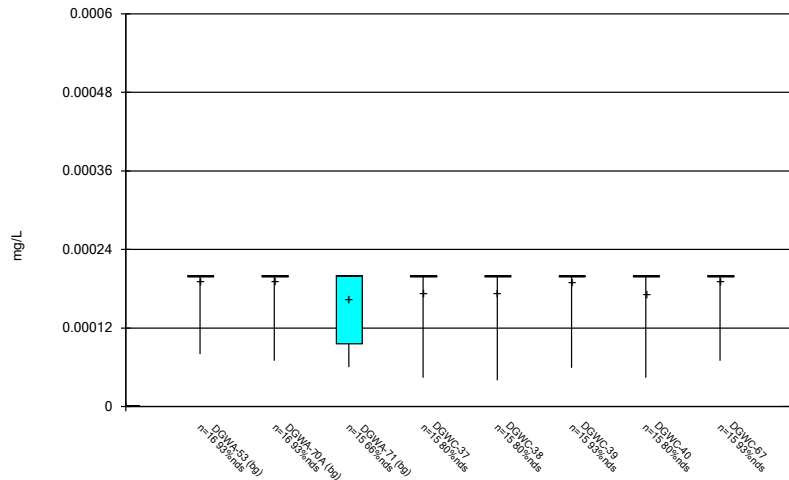
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



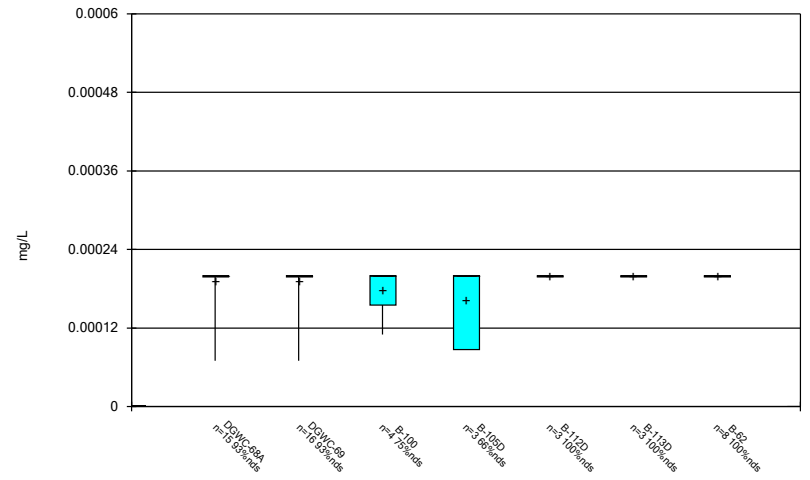
Constituent: Lithium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



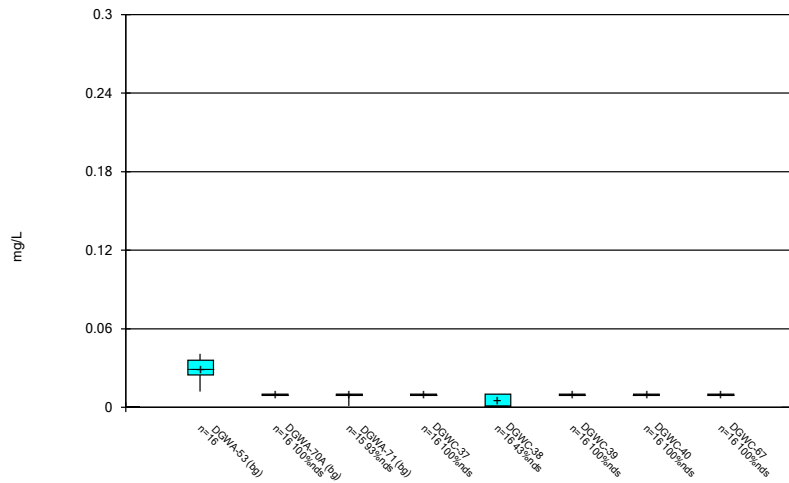
Constituent: Mercury Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



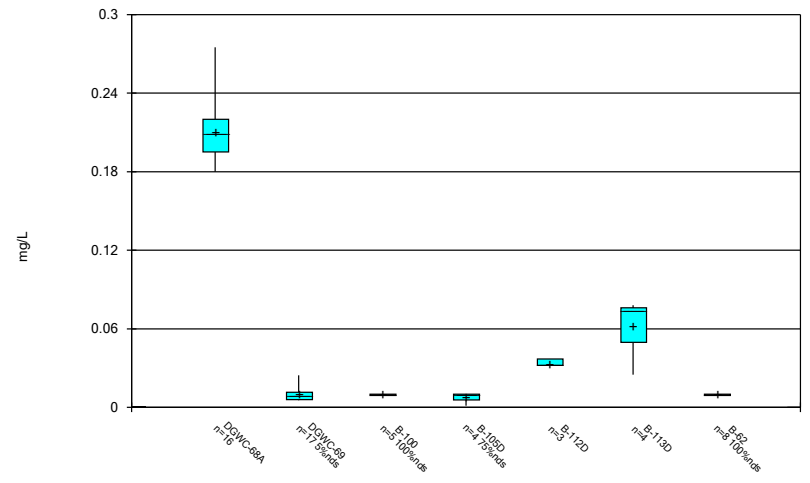
Constituent: Mercury Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



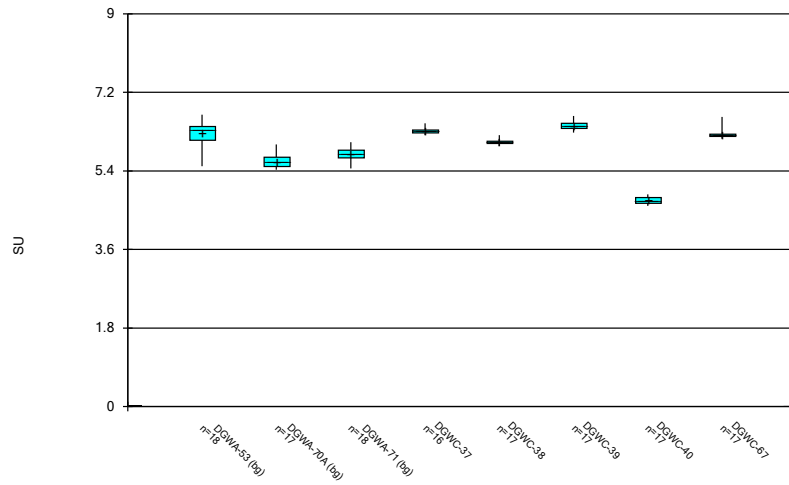
Constituent: Molybdenum Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



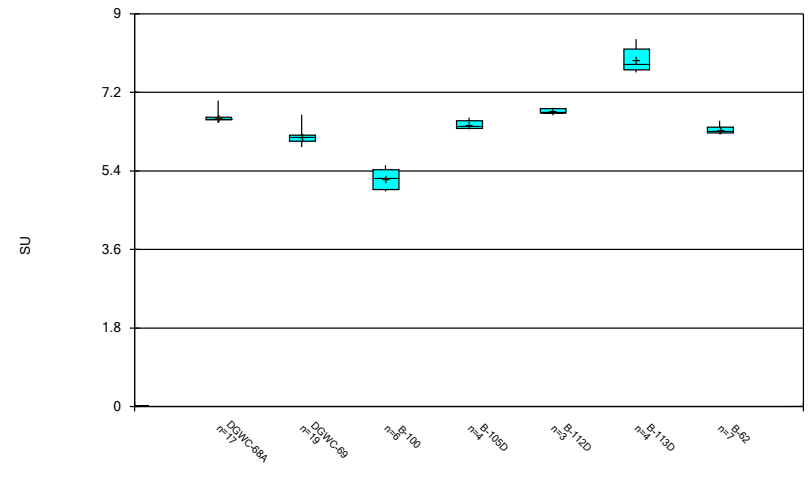
Constituent: Molybdenum Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



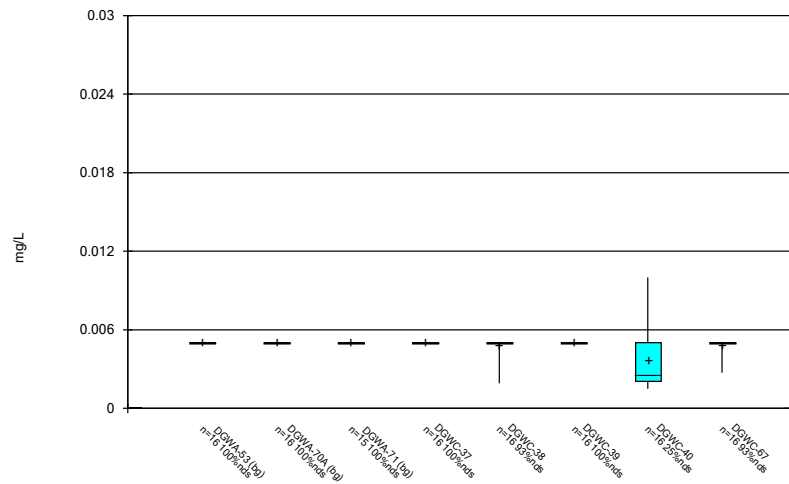
Constituent: pH, Field Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



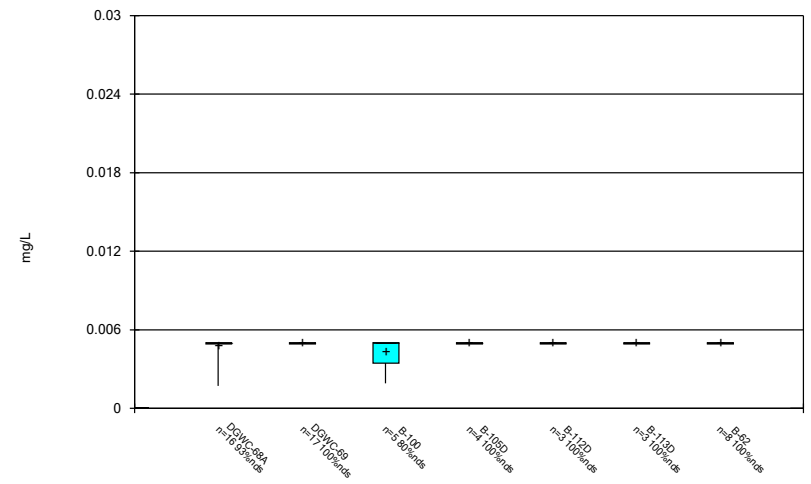
Constituent: pH, Field Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



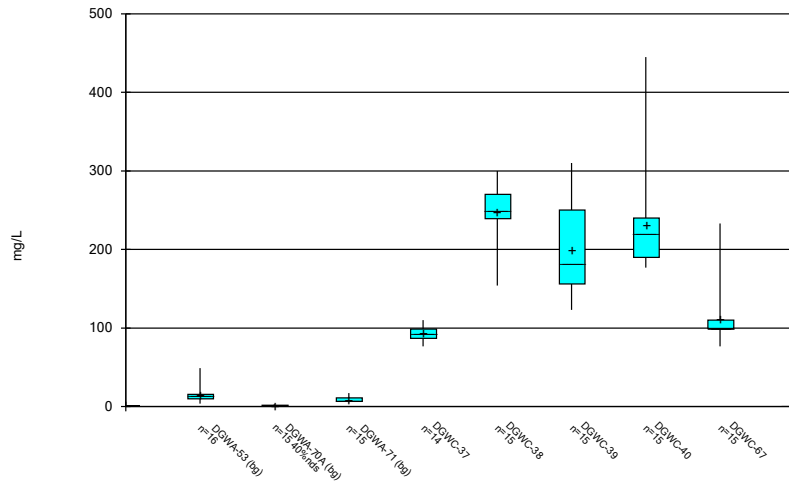
Constituent: Selenium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



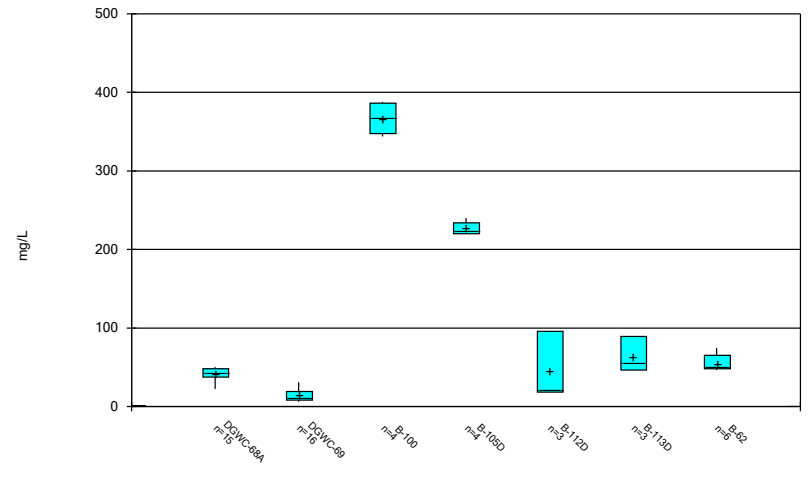
Constituent: Selenium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



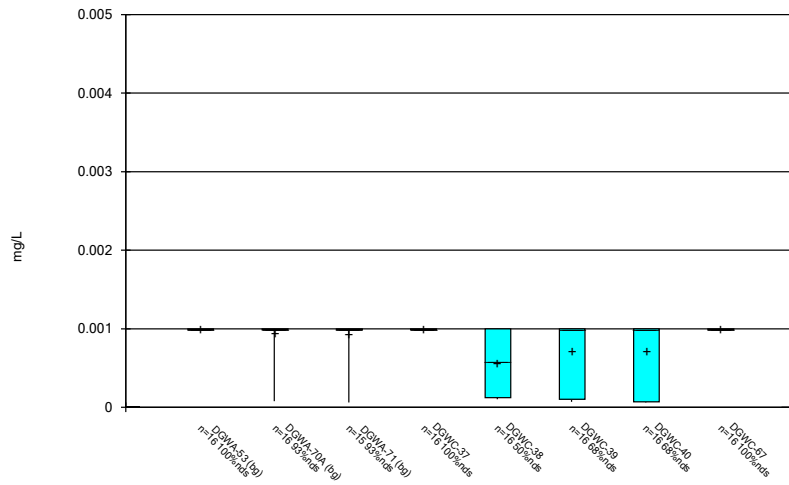
Constituent: Sulfate as SO4 Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



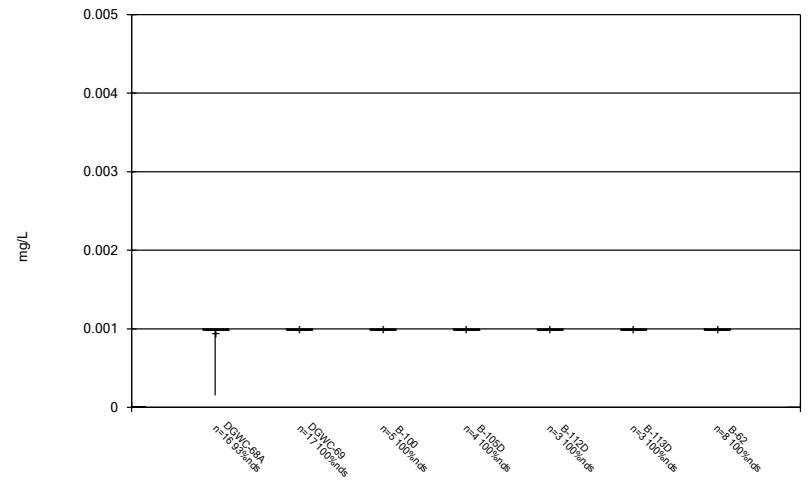
Constituent: Sulfate as SO4 Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



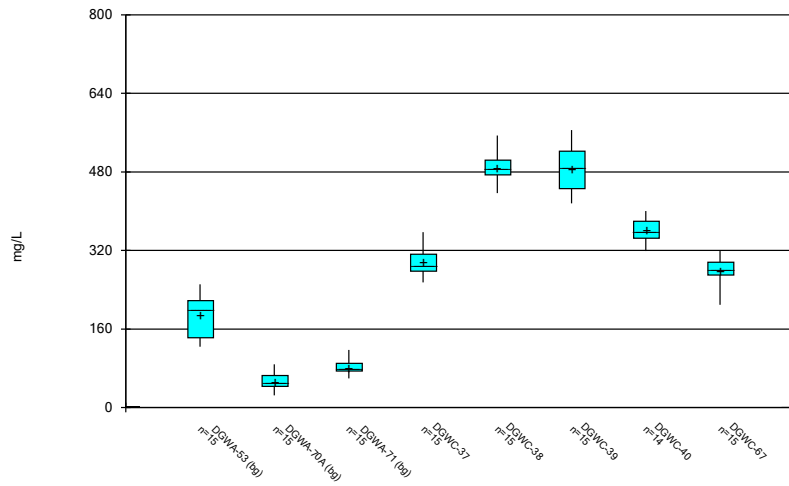
Constituent: Thallium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



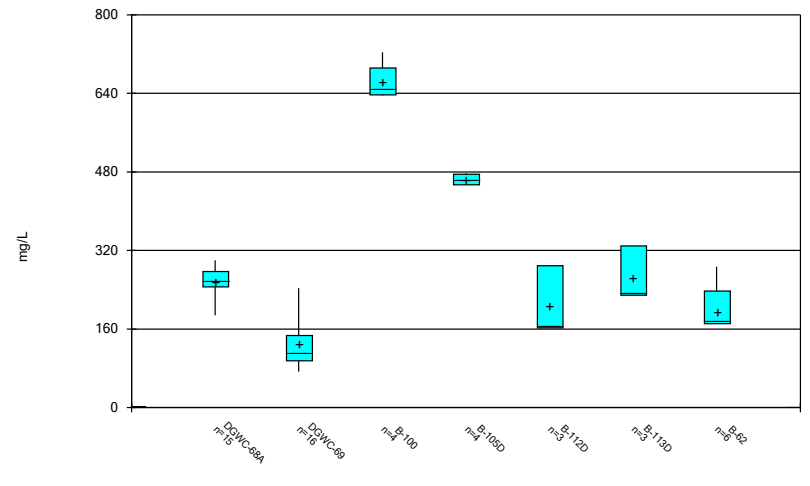
Constituent: Thallium Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/13/2022 3:35 PM View: AP 1
 Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE C.

Outlier Summary

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:37 PM

Date	DGWC-68A Arsenic (mg/L)	DGWC-68A Barium (mg/L)	DGWA-70A Chromium (mg/L)	DGWC-68A Chromium (mg/L)	DGWC-68A Cobalt (mg/L)	DGWA-70A Fluoride, total (mg/L)	DGWC-68A pH, Field (SU)	DGWC-37 Sulfate as SO4 (mg/L)	DGWA-53 Total Dissolved Solids [TDS] (mg/L)	DGWC-40 Total Dissolved Solids [TDS] (mg/L)
9/2/2016									583 (O)	
3/28/2017					1.2 (O)					
7/13/2017								200 (O)		
10/24/2017									671 (O)	
10/15/2019			0.034 (O)							
9/16/2021	0.46 (o)	0.13 (o)		0.0014 (J,o)	0.0032 (J,o)	6.79 (o)				

FIGURE D.

Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:38 PM

Constituent	Well	Upper Lim.	Lower LimDate	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method	
Boron, total (mg/L)	DGWC-37	0.13	n/a	1/21/2022	1.4	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	1/21/2022	2.8	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	1/20/2022	2.8	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	1/19/2022	0.82	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	1/19/2022	4.1	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	1/25/2022	2.2	Yes	44	n/a	n/a	25	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	1/21/2022	64.4	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	1/21/2022	91	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	1/20/2022	96.2	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	1/19/2022	44.7	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	1/19/2022	48.8	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	1/25/2022	60.4	Yes	44	n/a	n/a	4.545	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-38	5.9	n/a	1/21/2022	8.5	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-39	5.9	n/a	1/20/2022	8	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-40	5.9	n/a	1/19/2022	16.5	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-67	5.9	n/a	1/19/2022	8.3	Yes	46	n/a	n/a	0	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-40	6.557	5.231	1/19/2022	4.66	Yes	53	5.894	0.3426	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.34	n/a	1/21/2022	89.8	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-38	28.34	n/a	1/21/2022	188	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-39	28.34	n/a	1/20/2022	123	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-40	28.34	n/a	1/19/2022	177	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-67	28.34	n/a	1/19/2022	97.2	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-68A	28.34	n/a	1/25/2022	36.3	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	259.9	n/a	1/21/2022	316	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	259.9	n/a	1/21/2022	482	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	259.9	n/a	1/20/2022	416	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	259.9	n/a	1/19/2022	336	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	259.9	n/a	1/19/2022	272	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2

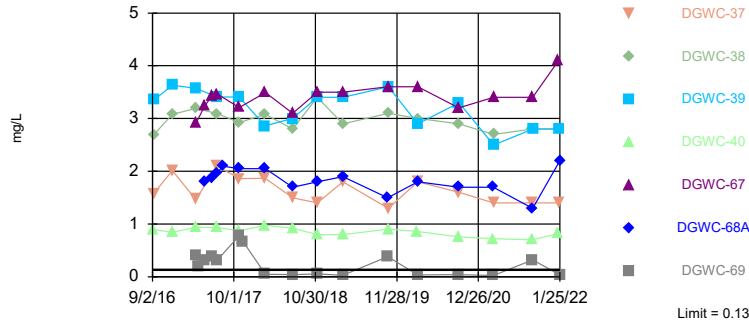
Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:38 PM

Constituent	Well	Upper Lim.	Lower Lim	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	DGWC-37	0.13	n/a	1/21/2022	1.4	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-38	0.13	n/a	1/21/2022	2.8	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-39	0.13	n/a	1/20/2022	2.8	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-40	0.13	n/a	1/19/2022	0.82	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-67	0.13	n/a	1/19/2022	4.1	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-68A	0.13	n/a	1/25/2022	2.2	Yes	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Boron, total (mg/L)	DGWC-69	0.13	n/a	1/25/2022	0.035J	No	44	n/a	n/a	n/a	25	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-37	40.3	n/a	1/21/2022	64.4	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-38	40.3	n/a	1/21/2022	91	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-39	40.3	n/a	1/20/2022	96.2	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-40	40.3	n/a	1/19/2022	44.7	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-67	40.3	n/a	1/19/2022	48.8	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-68A	40.3	n/a	1/25/2022	60.4	Yes	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	DGWC-69	40.3	n/a	1/25/2022	9.2	No	44	n/a	n/a	n/a	4.545	n/a	n/a	n/a	0.000969	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-37	5.9	n/a	1/21/2022	5.7	No	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-38	5.9	n/a	1/21/2022	8.5	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-39	5.9	n/a	1/20/2022	8	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-40	5.9	n/a	1/19/2022	16.5	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-67	5.9	n/a	1/19/2022	8.3	Yes	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-68A	5.9	n/a	1/25/2022	3.8	No	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	DGWC-69	5.9	n/a	1/25/2022	5.4	No	46	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0008917	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	DGWC-37	0.42	n/a	1/21/2022	0.053J	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-38	0.42	n/a	1/21/2022	0.1	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-39	0.42	n/a	1/20/2022	0.1	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-40	0.42	n/a	1/19/2022	0.12	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-67	0.42	n/a	1/19/2022	0.1ND	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-68A	0.42	n/a	1/25/2022	0.067J	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	DGWC-69	0.42	n/a	1/25/2022	0.054J	No	51	n/a	n/a	n/a	52.94	n/a	n/a	n/a	0.0007158	NP Inter (NDs) 1 of 2
pH, Field (SU)	DGWC-37	6.557	5.231	1/21/2022	6.31	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-38	6.557	5.231	1/21/2022	6.08	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-39	6.557	5.231	1/20/2022	6.52	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-40	6.557	5.231	1/19/2022	4.66	Yes	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-67	6.557	5.231	1/19/2022	6.21	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-68A	6.557	5.231	1/25/2022	6.53	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (SU)	DGWC-69	6.557	5.231	1/25/2022	6.02	No	53	5.894	0.3426	0	None	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	DGWC-37	28.34	n/a	1/21/2022	89.8	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-38	28.34	n/a	1/21/2022	188	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-39	28.34	n/a	1/20/2022	123	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-40	28.34	n/a	1/19/2022	177	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-67	28.34	n/a	1/19/2022	97.2	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-68A	28.34	n/a	1/25/2022	36.3	Yes	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Sulfate as SO4 (mg/L)	DGWC-69	28.34	n/a	1/25/2022	7.1	No	46	2.545	1.423	13.04	None	sqrt(x)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	259.9	n/a	1/21/2022	316	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	259.9	n/a	1/21/2022	482	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	259.9	n/a	1/20/2022	416	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	259.9	n/a	1/19/2022	336	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	259.9	n/a	1/19/2022	272	Yes	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	259.9	n/a	1/25/2022	259	No	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	259.9	n/a	1/25/2022	84	No	45	4.565	0.9289	0	None	x^(1/3)	0.001075	Param Inter 1 of 2		

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A

Prediction Limit Interwell Non-parametric

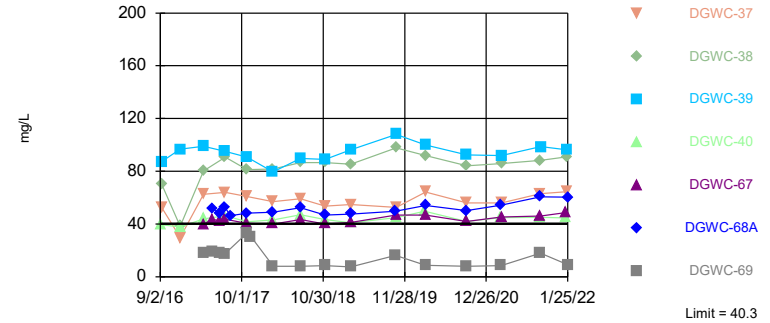


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 25% NDs. Annual per-constituent alpha = 0.01348. Individual comparison alpha = 0.000969 (1 of 2). Comparing 7 points to limit.

Constituent: Boron, total Analysis Run 3/14/2022 1:36 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A

Prediction Limit Interwell Non-parametric

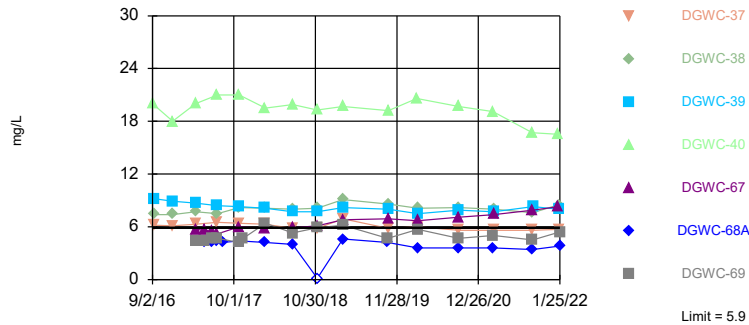


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 4.545% NDs. Annual per-constituent alpha = 0.01348. Individual comparison alpha = 0.000969 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium, total Analysis Run 3/14/2022 1:37 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-38, DGWC-39, DGWC-40, DGWC-67

Prediction Limit Interwell Non-parametric

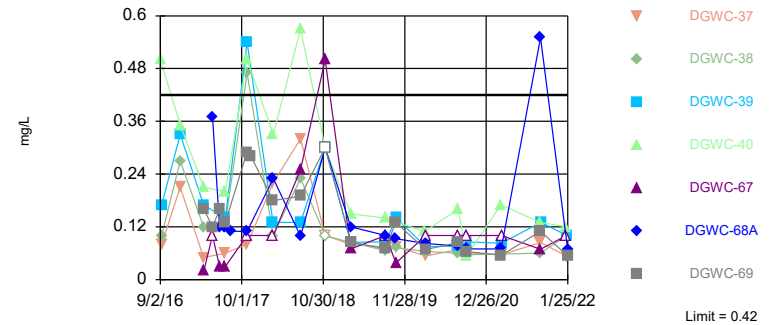


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 46 background values. Annual per-constituent alpha = 0.01241. Individual comparison alpha = 0.0008917 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride, Total Analysis Run 3/14/2022 1:37 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Within Limit

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 51 background values. 52.94% NDs. Annual per-constituent alpha = 0.009975. Individual comparison alpha = 0.0007158 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride, total Analysis Run 3/14/2022 1:37 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016	0.895								
9/8/2016		3.35	2.69	1.58					
12/7/2016		3.63	3.08	2.01					
12/8/2016	0.841								
3/28/2017					0.0097 (J)	0.0067 (J)	0.0612		
3/30/2017	0.937	3.57	3.19	1.47					
3/31/2017								2.91	0.407
4/12/2017									0.207
5/11/2017							0.0805		
5/12/2017					0.0082 (J)			3.24	0.311
5/15/2017						0.0073 (J)			
6/15/2017						<0.04	0.0725		
6/16/2017					0.0085 (J)			3.42	0.381
7/11/2017					0.0077 (J)	<0.04			
7/12/2017							0.0735		
7/13/2017	0.933	3.41	3.09	2.1				3.46	0.323
8/8/2017						<0.04			
10/24/2017					0.0083 (J)	0.0082 (J)	0.077		
10/26/2017	0.873	3.41	2.92	1.86				3.21	0.779
11/15/2017									0.667
2/27/2018					0.0069 (J)	0.0062 (J)			
3/1/2018		2.86	3.08	1.87					
3/2/2018	0.974							3.49	0.0478
3/8/2018							0.13 (J)		
7/12/2018	0.92	3	2.8	1.5			0.076		
7/13/2018								3.1	0.043
11/6/2018					<0.04 (J)	<0.04 (J)			
11/7/2018							0.073		
11/8/2018	0.8	3.4	3.4	1.4				3.5	0.054
3/12/2019					0.0068 (J)	0.0073 (J)			
3/13/2019	0.8	3.4	2.9	1.8			0.08	3.5	0.028 (J)
10/15/2019					0.0054 (J)	<0.04			
10/16/2019							0.059		0.38
10/17/2019								3.6	
10/18/2019	0.9	3.6	3.1	1.3					
3/2/2020					0.01 (J)	0.0055 (J)			
3/4/2020	0.86								
3/9/2020		2.9	3	1.8			0.08 (J)	3.6	0.035 (J)
9/22/2020					<0.04	<0.04	0.056 (J)		
9/23/2020	0.76							3.2	0.041 (J)
9/24/2020			2.9	1.6					
9/25/2020		3.3							
3/1/2021					0.0054 (J)	<0.04			
3/8/2021	0.72								
3/10/2021									0.024 (J)
3/11/2021		2.5	2.7	1.4				3.4	
3/12/2021							0.064		
9/8/2021					<0.04				
9/9/2021						<0.04	0.065		
9/14/2021	0.7								
9/15/2021			2.8						
9/16/2021				1.4				3.4	0.32

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/17/2021		2.8							
1/18/2022					0.015 (J)	0.024 (J)			
1/19/2022	0.82							4.1	
1/20/2022		2.8							
1/21/2022			2.8	1.4					
1/25/2022									0.035 (J)
1/28/2022							0.062		

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
4/12/2017	
5/11/2017	
5/12/2017	1.8
5/15/2017	
6/15/2017	
6/16/2017	1.88
7/11/2017	
7/12/2017	
7/13/2017	1.97
8/8/2017	2.1
10/24/2017	
10/26/2017	2.05
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	2.05
3/8/2018	
7/12/2018	
7/13/2018	1.7
11/6/2018	
11/7/2018	
11/8/2018	1.8
3/12/2019	
3/13/2019	1.9
10/15/2019	
10/16/2019	1.5
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	1.8
9/22/2020	
9/23/2020	1.7
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	1.7
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	1.3

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/17/2021	
1/18/2022	
1/19/2022	
1/20/2022	
1/21/2022	
1/25/2022	2.2
1/28/2022	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016	39.6								
9/8/2016		87.2	70.3	52.5					
12/7/2016		96.7	38.4	29.7					
12/8/2016	37.9								
3/28/2017					8.31	5.14	30.8		
3/30/2017	43.9	98.9	80.3	62.6					
3/31/2017								39.9	18.6 (J)
5/11/2017							35.8		
5/12/2017					8.04			43.6	18.9 (J)
5/15/2017						6.5			
6/15/2017						5.38	36		
6/16/2017					7.66			42.5	17.7
7/11/2017					7.71	5.96			
7/12/2017							40.3		
7/13/2017	46.2	95	90.8	64.1				43.7	17.6
8/8/2017						5.2			
10/24/2017					6.86	4.93	30.3		
10/26/2017	41.8	90.6	81.3	60.8				40.4	33.3
11/15/2017									30.6
2/27/2018					<25	<25			
3/1/2018		79.6	81.8	57					
3/2/2018	43.2							40.1	8.09
3/8/2018							39.8		
7/12/2018	47.1	89.8	86.7	59.1			34.7		
7/13/2018								43.3	7.9
11/6/2018					5.7	5.5			
11/7/2018							28.6		
11/8/2018	43.5	89	86.6	53.6				40.1	8.5
3/12/2019					5.5	5.1			
3/13/2019	41	96.3	85.3	54.8			26.7	41.2	7.6
10/15/2019					5.1	5.1			
10/16/2019							17.7		16.2
10/17/2019								46.9	
10/18/2019	44.9	108	97.8	52.5					
3/2/2020					5.8	5.3			
3/4/2020	49.6								
3/9/2020		100	91.9	64.2			23.7	46.9	8.6
9/22/2020					5.4	5	15.5		
9/23/2020	41.9							42	8
9/24/2020			84.1	55.9					
9/25/2020		92.5							
3/1/2021					5.9	4.1			
3/8/2021	44.9								
3/10/2021									8.5
3/11/2021		91.9	85.8	56				45.4	
3/12/2021							18.4		
9/8/2021					6.1				
9/9/2021						5.3	18.3		
9/14/2021	45.1								
9/15/2021			88.3						
9/16/2021				63				46	18
9/17/2021		98.6							

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
1/18/2022					6.6	6.1			
1/19/2022	44.7							48.8	
1/20/2022		96.2							
1/21/2022			91	64.4					
1/25/2022									9.2
1/28/2022							19.5		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	51.7
5/15/2017	
6/15/2017	
6/16/2017	47.9
7/11/2017	
7/12/2017	
7/13/2017	52.3
8/8/2017	46.3
10/24/2017	
10/26/2017	48.2
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	48.9
3/8/2018	
7/12/2018	
7/13/2018	52.4
11/6/2018	
11/7/2018	
11/8/2018	46.8
3/12/2019	
3/13/2019	47.5
10/15/2019	
10/16/2019	49.7
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	54
9/22/2020	
9/23/2020	50.2
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	54.2
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	60.6
9/17/2021	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

1/18/2022	
1/19/2022	
1/20/2022	
1/21/2022	
1/25/2022	60.4
1/28/2022	

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016	20								
9/8/2016		9.2	7.4	6.2					
12/7/2016		8.9	7.4	6.1					
12/8/2016	18								
3/28/2017					3.6	3.8	3.7		
3/30/2017	20	8.7	7.7	6.3					
3/31/2017								5.7	4.4
5/11/2017							2.3		
5/12/2017					3.8			5.6	4.4
5/15/2017						2.2			
6/15/2017						2	2.6		
6/16/2017					3.4			5.5	4.7
7/11/2017					3.1	2.1			
7/12/2017							2.3		
7/13/2017	21	8.4	7.5	6.5				5.2	4.7
8/8/2017						2.2			
10/24/2017					3.2	2.4	2.7		
10/26/2017	21	8.3	8.2	6.4				6	4.2
11/15/2017					3.1		2.2		4.7
2/27/2018					3.2	2.5			
3/1/2018		8.1	8.1	6.3					
3/2/2018	19.5							5.8	6.4
3/8/2018							2.4		
7/12/2018	19.9	7.7	8	5.8			2.2		
7/13/2018								5.9	5.3
11/6/2018					2.6	2.3			
11/7/2018							2.3		
11/8/2018	19.3	7.7	8.1	5.8				6.1	5.9
3/12/2019					3.3	2.5			
3/13/2019	19.7	8.2	9.1	6.9			3.6	6.8	6.2
10/15/2019					3.3	2.2			
10/16/2019							2		4.7
10/17/2019								6.9	
10/18/2019	19.2	8	8.6	5.8					
3/2/2020					3	1.9			
3/4/2020	20.6								
3/9/2020		7.5	8.1	6			1.8	6.7	5.7
9/22/2020					5.2	1.9	1.6		
9/23/2020	19.7							7.1	4.7
9/24/2020			8.2	5.6					
9/25/2020		7.9							
3/1/2021					3.9	1.9			
3/8/2021	19.1								
3/10/2021									5
3/11/2021		7.7	8	5.6				7.4	
3/12/2021							2		
9/8/2021					5.9				
9/9/2021						1.9	1.8		
9/14/2021	16.7								
9/15/2021			7.6						
9/16/2021				5.6				7.9	4.5
9/17/2021		8.3							

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
1/18/2022					5.9	1.9			
1/19/2022	16.5							8.3	
1/20/2022		8							
1/21/2022			8.5	5.7					
1/25/2022									5.4
1/28/2022							1.8		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	4.2
5/15/2017	
6/15/2017	
6/16/2017	4.2
7/11/2017	
7/12/2017	
7/13/2017	4.4
8/8/2017	4.2
10/24/2017	
10/26/2017	4.4
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	4.2
3/8/2018	
7/12/2018	
7/13/2018	4
11/6/2018	
11/7/2018	
11/8/2018	<0.25
3/12/2019	
3/13/2019	4.6
10/15/2019	
10/16/2019	4.2
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	3.6
9/22/2020	
9/23/2020	3.6
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	3.6
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	3.4
9/17/2021	

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

1/18/2022	
1/19/2022	
1/20/2022	
1/21/2022	
1/25/2022	3.8
1/28/2022	

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/2/2016	0.5								
9/8/2016		0.17 (J)	0.1 (J)	0.08 (J)					
12/7/2016		0.33	0.27 (J)	0.21 (J)					
12/8/2016	0.35								
3/28/2017					0.06 (J)	0.12 (J)			
3/30/2017	0.21 (J)	0.17 (J)	0.12 (J)	0.05 (J)					
3/31/2017							0.02 (J)	0.16 (J)	
5/11/2017						0.07 (J)			
5/12/2017					<0.1		<0.1	0.12 (J)	0.37
5/15/2017									
6/15/2017						0.19 (J)			
6/16/2017					0.008 (J)		0.03 (J)	0.16 (J)	0.12 (J)
7/11/2017					0.007 (J)				
7/12/2017						0.1 (J)			
7/13/2017	0.2 (J)	0.14 (J)	0.13 (J)	0.06 (J)			0.03 (J)	0.13 (J)	0.12 (J)
8/8/2017									0.11 (J)
10/24/2017					<0.1	0.06 (J)			
10/26/2017	0.5	0.54	0.47	0.08 (J)			<0.1	0.29 (J)	0.11 (J)
11/15/2017					<0.1	0.05 (J)		0.28 (J)	
2/27/2018					<0.1				
3/1/2018		0.13	<0.1	0.22					
3/2/2018	0.33						<0.1	0.18	0.23
3/8/2018						<0.1			
7/12/2018	0.57	0.13 (J)	0.23 (J)	0.32		0.071 (J)			
7/13/2018							0.25 (J)	0.19 (J)	0.099 (J)
11/6/2018					<0.1				
11/7/2018						<0.1			
11/8/2018	<0.3 (J)	<0.3 (J)	<0.1	<0.1			0.5	<0.3 (J)	<0.3 (J)
3/12/2019					<0.1				
3/13/2019	0.15 (J)	0.085 (J)	0.084 (J)	0.08 (J)		0.13 (J)	0.07 (J)	0.086 (J)	0.12 (J)
8/27/2019					<0.1				
8/28/2019	0.14	0.086 (J)	0.066 (J)	0.074 (J)		0.42	<0.1	0.07 (J)	0.1
10/15/2019					<0.1				
10/16/2019						0.11 (J)		0.13 (J)	0.093 (J)
10/17/2019							0.038 (J)		
10/18/2019	0.13 (J)	0.14 (J)	0.073 (J)	0.075 (J)					
3/2/2020					<0.1				
3/4/2020	0.11 (J)								
3/9/2020		0.075 (J)	0.064 (J)	0.054 (J)		0.1 (J)	<0.1	0.068 (J)	0.082 (J)
8/11/2020					<0.1				
8/13/2020	0.16	0.076 (J)	0.06 (J)	0.068 (J)		0.062 (J)	<0.1	0.084 (J)	0.076 (J)
9/22/2020					<0.1	0.099 (J)			
9/23/2020	0.054 (J)						<0.1	0.064 (J)	0.07 (J)
9/24/2020			0.057 (J)	0.061 (J)					
9/25/2020		0.086 (J)							
3/1/2021					<0.1				
3/8/2021	0.17								
3/10/2021								0.055 (J)	0.07 (J)
3/11/2021		0.083 (J)	0.058 (J)	0.057 (J)			<0.1		
3/12/2021						0.076 (J)			
9/8/2021					<0.1				
9/9/2021						0.099 (J)			

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/14/2021	0.13								
9/15/2021			0.06 (J)						
9/16/2021				0.084 (J)			0.069 (J)	0.11	0.55
9/17/2021		0.13							
1/18/2022					<0.1				
1/19/2022	0.12						<0.1		
1/20/2022		0.1							
1/21/2022			0.1	0.053 (J)					
1/25/2022								0.054 (J)	0.067 (J)
1/28/2022						0.08 (J)			

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	1.2 (O)
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	
5/15/2017	0.005 (J)
6/15/2017	0.02 (J)
6/16/2017	
7/11/2017	0.06 (J)
7/12/2017	
7/13/2017	
8/8/2017	0.04 (J)
10/24/2017	<0.1
10/26/2017	
11/15/2017	
2/27/2018	<0.1
3/1/2018	
3/2/2018	
3/8/2018	
7/12/2018	
7/13/2018	
11/6/2018	<0.1
11/7/2018	
11/8/2018	
3/12/2019	0.039 (J)
3/13/2019	
8/27/2019	<0.1
8/28/2019	
10/15/2019	<0.1
10/16/2019	
10/17/2019	
10/18/2019	
3/2/2020	<0.1
3/4/2020	
3/9/2020	
8/11/2020	<0.1
8/13/2020	
9/22/2020	<0.1
9/23/2020	
9/24/2020	
9/25/2020	
3/1/2021	<0.1
3/8/2021	
3/10/2021	
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	<0.1

Prediction Limit

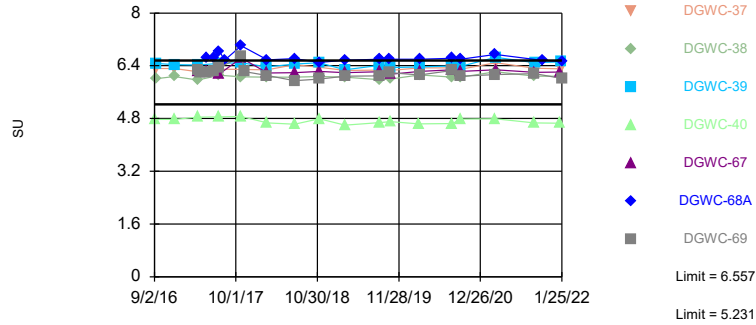
Constituent: Fluoride, total (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/14/2021	
9/15/2021	
9/16/2021	
9/17/2021	
1/18/2022	<0.1
1/19/2022	
1/20/2022	
1/21/2022	
1/25/2022	
1/28/2022	

Exceeds Limits: DGWC-40

Prediction Limit
Interwell Parametric

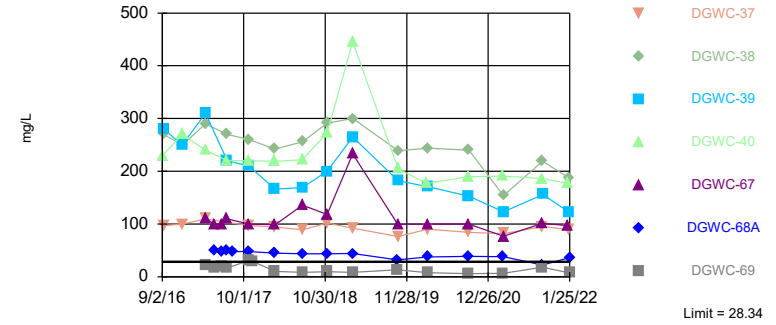


Background Data Summary: Mean=5.894, Std. Dev.=0.3426, n=53. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9401, critical = 0.938. Kappa = 1.935 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005373. Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 3/14/2022 1:37 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A

Prediction Limit
Interwell Parametric

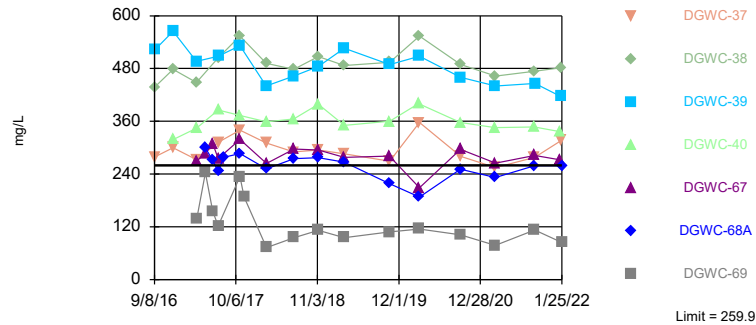


Background Data Summary (based on square root transformation): Mean=2.545, Std. Dev.=1.423, n=46, 13.04% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9306, critical = 0.927. Kappa = 1.953 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Sulfate as SO4 Analysis Run 3/14/2022 1:37 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67

Prediction Limit
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=4.565, Std. Dev.=0.9289, n=45. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9341, critical = 0.926. Kappa = 1.956 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:37 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/2/2016	4.77								
9/8/2016		6.47	6.01	6.32					
12/7/2016		6.43	6.07	6.32					
12/8/2016	4.77								
3/28/2017					5.94	6.29			
3/30/2017	4.84	6.42	5.97	6.22					
3/31/2017							6.25	6.26	
4/12/2017								6.19	
5/11/2017						6.6			
5/12/2017					5.46		6.23	6.2	6.63
5/15/2017									
6/15/2017						6.41			
6/16/2017					5.81		6.22	6.22	6.63
7/11/2017					5.74				
7/12/2017						5.91			
7/13/2017	4.85	6.47	6.11	6.3			6.15	6.35	6.84
8/8/2017									6.57
10/24/2017					5.86	5.51			
10/26/2017	4.86	6.49	6.06				6.64	6.69	7.01
11/15/2017					5.77	6.5		6.22	
2/27/2018					5.66				
3/1/2018		6.37	6.05	6.28					
3/2/2018	4.67						6.18	6.1	6.58
3/8/2018						6.18			
7/10/2018					5.63				
7/12/2018	4.63	6.45	6.05	6.43		6.33			
7/13/2018							6.19	5.95	6.62
11/6/2018					5.79				
11/7/2018						6.22			
11/8/2018	4.79	6.49	6.07	6.36			6.23	6	6.5
3/12/2019					5.74				
3/13/2019	4.6	6.28	6.05	6.26		6	6.19	6.08	6.57
8/27/2019					5.87				
8/28/2019	4.68	6.41	5.98	6.27		6.04	6.22	6.09	6.6
10/15/2019					5.88				
10/16/2019						6.69		6.19	6.6
10/17/2019							6.14		
10/18/2019	4.71	6.35	6	6.26					
3/2/2020					5.77				
3/4/2020	4.64								
3/9/2020		6.37	6.12	6.34		6.41	6.23	6.12	6.6
8/11/2020					5.96				
8/13/2020	4.65	6.39	6.05	6.34		6.17	6.28	6.26	6.63
9/22/2020					6.06	6.43			
9/23/2020	4.78						6.23	6.08	6.6
9/24/2020			6.05	6.3					
9/25/2020		6.38							
3/1/2021					5.8				
3/8/2021	4.79								
3/10/2021								6.13	6.74
3/11/2021		6.66	6.22	6.49			6.28		
3/12/2021						6.38			

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/8/2021					5.76				
9/9/2021						6.41			
9/14/2021	4.67								
9/15/2021			6.08						
9/16/2021				6.33			6.2	6.16	6.79 (o)
9/17/2021		6.49							
10/27/2021									6.56
1/18/2022					5.51				
1/19/2022	4.66						6.21		
1/20/2022		6.52							
1/21/2022			6.08	6.31					
1/25/2022								6.02	6.53
1/28/2022						6.35			

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
4/12/2017	
5/11/2017	
5/12/2017	
5/15/2017	5.72
6/15/2017	5.74
6/16/2017	
7/11/2017	5.62
7/12/2017	
7/13/2017	
8/8/2017	5.6
10/24/2017	5.71
10/26/2017	
11/15/2017	
2/27/2018	5.5
3/1/2018	
3/2/2018	
3/8/2018	
7/10/2018	5.44
7/12/2018	
7/13/2018	
11/6/2018	5.71
11/7/2018	
11/8/2018	
3/12/2019	5.52
3/13/2019	
8/27/2019	5.53
8/28/2019	
10/15/2019	5.61
10/16/2019	
10/17/2019	
10/18/2019	
3/2/2020	5.54
3/4/2020	
3/9/2020	
8/11/2020	5.86
8/13/2020	
9/22/2020	6.01
9/23/2020	
9/24/2020	
9/25/2020	
3/1/2021	5.43
3/8/2021	
3/10/2021	
3/11/2021	
3/12/2021	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWA-70A (bg)

9/8/2021	
9/9/2021	5.5
9/14/2021	
9/15/2021	
9/16/2021	
9/17/2021	
10/27/2021	
1/18/2022	5.5
1/19/2022	
1/20/2022	
1/21/2022	
1/25/2022	
1/28/2022	

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016	230								
9/8/2016		280	270	97					
12/7/2016		250	250	100					
12/8/2016	270								
3/28/2017					17	2.7	49		
3/30/2017	240	310	290	110					
3/31/2017								110	21
5/11/2017							21		
5/12/2017					17			100	17
5/15/2017						1			
6/15/2017						0.86 (J)	16		
6/16/2017					11			100	20
7/11/2017					11	1.4			
7/12/2017							10		
7/13/2017	220	220	270	200 (O)				110	17
8/8/2017						1.5			
10/24/2017					9.6	1.4	15		
10/26/2017	220	210	260	97				100	31
11/15/2017					7.8		3.8		29
2/27/2018					7.4	0.54 (J)			
3/1/2018		166	242	94.6					
3/2/2018	219							98.5	10.1
3/8/2018							9.7		
7/12/2018	222	169	256	89.2			8		
7/13/2018								136	8.6
11/6/2018					7.3	<1 (J)			
11/7/2018							12.8		
11/8/2018	273	200	291	102				118	9.7
3/12/2019					7	0.35 (J)			
3/13/2019	445	265	300	92.2			23.7	233	8.4
10/15/2019					7.4	0.16 (J)			
10/16/2019							15.1		13.3
10/17/2019								99.4	
10/18/2019	205	182	239	76.4					
3/2/2020					8.5	<1			
3/4/2020	177								
3/9/2020		171	244	90.3			9.5	100	7.6
9/22/2020					6.5	<1	13.5		
9/23/2020	190							99.8	5.9
9/24/2020			240	84.1					
9/25/2020		153							
3/1/2021					5.2	<1			
3/8/2021	191								
3/10/2021									6.4
3/11/2021		123	154	81.9				76.7	
3/12/2021							8.8		
9/8/2021					6.1				
9/9/2021						<1	11.9		
9/14/2021	186								
9/15/2021			219						
9/16/2021				95				101	17.9
9/17/2021		156							

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
1/18/2022					6.3	<1			
1/19/2022	177							97.2	
1/20/2022		123							
1/21/2022			188	89.8					
1/25/2022									7.1
1/28/2022							13.1		

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	50
5/15/2017	
6/15/2017	
6/16/2017	47
7/11/2017	
7/12/2017	
7/13/2017	49
8/8/2017	48
10/24/2017	
10/26/2017	48
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	44.7
3/8/2018	
7/12/2018	
7/13/2018	43.3
11/6/2018	
11/7/2018	
11/8/2018	43.5
3/12/2019	
3/13/2019	44.1
10/15/2019	
10/16/2019	32.1
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	37.4
9/22/2020	
9/23/2020	38.7
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	38.4
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	22.3
9/17/2021	

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

1/18/2022
1/19/2022
1/20/2022
1/21/2022
1/25/2022
1/28/2022

36.3

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-39	DGWC-38	DGWC-37	DGWC-40	DGWA-71 (bg)	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
1/18/2022					76	54			
1/19/2022				336				272	
1/20/2022	416								
1/21/2022		482	316						
1/25/2022									84
1/28/2022							155		

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
5/11/2017	
5/12/2017	300
5/15/2017	
6/15/2017	
6/16/2017	271
7/11/2017	
7/12/2017	
7/13/2017	246
8/8/2017	278
10/24/2017	
10/26/2017	287
11/15/2017	
2/27/2018	
3/1/2018	
3/2/2018	252
3/8/2018	
7/12/2018	
7/13/2018	275
11/6/2018	
11/7/2018	
11/8/2018	277
3/12/2019	
3/13/2019	267
10/15/2019	
10/16/2019	218
10/17/2019	
10/18/2019	
3/2/2020	
3/4/2020	
3/9/2020	188
9/22/2020	
9/23/2020	251
9/24/2020	
9/25/2020	
3/1/2021	
3/8/2021	
3/10/2021	232
3/11/2021	
3/12/2021	
9/8/2021	
9/9/2021	
9/14/2021	
9/15/2021	
9/16/2021	259
9/17/2021	

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 3/14/2022 1:38 PM View: AP 1 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

DGWC-68A

1/18/2022
1/19/2022
1/20/2022
1/21/2022
1/25/2022
1/28/2022

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FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	DGWA-53 (bg)	-4.275	-63	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1763	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.2147	-56	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.5287	85	53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.216	-55	-53	Yes	15	40	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.312	-82	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-24.97	-70	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-40	-10.15	-55	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-68A	-3.353	-78	-53	Yes	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-23.75	-68	-53	Yes	15	0	n/a	n/a	0.01	NP

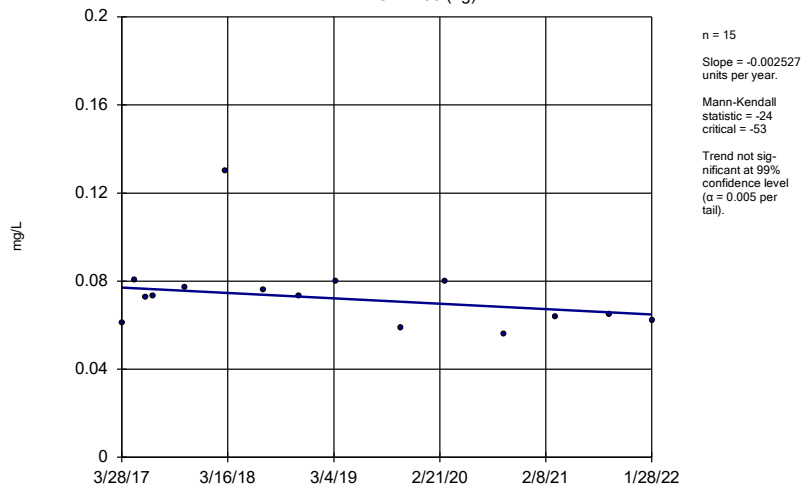
Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 3/14/2022, 1:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	DGWA-53 (bg)	-0.002527	-24	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-70A (bg)	0	28	53	No	15	53.33	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWA-71 (bg)	0.0001023	5	48	No	14	21.43	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-37	-0.08919	-44	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-38	-0.0398	-28	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-39	-0.1188	-52	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-40	-0.03325	-52	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-67	0.07702	40	53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	DGWC-68A	-0.07376	-28	-53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-53 (bg)	-4.275	-63	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-70A (bg)	-0.06518	-19	-53	No	15	6.667	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWA-71 (bg)	-0.5623	-35	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-37	0.7766	24	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-38	3.089	53	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-39	0.8605	17	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-40	0.6005	34	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-67	1.018	45	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	DGWC-68A	1.76	49	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-53 (bg)	-0.1763	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-70A (bg)	-0.079	-43	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWA-71 (bg)	0.1515	25	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-38	0.1416	39	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-39	-0.2147	-56	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-40	-0.301	-46	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	DGWC-67	0.5287	85	53	Yes	15	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-53 (bg)	0.02528	14	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02535	-32	-63	No	17	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.00911	13	68	No	18	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02087	-29	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-53 (bg)	-0.9208	-30	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-70A (bg)	-0.216	-55	-53	Yes	15	40	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWA-71 (bg)	-1.312	-82	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-37	-3.188	-42	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-38	-11.63	-52	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-39	-24.97	-70	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-40	-10.15	-55	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-67	-0.6091	-26	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	DGWC-68A	-3.353	-78	-53	Yes	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-53 (bg)	-23.75	-68	-53	Yes	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	0	-1	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-4.828	-41	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	-3.216	-13	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	1.225	7	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	-17.23	-53	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-3.39	-11	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	-3.971	-17	-53	No	15	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

DGWA-53 (bg)

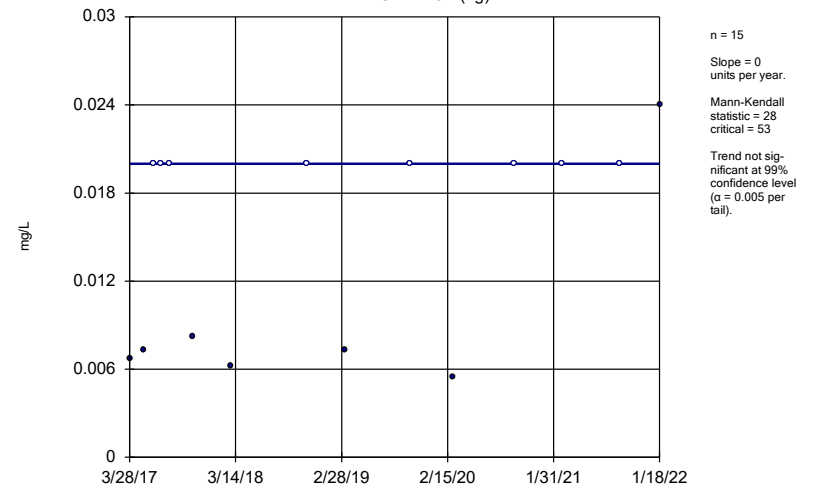


Constituent: Boron, total Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

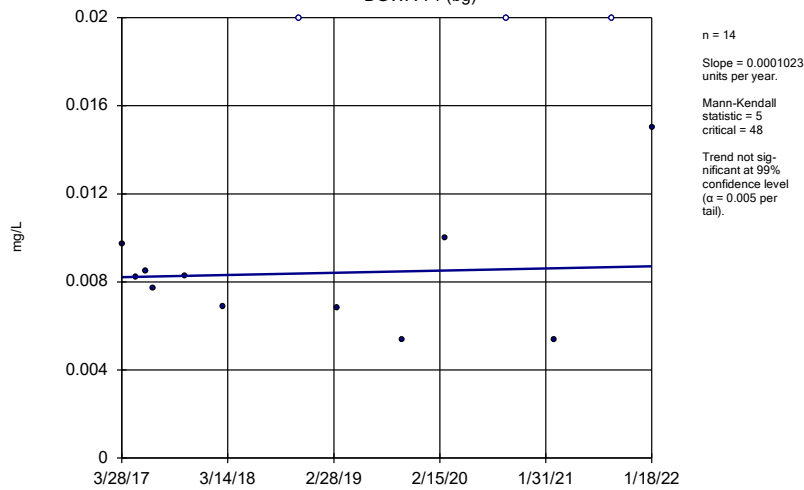
DGWA-70A (bg)



Constituent: Boron, total Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

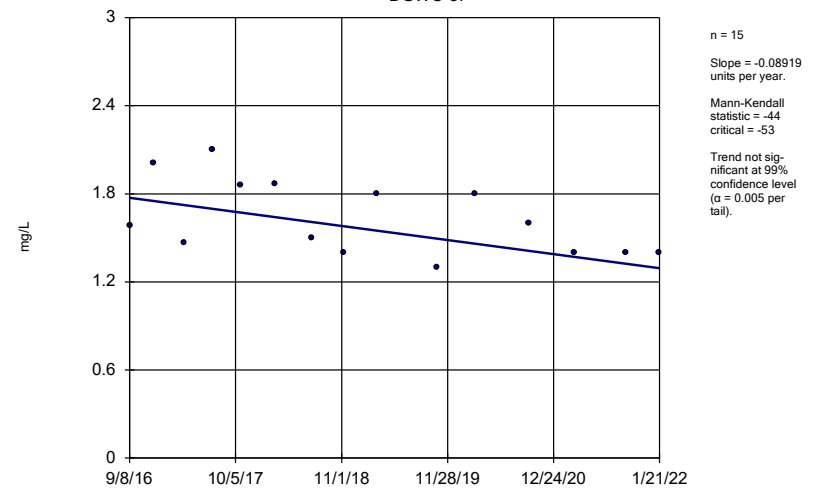
DGWA-71 (bg)



Constituent: Boron, total Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

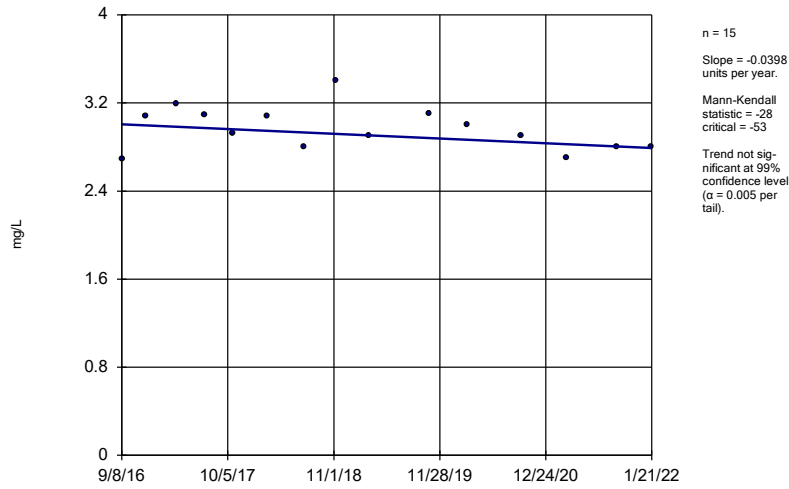
Sen's Slope Estimator

DGWC-37



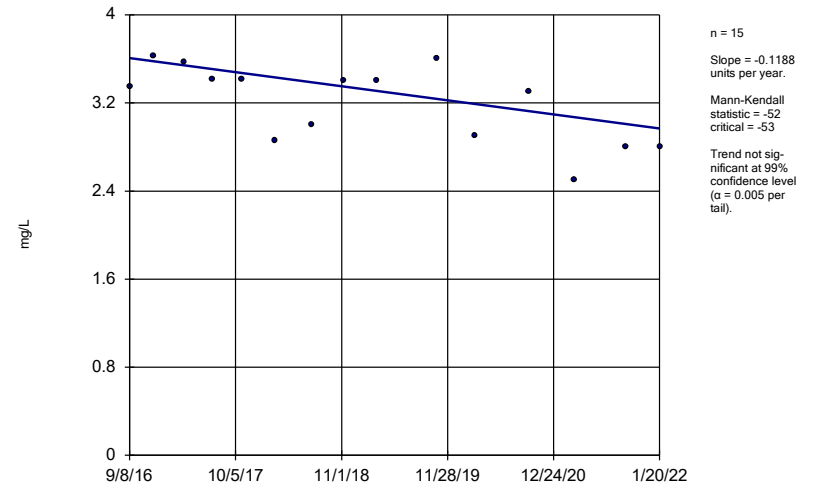
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-38



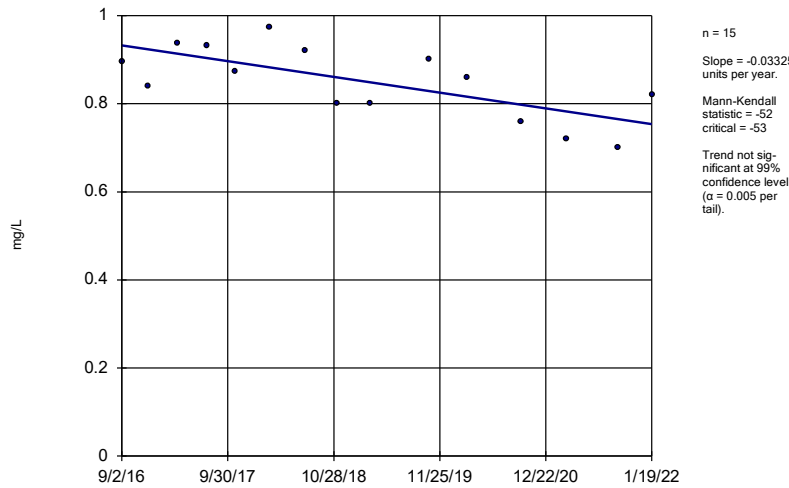
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-39



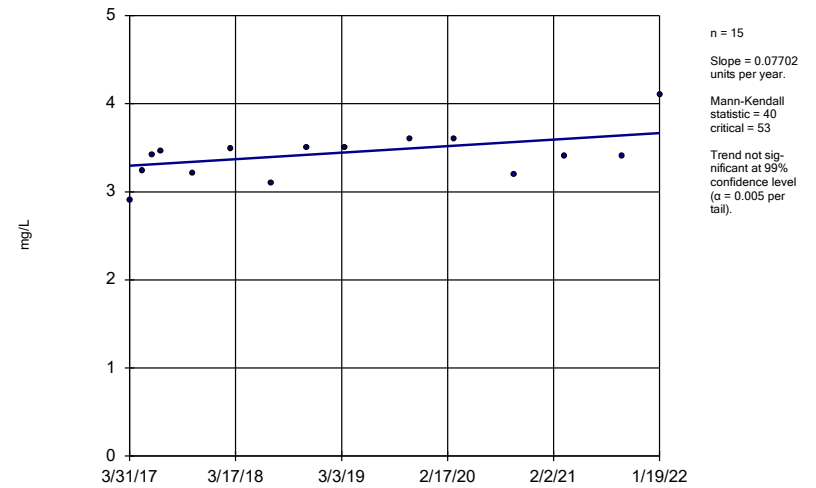
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



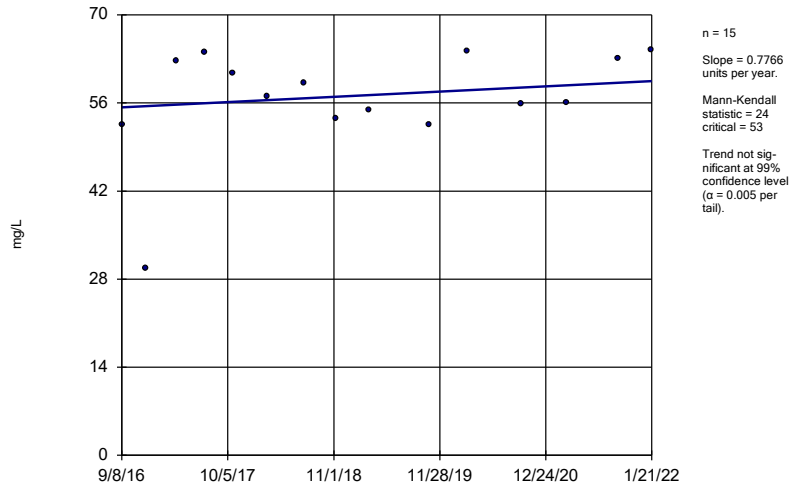
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



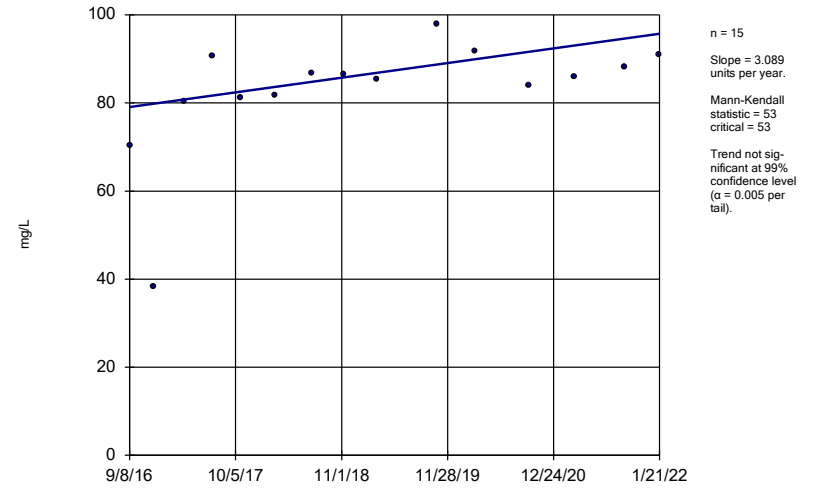
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-37



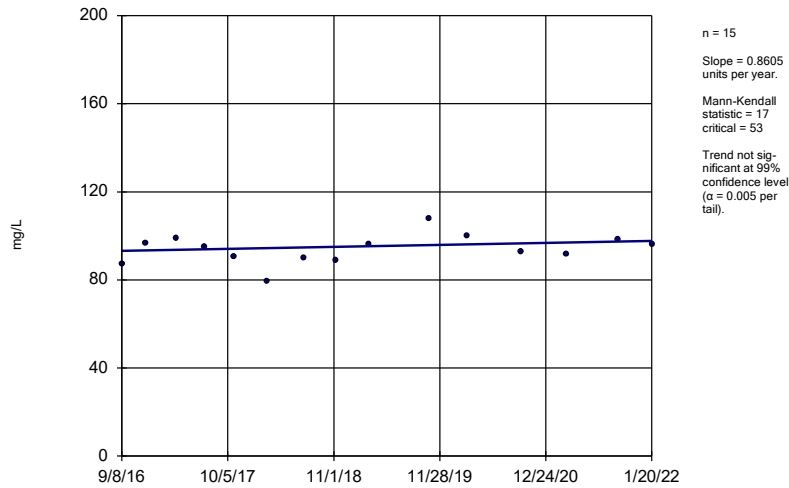
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-38



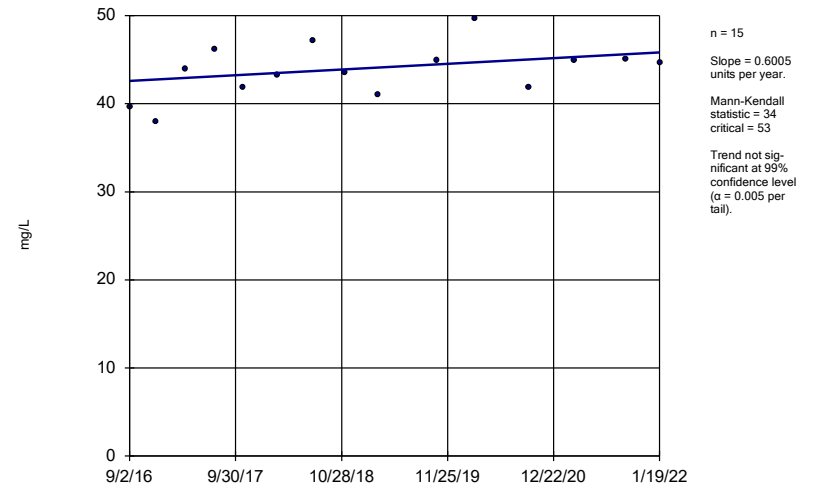
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-39



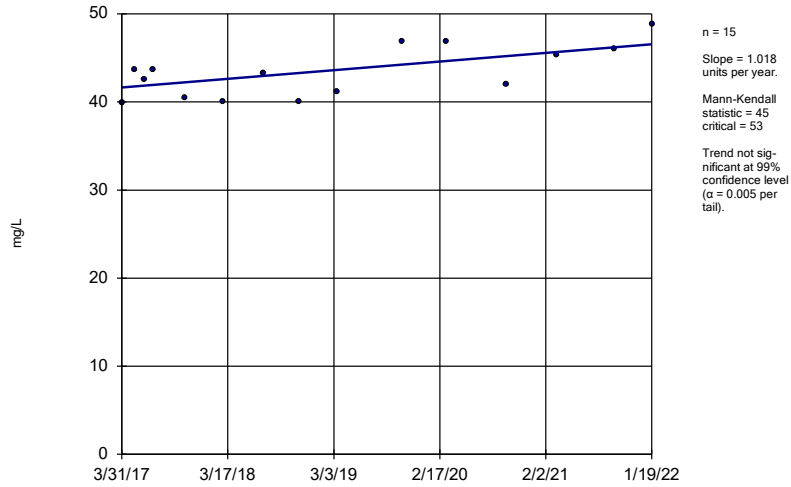
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



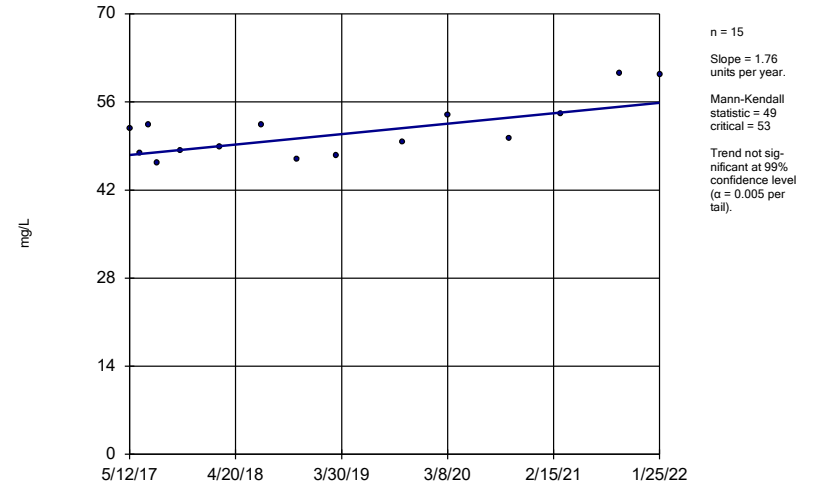
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



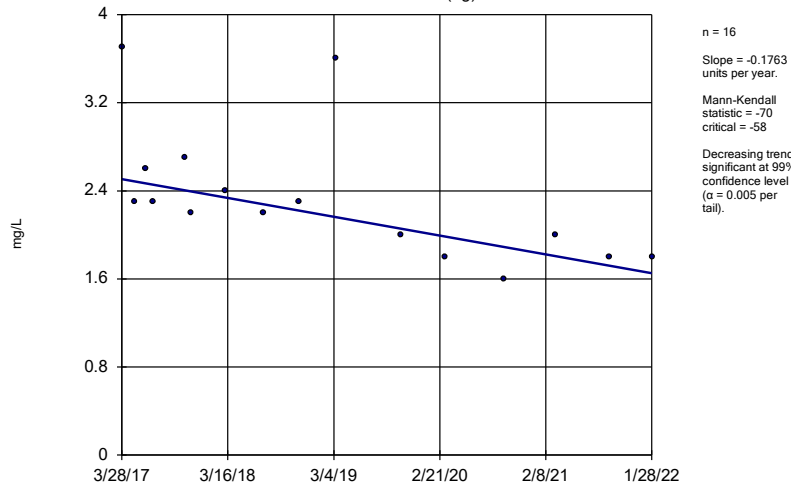
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-68A



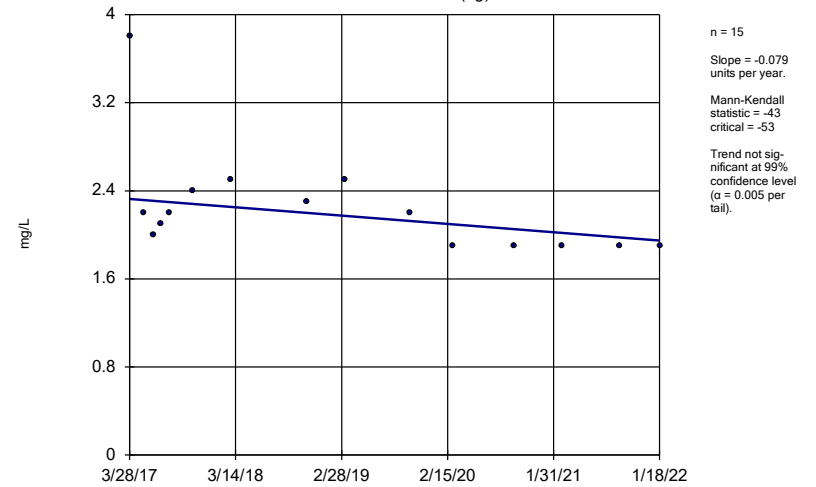
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



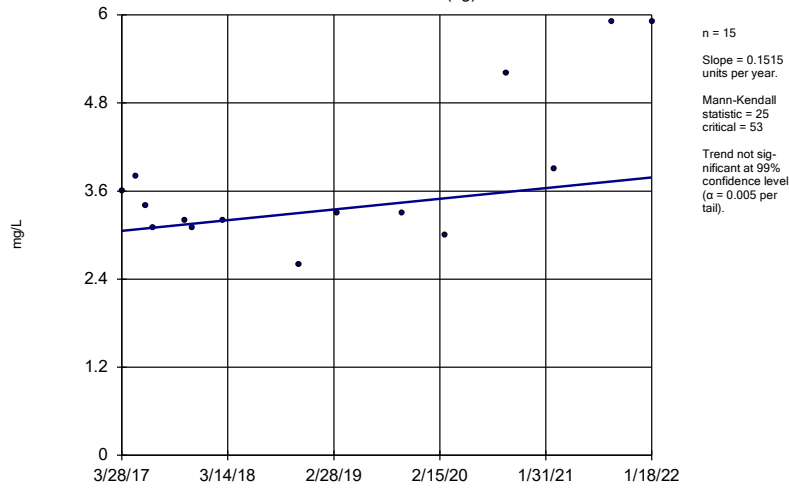
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



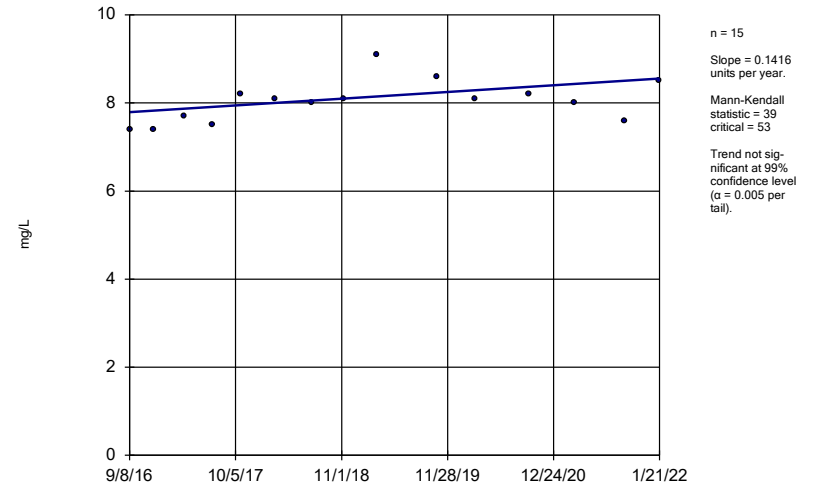
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-71 (bg)



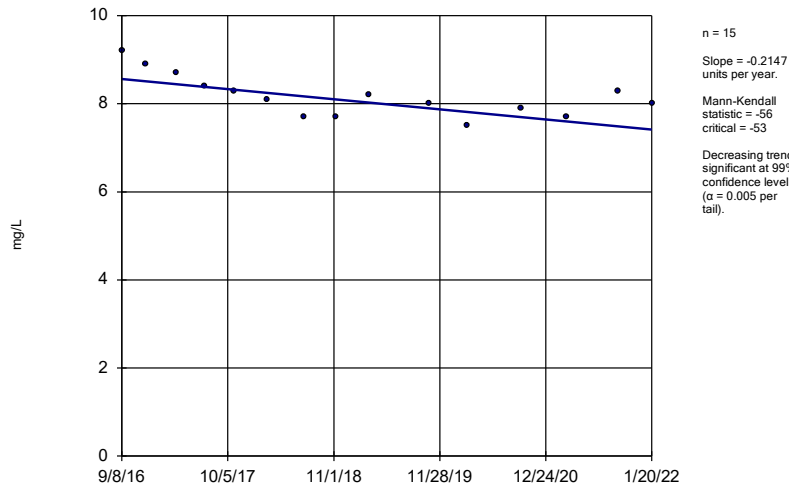
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-38



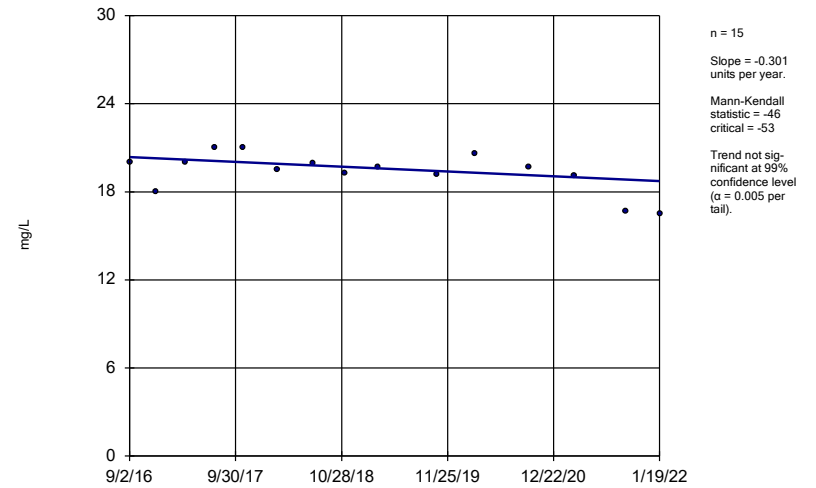
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-39



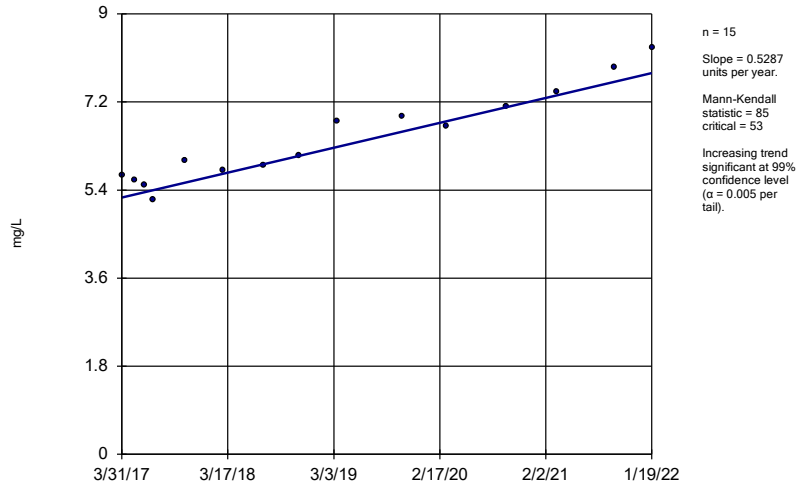
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



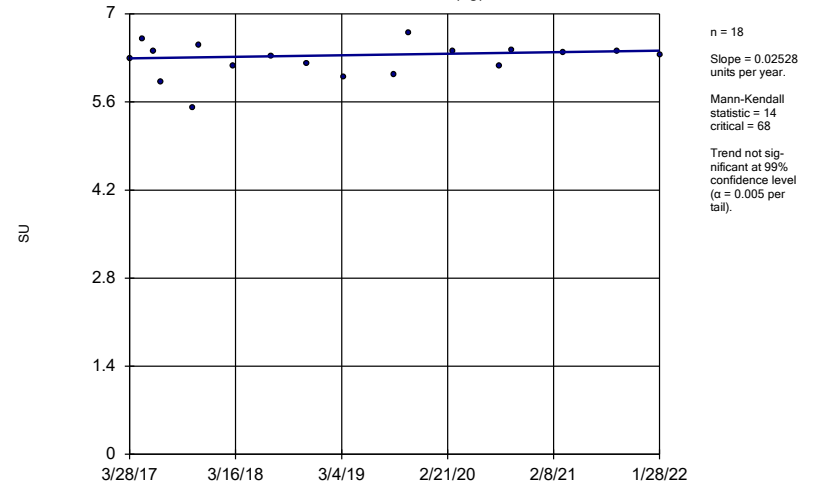
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



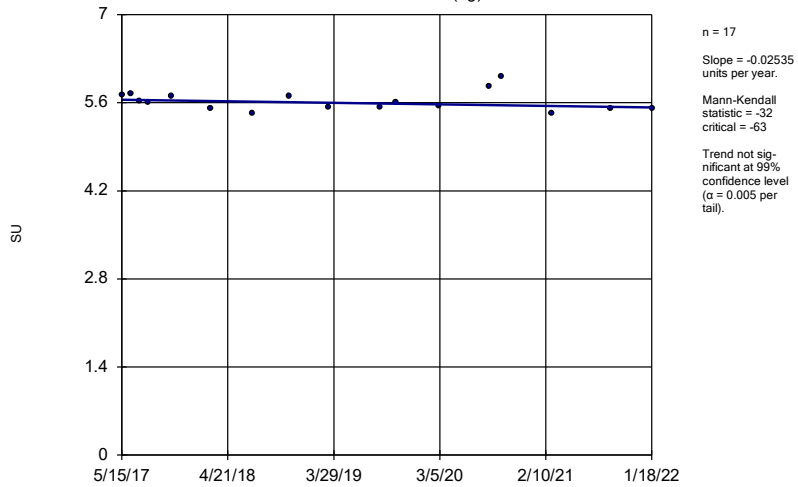
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



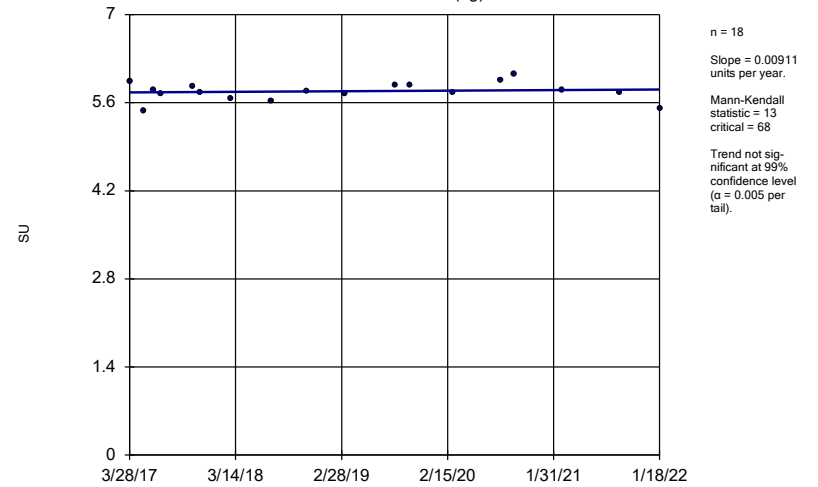
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



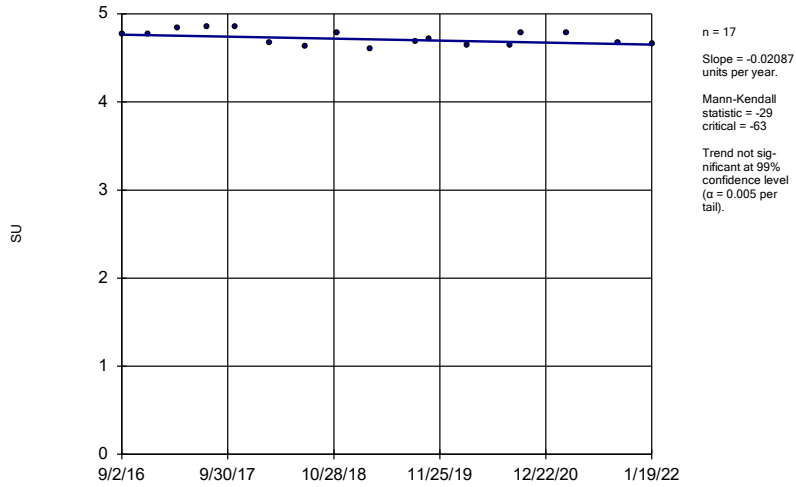
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-71 (bg)



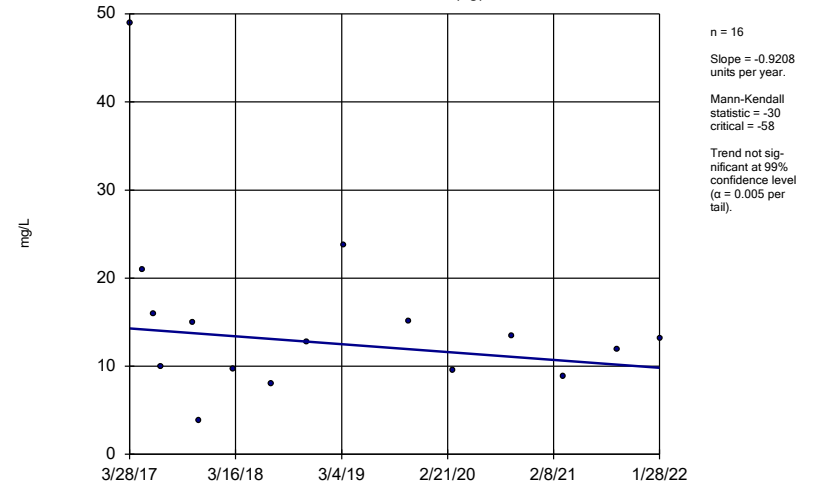
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-40



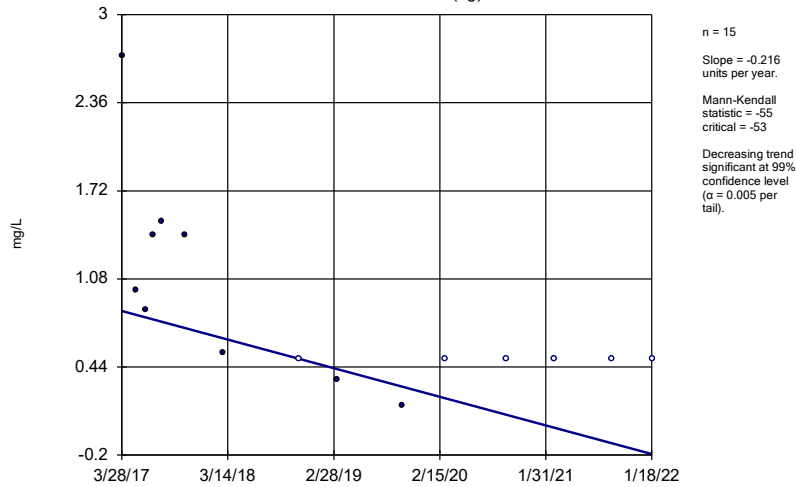
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



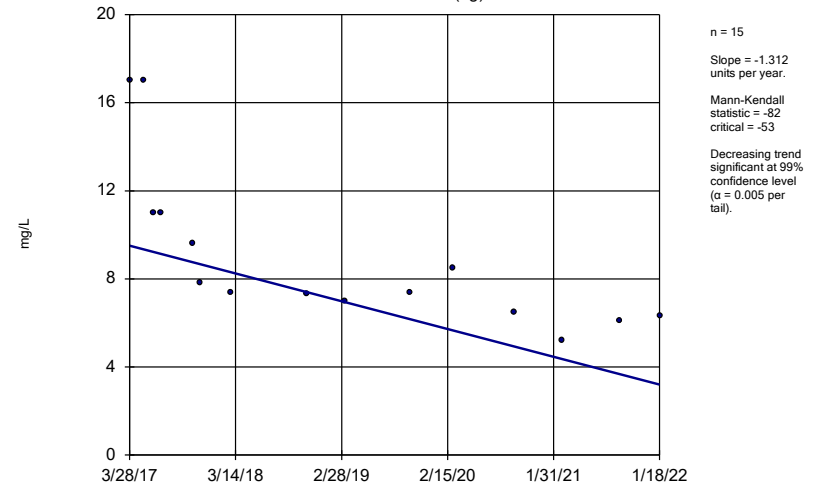
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



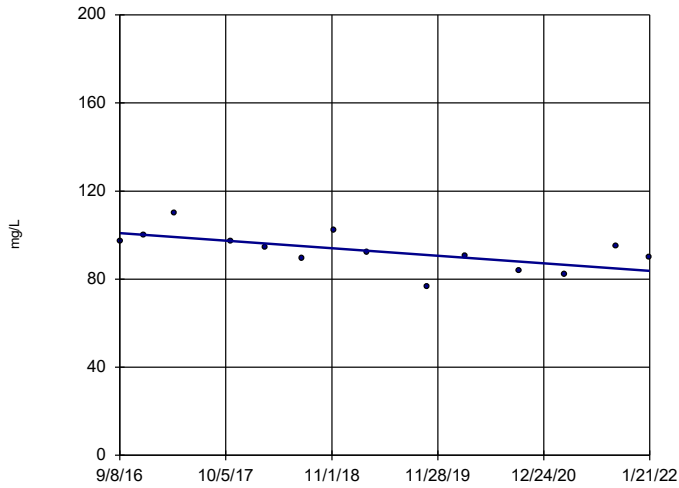
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-71 (bg)



Constituent: Sulfate as SO4 Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

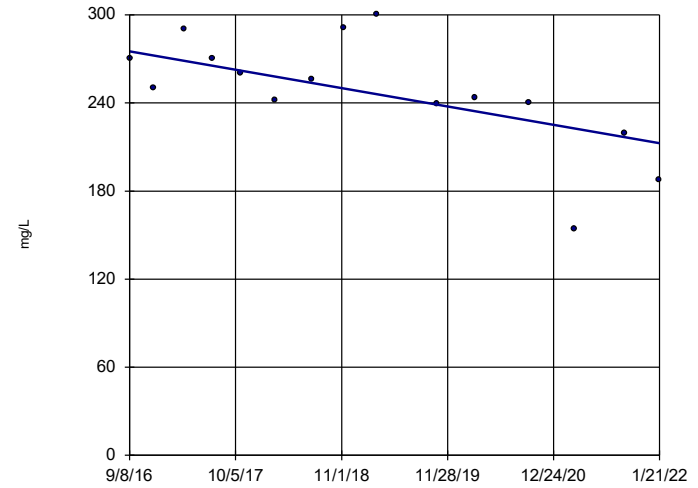
Sen's Slope Estimator
DGWC-37



n = 14
Slope = -3.188
units per year.
Mann-Kendall
statistic = -42
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate as SO4 Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

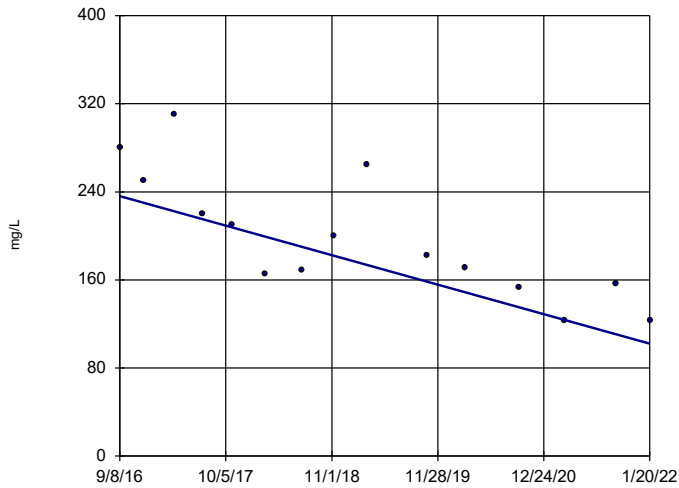
Sen's Slope Estimator
DGWC-38



n = 15
Slope = -11.63
units per year.
Mann-Kendall
statistic = -52
critical = -53
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate as SO4 Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

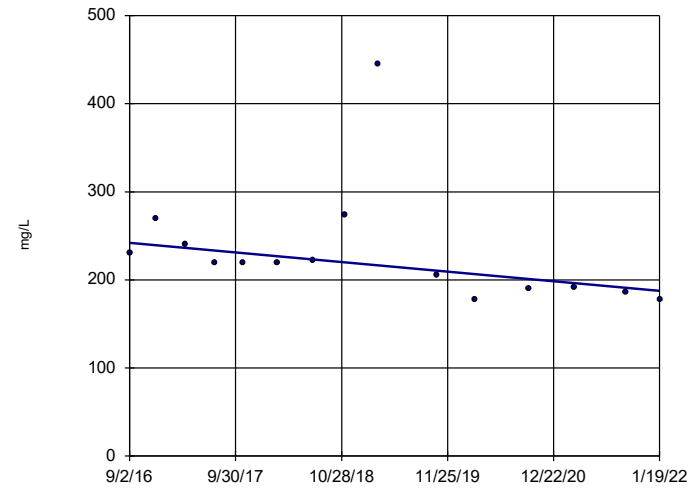
Sen's Slope Estimator
DGWC-39



n = 15
Slope = -24.97
units per year.
Mann-Kendall
statistic = -70
critical = -53
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate as SO4 Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

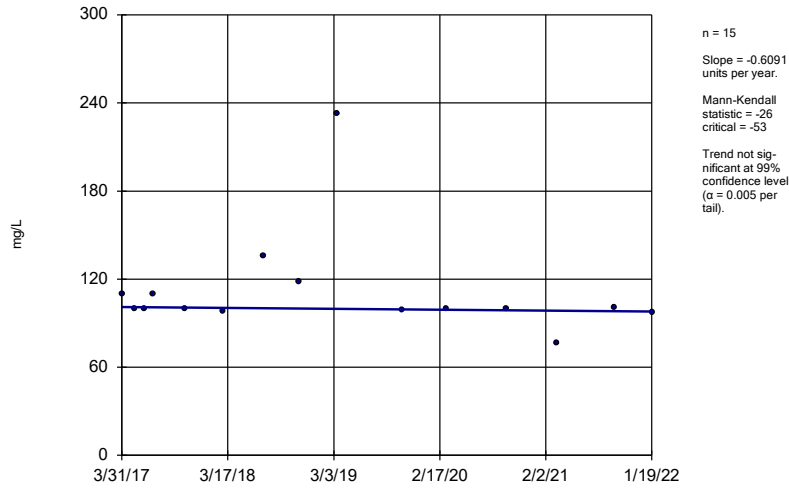
Sen's Slope Estimator
DGWC-40



n = 15
Slope = -10.15
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Mann-Kendall
statistic = -55
critical = -53
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

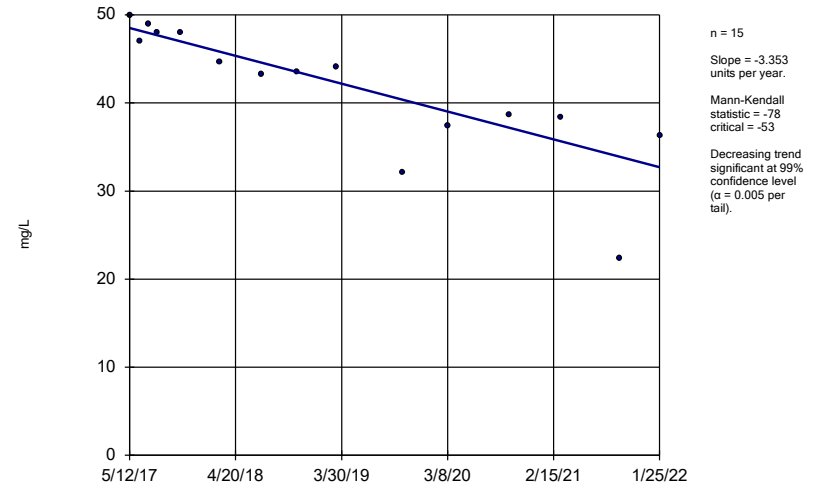
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-67



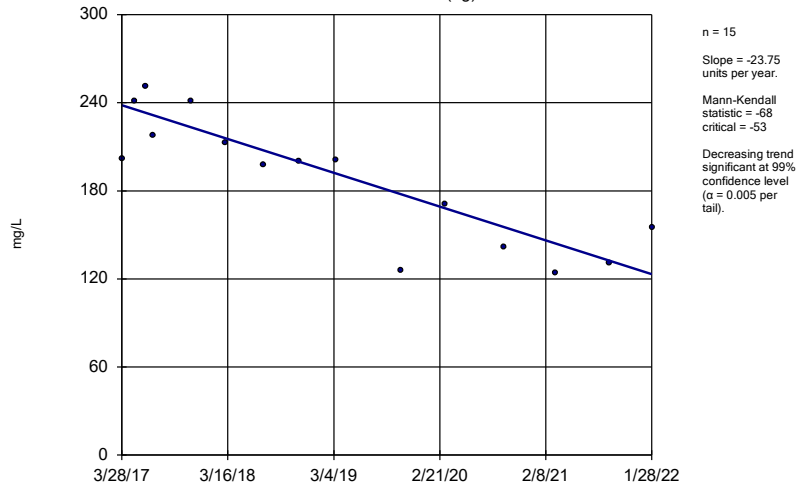
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-68A



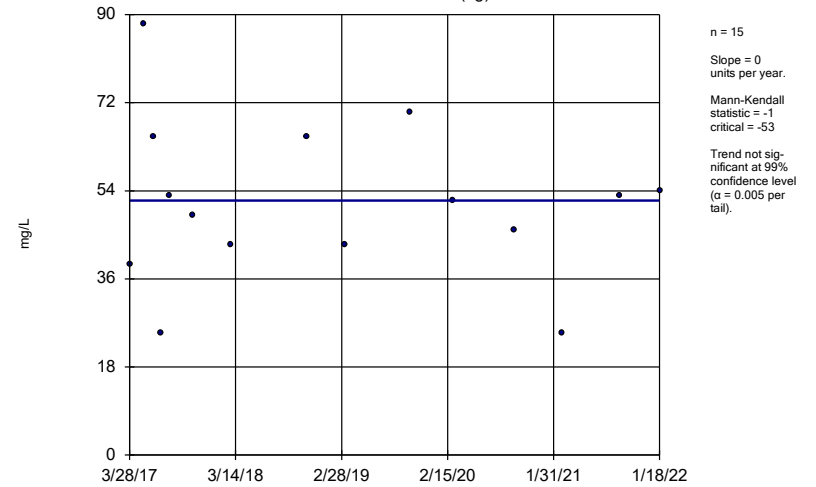
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Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

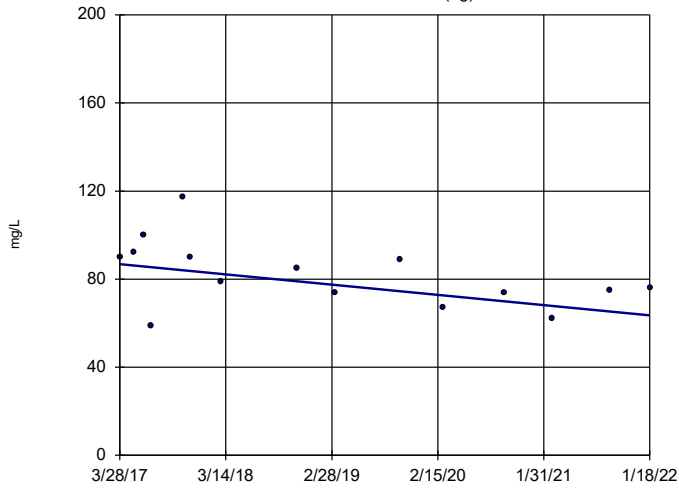
Sen's Slope Estimator
DGWA-70A (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

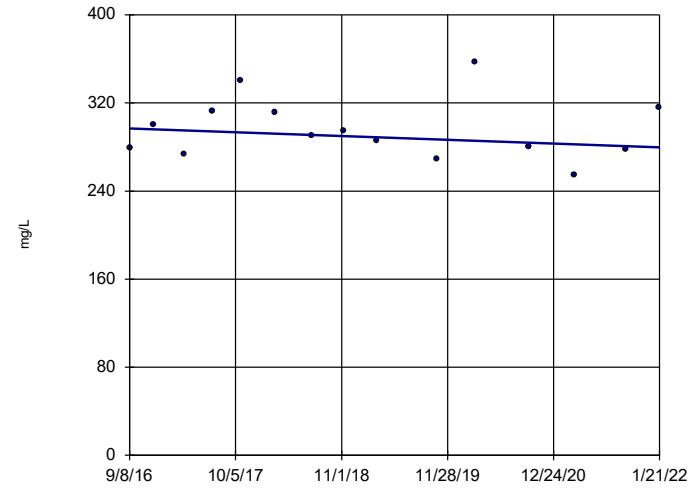


n = 15
 Slope = -4.828
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-37

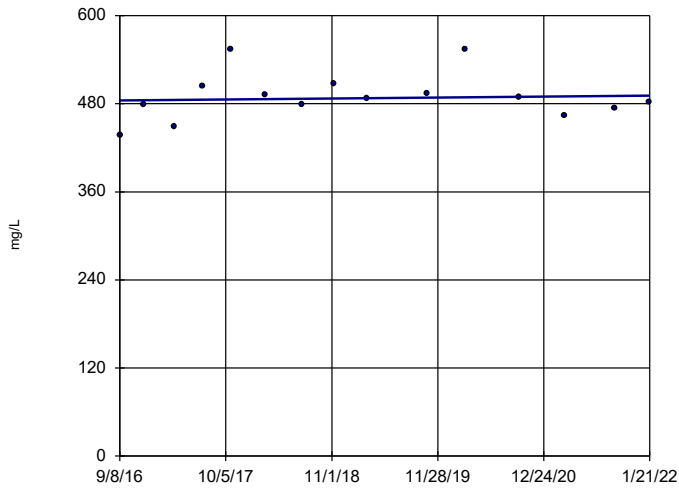


n = 15
 Slope = -3.216
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-38

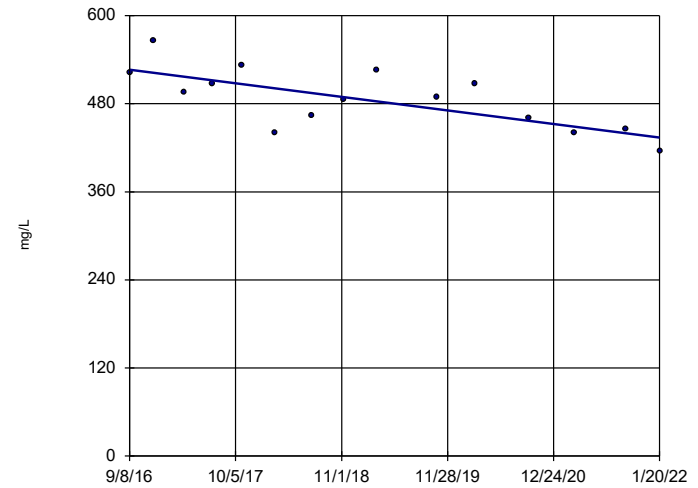


n = 15
 Slope = 1.225
 units per year.
 Mann-Kendall
 statistic = 7
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend
 Plant McDonough Client: Southern Company Data: McDonough AP

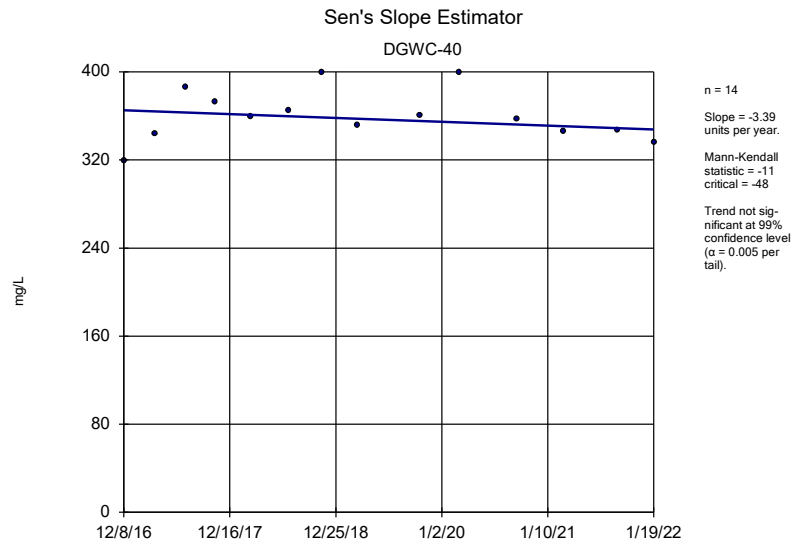
Sen's Slope Estimator

DGWC-39

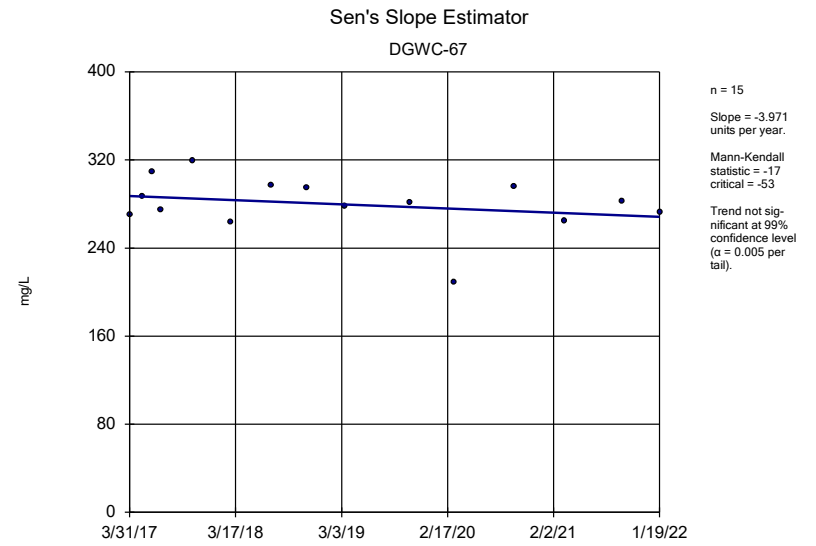


n = 15
 Slope = -17.23
 units per year.
 Mann-Kendall
 statistic = -53
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend
 Plant McDonough Client: Southern Company Data: McDonough AP



Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend
Plant McDonough Client: Southern Company Data: McDonough AP



Constituent: Total Dissolved Solids [TDS] Analysis Run 3/14/2022 1:40 PM View: AP 1 Appendix III Trend
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE F.

Upper Tolerance Limits Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:39 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	47	n/a	n/a	80.85	n/a	n/a	0.08974	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0054	n/a	n/a	n/a	n/a	47	n/a	n/a	76.6	n/a	n/a	0.08974	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	47	n/a	n/a	0	n/a	n/a	0.08974	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0009	n/a	n/a	n/a	n/a	48	n/a	n/a	60.42	n/a	n/a	0.08526	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	47	n/a	n/a	93.62	n/a	n/a	0.08974	NP Inter(NDs)
Chromium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	46	n/a	n/a	63.04	n/a	n/a	0.09447	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	n/a	47	n/a	n/a	38.3	n/a	n/a	0.08974	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	4.983	n/a	n/a	n/a	n/a	49	1.109	0.5427	0	None	sqrt(x)	0.05	Inter
Fluoride, total (mg/L)	n/a	0.42	n/a	n/a	n/a	n/a	51	n/a	n/a	52.94	n/a	n/a	0.0731	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	47	n/a	n/a	80.85	n/a	n/a	0.08974	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	47	n/a	n/a	36.17	n/a	n/a	0.08974	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	47	n/a	n/a	85.11	n/a	n/a	0.08974	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	n/a	47	n/a	n/a	63.83	n/a	n/a	0.08974	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	47	n/a	n/a	100	n/a	n/a	0.08974	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	47	n/a	n/a	95.74	n/a	n/a	0.08974	NP Inter(NDs)

FIGURE G.

PLANT MCDONOUGH ASH POND 1 GWPS TABLE				
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		0.0054	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.032	0.032
Combined Radium, Total (pCi/L)	5		4.98	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:46 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-69	0.03779	0.01266	0.01	Yes	18	0.03334	0.04025	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04548	0.03807	0.032	Yes	16	0.04178	0.005698	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-68A	0.2241	0.1958	0.1	Yes	16	0.2103	0.02238	0	None	sqrt(x)	0.01	Param.

Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.003	0.0013	0.006	No	5	0.0024	0.0008337	60	None	No	0.031	NP (NDs)
Antimony (mg/L)	B-105D	0.0082	0.00069	0.006	No	4	0.003723	0.003177	50	None	No	0.0625	NP (selected)
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	8	0.002683	0.000898	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	15	0.002822	0.0006894	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.003	0.0023	0.006	No	15	0.002633	0.0008482	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	15	0.002675	0.0008633	86.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	16	0.002713	0.0006642	81.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	B-105D	0.0051	0.0025	0.01	No	4	0.0044	0.001268	50	None	No	0.0625	NP (normality)
Arsenic (mg/L)	B-62	0.005	0.0033	0.01	No	8	0.004787	0.000601	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	16	0.004806	0.000775	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	16	0.004719	0.001125	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.0007	0.01	No	16	0.002949	0.002142	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-40	0.005	0.0011	0.01	No	16	0.004084	0.001714	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0033	0.01	No	16	0.004345	0.00152	81.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	16	0.004787	0.00085	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-69	0.03779	0.01266	0.01	Yes	18	0.03334	0.04025	0	None	ln(x)	0.01	Param.
Barium (mg/L)	B-100	0.02464	0.01515	2	No	5	0.0206	0.003209	0	None	x^3	0.01	Param.
Barium (mg/L)	B-105D	0.04828	0.02572	2	No	4	0.037	0.004967	0	None	No	0.01	Param.
Barium (mg/L)	B-62	0.02672	0.02003	2	No	8	0.02338	0.003159	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1092	0.08877	2	No	16	0.099	0.01572	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.03341	0.03211	2	No	16	0.03276	0.001001	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-39	0.09578	0.08459	2	No	16	0.09019	0.008601	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.019	0.0168	2	No	16	0.01805	0.002535	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1113	0.0991	2	No	16	0.1052	0.009361	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.092	0.0859	2	No	16	0.08926	0.003733	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-69	0.09978	0.06642	2	No	17	0.0831	0.02661	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0005873	0.0003207	0.004	No	5	0.000454	0.00007956	0	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0005	0.000078	0.004	No	9	0.000202	0.0001705	22.22	None	No	0.002	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.00007	0.004	No	16	0.0003414	0.0002117	62.5	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	16	0.0004724	0.0001105	93.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003324	0.002926	0.004	No	16	0.003125	0.0003066	6.25	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	16	0.0004466	0.0001461	87.5	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000061	0.004	No	17	0.0003198	0.0002221	58.82	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	5	0.000402	0.0001718	0	None	No	0.031	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00013	0.005	No	16	0.0003938	0.0001672	68.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	16	0.0003313	0.0002491	18.75	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008819	0.0007331	0.005	No	16	0.0008075	0.0001144	12.5	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00018	0.005	No	16	0.0004213	0.000146	68.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.0002482	0.0001352	0.005	No	16	0.0003856	0.0002255	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	17	0.0004218	0.0001468	76.47	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.005	0.00057	0.1	No	5	0.003302	0.002329	60	None	No	0.031	NP (NDs)
Chromium (mg/L)	B-105D	0.005	0.0012	0.1	No	4	0.00405	0.0019	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	8	0.004497	0.001421	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	16	0.004455	0.001489	87.5	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	16	0.004179	0.001768	81.25	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.00061	0.1	No	16	0.002438	0.00208	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.00088	0.1	No	16	0.003967	0.001855	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	16	0.004719	0.001125	93.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0012	0.1	No	17	0.003823	0.001886	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.087	0.029	0.032	No	7	0.05457	0.02716	0	None	No	0.008	NP (normality)
Cobalt (mg/L)	B-105D	0.012	0.0042	0.032	No	4	0.007175	0.003365	0	None	No	0.0625	NP (selected)
Cobalt (mg/L)	B-62	0.005	0.0003	0.032	No	8	0.003826	0.002173	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	16	0.004131	0.001868	81.25	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	16	0.002312	0.002224	12.5	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.007203	0.00591	0.032	No	16	0.0066	0.001106	12.5	None	ln(x)	0.01	Param.
Cobalt (mg/L)	DGWC-40	0.04548	0.03807	0.032	Yes	16	0.04178	0.005698	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-67	0.005	0.0012	0.032	No	16	0.002962	0.002473	12.5	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	16	0.004206	0.001723	81.25	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0022	0.032	No	17	0.003882	0.001669	64.71	None	No	0.01	NP (NDs)

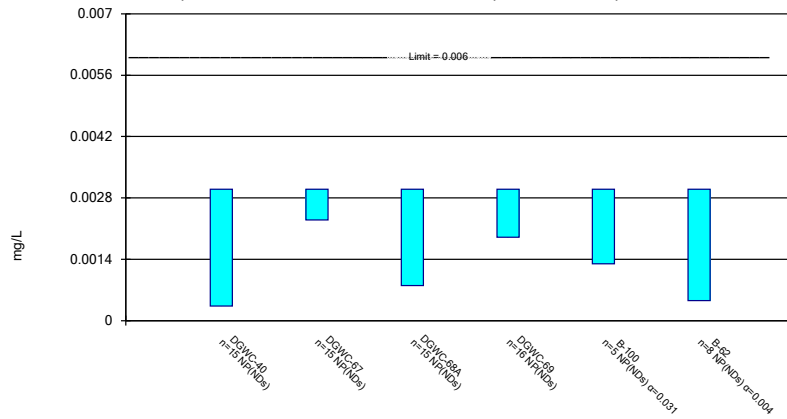
Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-100	1.4	0.168	5	No	5	0.782	0.4357	0	None	No	0.031	NP (selected)
Combined Radium 226 + 228 (pCi/L)	B-105D	3.021	0.769	5	No	4	1.895	0.496	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-62	1.951	1.275	5	No	7	1.613	0.2846	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.024	0.5176	5	No	16	0.797	0.4278	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	1.046	0.3294	5	No	16	0.749	0.5974	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.304	0.6149	5	No	16	0.9594	0.5295	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.563	0.6728	5	No	16	1.118	0.6838	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.9852	0.4694	5	No	16	0.7273	0.3964	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.74	0.332	5	No	16	0.9686	0.6148	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.798	1.144	5	No	17	1.471	0.5224	0	None	No	0.01	Param.
Fluoride, total (mg/L)	B-105D	0.32	0.058	4	No	4	0.1328	0.1251	0	None	No	0.0625	NP (normality)
Fluoride, total (mg/L)	B-62	0.43	0.093	4	No	7	0.1731	0.1226	0	None	No	0.008	NP (normality)
Fluoride, total (mg/L)	DGWC-37	0.084	0.054	4	No	17	0.09859	0.07622	5.882	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-38	0.13	0.058	4	No	17	0.1201	0.1096	11.76	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-39	0.17	0.085	4	No	17	0.1542	0.1164	5.882	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-40	0.3008	0.133	4	No	17	0.2338	0.1569	5.882	None	x^(1/3)	0.01	Param.
Fluoride, total (mg/L)	DGWC-67	0.069	0.038	4	No	17	0.08571	0.1182	52.94	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	DGWC-68A	0.15	0.076	4	No	17	0.1492	0.1272	5.882	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	DGWC-69	0.1668	0.08778	4	No	18	0.1323	0.07032	5.556	None	sqrt(x)	0.01	Param.
Lead (mg/L)	B-100	0.0002658	0.00007745	0.015	No	5	0.0004956	0.0004626	40	Kaplan-Meier	x^(1/3)	0.01	Param.
Lead (mg/L)	B-105D	0.001	0.000052	0.015	No	4	0.000763	0.000474	75	Kaplan-Meier	No	0.0625	NP (NDs)
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	16	0.0009663	0.0002612	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.0001	0.015	No	16	0.0007197	0.0004298	68.75	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	16	0.0008938	0.0002915	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.00007	0.015	No	16	0.0005578	0.00046	50	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-67	0.001	0.00009	0.015	No	16	0.0007777	0.0003999	75	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	16	0.0009011	0.0002752	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.0001	0.015	No	17	0.0006829	0.0004431	64.71	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.003016	0.001264	0.04	No	5	0.00214	0.0005225	0	None	No	0.01	Param.
Lithium (mg/L)	B-105D	0.01585	0.01215	0.04	No	4	0.014	0.0008165	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.03	0.0078	0.04	No	8	0.01125	0.007598	12.5	None	No	0.004	NP (normality)
Lithium (mg/L)	DGWC-37	0.03	0.002	0.04	No	16	0.009225	0.01239	25	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0035	0.0029	0.04	No	16	0.004844	0.006714	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.003	0.0022	0.04	No	16	0.005794	0.009452	12.5	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.0052	0.0043	0.04	No	16	0.006231	0.006348	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	16	0.0264	0.009835	87.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0024	0.04	No	17	0.004412	0.006605	5.882	None	No	0.01	NP (normality)
Mercury (mg/L)	B-100	0.0002	0.00011	0.002	No	4	0.0001775	0.000045	75	None	No	0.0625	NP (NDs)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	15	0.000173	0.00005662	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	15	0.000173	0.00005656	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	15	0.0001906	0.00003641	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	15	0.0001719	0.00005895	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	16	0.0001919	0.0000325	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	B-105D	0.01	0.0011	0.1	No	4	0.007775	0.00445	75	None	No	0.0625	NP (NDs)
Molybdenum (mg/L)	B-113D	0.078	0.025	0.1	No	4	0.06275	0.02524	0	None	No	0.0625	NP (selected)
Molybdenum (mg/L)	DGWC-38	0.01	0.00099	0.1	No	16	0.004974	0.004578	43.75	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-68A	0.2241	0.1958	0.1	Yes	16	0.2103	0.02238	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	DGWC-69	0.0117	0.0057	0.1	No	17	0.009965	0.005781	5.882	None	No	0.01	NP (normality)
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	5	0.00438	0.001386	80	Kaplan-Meier	No	0.031	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	16	0.004806	0.000775	93.75	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003506	0.00187	0.05	No	16	0.003694	0.002302	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	16	0.004856	0.000575	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	16	0.004794	0.000825	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.0001	0.002	No	16	0.0005631	0.0004516	50	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-39	0.001	0.00009	0.002	No	16	0.0007144	0.0004376	68.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.000068	0.002	No	16	0.000708	0.0004473	68.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	16	0.0009469	0.0002125	93.75	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

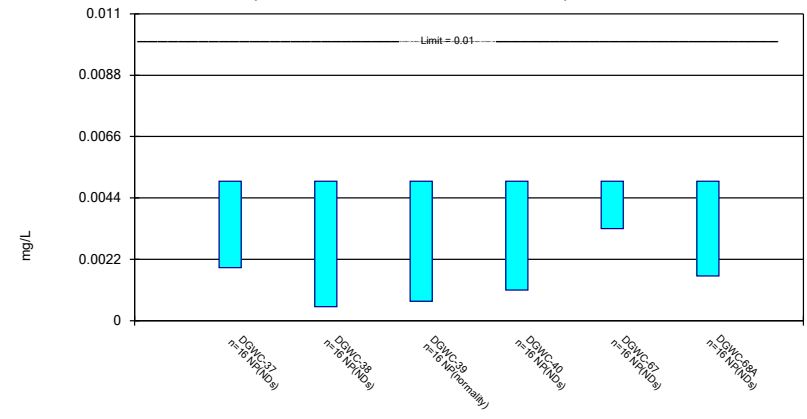
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Antimony Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

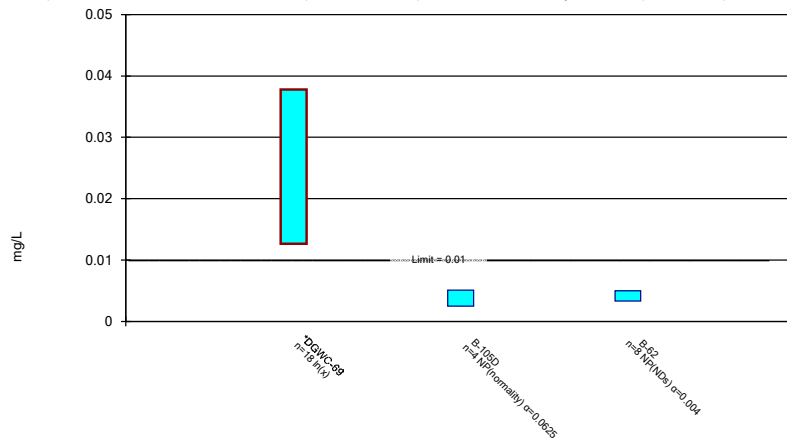
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

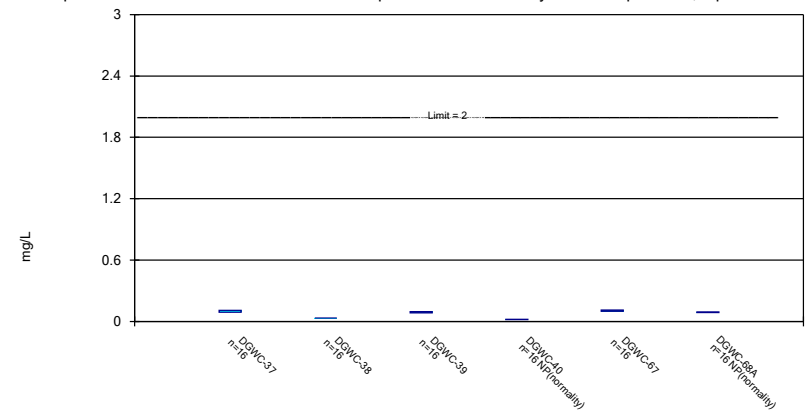
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

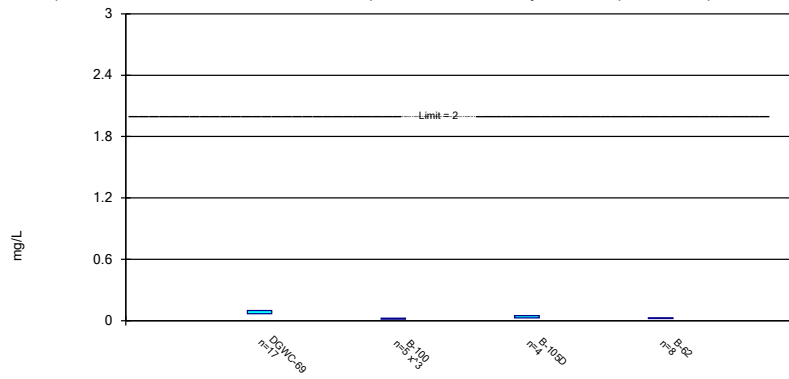
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

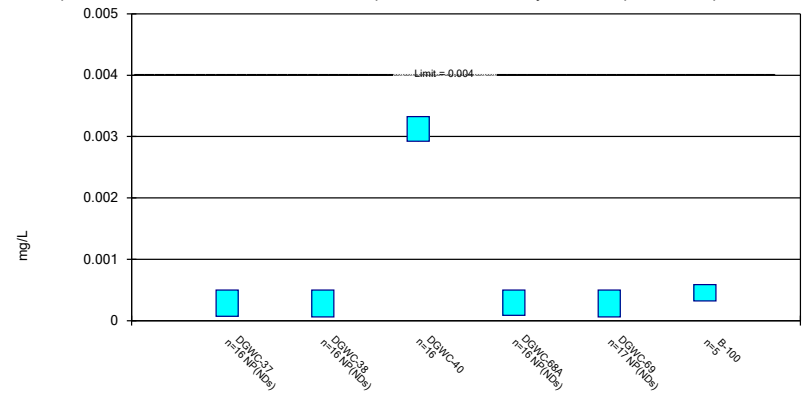
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

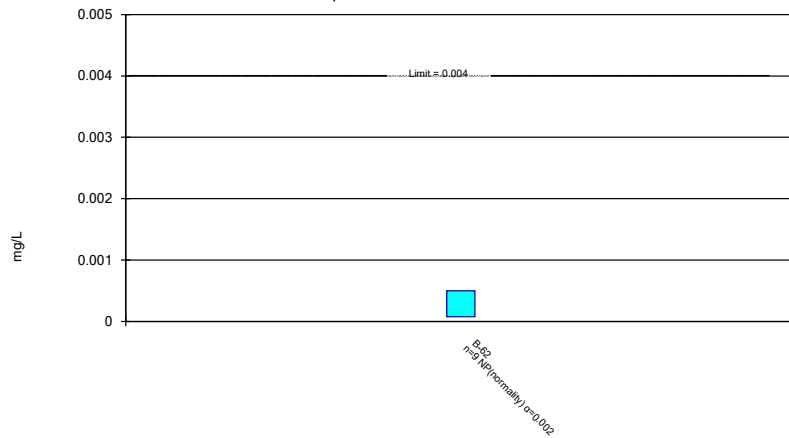
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

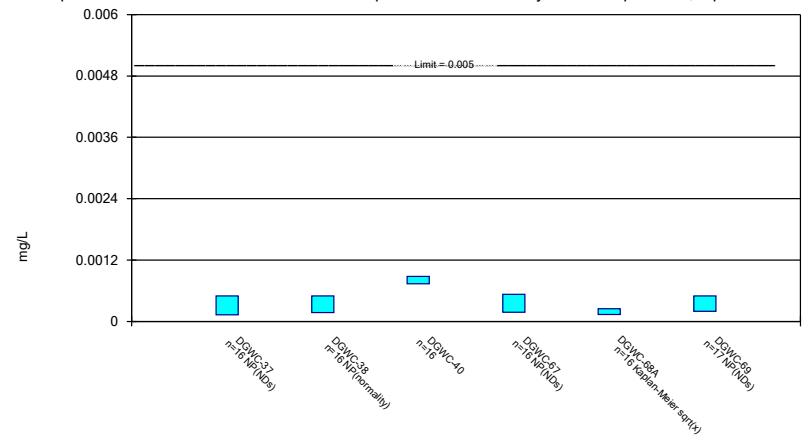
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

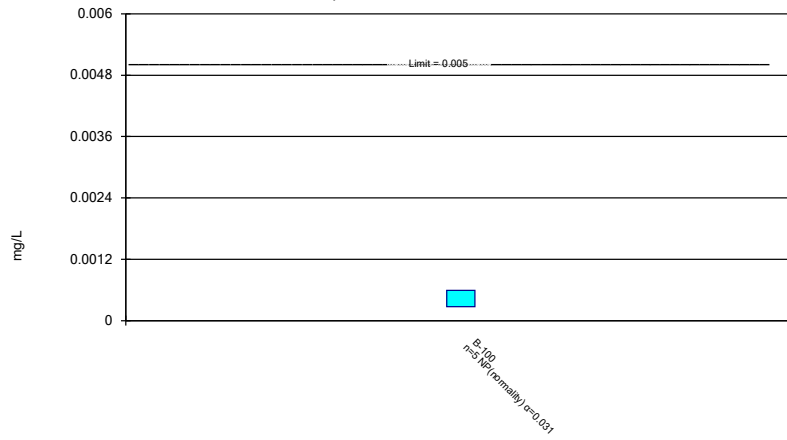
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

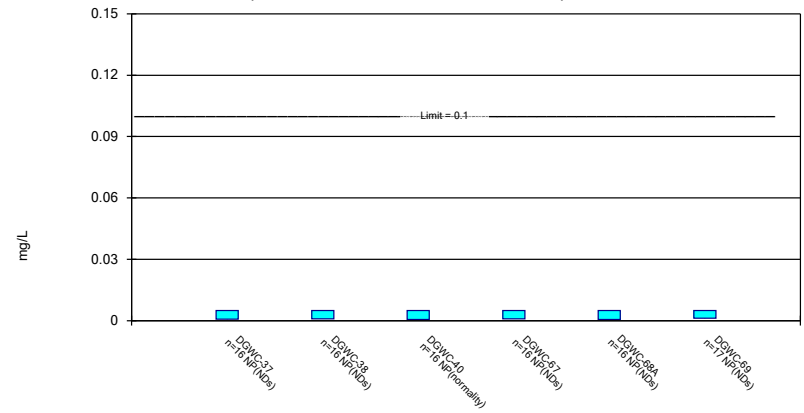
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

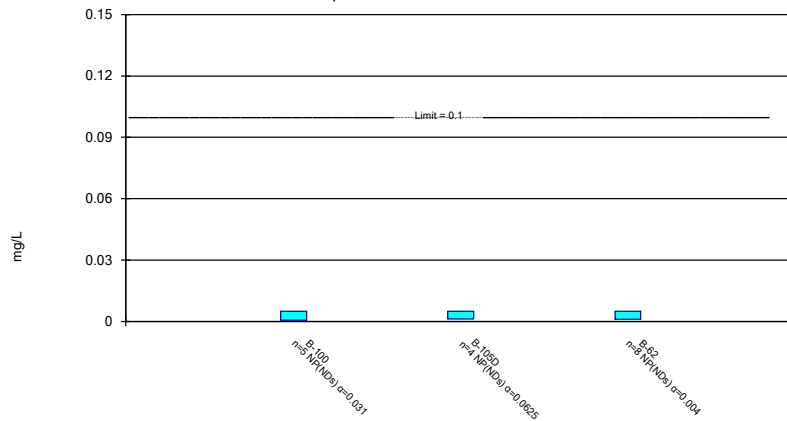
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

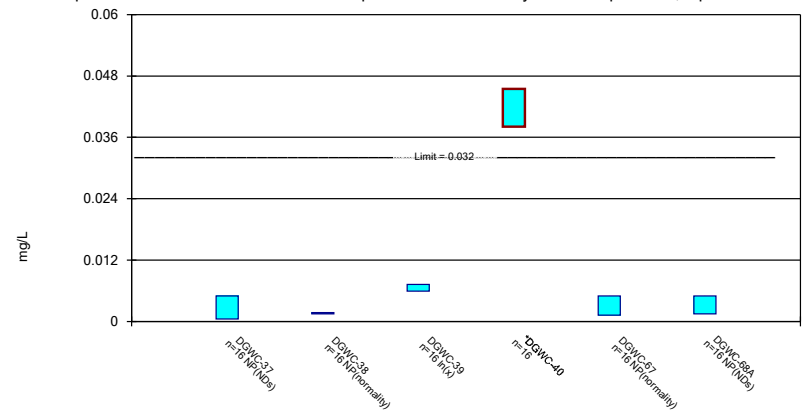
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

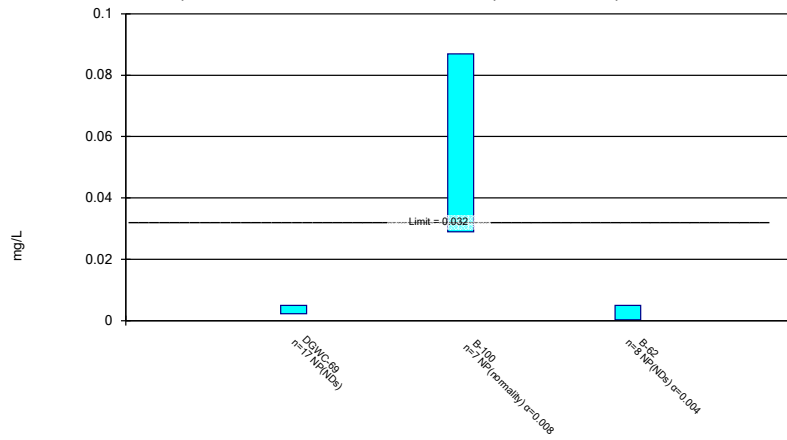
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

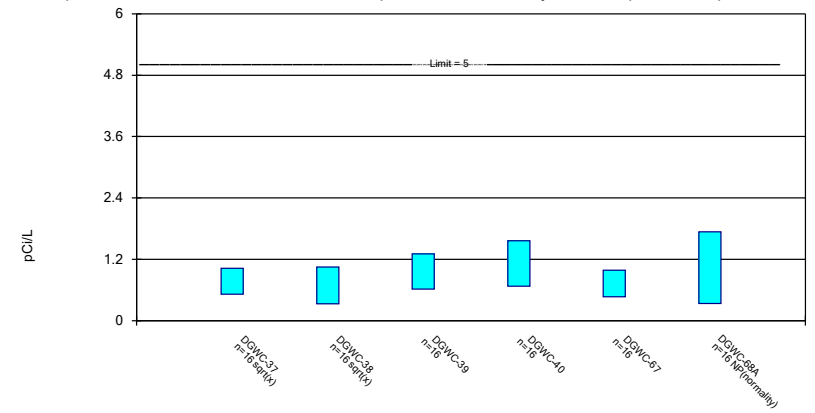
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Cobalt Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

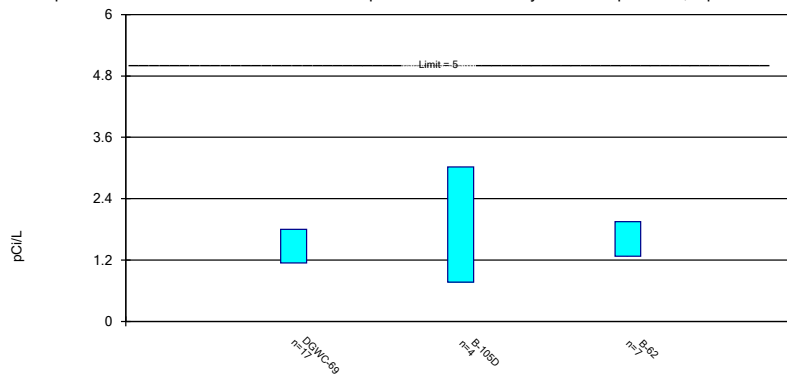
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

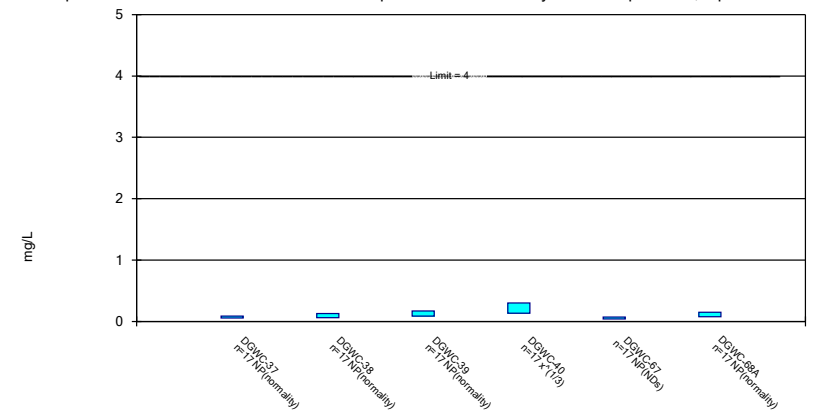
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

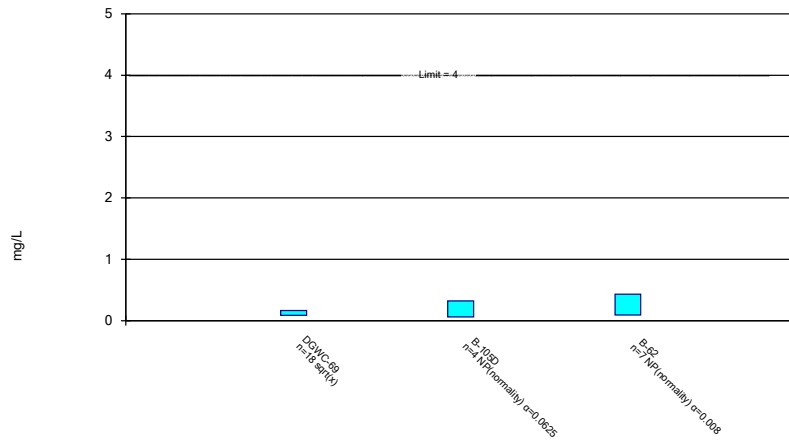
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

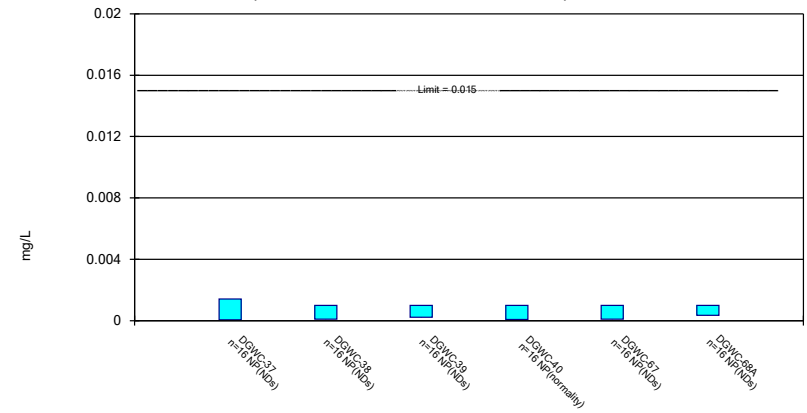
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

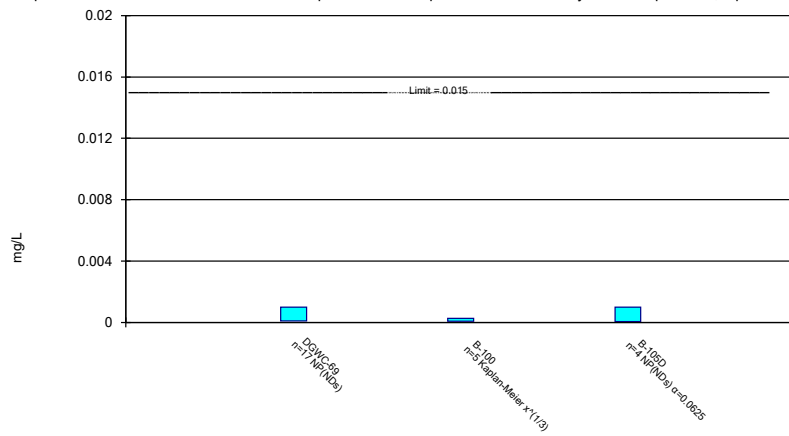
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

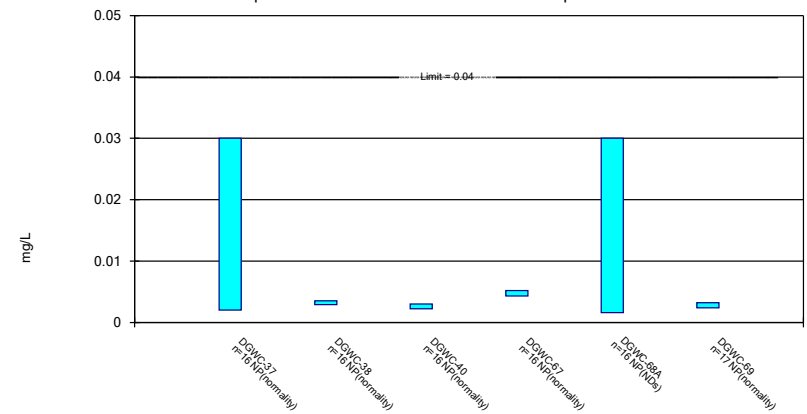
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

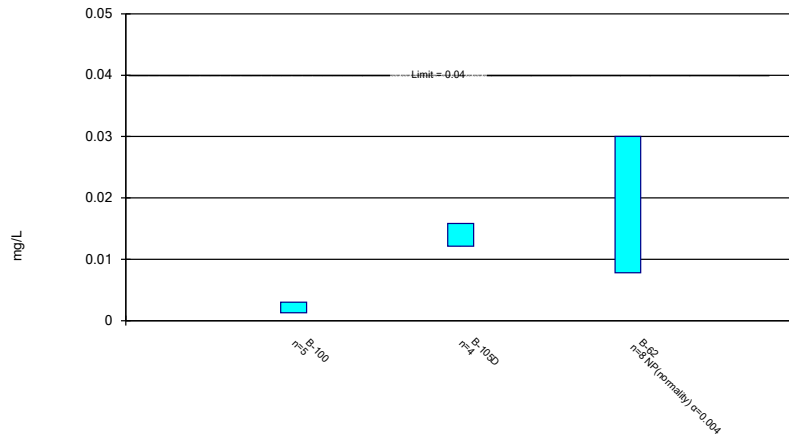
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

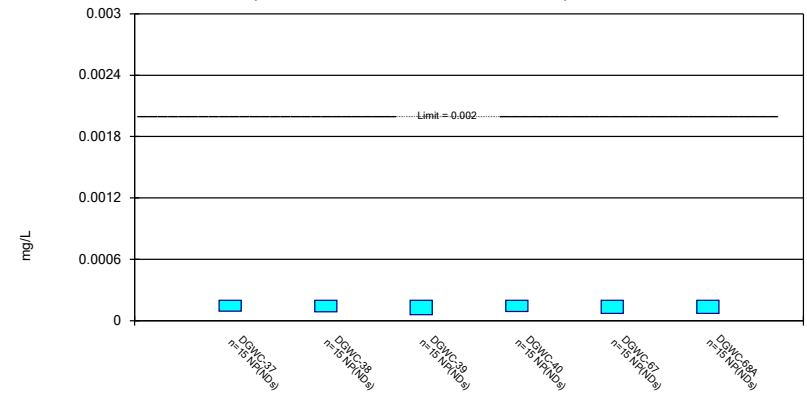
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

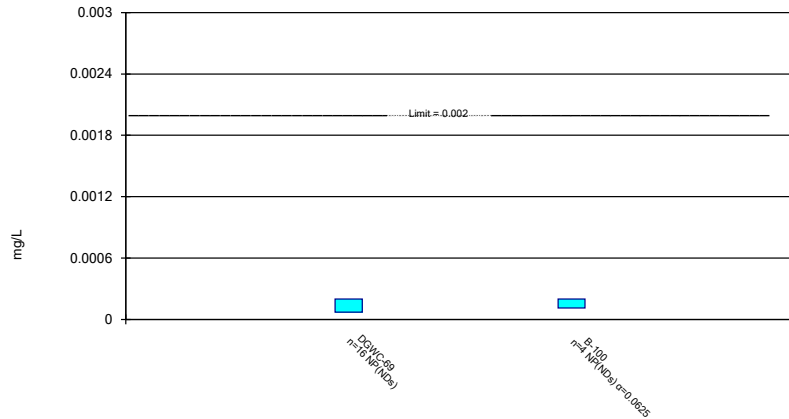
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

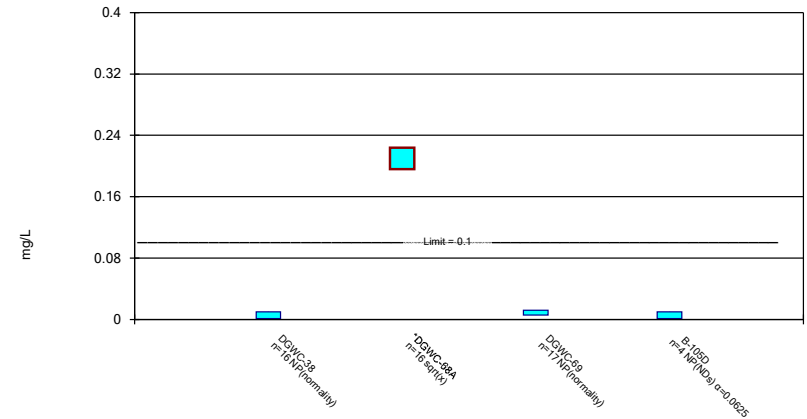
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

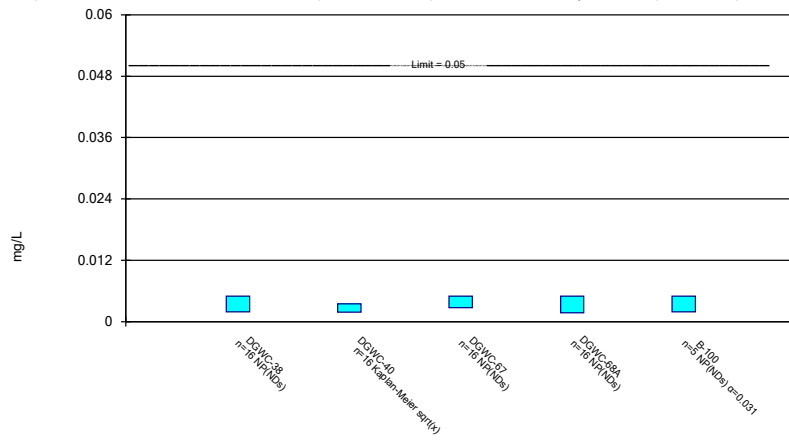
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

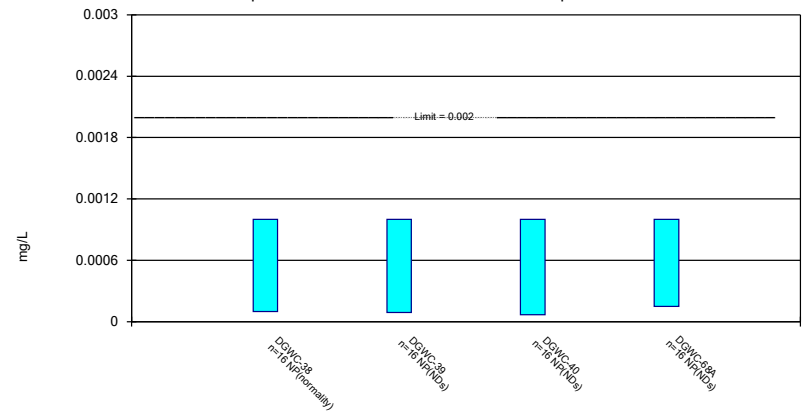
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 4/13/2022 3:44 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69	B-100	B-62
9/2/2016	<0.003					
12/8/2016	<0.003					
3/30/2017	<0.003					
3/31/2017		0.0004 (J)		<0.003		
5/12/2017		<0.003	<0.003	<0.003		
6/16/2017		0.0008 (J)	0.0008 (J)	0.0007 (J)		
7/13/2017	<0.003	<0.003	<0.003	<0.003		
8/8/2017			<0.003			
10/26/2017	<0.003	<0.003	<0.003	<0.003		
11/15/2017				<0.003		
3/2/2018	<0.003	<0.003	<0.003	<0.003		
7/12/2018	<0.003					
7/13/2018		0.0023 (J)	<0.003	<0.003		
11/8/2018	<0.003	<0.003	<0.003	<0.003		
1/30/2019						<0.003
8/28/2019	<0.003	<0.003	<0.003	<0.003		
9/11/2019						<0.003
10/21/2019						<0.003
3/4/2020	<0.003					
3/9/2020		<0.003	<0.003	<0.003		
8/13/2020	<0.003	<0.003	<0.003	0.0019 (J)		<0.003
8/17/2020					0.0013 (J)	
9/23/2020	<0.003	<0.003	<0.003	<0.003		
9/24/2020						0.00046 (J)
9/25/2020					<0.003	
3/8/2021	0.00033 (J)				0.0017 (J)	
3/10/2021			0.00032 (J)	0.0018 (J)		
3/11/2021		<0.003				
3/12/2021						<0.003
9/9/2021						<0.003
9/13/2021					<0.003	
9/14/2021	<0.003					
9/16/2021		<0.003	<0.003	<0.003		
1/19/2022	<0.003	<0.003				
1/20/2022						<0.003
1/21/2022					<0.003	
1/25/2022			<0.003	<0.003		
Mean	0.002822	0.002633	0.002675	0.002713	0.0024	0.002683
Std. Dev.	0.0006894	0.0008482	0.0008633	0.0006642	0.0008337	0.000898
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.00033	0.0023	0.0008	0.0019	0.0013	0.00046

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				<0.005		
9/8/2016	<0.005	<0.005	<0.005			
12/7/2016	0.0019 (J)	<0.005	<0.005			
12/8/2016				<0.005		
3/30/2017	<0.005	<0.005	0.0007 (J)	0.0006 (J)		
3/31/2017					<0.005	
5/12/2017					<0.005	<0.005
6/16/2017					<0.005	<0.005
7/13/2017	<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005	<0.005
8/8/2017						<0.005
10/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2018	<0.005	<0.005	0.0011 (J)			
3/2/2018				0.0011 (J)	<0.005	<0.005
7/12/2018	<0.005	<0.005	0.00057 (J)	<0.005		
7/13/2018					<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (J)
8/28/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/16/2019						<0.005
10/17/2019					0.00042 (J)	
10/18/2019	<0.005	<0.005	0.00075 (J)	<0.005		
3/4/2020				0.00065 (J)		
3/9/2020	<0.005	<0.005	0.00039 (J)		<0.005	<0.005
8/13/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/23/2020				<0.005	<0.005	<0.005
9/24/2020	<0.005	<0.005				
9/25/2020			0.00087 (J)			
3/8/2021				<0.005		
3/10/2021						<0.005
3/11/2021	<0.005	<0.005	<0.005		0.0008 (J)	
9/14/2021				<0.005		
9/15/2021		<0.005				
9/16/2021	<0.005				<0.005	0.46 (o)
9/17/2021			<0.005			
10/27/2021						0.0016 (J)
1/19/2022				0.003 (J)	0.0033 (J)	
1/20/2022			0.0019 (J)			
1/21/2022	<0.005	<0.005				
1/25/2022						<0.005
Mean	0.004806	0.004719	0.002949	0.004084	0.004345	0.004787
Std. Dev.	0.000775	0.001125	0.002142	0.001714	0.00152	0.00085
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0019	0.0005	0.0007	0.0011	0.0033	0.0016

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-105D	B-62
3/31/2017	0.0239		
4/12/2017	0.0077		
5/12/2017	0.0097		
6/16/2017	0.0113		
7/13/2017	0.0029 (J)		
10/26/2017	0.114		
11/15/2017	0.164		
3/2/2018	0.0127		
7/13/2018	0.017		
11/8/2018	0.02		
1/30/2019			<0.005
8/28/2019	0.025		
9/11/2019			<0.005
10/16/2019	0.023		
10/21/2019			<0.005
3/9/2020	0.029		
8/13/2020	0.029		<0.005
9/23/2020	0.032		
9/24/2020			<0.005
12/9/2020		<0.005	
3/8/2021		0.0025 (J)	
3/10/2021	0.028		
3/12/2021			<0.005
9/9/2021			<0.005
9/15/2021		<0.005	
9/16/2021	0.023		
1/19/2022		0.0051	
1/20/2022			0.0033 (J)
1/25/2022	0.028		
Mean	0.03334	0.0044	0.004787
Std. Dev.	0.04025	0.001268	0.000601
Upper Lim.	0.03779	0.0051	0.005
Lower Lim.	0.01266	0.0025	0.0033

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0171		
9/8/2016	0.123	0.0333	0.0978			
12/7/2016	0.125	0.0336	0.0844			
12/8/2016				0.0163		
3/30/2017	0.11	0.0325	0.0858	0.0177		
3/31/2017					0.111	
5/12/2017					0.127	0.089
6/16/2017					0.11	0.0855
7/13/2017	0.11	0.0332	0.0919	0.017	0.102	0.0859
8/8/2017						0.0852
10/26/2017	0.112	0.0333	0.0899	0.0168	0.105	0.0878
3/1/2018	0.102	0.0333	0.0742			
3/2/2018				0.0169	0.104	0.0878
7/12/2018	0.11	0.034	0.094	0.018		
7/13/2018					0.11	0.091
11/8/2018	0.11	0.035	0.1	0.017	0.11	0.092
8/28/2019	0.086	0.033	0.099	0.017	0.11	0.089
10/16/2019						0.089
10/17/2019					0.1	
10/18/2019	0.079	0.032	0.1	0.019		
3/4/2020				0.018		
3/9/2020	0.092	0.032	0.076		0.11	0.088
8/13/2020	0.088	0.032	0.089	0.018	0.095	0.088
9/23/2020				0.019	0.1	0.094
9/24/2020	0.094	0.032				
9/25/2020			0.1			
3/8/2021				0.016		
3/10/2021						0.09
3/11/2021	0.075	0.032	0.078		0.11	
9/14/2021				0.027		
9/15/2021		0.032				
9/16/2021	0.083				0.088	0.13 (o)
9/17/2021			0.09			
10/27/2021						0.086
1/19/2022				0.018	0.091	
1/20/2022			0.093			
1/21/2022	0.085	0.031				
1/25/2022						0.1
Mean	0.099	0.03276	0.09019	0.01805	0.1052	0.08926
Std. Dev.	0.01572	0.001001	0.008601	0.002535	0.009361	0.003733
Upper Lim.	0.1092	0.03341	0.09578	0.019	0.1113	0.092
Lower Lim.	0.08877	0.03211	0.08459	0.0168	0.0991	0.0859

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-100	B-105D	B-62
3/31/2017	0.0872			
5/12/2017	0.0929			
6/16/2017	0.1			
7/13/2017	0.0985			
10/26/2017	0.136			
11/15/2017	0.107			
3/2/2018	0.0671			
7/13/2018	0.074			
11/8/2018	0.072			
1/30/2019				0.018
8/28/2019	0.061			
9/11/2019				0.023
10/16/2019	0.1			
10/21/2019				0.026
3/9/2020	0.057			
8/13/2020	0.13			0.026
8/17/2020		0.015		
9/23/2020	0.055			
9/24/2020				0.025
9/25/2020		0.022		
12/9/2020			0.03	
3/8/2021		0.022	0.041	
3/10/2021	0.048			
3/12/2021				0.027
9/9/2021				0.021
9/13/2021		0.021		
9/15/2021			0.037	
9/16/2021	0.078			
1/19/2022			0.04	
1/20/2022				0.021
1/21/2022		0.023		
1/25/2022	0.049			
Mean	0.0831	0.0206	0.037	0.02338
Std. Dev.	0.02661	0.003209	0.004967	0.003159
Upper Lim.	0.09978	0.02464	0.04828	0.02672
Lower Lim.	0.06642	0.01515	0.02572	0.02003

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-68A	DGWC-69	B-100
9/2/2016			0.0028 (J)			
9/8/2016	<0.0005	<0.0005				
12/7/2016	<0.0005	<0.0005				
12/8/2016			0.0026 (J)			
3/30/2017	<0.0005	<0.0005	0.003			
3/31/2017					7E-05 (J)	
5/12/2017				<0.0005	<0.0005	
6/16/2017				<0.0005	<0.0005	
7/13/2017	<0.0005	<0.0005	0.003 (J)	<0.0005	<0.0005	
8/8/2017				<0.0005		
10/26/2017	<0.0005	<0.0005	0.0027 (J)	<0.0005	<0.0005	
11/15/2017					<0.0005	
3/1/2018	<0.0005	<0.0005				
3/2/2018			0.0033	<0.0005	<0.0005	
7/12/2018	7E-05 (J)	<0.0005	0.0032			
7/13/2018				8.4E-05 (J)	5.8E-05 (J)	
11/8/2018	<0.0005	<0.0005	<0.003 (J)	<0.0005	<0.0005	
8/28/2019	8.6E-05 (J)	<0.0005	0.0032	<0.0005	<0.0005	
10/16/2019				<0.0005	<0.0005	
10/18/2019	<0.0005	<0.0005	0.0033			
3/4/2020			0.0039			
3/9/2020	<0.0005	<0.0005		<0.0005	7.5E-05 (J)	
8/13/2020	0.0001 (J)	<0.0005	0.0033	<0.0005	6.3E-05 (J)	
8/17/2020						0.0004 (J)
9/23/2020			0.0031	<0.0005	6.1E-05 (J)	
9/24/2020	8.8E-05 (J)	5.8E-05 (J)				
9/25/2020						0.00035 (J)
3/8/2021			0.003			0.00046 (J)
3/10/2021				6.1E-05 (J)	5E-05 (J)	
3/11/2021	<0.0005	<0.0005				
9/13/2021						0.00053
9/14/2021			0.0032			
9/15/2021		<0.0005				
9/16/2021	5.9E-05 (J)			<0.0005	<0.0005	
1/19/2022			0.0034			
1/21/2022	5.9E-05 (J)	<0.0005				0.00053
1/25/2022				<0.0005	5.9E-05 (J)	
Mean	0.0003414	0.0004724	0.003125	0.0004466	0.0003198	0.000454
Std. Dev.	0.0002117	0.0001105	0.0003066	0.0001461	0.0002221	7.956E-05
Upper Lim.	0.0005	0.0005	0.003324	0.0005	0.0005	0.0005873
Lower Lim.	7E-05	5.8E-05	0.002926	8.4E-05	6.1E-05	0.0003207

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-62
10/6/2016	9E-05 (J)
1/30/2019	<0.0005
9/11/2019	0.00012 (J)
10/21/2019	7.8E-05 (J)
8/13/2020	0.00011 (J)
9/24/2020	0.00013 (J)
3/12/2021	<0.0005
9/9/2021	0.00014 (J)
1/20/2022	0.00015 (J)
Mean	0.000202
Std. Dev.	0.0001705
Upper Lim.	0.0005
Lower Lim.	7.8E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0008 (J)			
9/8/2016	0.0002 (J)	0.0002 (J)				
12/7/2016	0.0001 (J)	0.0002 (J)				
12/8/2016			0.0007 (J)			
3/30/2017	0.0001 (J)	0.0002 (J)	0.0007 (J)			
3/31/2017				<0.0005		0.0001 (J)
5/12/2017				<0.0005	8E-05 (J)	0.0002 (J)
6/16/2017				<0.0005	<0.0005	0.0002 (J)
7/13/2017	<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005	<0.0005
8/8/2017					<0.0005	
10/26/2017	<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005	<0.0005
11/15/2017						<0.0005
3/1/2018	<0.0005	<0.0005				
3/2/2018			<0.0005	<0.0005	<0.0005	<0.0005
7/12/2018	<0.0005	0.00024 (J)	0.00087 (J)			
7/13/2018				<0.0005	0.00019 (J)	<0.0005
11/8/2018	<0.0005	<0.001 (J)	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/28/2019	<0.0005	0.0003 (J)	0.00087 (J)	0.00017 (J)	0.00017 (J)	<0.0005
10/16/2019					0.00017 (J)	0.00017 (J)
10/17/2019				<0.0005		
10/18/2019	<0.0005	0.00016 (J)	0.00088 (J)			
3/4/2020			0.00093 (J)			
3/9/2020	<0.0005	0.00017 (J)		0.00021 (J)	0.00026 (J)	<0.0005
8/13/2020	<0.0005	0.00021 (J)	0.00084 (J)	0.00015 (J)	0.00021 (J)	<0.0005
9/23/2020			0.0008 (J)	0.00018 (J)	0.00024 (J)	<0.0005
9/24/2020	0.00027 (J)	0.00081 (J)				
3/8/2021			0.00072			
3/10/2021					<0.0005	<0.0005
3/11/2021	<0.0005	<0.0005		0.00053		
9/14/2021			0.00086			
9/15/2021		0.00021 (J)				
9/16/2021	0.00013 (J)			<0.0005	<0.0005	<0.0005
1/19/2022			0.00085	<0.0005		
1/21/2022	<0.0005	0.0002 (J)				
1/25/2022					0.00035 (J)	<0.0005
Mean	0.0003938	0.0003313	0.0008075	0.0004213	0.0003856	0.0004218
Std. Dev.	0.0001672	0.0002491	0.0001144	0.000146	0.0002255	0.0001468
Upper Lim.	0.0005	0.0005	0.0008819	0.00053	0.0002482	0.0005
Lower Lim.	0.00013	0.00017	0.0007331	0.00018	0.0001352	0.0002

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	0.00059 (J)
9/25/2020	0.00027 (J)
3/8/2021	0.00027 (J)
9/13/2021	0.00029 (J)
1/21/2022	0.00059
Mean	0.000402
Std. Dev.	0.0001718
Upper Lim.	0.00059
Lower Lim.	0.00027

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			<0.005			
9/8/2016	<0.005	<0.005				
12/7/2016	<0.005	<0.005				
12/8/2016			<0.005			
3/30/2017	<0.005	<0.005	0.0007 (J)			
3/31/2017				0.0005 (J)		<0.005
5/12/2017				0.0007 (J)	<0.005	<0.005
6/16/2017				<0.005	<0.005	<0.005
7/13/2017	<0.005	<0.005	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017					<0.005	
10/26/2017	0.0007 (J)	0.0005 (J)	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017						<0.005
3/1/2018	<0.005	<0.005				
3/2/2018			<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<0.005	<0.005			
7/13/2018				<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/28/2019	<0.005	<0.005	0.00061 (J)	<0.005	<0.005	0.00049 (J)
10/16/2019					<0.005	<0.005
10/17/2019				<0.005		
10/18/2019	<0.005	0.00092 (J)	0.00078 (J)			
3/4/2020			0.0011 (J)			
3/9/2020	<0.005	0.00044 (J)		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00058 (J)	<0.005	0.00072 (J)	<0.005	<0.005	<0.005
9/23/2020			0.0011 (J)	<0.005	<0.005	0.0011 (J)
9/24/2020	<0.005	<0.005				
3/8/2021			0.0006 (J)			
3/10/2021					<0.005	0.0009 (J)
3/11/2021	<0.005	<0.005		0.0014 (J)		
9/14/2021			0.0021 (J)			
9/15/2021		<0.005				
9/16/2021	<0.005			<0.005	0.0014 (J,o)	<0.005
10/27/2021					<0.005	
1/19/2022			<0.005	<0.005		
1/21/2022	<0.005	<0.005				
1/25/2022					<0.005	0.0013 (J)
Mean	0.004455	0.004179	0.002438	0.003967	0.004719	0.003823
Std. Dev.	0.001489	0.001768	0.00208	0.001855	0.001125	0.001886
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0007	0.00092	0.00061	0.00088	0.0005	0.0012

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-62
1/30/2019			<0.005
9/11/2019			<0.005
10/21/2019			0.00098 (J)
8/13/2020			<0.005
8/17/2020	<0.005		
9/24/2020			<0.005
9/25/2020	0.00094 (J)		
12/9/2020		<0.005	
3/8/2021	0.00057 (J)	<0.005	
3/12/2021			<0.005
9/9/2021			<0.005
9/13/2021	<0.005		
9/15/2021		0.0012 (J)	
1/19/2022		<0.005	
1/20/2022			<0.005
1/21/2022	<0.005		
Mean	0.003302	0.00405	0.004497
Std. Dev.	0.002329	0.0019	0.001421
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.00057	0.0012	0.00098

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0382		
9/8/2016	<0.005	0.0015 (J)	0.0068 (J)			
12/7/2016	0.0005 (J)	0.0017 (J)	0.0071 (J)			
12/8/2016				0.0318		
3/30/2017	<0.005	0.0016 (J)	0.006 (J)	0.0364		
3/31/2017					0.0064 (J)	
5/12/2017					0.0037 (J)	0.0015 (J)
6/16/2017					0.0041 (J)	0.0003 (J)
7/13/2017	0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)
8/8/2017						<0.005
10/26/2017	0.0003 (J)	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)	<0.005
3/1/2018	<0.005	<0.005	<0.005			
3/2/2018				0.0425	<0.005	<0.005
7/12/2018	<0.005	0.0015 (J)	0.0059 (J)	0.044		
7/13/2018					0.0017 (J)	<0.005
11/8/2018	<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)	<0.005
8/28/2019	<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)	<0.005
10/16/2019						<0.005
10/17/2019					0.0013 (J)	
10/18/2019	<0.005	0.0016 (J)	0.007	0.043		
3/4/2020				0.055		
3/9/2020	<0.005	0.0016 (J)	0.007		0.0015 (J)	<0.005
8/13/2020	<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)	<0.005
9/23/2020				0.046	0.0011 (J)	<0.005
9/24/2020	<0.005	0.0013 (J)				
9/25/2020			0.0061			
3/8/2021				0.039		
3/10/2021						<0.005
3/11/2021	<0.005	0.0017 (J)	0.0058		0.0016 (J)	
9/14/2021				0.05		
9/15/2021		0.0016 (J)				
9/16/2021	<0.005				0.0012 (J)	0.0032 (J,o)
9/17/2021			0.0076			
10/27/2021						<0.005
1/19/2022				0.042	0.0011 (J)	
1/20/2022			0.0061			
1/21/2022	<0.005	0.0017 (J)				
1/25/2022						<0.005
Mean	0.004131	0.002312	0.0066	0.04178	0.002962	0.004206
Std. Dev.	0.001868	0.002224	0.001106	0.005698	0.002473	0.001723
Upper Lim.	0.005	0.0017	0.007203	0.04548	0.005	0.005
Lower Lim.	0.0005	0.0015	0.00591	0.03807	0.0012	0.0015

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-100	B-62
3/31/2017	0.0022 (J)		
5/12/2017	0.0016 (J)		
6/16/2017	0.0009 (J)		
7/13/2017	0.0004 (J)		
10/26/2017	0.0031 (J)		
11/15/2017	0.0028 (J)		
3/2/2018	<0.005		
7/13/2018	<0.005		
11/8/2018	<0.005		
1/30/2019			<0.005
8/28/2019	<0.005		
9/11/2019			0.0003 (J)
10/16/2019	<0.005		
10/21/2019			0.00031 (J)
3/9/2020	<0.005		
7/23/2020		0.086	
8/3/2020		0.087	
8/13/2020	<0.005		<0.005
8/17/2020		0.077	
9/23/2020	<0.005		
9/24/2020			<0.005
9/25/2020		0.034	
3/8/2021		0.029	
3/10/2021	<0.005		
3/12/2021			<0.005
9/9/2021			<0.005
9/13/2021		0.035	
9/16/2021	<0.005		
1/20/2022			<0.005
1/21/2022		0.034	
1/25/2022	<0.005		
Mean	0.003882	0.05457	0.003826
Std. Dev.	0.001669	0.02716	0.002173
Upper Lim.	0.005	0.087	0.005
Lower Lim.	0.0022	0.029	0.0003

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				1.44		
9/8/2016	0.827 (U)	1.48	1.44			
12/7/2016	0.56 (U)	0.22 (U)	2.16			
12/8/2016				2.56		
3/30/2017	0.302 (U)	0.519 (U)	0.264 (U)	0.0844 (U)		
3/31/2017					0.404 (U)	
5/12/2017					0.206 (U)	1.18
6/16/2017					0.966 (U)	0.332 (U)
7/13/2017	0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)	0.304 (U)
8/8/2017						1.4
10/26/2017	1.04 (U)	1.13 (U)	0.875 (U)	0.748 (U)	0.619 (U)	0.477 (U)
3/1/2018	0.344 (U)	0.985 (U)	1.24			
3/2/2018				0.485 (U)	1.31	1.13
7/12/2018	0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)		
7/13/2018					0.667 (U)	0.407 (U)
11/8/2018	0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)	0.393 (U)
8/28/2019	1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)	1.77
10/16/2019						2.12
1/6/2020	2.01	0.527 (U)	1.4	1.6	0.965 (U)	
3/4/2020				1.62		
3/9/2020	0.499 (U)	1.04	1.36		0.819 (U)	1.33
8/13/2020	0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)	1.46
9/23/2020				1.28 (U)	0.131 (U)	0.563 (U)
9/24/2020	1.03 (U)	0.593 (U)				
9/25/2020			0.181 (U)			
3/8/2021				0.714 (U)		
3/10/2021						0.568 (U)
3/11/2021	0.956 (U)	0.0784 (U)	0.969 (U)		1.55	
9/14/2021				1.8		
9/15/2021		2.37				
9/16/2021	0.691 (U)				0.201 (U)	1.74
9/17/2021			0.911 (U)			
1/19/2022				1.7	0.853 (U)	
1/20/2022			0.172 (U)			
1/21/2022	0.343 (U)	0.0873 (U)				
1/25/2022						0.323 (U)
Mean	0.797	0.749	0.9594	1.118	0.7273	0.9686
Std. Dev.	0.4278	0.5974	0.5295	0.6838	0.3964	0.6148
Upper Lim.	1.024	1.046	1.304	1.563	0.9852	1.74
Lower Lim.	0.5176	0.3294	0.6149	0.6728	0.4694	0.332

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-105D	B-62
3/31/2017	1.39		
5/12/2017	1.29		
6/16/2017	1.61		
7/13/2017	1.14		
10/26/2017	2.04		
11/15/2017	1.99		
3/2/2018	0.918 (U)		
7/13/2018	1.36 (U)		
11/8/2018	0.719 (U)		
1/30/2019			1.97 (U)
8/28/2019	1.38		
10/16/2019	0.826 (U)		
10/21/2019			1.82
3/9/2020	1.39		
8/13/2020	2.66		1.63
9/23/2020	1.8		
9/24/2020			1.28 (U)
12/9/2020		1.25 (U)	
3/8/2021		1.87	
3/10/2021	1.6		
3/12/2021			1.18 (U)
9/9/2021			1.7
9/15/2021		2.01	
9/16/2021	2.06		
1/19/2022		2.45	
1/20/2022			1.71
1/25/2022	0.834 (U)		
Mean	1.471	1.895	1.613
Std. Dev.	0.5224	0.496	0.2846
Upper Lim.	1.798	3.021	1.951
Lower Lim.	1.144	0.769	1.275

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.5		
9/8/2016	0.08 (J)	0.1 (J)	0.17 (J)			
12/7/2016	0.21 (J)	0.27 (J)	0.33			
12/8/2016				0.35		
3/30/2017	0.05 (J)	0.12 (J)	0.17 (J)	0.21 (J)		
3/31/2017					0.02 (J)	
5/12/2017					<0.1	0.37
6/16/2017					0.03 (J)	0.12 (J)
7/13/2017	0.06 (J)	0.13 (J)	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)
8/8/2017						0.11 (J)
10/26/2017	0.08 (J)	0.47	0.54	0.5	<0.1	0.11 (J)
3/1/2018	0.22	<0.1	0.13			
3/2/2018				0.33	<0.1	0.23
7/12/2018	0.32	0.23 (J)	0.13 (J)	0.57		
7/13/2018					0.25 (J)	0.099 (J)
11/8/2018	<0.1	<0.1	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)
3/13/2019	0.08 (J)	0.084 (J)	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)
8/28/2019	0.074 (J)	0.066 (J)	0.086 (J)	0.14	<0.1	0.1
10/16/2019						0.093 (J)
10/17/2019					0.038 (J)	
10/18/2019	0.075 (J)	0.073 (J)	0.14 (J)	0.13 (J)		
3/4/2020				0.11 (J)		
3/9/2020	0.054 (J)	0.064 (J)	0.075 (J)		<0.1	0.082 (J)
8/13/2020	0.068 (J)	0.06 (J)	0.076 (J)	0.16	<0.1	0.076 (J)
9/23/2020				0.054 (J)	<0.1	0.07 (J)
9/24/2020	0.061 (J)	0.057 (J)				
9/25/2020			0.086 (J)			
3/8/2021				0.17		
3/10/2021						0.07 (J)
3/11/2021	0.057 (J)	0.058 (J)	0.083 (J)		<0.1	
9/14/2021				0.13		
9/15/2021		0.06 (J)				
9/16/2021	0.084 (J)				0.069 (J)	0.55
9/17/2021			0.13			
1/19/2022				0.12	<0.1	
1/20/2022			0.1			
1/21/2022	0.053 (J)	0.1				
1/25/2022						0.067 (J)
Mean	0.09859	0.1201	0.1542	0.2338	0.08571	0.1492
Std. Dev.	0.07622	0.1096	0.1164	0.1569	0.1182	0.1272
Upper Lim.	0.084	0.13	0.17	0.3008	0.069	0.15
Lower Lim.	0.054	0.058	0.085	0.133	0.038	0.076

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-105D	B-62
3/31/2017	0.16 (J)		
5/12/2017	0.12 (J)		
6/16/2017	0.16 (J)		
7/13/2017	0.13 (J)		
10/26/2017	0.29 (J)		
11/15/2017	0.28 (J)		
3/2/2018	0.18		
7/13/2018	0.19 (J)		
11/8/2018	<0.3 (J)		
1/30/2019			0.43
3/13/2019	0.086 (J)		
8/28/2019	0.07 (J)		
10/16/2019	0.13 (J)		
10/21/2019			0.23 (J)
3/9/2020	0.068 (J)		
8/13/2020	0.084 (J)		0.11
9/23/2020	0.064 (J)		
9/24/2020			0.093 (J)
12/9/2020		0.075 (J)	
3/8/2021		0.32	
3/10/2021	0.055 (J)		
3/12/2021			0.11
9/9/2021			0.14
9/15/2021		0.078 (J)	
9/16/2021	0.11		
1/19/2022		0.058 (J)	
1/20/2022			0.099 (J)
1/25/2022	0.054 (J)		
Mean	0.1323	0.1328	0.1731
Std. Dev.	0.07032	0.1251	0.1226
Upper Lim.	0.1668	0.32	0.43
Lower Lim.	0.08778	0.058	0.093

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				<0.001		
9/8/2016	<0.001	<0.001	<0.001			
12/7/2016	<0.001	<0.001	<0.001			
12/8/2016				<0.001		
3/30/2017	0.0014 (J)	<0.001	<0.001	7E-05 (J)		
3/31/2017					<0.001	
5/12/2017					9E-05 (J)	<0.001
6/16/2017					<0.001	<0.001
7/13/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2017						<0.001
10/26/2017	<0.001	0.0001 (J)	<0.001	7E-05 (J)	<0.001	<0.001
3/1/2018	<0.001	<0.001	<0.001			
3/2/2018				<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001		
7/13/2018					<0.001	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/28/2019	6.1E-05 (J)	<0.001	8E-05 (J)	8.1E-05 (J)	<0.001	<0.001
10/16/2019						<0.001
10/17/2019					<0.001	
10/18/2019	<0.001	7.4E-05 (J)	<0.001	0.00015 (J)		
3/4/2020				0.00017 (J)		
3/9/2020	<0.001	6.1E-05 (J)	<0.001		4.7E-05 (J)	<0.001
8/13/2020	<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)	<0.001
9/23/2020				0.00028 (J)	<0.001	0.00035 (J)
9/24/2020	<0.001	0.00014 (J)				
9/25/2020			0.00022 (J)			
3/8/2021				5.4E-05 (J)		
3/10/2021						6.7E-05 (J)
3/11/2021	<0.001	0.00014 (J)	<0.001		0.00025 (J)	
9/14/2021				<0.001		
9/15/2021		<0.001				
9/16/2021	<0.001				<0.001	<0.001
9/17/2021			<0.001			
1/19/2022				<0.001	<0.001	
1/20/2022			<0.001			
1/21/2022	<0.001	<0.001				
1/25/2022						<0.001
Mean	0.0009663	0.0007197	0.0008938	0.0005578	0.0007777	0.0009011
Std. Dev.	0.0002612	0.0004298	0.0002915	0.00046	0.0003999	0.0002752
Upper Lim.	0.0014	0.001	0.001	0.001	0.001	0.001
Lower Lim.	6.1E-05	0.0001	0.00022	7E-05	9E-05	0.00035

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-100	B-105D
3/31/2017	<0.001		
5/12/2017	0.0001 (J)		
6/16/2017	<0.001		
7/13/2017	<0.001		
10/26/2017	<0.001		
11/15/2017	9E-05 (J)		
3/2/2018	<0.001		
7/13/2018	<0.001		
11/8/2018	<0.001		
8/28/2019	<0.001		
10/16/2019	<0.001		
3/9/2020	9E-05 (J)		
8/13/2020	5.9E-05 (J)		
8/17/2020		8.8E-05 (J)	
9/23/2020	0.00017 (J)		
9/25/2020		0.00021 (J)	
12/9/2020			5.2E-05 (J)
3/8/2021		0.00018 (J)	<0.001
3/10/2021	0.0001 (J)		
9/13/2021		<0.001	
9/15/2021			<0.001
9/16/2021	<0.001		
1/19/2022			<0.001
1/21/2022		<0.001	
1/25/2022	<0.001		
Mean	0.0006829	0.0004956	0.000763
Std. Dev.	0.0004431	0.0004626	0.000474
Upper Lim.	0.001	0.0002658	0.001
Lower Lim.	0.0001	7.745E-05	5.2E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0022 (J)			
9/8/2016	<0.03	0.0032 (J)				
12/7/2016	<0.03	0.0035 (J)				
12/8/2016			<0.03			
3/30/2017	0.0029 (J)	0.0035 (J)	0.0023 (J)			
3/31/2017				0.0052 (J)		0.0031 (J)
5/12/2017				0.0054 (J)	0.0016 (J)	0.003 (J)
6/16/2017				0.0048 (J)	<0.03	0.0031 (J)
7/13/2017	<0.03	0.0032 (J)	0.0023 (J)	0.0044 (J)	<0.03	0.0029 (J)
8/8/2017					<0.03	
10/26/2017	0.0018 (J)	0.0034 (J)	0.0021 (J)	0.0043 (J)	<0.03	0.0034 (J)
11/15/2017						0.0034 (J)
3/1/2018	0.0024 (J)	0.0033 (J)				
3/2/2018			0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0028 (J)	0.0034 (J)	0.0022 (J)			
7/13/2018				0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
8/28/2019	0.0025 (J)	0.0034 (J)	0.0022 (J)	0.0046 (J)	<0.03	0.0024 (J)
10/16/2019					<0.03	0.0032 (J)
10/17/2019				0.0047 (J)		
10/18/2019	0.0026 (J)	0.0032 (J)	0.0024 (J)			
3/4/2020			0.0027 (J)			
3/9/2020	0.0017 (J)	0.0033 (J)		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	0.0023 (J)	0.0028 (J)	0.0022 (J)	0.0044 (J)	<0.03	0.0031 (J)
9/23/2020			0.0022 (J)	0.0043 (J)	<0.03	0.0023 (J)
9/24/2020	0.0021 (J)	0.0029 (J)				
3/8/2021			0.0022 (J)			
3/10/2021					<0.03	0.0023 (J)
3/11/2021	0.0024 (J)	0.003 (J)		0.005 (J)		
9/14/2021			0.003 (J)			
9/15/2021		0.0029 (J)				
9/16/2021	0.0021 (J)			0.0044 (J)	0.00082 (J)	0.0023 (J)
1/19/2022			0.0024 (J)	0.0046 (J)		
1/21/2022	0.002 (J)	0.0025 (J)				
1/25/2022					<0.03	0.0026 (J)
Mean	0.009225	0.004844	0.005794	0.006231	0.0264	0.004412
Std. Dev.	0.01239	0.006714	0.009452	0.006348	0.009835	0.006605
Upper Lim.	0.03	0.0035	0.003	0.0052	0.03	0.0032
Lower Lim.	0.002	0.0029	0.0022	0.0043	0.0016	0.0024

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-62
1/30/2019			<0.03
9/11/2019			0.0078 (J)
10/21/2019			0.0078 (J)
8/13/2020			0.0087 (J)
8/17/2020	0.0013 (J)		
9/24/2020			0.0084 (J)
9/25/2020	0.0027 (J)		
12/9/2020		0.014 (J)	
3/8/2021	0.0024 (J)	0.015 (J)	
3/12/2021			0.0087 (J)
9/9/2021			0.0094 (J)
9/13/2021	0.0022 (J)		
9/15/2021		0.014 (J)	
1/19/2022		0.013 (J)	
1/20/2022			0.0092 (J)
1/21/2022	0.0021 (J)		
Mean	0.00214	0.014	0.01125
Std. Dev.	0.0005225	0.0008165	0.007598
Upper Lim.	0.003016	0.01585	0.03
Lower Lim.	0.001264	0.01215	0.0078

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				4.4E-05 (J)		
9/8/2016	<0.0002	<0.0002	<0.0002			
12/7/2016	<0.0002	<0.0002	<0.0002			
12/8/2016				<0.0002		
3/30/2017	6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)		
3/31/2017					<0.0002	
5/12/2017					<0.0002	<0.0002
6/16/2017					7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2017						<0.0002
10/26/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2018	<0.0002	<0.0002	<0.0002			
3/2/2018				<0.0002	<0.0002	<0.0002
7/12/2018	4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)		
7/13/2018					<0.0002	<0.0002
11/8/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019						<0.0002
10/17/2019					<0.0002	
10/18/2019	<0.0002	<0.0002	<0.0002	<0.0002		
3/4/2020				<0.0002		
3/9/2020	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/23/2020				<0.0002	<0.0002	<0.0002
9/24/2020	9.1E-05 (J)	8.5E-05 (J)				
9/25/2020			<0.0002			
9/14/2021				<0.0002		
9/15/2021		<0.0002				
9/16/2021	<0.0002				<0.0002	<0.0002
9/17/2021			<0.0002			
1/19/2022				<0.0002	<0.0002	
1/20/2022			<0.0002			
1/21/2022	<0.0002	<0.0002				
1/25/2022						<0.0002
Mean	0.000173	0.000173	0.0001906	0.0001719	0.0001913	0.0001913
Std. Dev.	5.662E-05	5.656E-05	3.641E-05	5.895E-05	3.357E-05	3.357E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	9.1E-05	8.5E-05	5.9E-05	9E-05	7E-05	7E-05

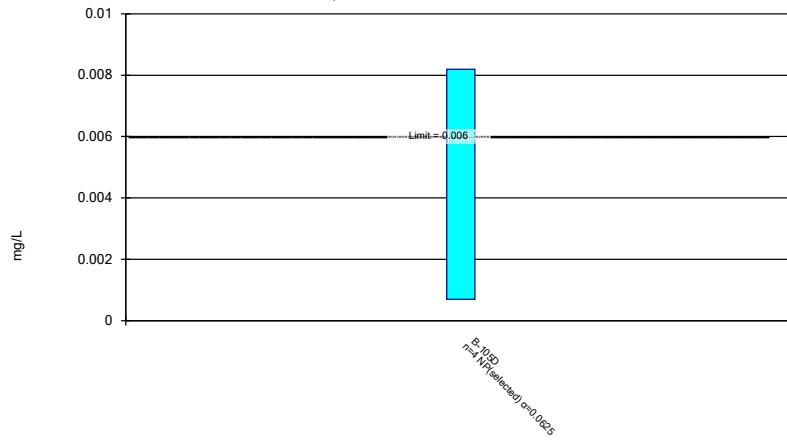
Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69	B-100
3/31/2017	<0.0002	
5/12/2017	<0.0002	
6/16/2017	7E-05 (J)	
7/13/2017	<0.0002	
10/26/2017	<0.0002	
11/15/2017	<0.0002	
3/2/2018	<0.0002	
7/13/2018	<0.0002	
11/8/2018	<0.0002	
8/28/2019	<0.0002	
10/16/2019	<0.0002	
3/9/2020	<0.0002	
8/13/2020	<0.0002	
8/17/2020		0.00011 (J)
9/23/2020	<0.0002	
9/25/2020		<0.0002
9/13/2021		<0.0002
9/16/2021	<0.0002	
1/21/2022		<0.0002
1/25/2022	<0.0002	
Mean	0.0001919	0.0001775
Std. Dev.	3.25E-05	4.5E-05
Upper Lim.	0.0002	0.0002
Lower Lim.	7E-05	0.00011

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

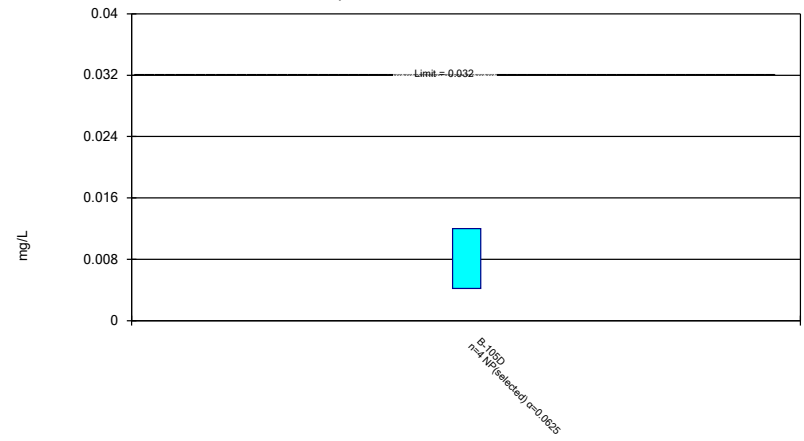


Normality testing disabled.

Constituent: Antimony Analysis Run 4/13/2022 3:45 PM View: AP 1 Confidence Intervals Nonparametric Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

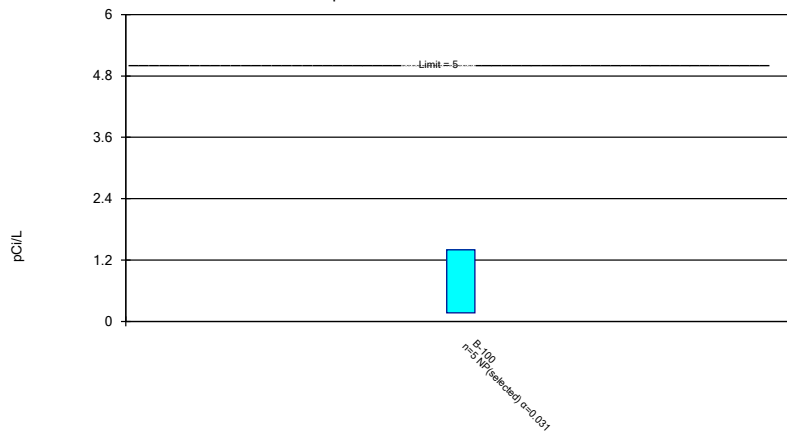


Normality testing disabled.

Constituent: Cobalt Analysis Run 4/13/2022 3:45 PM View: AP 1 Confidence Intervals Nonparametric Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

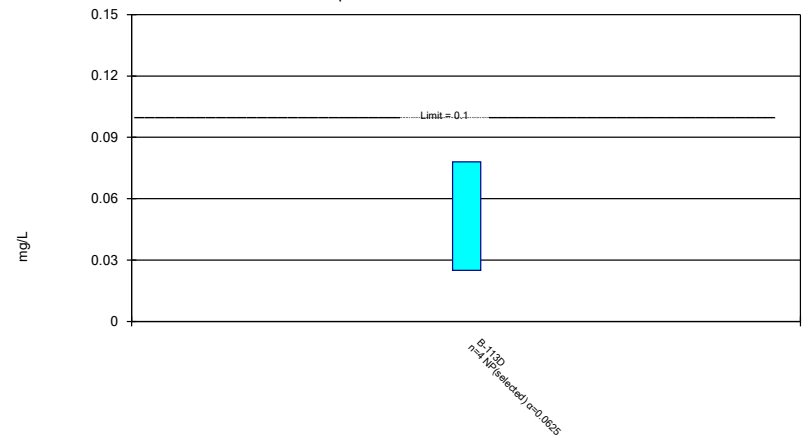


Normality testing disabled.

Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 3:45 PM View: AP 1 Confidence Intervals Nonparametric Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Normality testing disabled.

Constituent: Molybdenum Analysis Run 4/13/2022 3:45 PM View: AP 1 Confidence Intervals Nonparametric Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-68A	DGWC-69	B-105D
9/8/2016	<0.01			
12/7/2016	<0.01			
3/30/2017	0.0011 (J)			
3/31/2017			0.0124	
5/12/2017		0.275	0.0117	
6/16/2017		0.19	0.0087 (J)	
7/13/2017	0.0012 (J)	0.211	0.0053 (J)	
8/8/2017		0.207		
10/26/2017	0.0011 (J)	0.226	0.0244	
11/15/2017			0.0237	
3/1/2018	<0.01			
3/2/2018		0.215	0.0072 (J)	
7/12/2018	<0.01			
7/13/2018		0.22	0.007 (J)	
11/8/2018	<0.01	0.2	<0.01 (J)	
8/28/2019	<0.01	0.21	0.0059 (J)	
10/16/2019		0.22	0.01	
10/18/2019	<0.01			
3/9/2020	0.001 (J)	0.19	0.0062 (J)	
8/13/2020	0.00098 (J)	0.19	0.011	
9/23/2020		0.2	0.0056 (J)	
9/24/2020	0.001 (J)			
12/9/2020				<0.01
3/8/2021				0.0011 (J)
3/10/2021		0.2	0.0056 (J)	
3/11/2021	0.00092 (J)			
9/15/2021	0.00099 (J)			<0.01
9/16/2021		0.18	0.009 (J)	
1/19/2022				<0.01
1/21/2022	0.0013 (J)			
1/25/2022		0.23	0.0057 (J)	
Mean	0.004974	0.2103	0.009965	0.007775
Std. Dev.	0.004578	0.02238	0.005781	0.00445
Upper Lim.	0.01	0.2241	0.0117	0.01
Lower Lim.	0.00099	0.1958	0.0057	0.0011

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	B-100
9/2/2016		0.0019 (J)			
9/8/2016	<0.005				
12/7/2016	<0.005				
12/8/2016		0.0022 (J)			
3/30/2017	<0.005	0.0023 (J)			
3/31/2017			<0.005		
5/12/2017			<0.005	<0.005	
6/16/2017			<0.005	<0.005	
7/13/2017	<0.005	0.0025 (J)	<0.005	<0.005	
8/8/2017				<0.005	
10/26/2017	<0.005	0.0036 (J)	<0.005	<0.005	
3/1/2018	<0.005				
3/2/2018		<0.005	<0.005	<0.005	
7/12/2018	<0.005	<0.005			
7/13/2018			<0.005	<0.005	
11/8/2018	<0.005	<0.01 (J)	<0.005	<0.005	
8/28/2019	<0.005	0.0017 (J)	<0.005	<0.005	
10/16/2019				<0.005	
10/17/2019			<0.005		
10/18/2019	<0.005	0.0027 (J)			
3/4/2020		0.0049 (J)			
3/9/2020	<0.005		<0.005	<0.005	
8/13/2020	<0.005	0.0018 (J)	<0.005	<0.005	
8/17/2020					<0.005
9/23/2020		0.0067 (J)	<0.005	<0.005	
9/24/2020	<0.005				
9/25/2020					<0.005
3/8/2021		0.0023 (J)			0.0019 (J)
3/10/2021				0.0017 (J)	
3/11/2021	0.0019 (J)		0.0027 (J)		
9/13/2021					<0.005
9/14/2021		0.0015 (J)			
9/15/2021	<0.005				
9/16/2021			<0.005	<0.005	
1/19/2022		<0.005	<0.005		
1/21/2022	<0.005				<0.005
1/25/2022				<0.005	
Mean	0.004806	0.003694	0.004856	0.004794	0.00438
Std. Dev.	0.000775	0.002302	0.000575	0.000825	0.001386
Upper Lim.	0.005	0.003506	0.005	0.005	0.005
Lower Lim.	0.0019	0.00187	0.0027	0.0017	0.0019

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-68A
9/2/2016			<0.001	
9/8/2016	<0.001	<0.001		
12/7/2016	<0.001	<0.001		
12/8/2016			<0.001	
3/30/2017	0.0001 (J)	0.0001 (J)	6E-05 (J)	
5/12/2017				<0.001
6/16/2017				<0.001
7/13/2017	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001
8/8/2017				<0.001
10/26/2017	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001
3/1/2018	<0.001	<0.001		
3/2/2018			<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	
7/13/2018				0.00015 (J)
11/8/2018	<0.001	<0.001	<0.001	<0.001
8/28/2019	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001
10/16/2019				<0.001
10/18/2019	0.0001 (J)	<0.001	<0.001	
3/4/2020			6.8E-05 (J)	
3/9/2020	0.00016 (J)	7.1E-05 (J)		<0.001
8/13/2020	0.00016 (J)	<0.001	<0.001	<0.001
9/23/2020			<0.001	<0.001
9/24/2020	0.00015 (J)			
9/25/2020		<0.001		
3/8/2021			<0.001	
3/10/2021				<0.001
3/11/2021	<0.001	<0.001		
9/14/2021			<0.001	
9/15/2021	<0.001			
9/16/2021				<0.001
9/17/2021		<0.001		
1/19/2022			<0.001	
1/20/2022		<0.001		
1/21/2022	<0.001			
1/25/2022				<0.001
Mean	0.0005631	0.0007144	0.000708	0.0009469
Std. Dev.	0.0004516	0.0004376	0.0004473	0.0002125
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.0001	9E-05	6.8E-05	0.00015

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-105D
12/9/2020	<0.003
3/8/2021	0.00069 (J)
9/15/2021	0.0082
1/19/2022	<0.003
Mean	0.003723
Std. Dev.	0.003177
Upper Lim.	0.0082
Lower Lim.	0.00069

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-105D
12/9/2020	0.012
3/8/2021	0.0042 (J)
9/15/2021	0.0065
1/19/2022	0.006
Mean	0.007175
Std. Dev.	0.003365
Upper Lim.	0.012
Lower Lim.	0.0042

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-100
8/17/2020	1.4 (U)
9/25/2020	0.799 (U)
3/8/2021	0.168 (U)
9/13/2021	0.774 (U)
1/21/2022	0.769 (U)
Mean	0.782
Std. Dev.	0.4357
Upper Lim.	1.4
Lower Lim.	0.168

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 3:46 PM View: AP 1 Confidence Intervals Nonparametric
Plant McDonough Client: Southern Company Data: McDonough AP

	B-113D
3/26/2021	0.025
4/16/2021	0.078
9/17/2021	0.074
1/26/2022	0.074
Mean	0.06275
Std. Dev.	0.02524
Upper Lim.	0.078
Lower Lim.	0.025

FIGURE I.

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:53 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	DGWA-53 (bg)	-0.004889	-80	-58	Yes	16	0	n/a	n/a	0.01	NP

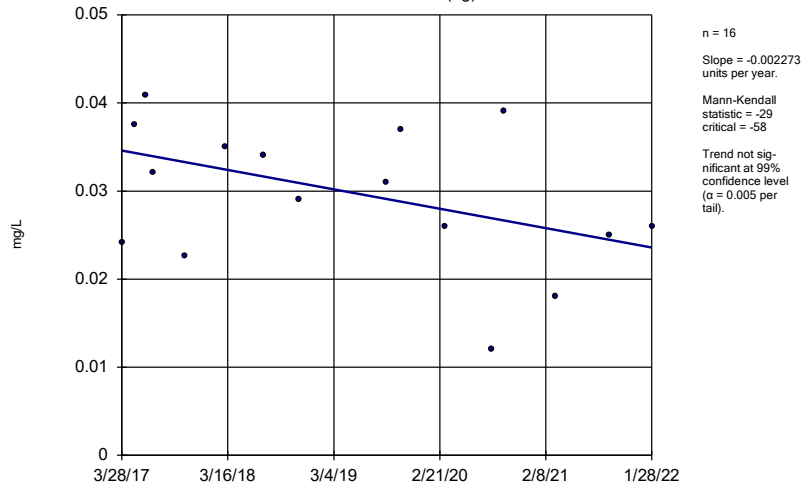
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:53 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	6	58	No	16	62.5	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-17	-58	No	16	87.5	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	23	53	No	15	80	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWC-69	0.004236	58	68	No	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.004889	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-70A (bg)	0	21	58	No	16	50	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-71 (bg)	0	40	53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.001968	55	58	No	16	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.002273	-29	-58	No	16	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	14	53	No	15	93.33	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWC-68A	-0.005652	-29	-58	No	16	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

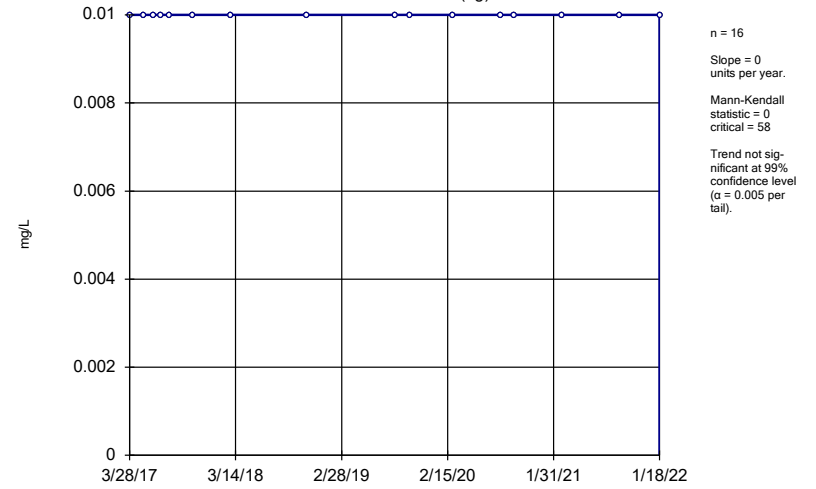
DGWA-53 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

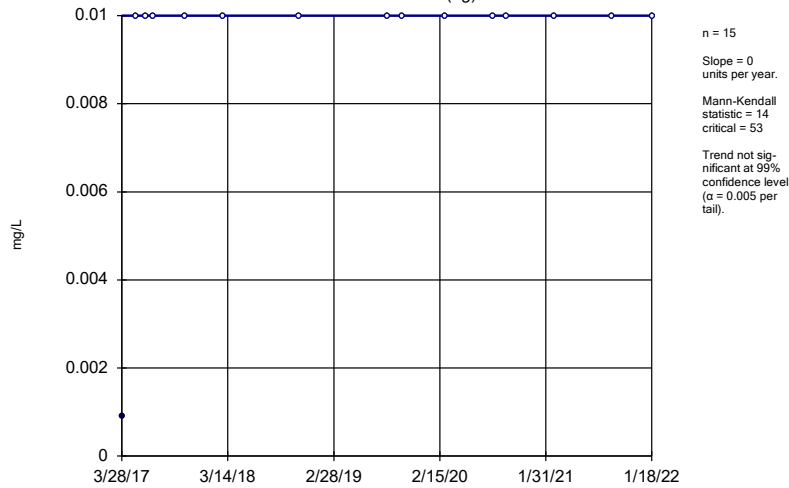
DGWA-70A (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

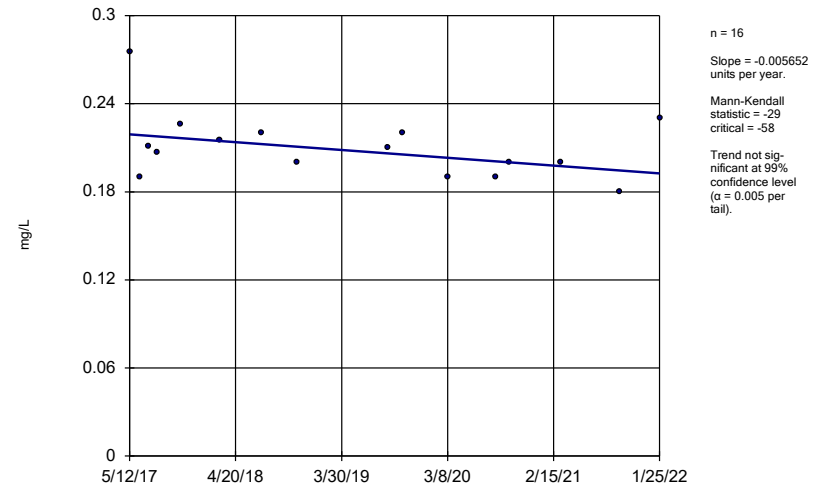
DGWA-71 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-68A



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

APPENDIX F

Semi-Annual Remedy Selection and Design
Progress Report



REPORT

Semi-Annual Remedy Selection and Design Progress Report

Plant McDonough-Atkinson Ash Pond 1

Submitted to:

Georgia Power Company

241 Ralph McGill Boulevard, Atlanta, Georgia 30308

Submitted by:

Golder Associates USA Inc.

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July 29, 2022



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Certification

This *Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company – Plant McDonough-Atkinson, Ash Pond 1* has been prepared in accordance with the United States Environmental Protection Agency coal combustion residual rule, specifically 40 Code of Federal (CFR) 227.97(a) and the Georgia Environmental Protection Division Rules for Solid Waste Management 341-3-4-.10(6)(a). I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).

Golder Associates USA Inc.



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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) rule [40 Code of Federal Regulations (CFR) 257 Subpart D]; published in 80 FR 21302-21501, April 17, 2015 (CCR Rule; USEPA, 2015a), Golder Associates USA Inc. (Golder) has prepared this *Semi-Annual Remedy Selection and Design Progress Report Plant McDonough-Atkinson Ash Pond 1* (July 2022; Semi-Annual Progress Report) for the Georgia Power Company (Georgia Power) Plant McDonough-Atkinson Ash Pond 1 (AP-1 or Site). Specifically, this semi-annual progress report has been prepared pursuant to 40 CFR § 257.97(a) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). This semi-annual report documents activities conducted in support of the previously submitted *Assessment of Corrective Measures Report – Plant McDonough-Atkinson Ash Pond 1* (ACM Report; Golder, 2020).

Plant McDonough, formerly a coal-fired power generating facility, was converted to a natural gas combined-cycle power generating facility in 2011. A Site location map is included as Figure 1.

Pursuant to § 257.96, Georgia Power initiated an ACM for AP-1 on July 9, 2020 to address the occurrence of cobalt and molybdenum in groundwater at statistically significant levels (SSLs). Subsequently, Georgia Power completed an ACM report on December 4, 2020 and posted it to the CCR compliance website in January 2021. Since submission of the ACM Report, arsenic was identified as an SSL on January 28, 2021 at well DGWC-69. As such arsenic at DGWC-69 is included in the ACM evaluation.

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. 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(b) 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 have been regularly submitted to document the efforts of evaluating and progressing toward selecting a groundwater corrective measure.

In addition to the assessment monitoring program at the Site, Georgia Power conducted a human health and ecological risk evaluation to assess cobalt and molybdenum SSLs in groundwater at AP-1. The evaluation provides one of many lines of evidence that will be assessed and factored into the remedy selection process, which will be completed in accordance with § 257.97. Based on this risk evaluation, concentrations of cobalt and molybdenum, detected in groundwater at AP-1 between August 2016 and March 2020 are not expected to pose a risk to human health or the environment (Wood, 2020). Cobalt and molybdenum data collected since March 2020 are consistent with data used in the risk evaluation; therefore, the conclusions of the *2020 Risk Evaluation Report* are supported by current conditions. The risk evaluation will be updated to include arsenic, and the results will be submitted with the final Remedy Selection Report.

1.1 AP-1 CLOSURE ACTIVITIES

AP-1 is currently capped and undergoing closure to minimize infiltration and erosion and to meet or exceed the requirements of § 257.102(d)(3)(ii). The Closure Plan (Golder, 2019) was prepared in accordance with § 257, Subpart D and meets the requirements of § 257.102(b). Maintenance will be performed on the final cover system for the required post-closure care period so that the integrity and effectiveness of the final cover system is maintained.

As part of Site closure and source control, Georgia Power has submitted a permit to GA EPD to install a SVBW around AP-1 as an AEM that is pending GA EPD approval.

1.2 Evaluation of Corrective Measures Alternatives

Pursuant to § 257.97, Georgia Power is evaluating the potential corrective measures in the ACM report to identify a remedy or combination of remedies as soon as possible. The following corrective measures are potentially feasible for use at AP-1:

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment (Pump and Treat)
- Monitored Natural Attenuation (MNA)
- In-Situ Solidification/Stabilization (ISS)
- Permeable Reactive Barrier (PRB)
- Phytoremediation
- Subsurface Vertical Barrier Wall (SVBW).

An evaluation of remedial technologies is presented in Table 1. As required by the CCR Rule, this Semi-Annual Progress Report describes the progress made in selecting and designing a remedy.

The following remedial alternatives have been retained for further evaluation.

- **Geochemical Approaches (In-Situ Injection):** An injection well network, or other means of introducing reagents or air into the subsurface, is used to provide suitable reagents for either anaerobic or aerobic attenuation of constituents present as SSLs including, arsenic, cobalt, and molybdenum. Under anaerobic conditions, arsenic 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 arsenic, cobalt, and to a lesser degree molybdenum 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.
- **Hydraulic Containment (Pump and Treat):** Hydraulic containment involves extracting groundwater from wells or collection trenches to depress the water table and locally control the flow of groundwater. The proposed technology for a pump-and-treat system would include the installation of vertical and/or angled groundwater extraction wells downgradient of the source area(s). Groundwater extraction wells are feasible to install and can be designed and screened in the unconsolidated saprolite, transition zone, and fractured bedrock materials at the Site for effective hydraulic capture. Groundwater extraction wells installed in bedrock can alternatively be completed as open-hole borings to maximize groundwater removal from multiple water-bearing fracture zones at varying depths.
- **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.

The following remedial alternatives have been removed from consideration:

- **In-Situ Solidification Stabilization (ISS):** AP-1 is currently capped and in the process of being closed in place. The application of ISS is redundant with the current closure in-place plan. Other retained alternatives are more effective in addressing groundwater corrective action.
- **Permeable Reactive Barrier (PRB):** Constructing a PRB wall outside of the alignment of the planned SVBW may impact the integrity of the SVBW. Additionally, there is limited space between the planned SVBW and either the property boundary or the adjacent surface water feature. As such, other retained options are more suitable for corrective action rather than the installation of a PRB at AP-1.
- **Phytoremediation:** Minimal space is available downgradient of the impacted wells for tree plantings as such, the technology is not feasible.
- **Subsurface Vertical Barrier Wall (SVBW):** A SVBW installed around AP-1 is currently planned as an Advanced Engineering Method (AEM) to enhance the closure of AP-1. Constructing a second SVBW outside the perimeter of the planned barrier wall is redundant and there is limited area for the construction of a second barrier.

1.3 Adaptive Site Management

Georgia Power has initiated an adaptive Site management protocol as outlined in the ACM Report (Golder, 2020) to support the groundwater remedy selection process and address potential changes in Site conditions as appropriate during the 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 may 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 US EPA guidelines for MNA (US EPA 2007, 2015b). In 2007, the US EPA issued MNA technical guidance specific to inorganic contaminants (US EPA, 2007) that contained four “tiers.” The 2015 MNA guidance retains these four “tiers,” but describes them as “phases” as described below (US EPA, 2015b).

- **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.

2.0 SUMMARY OF WORK COMPLETED

The following subsections summarize field investigation activities and supplemental data collected since the previous *Semi-Annual Remedy Selection and Design Progress Report* (Golder, 2022a). These activities support Site characterization and delineation of Appendix IV SSLs, as well as evaluation of the corrective measures presented in the ACM report. These data will be used to evaluate the feasibility, mechanisms, rates, and stability of identified remedial alternatives to address SSLs of arsenic, cobalt, and molybdenum in groundwater at AP-1. An evaluation of these data as they relate to remedy selection alternatives is ongoing and will be presented in future report(s).

2.1 Nature and Extent Delineation

The January through June 2022 assessment monitoring groundwater data show SSLs, as presented in the table below, at concentrations exceeding the state and/or federal Groundwater Protection Standards (GWPS). Details are provided in the *2022 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2022b).

AP-1 Statistically Significant Level Exceedances	
AP-1 Monitoring Well	Appendix IV Parameter
DGWC-40	Cobalt
DGWC-68A	Molybdenum
DGWC-69	Arsenic

The locations of the Site monitoring wells and piezometers are shown on Figure 2. Table 2 provides a summary of construction details for each of the Site monitoring wells and piezometers, respectively. A potentiometric surface contour map showing the January 2022 potentiometric surface elevations is provided on Figure 3.

Well and constituents with SSLs were further evaluated by Groundwater Stats Consulting (GSC) using the Sen's Slope/Mann Kendall trend test (Appendix A). The full report generated from the analyses is provided in Appendix D of the *2022 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2022b). No statistically significant trends were noted in the three wells exhibiting SSLs. The lack of increasing trends at confirms the chemical stability of the groundwater and the plume appears to be stable.

Based on Site data, the molybdenum SSL at the Site is the result of natural occurring molybdenum in the bedrock influencing groundwater chemistry and not the result of a release from the AP-1. An Alternate Source Demonstration (ASD) has been prepared and submitted for the Site (Golder, 2022c). The evidence for a natural source of molybdenum to groundwater includes:

- Pure molybdenite crystals were identified in gneissic/pegmatitic bedrock immediately below screened interval of DGWC-68A.
- Molybdenum concentrations in bedrock samples were substantially (>800 times) higher than average values for various rock types (i.e., crustal, felsic, or mafic).
- Molybdenum is known to be present in regional aquifer materials based on previous studies.

Based on information presented in the ASD, the molybdenum concentrations at DGWC-68A are attributed to a natural source, i.e., the molybdenum-rich bedrock just below the screened interval of DGWC-68A, and not due to a release from the Ash Pond.

Horizontal and Vertical Delineation

To characterize the nature and extent of arsenic, cobalt, and molybdenum SSLs, multiple piezometers have been installed and sampled at the Site (Golder, 2022d); refer to the table below for constituent delineation status. In addition, surface water has been sampled at multiple locations to demonstrate horizontal delineation in surface water bodies where proximity to surface water prevented installation of additional wells. Figures 4 through 6 present isoconcentration contours for each of the constituents with an exceedance of the GWPS, including arsenic, cobalt, and molybdenum, respectively.

Constituent of Concern	Detection Monitoring Well with SSL	Vertical Delineation Well	Horizontal Delineation Well / Surface Water Monitoring Location
Arsenic	DGWC-69	B-112D ^[1]	UT02
Molybdenum	DGWC-68A	B-113D ^[1]	UT03
Cobalt	DGWC-40	B-105D	B-62

Note:

[1] Delineation status is complete pending additional data collection. A minimum of four data points is needed to perform the required statistical analyses. To date, each of the samples collected at the indicated locations are below the GWPS.

Based on review of the analytical results, statistical analyses and the isoconcentration contours, horizontal delineation is complete. Vertical delineation of DGWC-68A is currently on hold pending GA EPD’s review and concurrence with the molybdenum ASD. Data collected to date from B-112D are below the GWPS. Details regarding the specific well pairs used for delineation are described in detail in the *2022 Annual Groundwater Monitoring Report* (Golder, 2022b).

2.2 Supplemental Data Collection and Analysis

Additional field investigation activities and data analyses have been performed to evaluate alternate sources and possible remedial alternatives. A summary of these data is included below.

Bench-Scale Treatability Study

Terra Systems, Inc. was subcontracted to perform a bench-scale treatability study to evaluate neutralization/precipitation with potassium bicarbonate, sodium bicarbonate, and precipitation/adsorption with zero valent iron (ZVI), calcium oxide, ferric oxide and/or ferrous sulfide for three groundwater samples collected in January and February 2022 from AP-1 (DGWC-69, DGWC-68A, and DGWC-40). The objective of the bench-scale study was to evaluate in-situ ‘chemical sequestration’ as a remediation technology for several metals including arsenic, cobalt, and molybdenum to:

- Identify the feasibility of in-situ remediation.
- Determine the design parameters including reagent dosage and demand.

Results of the treatability study from AP-1 are as follows:

- Arsenic: DGWC-69 all treatments with calcium oxide, ferric oxide, and ferrous sulfide reduced arsenic to below the GWPS but not the potassium bicarbonate treatments. The DGWC-68A samples had no detectable dissolved arsenic.
- Cobalt: None of the treatments worked very well for dissolved cobalt in groundwater from well DGWC-40. The highest loadings of 10 grams per liter (g/L) buffers generally reduced dissolved cobalt by more than 50 percent with sodium bicarbonate slightly outperforming potassium bicarbonate for dissolved cobalt removal. However, the observed reduction of dissolved cobalt was not below the GWPS.
- Molybdenum: Ferrous oxide was 47%- to 85% effective in reducing dissolved molybdenum in groundwater samples from DGWC-68A, and 53% effective at the highest loading of ferrous sulfide. At DGWC-69, dissolved molybdenum was reduced by up to 97%, however the molybdenum concentration in the IC was very small (0.0048 mg/L), so results may be inconclusive.

Overall, all treatments with calcium oxide, ferric oxide, and ferrous sulfide reduced arsenic to below the GWPS in DGWC-69. None of the treatments worked well for cobalt in the groundwater sample from DGWC-40. Ferric oxide and ferrous sulfide showed substantial reductions for dissolved molybdenum in samples from DGWC-69 and DGWC-68A.

Tabulated results and the full treatability study summary are included in the Terra Systems, Inc. Report for Golder/WSP for Coal Combustion Residue Treatability Study Report included as Appendix B.

Phase 2 Bench Scale Treatability Study

During June 2022, additional soils were collected from soil borings drilled adjacent to monitoring wells DGWC-68A, DGWC-69, and DGWC-40. Groundwater samples were also collected from each of these three wells. Samples were submitted to Terra Systems, Inc. for a second phase of treatability study using site specific soil and groundwater. Phase 2 Jar testing replicates the Phase 1 testing with the addition of Site-specific soils/sediments into the jars to observe the effects of 'aquifer solids' materials on the various reagent's effectiveness. This study is ongoing, and results will be presented in future reports.

3.0 UPDATED SITE CONCEPTUAL MODEL

The additional data collected since the issuance of the ACM, allow the development of a more refined conceptual Site model (CSM). The following summarizes the current understanding of the CSM within the context of selecting an appropriate groundwater corrective measure for AP-1.

- Data collected during this reporting period are consistent with the CSM as described in the Hydrogeologic Assessment Report (HAR, Golder, 2022d).
 - Groundwater elevations recorded from newly installed piezometers have been used to further refine the Site potentiometric surface contour map. The January 2022 potentiometric surface still shows groundwater flow is generally west towards the unnamed stream channel and south towards the Chattahoochee River, as shown on Figure 3.
 - Data from additional vertical delineation wells were used to refine the bedrock surface contour map. Minor modifications to the bedrock surface have been documented in the HAR (Golder, 2022d).

4.0 PLANNED ACTIVITIES

Georgia Power has initiated activities as outlined in the ACM Report (Golder, 2020) to support the groundwater remedy selection process and address potential changes in Site conditions as appropriate. The adaptive Site management approach toward remedy selection may be adjusted over the Site's life cycle as new Site information and technologies become available. To this end, Georgia Power will continue data collection efforts as necessary to refine the CSM and to further evaluate the feasibility of each corrective measure identified in the ACM Report.

Supplementary data collection and evaluation activities proposed to be completed within the next 6 months are presented on Table 3, with the key elements summarized below.

- In addition to Appendix III/IV constituents, samples may also be analyzed for major cations/anions and other parameters for characterization of groundwater and to evaluate plume stability as well as potential remedies.
- Evaluate data from soil and groundwater samples collected from select wells at AP-1 for a second phase of jar testing. Phase 2 Jar testing replicates the Phase 1 testing with the addition of Site-specific soils/sediments into the jars to observe the effects of 'aquifer solids' materials on the various reagent's effectiveness.

Georgia Power will continue to prepare semi-annual progress reports to document AP-1 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 these future semi-annual progress reports with routine groundwater monitoring and corrective action reports to meet the requirements of § 257.105(h)(12), § 257.106(h)(9), and § 257.107(h)(9), respectively.

5.0 REFERENCES

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TABLES

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
Geochemical Approaches (in situ injection)	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of arsenic (As) and cobalt (Co). Under anaerobic conditions, As and Co would be attenuated within sparingly soluble sulfide minerals; this approach might also increase the attenuation of molybdenum (Mo), particularly if combined with an organic amendment. 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 As and Co (and potentially, Mo) 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 As and Co.	The effective immobilization of As and Co has been shown 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. It is currently not well understood whether molybdenum can be efficiently attenuated using in-situ redox manipulations due to slow reaction kinetics. Mo attenuation under both aerobic and anaerobic conditions needs to be further evaluated but is expected to occur. Mo has been effectively immobilized under biologically enhanced conditions. Mo is more strongly sorbed to aluminum oxides than other metal oxides, and it is generally less sorptive and more mobile compared to As and Co.	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 As, Co and Mo in groundwater.
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 As, Co and Mo.	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 AP-1, implementation of the corrective measure is contingent on completing additional assessment activities (i.e., high-resolution site characterization, additional 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.

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
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 As, Co and Mo at AP-1, 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 As, Co and Mo, the main attenuation processes include sorption to iron and manganese oxides (As, Co and Mo), and formation of sparingly soluble sulfide minerals (As and Co).	Physical and chemical MNA mechanisms for As, Co and Mo, 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 As, Co and Mo are already occurring at the site as evidenced by groundwater data from the delineation wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted, and the attenuation processes already at work for As, Co and Mo at AP-1 will further enhance ongoing MNA.	Reliable as long as sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved As, Co and/or Mo, or in combination with a second technology.
In-Situ Solidification / Stabilization	In-situ stabilization is a technique that uses mixing of the CCR with additives to solidify the material in place and reduce future dissolution of CCR compounds from the stabilized material. Additives typically include Portland cement, and the solidification is completed in-situ using large diameter augers. CCR located beneath the water table would be isolated by ISS.	Medium to high, groundwater impacts would be addressed through the processes of natural attenuation. This alternative would isolate/secure the source in a bound matrix, and over time, allow the concentrations of constituents of concern (COCs) in downgradient groundwater to decline to below applicable standards.	In-situ stabilization can be a reliable corrective measure for As, Co, and Mo in groundwater. Reliability is dependent on the permeability of the subsurface and mechanics of injection.
Permeable Reactive Barrier (PRB)	Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. Either ZVI-Carbon matrix or solid carbon (bio-barrier) are likely viable for the concurrent removal of As, Co and Mo. The carbon could be composed of peat moss, mulch or another carbon source. Exact placement of the PRB would be contingent on finalization of the nature and extent characterization. PRB walls are typically keyed into the bedrock. While the shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. 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 As, Co in groundwater, but additional testing is required for Mo to select the appropriate reactive media. The approach is expected to achieve GWPS for both constituents as impacted groundwater passes through the reactive barrier. Mo redox kinetics may be slow and hence a thicker wall might be needed relative to solely treating for As and Co. Furthermore, additional testing is required to select the appropriate sorptive media mix, especially related to Mo.	Reliable groundwater corrective measure technology, 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.

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
Phyto Remediation (TreeWell®)	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-1, 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 As, Co and Mo within the root zone as well as incidental uptake of dissolved As, Co and Mo 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 As, Co and Mo concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Given the likely construction of a SVBW for groundwater control at AP-1, phytoremediation is not practicable. Further the potential impacts to the planned SVBW from root development makes this option infeasible.	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.
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. 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.	Barrier walls are a proven technology for groundwater cutoff at impoundments. Slurry walls are limited by the depth of installation, which is approximately 90 ft below ground surface. However, site-specific geologic and technology-specific considerations may limit this depth to shallower installations. Within the context of AP-1, a barrier wall might be used in conjunction with a "funnel and gate" system for a PRB rather than a stand-alone technology. As such, groundwater with As, Co and Mo above GWPS 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 incidental and not the primary objective.

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Ease of Implementation	Potential Impacts	Time Requirement to Begin/Complete
Geochemical Approaches (in situ injection)	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. Potential for clogging of aquifer matrix and/or injection well infrastructure. 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.	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.
Hydraulic Containment (pump- and-treat)	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 Co and Mo. 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.	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 As, Co and Mo.
In-Situ Solidification / Stabilization	Easy to moderate, implementation of ISS will require a detailed design effort with bench scale testing to determine the appropriate amendment mix for a variety of overburden geologic materials. Pilot testing will also be needed to verify the ability of equipment to solidify material at depth. ISS has not been commonly used to stabilize entire ash units as part of a closure strategy.	Potential impacts of the remedy will be negligible.	In-situ stabilization of AP-1 is predicted to take a number of years to complete, depending on the availability of specialized contractors and equipment.
Monitored Natural Attenuation (MNA)	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.	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 during closure of the CCR unit 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.

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Ease of Implementation	Potential Impacts	Time Requirement to Begin/Complete
Permeable Reactive Barrier (PRB)	Moderate to difficult. Trenching 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.	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.
Phyto Remediation (TreeWell®)	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.	The design phase will require some groundwater modeling for optimal placement of the TreeWell® units, which may take up to 6 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.
Subsurface Vertical Barrier Walls	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, which similar to PRBs, should be keyed into a low permeability layer such as a thick clay layer, PWR, or bedrock. Installation methods and materials are readily available.	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.	Installation of a barrier wall can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, some design phase 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.

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)			Retention Evaluation
	Institutional Requirements	Other Env. Or Public Health Requirements	Relative Costs	
Geochemical Approaches (in situ injection)	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. A new UIC permit (for in-situ injections) would be required to implement this corrective measure. No other institutional requirements are expected at this time.	None expected at this point. Potential for mobilization of redox-sensitive constituents exists during implementation of an anerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)	Retained for further analysis; can be applied to As, and Co as a sparingly-soluble mineral, or could be applied to raise the groundwater pH to promote immobilization through sorption mechanisms. Additional evaluation required to determine likelihood to treat Mo.
Hydraulic Containment (pump- and-treat)	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. In addition, deed restrictions may be required as long as groundwater conditions are above regulatory standards for unrestricted use.	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)	Retained for further analysis; extracted water could be routed to wastewater treatment infrastructure built for dewatering and closure of ponds at the site. Could be considered an effective measure to maintain hydraulic control along the engineered stream channel west of AP-1 or the Chattahoochee River south of AP-1.
In-Situ Solidification / Stabilization	Deed restrictions may be necessary until groundwater concentrations are below GWPS. No other institutional requirements that may limit application of this technology are expected at this time.	Changes to groundwater chemistry relative to the mobility of Appendix IV constituents following completion of ISS, where large volumes of amendments (typically Portland cement) are added to the subsurface, are unknown and would require pilot testing.	Medium, depending on permeability of aquifer	Not retained for further analysis; the application of ISS is either redundant or incompatible with the current closure in-place plan. Not retained for further analysis.
Monitored Natural Attenuation (MNA)	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding community.	Low to medium	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Permeable Reactive Barrier (PRB)	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive. 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	Not retained for further analysis; a PRB cannot treat groundwater downgradient of the constructable alignment; there is minimal space available downgradient of the impacted wells; potential for increased maintenance due to potential biofouling and mineral precipitation.

TABLE 1
Evaluation of Remedial Technologies
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)			Retention Evaluation
	Institutional Requirements	Other Env. Or Public Health Requirements	Relative Costs	
Phyto Remediation (TreeWell®)	Deed restrictions may be necessary for groundwater areas upgradient of the TreeWell system. No other institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive and does not require external energy.	Medium (for installation) - minimal O&M requirements	Not retained for further analysis, little space available downgradient of the impacted wells for tree plantings. TreeWell® root system would likely impact the SVBW.
Subsurface Vertical Barrier Walls	Deed restrictions may be necessary for groundwater areas downgradient of the barrier wall until remedial goals are met. No other institutional requirements are expected at this time.	If groundwater extraction associated with barrier walls is necessary, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal. Groundwater extraction is not planned as part of the AEM.	Medium to high (depending on length and depth of wall)	Not retained for further evaluation. This methodology is currently undergoing permitting as part of closure methodology and therefore a second SVBW is not being considered for groundwater corrective action.

TABLE 2
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
 Georgia Power Company - Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-37	Downgradient	Overburden	1390482.2	2200919.8	766.21	763.7	39.7	734.4	724.4	10	11/28/2012
DGWC-38	Downgradient	Overburden	1390362.7	2201148.6	757.43	754.7	25.0	740.0	730.0	10	11/29/2012
DGWC-39	Downgradient	Overburden	1390303.6	2201540.1	759.89	757.0	21.2	746.2	736.2	10	11/6/2012
DGWC-40	Downgradient	Overburden	1390625.7	2201825.9	779.06	776.2	34.9	751.7	741.7	10	11/5/2012
DGWC-67	Downgradient	Overburden	1390953.8	2200830.7	766.70	767.0	56.3	720.7	710.7	10	3/14/2017
DGWC-68A	Downgradient	Overburden	1391301.2	2200734.9	765.33	765.4	29.8	746.0	736.0	10	4/20/2017
DGWC-69	Downgradient	Overburden	1391585.0	2200657.1	763.75	764.0	24.3	749.7	739.7	10	3/16/2017
DGWC-121	Downgradient	Overburden	1390739.7	2200849.4	764.16	764.5	50.0	724.8	714.8	10	3/22/2022
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK											
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.4	39.9	730.7	720.7	10	10/4/2016
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.3	44.8	740.5	730.5	10	7/8/2020
B-105D	Downgradient	Upper Bedrock	1390634.5	2201831.9	779.01	776.0	70.00	716.0	706.0	10	10/19/2020
B-112D	Downgradient	Upper Bedrock	1391564.2	2200664.1	765.58	766.1	55	721.4	711.4	10	3/22/2021
B-113D	Downgradient	Upper Bedrock	1391264.6	2200719.2	758.22	758.8	85	684.4	674.4	10	3/30/2021

TABLE 2
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ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) DETECTION MONITORING WELL NETWORK											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-2	Downgradient	Overburden/Upper Bedrock	1393958.0	2202119.5	850.88	848.3	49.0	809.6	799.6	10	10/2/2012
DGWC-4	Downgradient	Overburden	1394171.5	2202662.4	814.85	812.1	45.0	777.4	767.4	10	10/3/2012
DGWC-5	Downgradient	Overburden/Upper Bedrock	1394306.3	2202965.1	791.75	788.7	30.0	769.0	759.0	10	10/4/2012
DGWC-8	Downgradient	Overburden	1394322.2	2203882.1	826.38	824.1	49.1	785.4	775.4	10	10/10/2012
DGWC-9	Downgradient	Overburden	1394055.9	2204170.0	824.35	821.8	30.0	802.2	792.2	10	10/10/2012
DGWC-10	Downgradient	Overburden	1393818.3	2204201.1	823.55	820.9	45.4	785.9	775.9	10	10/11/2012
DGWC-11	Downgradient	Overburden	1393547.1	2204166.2	800.57	798.1	49.1	759.3	749.3	10	10/15/2012
DGWC-12	Downgradient	Overburden	1393149.4	2204128.3	773.86	771.2	25.1	756.5	746.5	10	10/15/2012
DGWC-13	Downgradient	Overburden	1392881.1	2204084.6	794.10	791.3	43.8	757.9	747.9	10	11/29/2012
DGWC-14	Downgradient	Overburden/Upper Bedrock	1392574.2	2204013.3	792.40	789.8	34.3	765.9	755.9	10	12/18/2012
DGWC-15	Downgradient	Overburden	1392544.1	2203679.0	824.50	821.5	67.1	764.8	754.8	10	11/29/2012
DGWC-17	Downgradient	Overburden	1392645.6	2203051.0	837.05	834.2	44.5	800.0	790.0	10	1/9/2013
DGWC-19	Downgradient	Overburden	1392342.6	2202601.0	825.46	822.9	39.8	793.5	783.5	10	3/12/2013
DGWC-20	Downgradient	Overburden	1392164.5	2202315.6	822.14	819.8	39.7	790.7	780.7	10	3/5/2013
DGWC-21	Downgradient	Overburden/Upper Bedrock	1392067.5	2202063.5	816.28	813.5	69.0	754.9	744.9	10	10/31/2012
DGWC-22	Downgradient	Upper Bedrock	1392126.3	2201791.9	816.59	813.7	60.0	764.0	754.0	10	10/25/2012
DGWC-23	Downgradient	Upper Bedrock	1392239.7	2201582.0	818.37	815.7	60.1	765.9	755.9	10	10/25/2012
DGWC-42	Downgradient	Overburden	1391327.8	2201870.2	804.68	802.0	50.4	762.1	752.1	10	11/12/2012
DGWC-47	Downgradient	Overburden/Upper Bedrock	1391553.8	2202610.5	797.45	794.3	28.8	775.9	765.9	10	6/23/2016
DGWC-48	Downgradient	Overburden/Upper Bedrock	1391314.6	2202290.2	788.33	785.2	30.0	765.6	755.6	10	6/22/2016

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ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) ASSESSMENT MONITORING WELL NETWORK											
B-56	Downgradient	Overburden	1393957.9	2204187.8	823.59	821.0	45.0	786.4	776.4	10	10/3/2016
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.4	39.9	730.7	720.7	10	10/4/2016
B-63	Downgradient	Overburden	1390999.1	2202978.1	777.10	777.3	46.0	741.8	731.8	10	10/6/2016
B-66	Downgradient	Overburden	1393858.2	2204277.5	815.90	813.3	55.3	768.3	758.3	10	11/16/2016
B-77	Downgradient	Overburden	1390948.7	2202942.0	776.86	777.1	42	745.1	735.1	10	9/17/2019
B-82	Downgradient	Overburden	1393750.0	2204258.1	810.07	807.5	45	773.0	763.0	10	9/21/2019
B-83	Downgradient	Overburden	1390735.5	2202695.6	776.98	777.1	48.6	738.5	728.5	10	9/30/2019
B-88	Downgradient	Overburden	1394401.1	2203738.3	820.07	817.0	72	755.0	745.0	10	11/15/2019
B-92	Downgradient	Overburden	1394392.7	2203026.7	785.08	785.3	24.6	770.7	760.7	10	12/11/2019
B-93	Downgradient	Overburden	1394348.7	2202946.7	789.07	789.2	28.9	770.3	760.3	10	12/12/2019
B-97	Downgradient	Overburden/Upper Bedrock	1394430.0	2203008.3	786.29	786.6	31	765.3	755.3	10	2/11/2020
B-98	Downgradient	Overburden	1394392.5	2202934.0	789.67	789.8	19.4	780.8	770.8	10	2/10/2020
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.3	44.8	740.5	730.5	10	7/8/2020
B-101D	Downgradient	Overburden/Upper Bedrock	1394063.6	2204168.2	824.29	821.2	75.00	756.3	746.3	10	11/12/2020
B-102D	Downgradient	Upper Bedrock	1393828.4	2204200.4	823.42	820.6	85.00	746.2	736.2	10	11/10/2020
B-104D	Downgradient	Upper Bedrock	1391318.3	2202298.5	787.90	785.3	60.00	735.3	725.3	10	10/20/2020
B-106D	Downgradient	Upper Bedrock	1394327.1	2203869.2	826.21	823.5	80.00	754.1	744.1	10	11/13/2020
B-107D	Downgradient	Upper Bedrock	1392334.5	2202596.4	823.38	820.6	85.75	745.5	735.5	10	10/28/2020
B-108D	Downgradient	Upper Bedrock	1392156.1	2202312.5	821.13	818.4	80.00	749.4	739.4	10	10/27/2020
B-109D	Downgradient	Upper Bedrock	1393957.5	2202127.0	850.73	847.8	100.00	758.4	748.4	10	10/31/2020
B-111D	Downgradient	Upper Bedrock	1394303.4	2202956.4	791.87	789.1	85.00	714.9	704.9	10	11/3/2020
B-115D	Downgradient	Upper Bedrock	1391265.3	2202580.7	789.17	786.4	80	717.2	707.2	10	3/20/2021
B-120D	Downgradient	Upper Bedrock	1394047.2	2202436.4	836.42	834.0	70	775.0	765.0	10	3/6/2021
B-122D	Downgradient	Bedrock	1390992.8	2202975.4	777.03	777.3	85	707.5	697.5	10	3/24/2022

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ASH POND 1, ASH POND 2 AND ASH POND 3/4 SUPPLEMENTAL SAMPLING NETWORK											
B-90	Downgradient	Overburden	1394501.0	2203212.6	784.00	784.2	33.4	760.8	750.8	10	12/10/2019
B-91	Downgradient	Overburden	1394447.1	2203123.9	782.98	783.1	34.6	758.5	748.5	10	12/11/2019
B-95	Downgradient	Overburden	1394518.6	2203167.7	784.00	784.3	33.3	761.3	751.3	10	2/11/2020
B-96	Downgradient	Overburden	1394478.7	2203099.3	784.92	785.3	33.1	762.2	752.2	10	2/10/2020
B-99	Downgradient	Overburden	1394524.2	2203084.5	782.39	782.6	12.3	775.3	770.3	5	7/7/2020
B-116D	Upgradient	Upper Bedrock	1390483.7	2200611.0	807.82	805.3	90	726.1	716.1	10	3/8/2021
B-117D	Upgradient	Upper Bedrock	1393963.8	2201727.3	863.82	861.2	75	796.5	786.5	10	3/17/2021
B-118	Upgradient	Upper Bedrock	1391219.3	2200449.7	807.70	805.0	75	740.2	730.2	10	3/9/2021
B-119D	Upgradient	Upper Bedrock	1391236.4	2200446.6	807.15	804.5	105	709.8	699.8	10	3/16/2021
PIEZOMETERS											
B-3	Downgradient	Overburden/Upper Bedrock	1394045.1	2202411.5	837.78	835.0	37.0	808.3	798.3	10	10/3/2012
B-6	Downgradient	Overburden	1394419.5	2203266.5	789.47	786.5	35.4	761.5	751.5	10	10/9/2012
B-7	Downgradient	Overburden	1394374.6	2203596.1	809.16	806.1	25.2	791.3	781.3	10	10/9/2012
B-16	Downgradient	Overburden	1392595.1	2203315.4	826.47	823.6	43.7	790.2	780.2	10	12/19/2012
B-18	Downgradient	Overburden	1392521.0	2202875.5	826.56	823.9	32.6	801.5	791.5	10	1/10/2013
B-24	Downgradient	Upper Bedrock	1392479.9	2201450.0	822.11	819.3	79.1	751.0	741.0	10	10/24/2012
B-25	Downgradient	Upper Bedrock	1392813.3	2201502.7	836.54	833.5	54.8	789.1	779.1	10	10/24/2012
B-26	Downgradient	Upper Bedrock	1393105.6	2201550.4	853.60	850.6	49.3	811.7	801.7	10	10/23/2012
B-28	Downgradient	Overburden/Upper Bedrock	1391967.4	2201679.2	816.08	813.3	69.4	754.3	744.3	10	10/31/2012
B-29	Downgradient	Overburden	1391890.0	2201422.0	816.43	813.5	54.4	769.4	759.4	10	1/11/2013
B-31	Downgradient	Upper Bedrock	1392034.3	2200928.5	797.47	794.9	45.1	760.2	750.2	10	1/22/2013
B-41	Downgradient	Overburden	1390920.8	2201751.9	795.20	792.4	60.0	743.0	733.0	10	11/14/2012
B-50	Downgradient	Overburden	1391657.1	2201841.0	809.67	809.2	36.0	784.4	774.4	10	6/24/2016
B-51	Downgradient	Overburden	1390501.2	2200906.5	765.92	763.3	65.0	708.3	698.3	10	6/27/2016
B-52	Downgradient	Overburden	1392308.3	2201314.8	822.89	820.3	50.0	781.4	771.4	10	9/28/2016

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PIEZOMETERS											
B-54	Downgradient	Overburden/Upper Bedrock	1394423.5	2203140.7	785.46	782.6	34.2	758.8	748.8	10	9/26/2016
B-55	Downgradient	Overburden	1394142.6	2204147.9	825.12	822.9	52.0	781.9	771.9	10	9/22/2016
B-57	Downgradient	Upper Bedrock	1391396.3	2202736.9	789.04	786.0	50.5	746.0	736.0	10	9/24/2016
B-58	Downgradient	Overburden	1391125.7	2202426.5	788.17	785.2	45.0	750.7	740.7	10	9/23/2016
B-59	Downgradient	Overburden/Upper Bedrock	1394349.1	2203001.1	788.00	785.5	30.3	765.3	755.3	10	9/23/2016
B-60	Downgradient	Overburden	1391100.7	2202881.6	782.13	779.2	49.8	739.9	729.9	10	9/29/2016
B-61	Downgradient	Overburden	1390957.8	2202505.8	782.09	779.0	51.9	737.5	727.5	10	9/29/2016
B-64	Downgradient	Overburden	1394381.9	2203031.3	785.83	786.1	30.4	766.1	756.1	10	11/2/2016
B-65	Downgradient	Overburden/Upper Bedrock	1394381.2	2204050.8	821.95	822.3	45.4	787.9	777.9	10	11/15/2016
B-68	Downgradient	Overburden	1391298.2	2200714.2	758.68	759.0	18.0	751.0	741.0	10	3/16/2017
B-72	Downgradient	Overburden	1391242.2	2200723.9	758.85	758.09	21.9	746.6	736.6	10	4/19/2017
B-73	Downgradient	Overburden	1391352.4	2200697.5	759.46	758.85	15.8	753.5	743.5	10	4/19/2017
B-74	Downgradient	Overburden	1391279.8	2200665.3	759.44	758.96	16.5	748.2	743.2	5	4/25/2017
B-78	Downgradient	Overburden/Upper Bedrock	1394328.2	2202958.2	790.75	788.0	30	768.0	758.5	10	9/22/2019
B-79	Downgradient	Overburden	1394458.6	2203223.0	788.66	785.9	34.93	761.0	751.5	10	9/21/2019
B-80	Downgradient	Overburden	1394372.6	2203533.9	804.47	801.8	30	782.0	772.5	10	9/20/2019
B-81	Downgradient	Overburden	1394364.9	2203741.1	820.56	817.7	50	778.5	768.5	10	9/22/2019
B-84	Downgradient	Overburden	1390411.9	2202241.9	776.34	776.6	49.1	737.5	727.5	10	10/1/2019
B-85	Downgradient	Overburden/Upper Bedrock	1394433.4	2203134.5	782.54	782.7	34.5	758.5	748.5	10	11/18/2019
B-86	Downgradient	Overburden/Upper Bedrock	1394480.0	2203206.6	784.29	784.6	34.1	760.5	750.5	10	11/18/2019

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PIEZOMETERS											
B-87	Downgradient	Overburden	1394401.9	2203531.3	803.37	800.4	42	768.7	758.7	10	11/17/2019
B-89	Downgradient	Upper Bedrock	1394398.4	2204049.4	822.36	822.6	49.5	783.1	773.1	10	11/19/2019
B-94	Downgradient	Overburden	1394402.0	2203513.7	801.74	799.2	45.24	764.6	754.6	10	1/23/2020
B-103D	Downgradient	Upper Bedrock	1391543.5	2202614.4	795.96	793.8	70.00	733.8	723.8	10	10/15/2020
B-110D	Downgradient	Upper Bedrock	1391294.4	2200736.0	764.61	764.7	65.00	711.7	701.7	10	11/17/2020
B-123D	Downgradient	Bedrock	1391234.4	2202608.4	781.80	778.9	160	668.9	618.9	50	4/4/2022

Notes:

1. bgs = below ground surface
2. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
3. NAD - North American Datum; NAVD - North American Vertical Datum

TABLE 3
Proposed ACM Supplementary Data Collection Tasks for June through December 2022
 Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1
 Atlanta, Georgia

Proposed Activities	Applicable CMs	Applicability / Rationale	Field Component	Data Evaluation
Groundwater Sampling	ISI MNA	(i) Evaluation of attenuation mechanisms and rates and aquifer capacity for attenuation. (ii) Determine the viability of in-situ injections for remedy selection.	Collect groundwater samples from existing well network currently sampled under the assessment monitoring program as well as additional site piezometers within migration pathway.	In addition to routine App III/IV parameters; sulfide, iron, manganese, magnesium, sodium, potassium, bicarbonate alkalinity, dissolved organic carbon (DOC), and total hardness to be collected at select locations.
Bench Scale Testing	ISI MNA	Evaluate the effectiveness of different injection media for treatment of arsenic, cobalt and molybdenum.	Completed Spring 2022.	Perform Phase 2 Jar Testing using soil/sediments and groundwater from the site to evaluate effects of 'aquifer solids' on the various reactant's (e.g., potassium bicarbonate) treatment effectiveness.
Geochemical Modeling	ISI MNA	MNA as a component of Final Remedy Selection Support development of injection media for ISI	No Field Component: Phase II & III geochemical modeling and assessment for MNA evaluation of Tiered criteria.	Geochemical modeling performed to evaluate the cause of the cobalt exceedance at well DGWC-40 and the likelihood that it is due to consistently low pH in that area (<5.0), while near to and surrounding AP-1 have a higher pH (5.5 to 7.0).

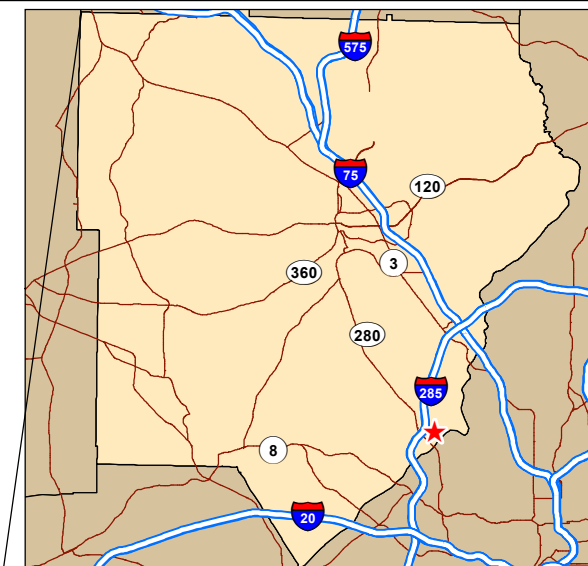
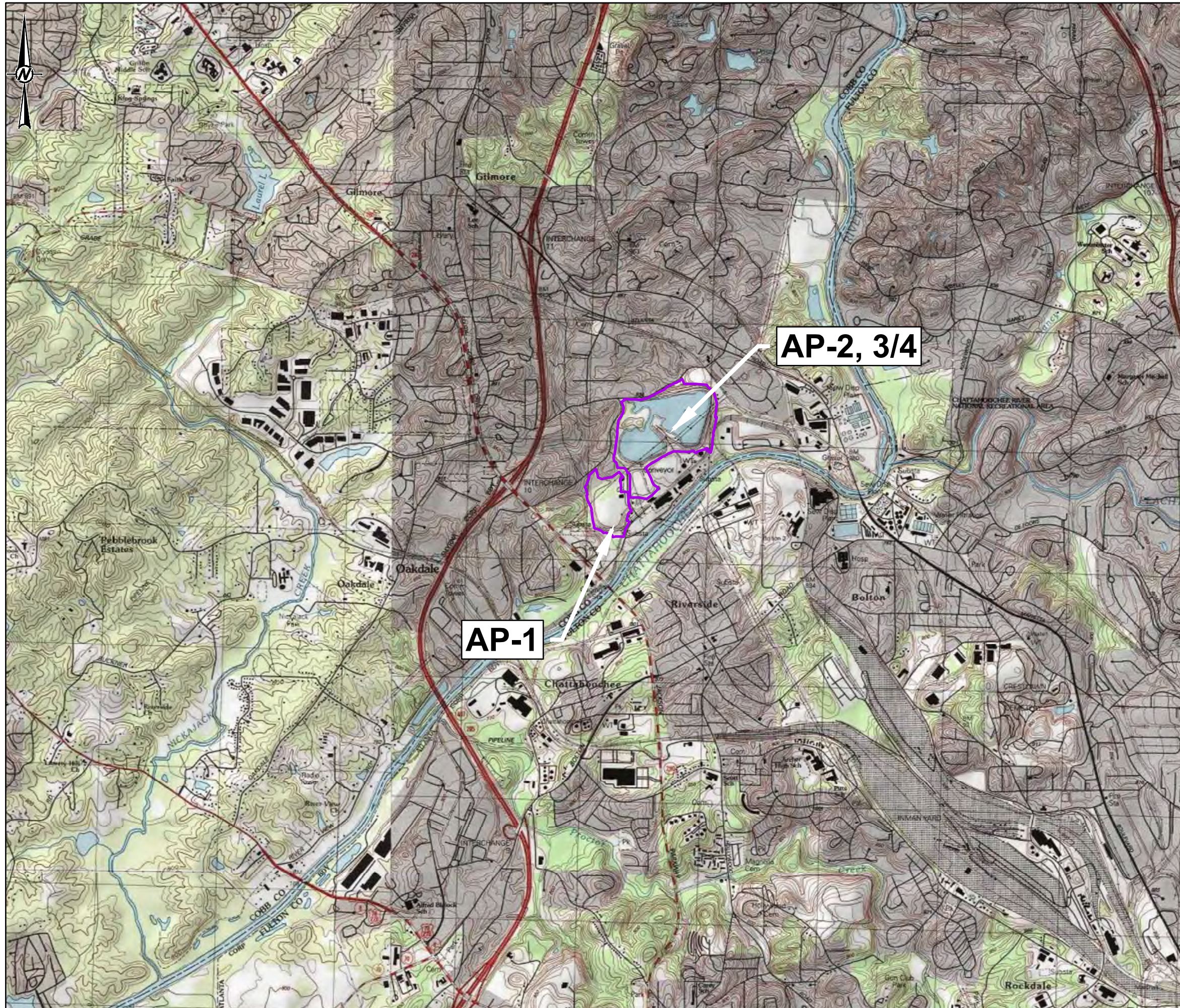
Applicable Corrective Measures (CM Retained):

ISI - Geochemical Approaches (In-Situ Injection)

P&T - Hydraulic Containment (Pump and Treat)

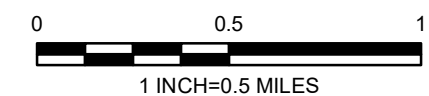
MNA - Monitored Natural Attenuation

FIGURES



REFERENCE

SERVICE LAYER CREDITS: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



PROJECT
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS
 REPORT PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
SITE LOCATION MAP

CONSULTANT	YYYY-MM-DD	2019-1-31
	PREPARED	SEB
	DESIGN	SEB
	CHECKED	DP
	REVIEWED/APPROVED	RPK

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANSIB



LEGEND

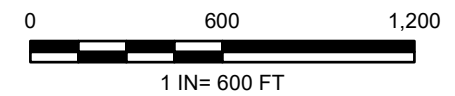
- ◆ AP-1 MONITORING WELL
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRADIENT WELL
- ★ ASSESSMENT MONITORING WELLS
- ◆ PIEZOMETER
- ▲ DEWATERING WELL
- ◆ SURFACE WATER MONITORING LOCATION
- STAFF GAUGE
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JUNE 23, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



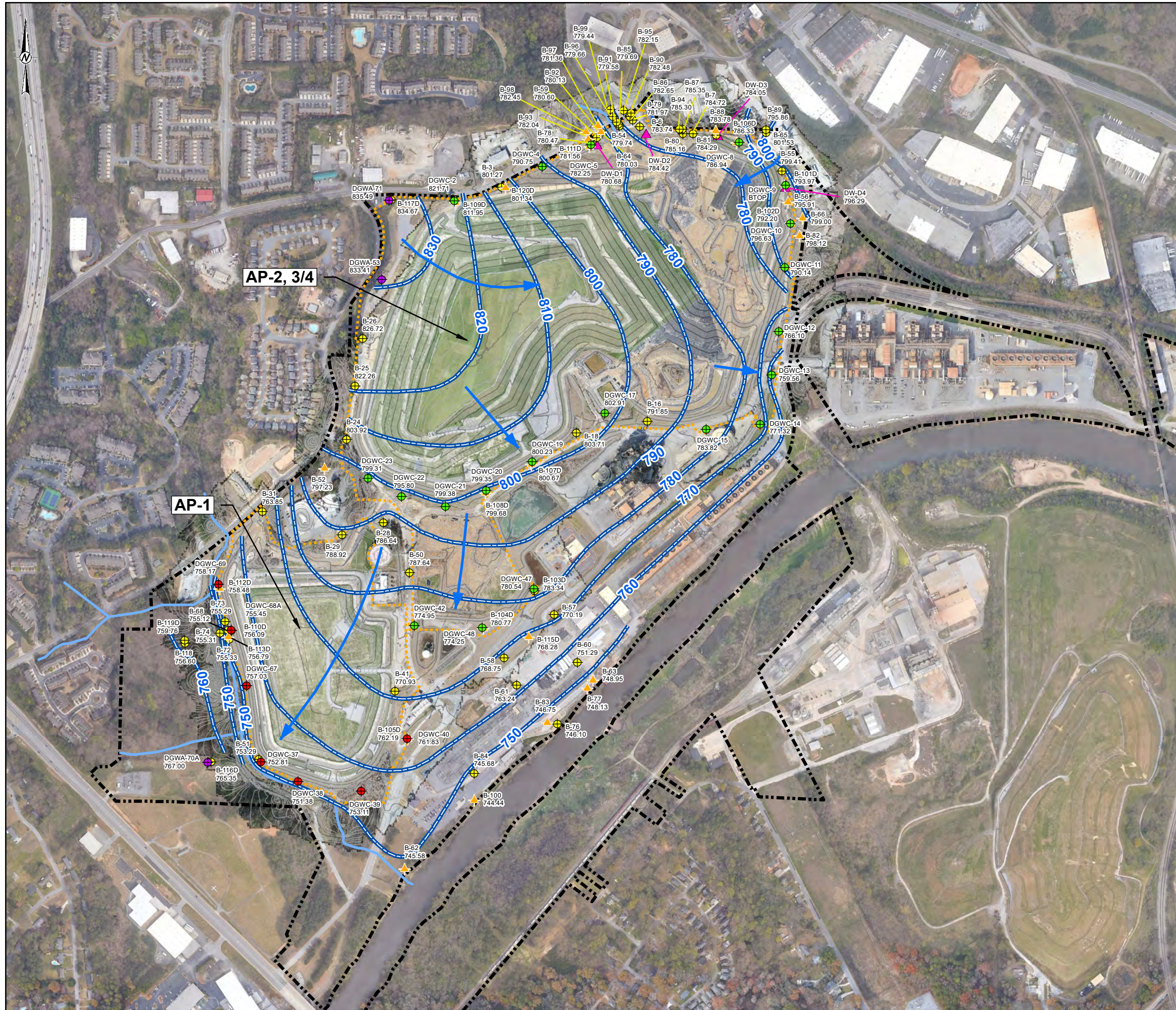
PROJECT
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS
 REPORT PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
**MONITORING WELL, PIEZOMETER AND SURFACE WATER
 LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2022-07-11
	PREPARED	SEB
	DESIGN	DLP
	CHECKED	DP/RPK
	REVIEWED/APPROVED	RPK

Path: C:\Users\labrad\OneDrive\Documents\166849621_SCS Plant McDonough GW Cms Svcs GA - 800_Shapefiles\MXD\Remedy Selection Work Plan\Figure 2 - Monitoring Well, Piezometer and SW Map.mxd

THIS SHEET HAS BEEN MODIFIED FROM ANS.R



LEGEND

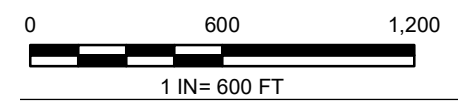
- ◆ AP-1 MONITORING WELL
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRADIENT WELL
- ▲ ASSESSMENT MONITORING WELLS
- ◆ PIEZOMETER
- ▲ DEWATERING WELL
- ➔ APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR (FT-NAVD88)
- SURFACE WATER STREAM
- - - PERMIT BOUNDARY
- - - PROPERTY BOUNDARY
- EXISTING TOPOGRAPHY 10-FOOT CONTOUR
- EXISTING TOPOGRAPHY 2-FOOT CONTOUR

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED JANUARY 18, 2022 BY GOLDER ASSOCIATES.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD88).
4. WELLS AND PIEZOMETERS THAT CONTAIN A "D" DESIGNATION FOLLOWING THE NUMBER ARE DEEP WELLS AND ELEVATIONS ARE NOT USED FOR CONTOURING.
5. BTOP= BELOW TOP OF PUMP.

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND FEBRUARY 8, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
GEORGIA POWER COMPANY
 PLANT MCDONOUGH

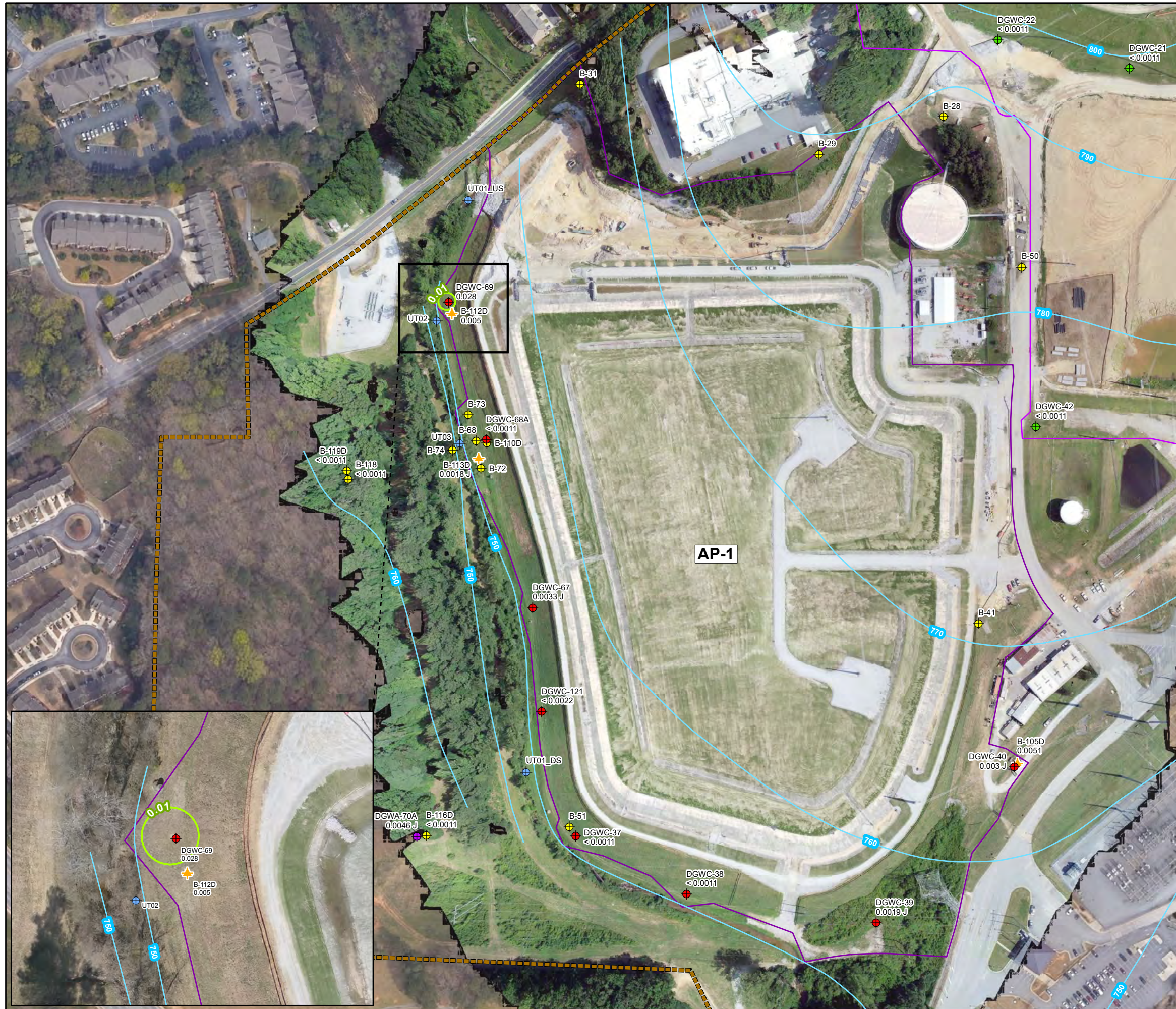


PROJECT
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS
 REPORT PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
SITE POTENTIOMETRIC MAP – JANUARY 18, 2022

CONSULTANT	DATE	REVISION
	YYYY-MM-DD	2022-02-11
	PREPARED	SEB
	DESIGN	SEB
	CHECKED	BAS
	REVIEWED/APPROVED	RPK

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANSIB



LEGEND

- ◆ AP-1 MONITORING WELL
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRADIENT WELL
- ★ ASSESSMENT MONITORING WELLS
- ◆ PIEZOMETER
- ⊕ SURFACE WATER MONITORING LOCATION
- 0.01 ARSENIC GWPS ISOCONCENTRATION CONTOUR
- - - PROPERTY BOUNDARY
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (JAN 2022)
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE
2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD.
3. DATA SHOWN REPRESENT THE JANUARY 2022 SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA.
4. GWPS IS EQUAL TO THE MCL.
5. DEEP WELL DATA IS NOT USED FOR ISOCONCENTRATION CONTOURING.
6. POTENTIOMETRIC SURFACE DETERMINED USING JANUARY 2022 WATER LEVELS.
7. DATA FROM MONITORING WELL DGWC-121, B-122D AND B-123D FROM JUNE 6, 2022

Analyte	Units	GWPS
Arsenic	mg/L	0.01

REFERENCE

1. SERVICE LAYER CREDITS: AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JUNE 23, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
GEORGIA POWER COMPANY
 PLANT MCDONOUGH



PROJECT
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS
 REPORT PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
**ARSENIC ISOCONCENTRATION CONTOUR MAP -
 JANUARY 2022**

CONSULTANT	YYYY-MM-DD	2022-07-15
	PREPARED	SEB
	DESIGN	DLP
	CHECKED	RPK
	REVIEWED/APPROVED	RPK

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B



LEGEND

- ◆ AP-1 MONITORING WELL
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRADIENT WELL
- ★ ASSESSMENT MONITORING WELLS
- PIEZOMETER
- SURFACE WATER MONITORING LOCATION
- 0.0322 COBALT GWPS ISOCONCENTRATION CONTOUR
- COBALT GWPS ISOCONCENTRATION CONTOUR (INFERRED)
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (JAN 2022)
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE
 2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD. RSL = (FEDERAL REGIONAL SCREENING LEVEL)
 3. DATA SHOWN REPRESENT THE JANUARY 2022 SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA.
 4. GWPS IS EQUAL TO SITE SPECIFIC BACKGROUND CONCENTRATION AS THERE IS NO MCL AND THE RSL IS BELOW SITE SPECIFIC BACKGROUND CONCENTRATION.
 5. DEEP WELL ANALYTICAL RESULTS NOT USED FOR ISOCONCENTRATION CONTOURING.
 6. POTENTIOMETRIC SURFACE DETERMINED USING JANUARY 2022 WATER LEVELS.
 7. DATA FROM MONITORING WELL DGWC-121, B-122D AND B-123D FROM JUNE 6, 2022

Analyte	Units	GWPS
Cobalt	mg/L	0.0322

- REFERENCE**
1. SERVICE LAYER CREDITS: AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JUNE 23, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
 2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
 3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
GEORGIA POWER COMPANY
 PLANT MCDONOUGH

PROJECT
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS
 REPORT PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
**COBALT ISOCONCENTRATION CONTOUR MAP -
 JANUARY 2022**

CONSULTANT	YYYY-MM-DD	2022-07-19
wsp GOLDER	PREPARED	SEB
	DESIGN	DLP
	CHECKED	RPK
	REVIEWED/APPROVED	RPK

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B

APPENDIX A

SEN'S SLOPE/MANN KENDALL TREND ANALYSES

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:53 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	DGWA-53 (bg)	-0.004889	-80	-58	Yes	16	0	n/a	n/a	0.01	NP

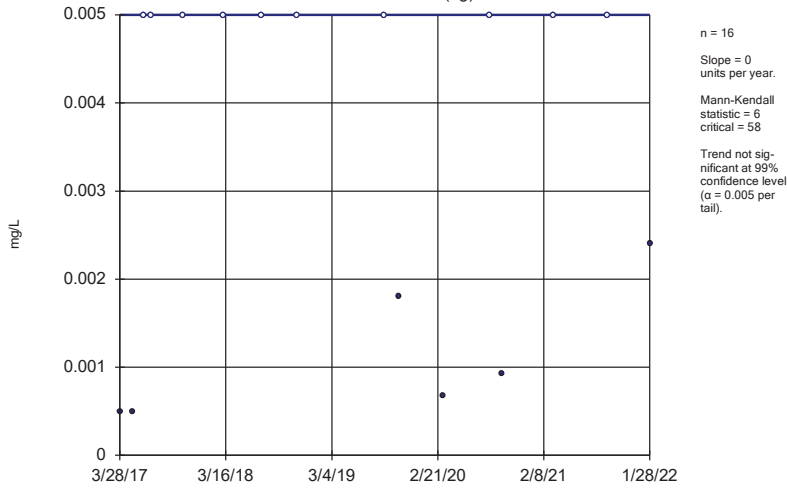
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/13/2022, 3:53 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	6	58	No	16	62.5	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-17	-58	No	16	87.5	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	23	53	No	15	80	n/a	n/a	0.01	NP
Arsenic (mg/L)	DGWC-69	0.004236	58	68	No	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.004889	-80	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-70A (bg)	0	21	58	No	16	50	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWA-71 (bg)	0	40	53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	DGWC-40	0.001968	55	58	No	16	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.002273	-29	-58	No	16	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	14	53	No	15	93.33	n/a	n/a	0.01	NP
Molybdenum (mg/L)	DGWC-68A	-0.005652	-29	-58	No	16	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

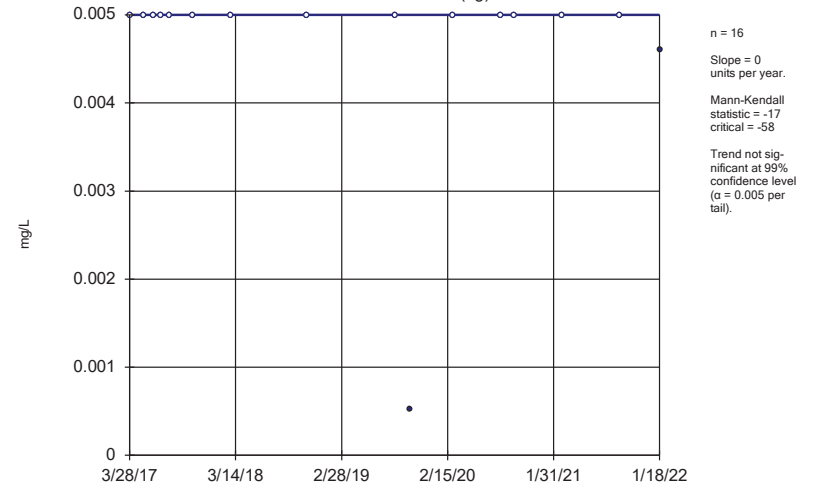
DGWA-53 (bg)



Constituent: Arsenic Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

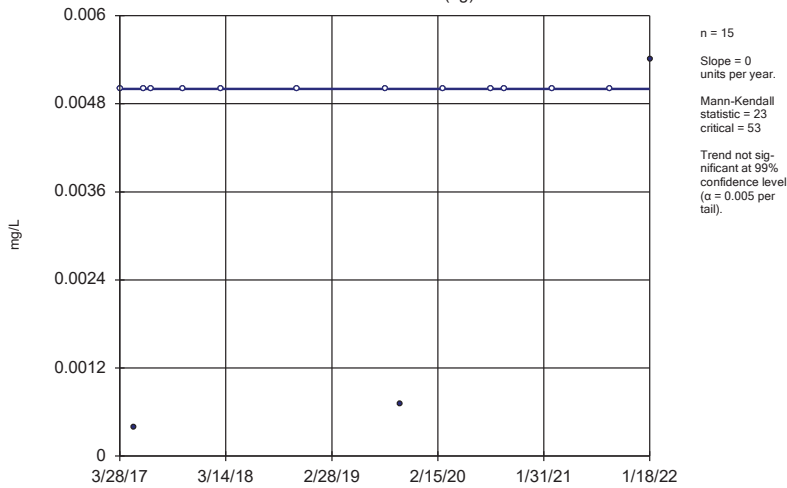
DGWA-70A (bg)



Constituent: Arsenic Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

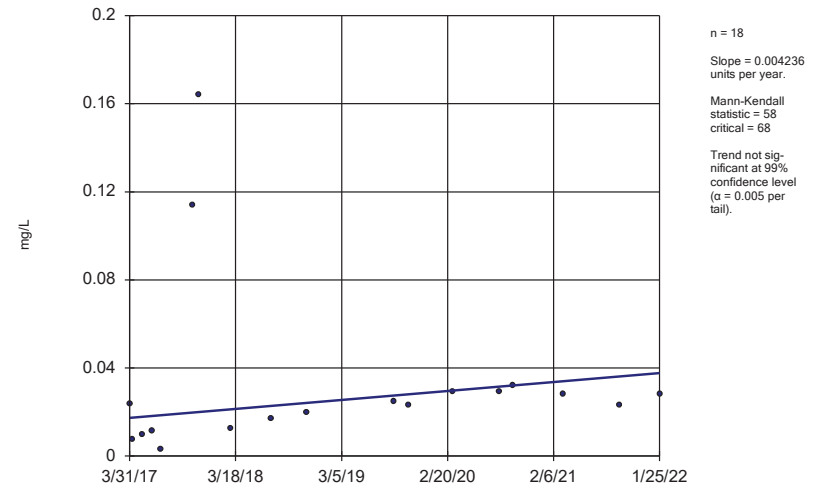
DGWA-71 (bg)



Constituent: Arsenic Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

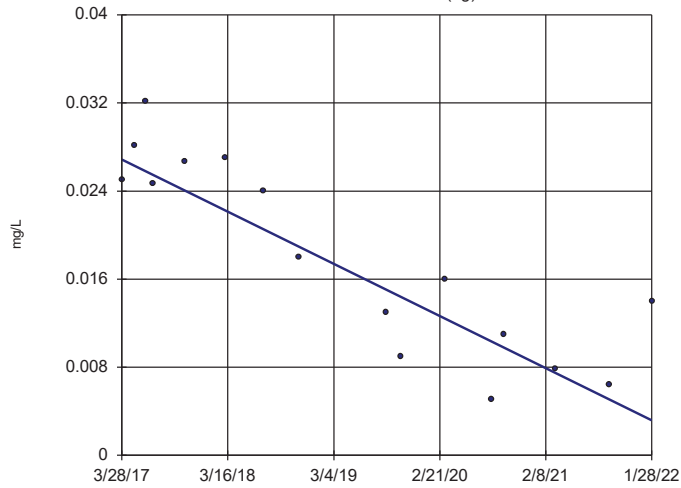
DGWC-69



Constituent: Arsenic Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)

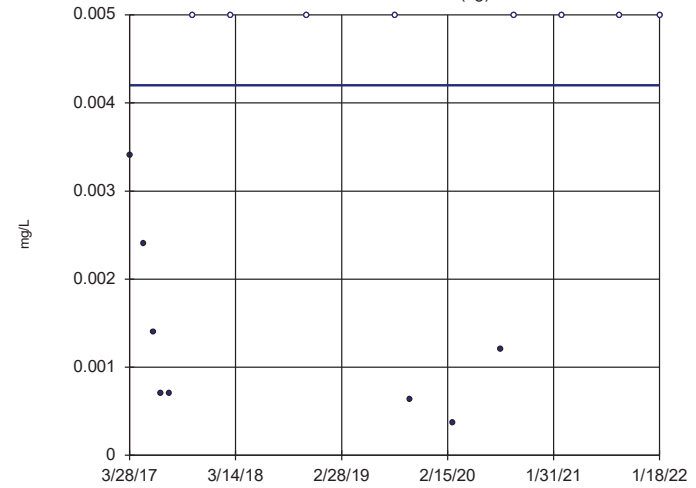


n = 16
 Slope = -0.004889
 units per year.
 Mann-Kendall
 statistic = -80
 critical = -58
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Cobalt Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)

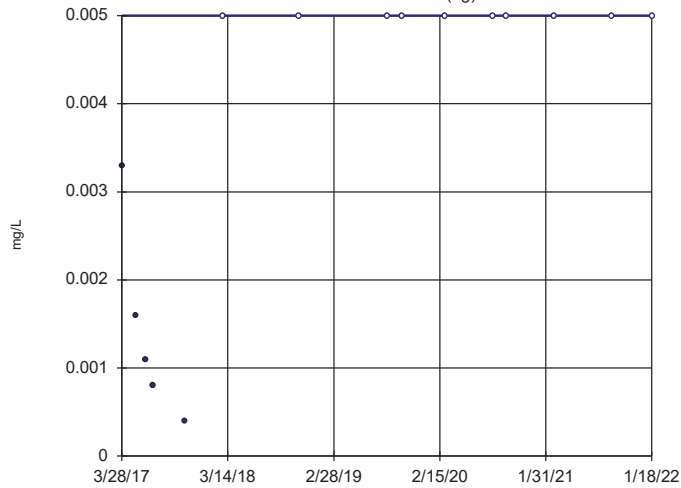


n = 16
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Cobalt Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

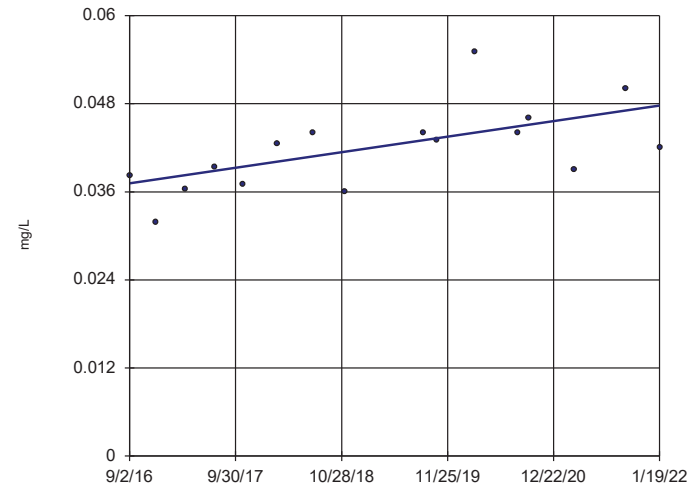


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Cobalt Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-40

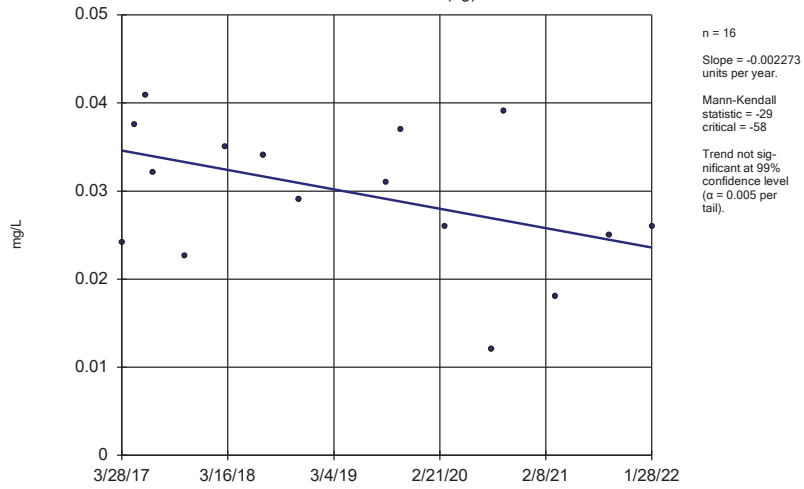


n = 16
 Slope = 0.001968
 units per year.
 Mann-Kendall
 statistic = 55
 critical = 58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Cobalt Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

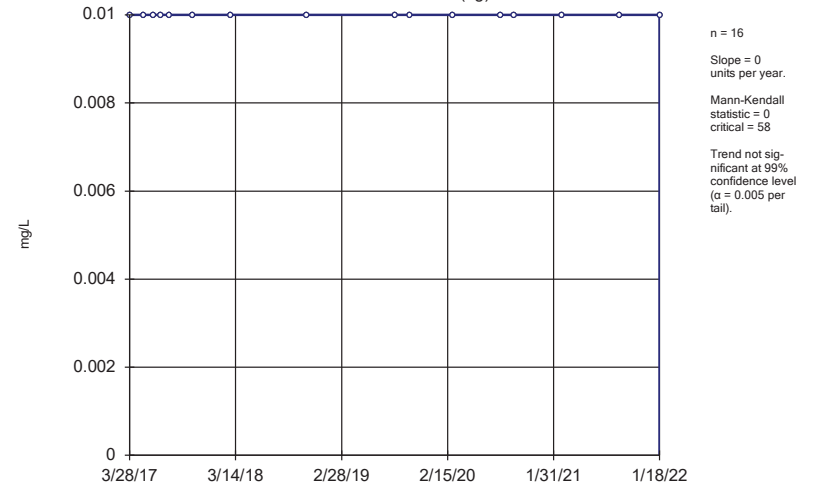
DGWA-53 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

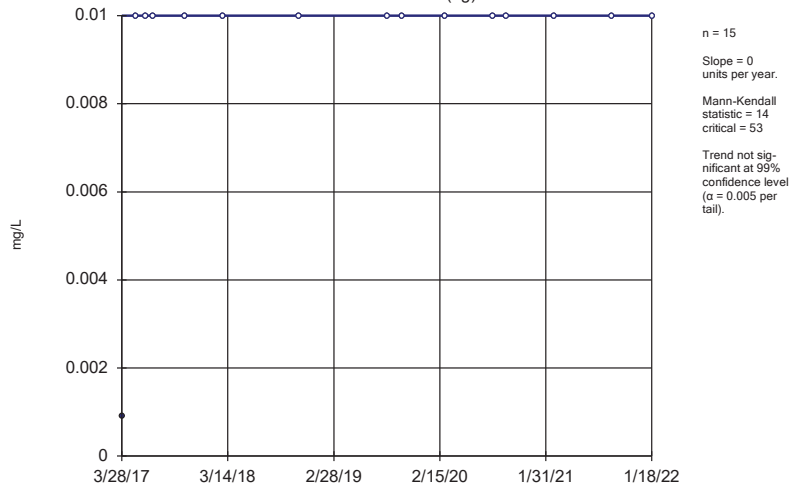
DGWA-70A (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

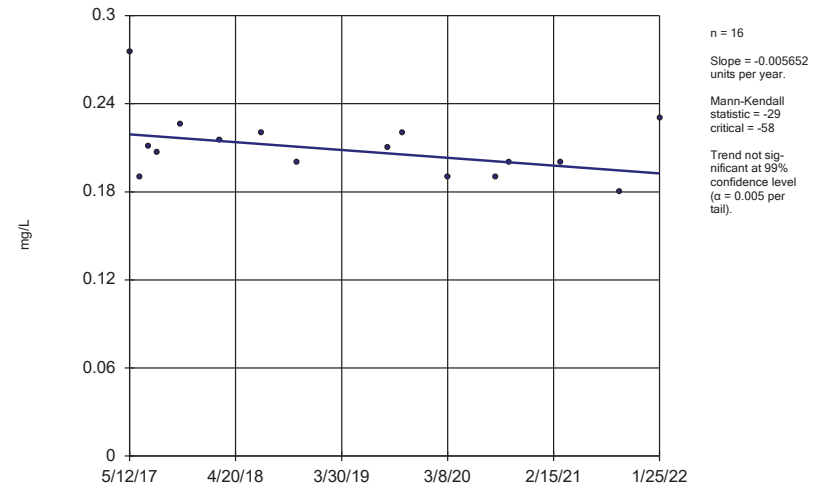
DGWA-71 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-68A



Constituent: Molybdenum Analysis Run 4/13/2022 3:47 PM View: AP 1 Appendix IV Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

APPENDIX B

TERRA SYSTEMS, INC. TREATABILITY STUDY REPORT

July 20, 2022

Todd Rees, PhD, PE
Senior Program Leader



GOLDER
MEMBER OF WSP

Golder Associates Inc.
Amherst, MA., Montrose, CO.

TERRA SYSTEMS, INC. FINAL REPORT FOR GOLDR/WSP FOR COAL COMBUSTION RESIDUE AT PLANT MCDONOUGH ATKINSON ASH POND 1, 2, 3, AND 4 TREATABILITY STUDY VERSION 6

1.0 INTRODUCTION

Coal combustion residue landfill may generate acidic conditions which allow metals such as arsenic (As), beryllium (Be), cobalt (Co), lithium (Li), molybdenum (Mo), and selenium (Se) to accumulate to levels above regulatory limits. This bench-scale treatability evaluated neutralization/precipitation with potassium bicarbonate, sodium bicarbonate, and calcium oxide and precipitation/adsorption with zero valent iron (ZVI), ferrous oxide, and ferrous sulfide for five groundwaters from Georgia Power Company (Georgia Power) Plant McDonough-Atkinson Ash Pond 1 (AP-1) which has arsenic and molybdenum in two groundwaters (DGWC-69 and DGWC-68A) and cobalt in DGWC-40. Plant McDonough-Atkinson Ash Pond 2, Ash Pond 3 and Ash Pond 4 (AP-2 and 3/4) has arsenic, beryllium, cobalt, lithium, and selenium in two groundwaters (DGWC-48 and DGWC-20). The Georgia Groundwater Protection Standards (GA GWPS) is 0.010 mg/L for arsenic, 0.0040 mg/L for beryllium, 0.032 mg/L for cobalt, 0.10 mg/L for lithium, 0.10 mg/L for molybdenum, and 0.050 mg/L for selenium.

2.0 BENCH-SCALE STUDY SCOPE

The objective of the bench-scale study is to evaluate the appropriate in situ remediation technology for several metals including arsenic, cobalt, beryllium, lithium, molybdenum, and selenium:

- Identify the feasibility of in-situ remediation.
- Determine the design parameters including reagent dosage and demand.

The bench-scale treatability study will investigate six reagents: potassium bicarbonate, sodium bicarbonate, calcium oxide, iron oxide, ferrous sulfide, and zero valent iron.

2.1 Reagent Selection

The bench-scale treatability study assumes that one of the following technologies can be used for in-situ remediation of the metals:

- elevated pH precipitation
- oxidation with iron oxide
- reduction with ferrous sulfide
- oxidation and precipitation with calcium oxide
- direct sorption/precipitation onto the ZVI.

All reagents used for the bench-scale test were commercially available products. The reagent usages and their dosages could be adjusted according to the results of the activities and observations during the execution of the bench-scale treatability study. The following provides more detail on each of the reagents proposed for the bench-scale treatability testing:

- **Potassium Bicarbonate:** Potassium bicarbonate can increase the pH up to about 8.2 SU. Four loadings of LC Carlsen potassium bicarbonate were evaluated in the tests to determine the precipitation of arsenic and molybdenum in two groundwaters from AP-1 (DGWC-69 and DGWC-68A); four loadings of potassium bicarbonate to address cobalt from one groundwater in AP-1 DGWC-40; and four loadings of potassium bicarbonate to address arsenic, beryllium, cobalt, lithium, and selenium in AP 234 (DGWC-48 and DGWC-20).
- **Sodium Bicarbonate:** Sodium bicarbonate can increase the pH up to about 8.3 SU. Four loadings of Genesis sodium bicarbonate were evaluated in the tests to determine precipitation of cobalt from one groundwater in AP-1 (DGWC-69 and DGWC-68A); and four loadings of sodium bicarbonate to address arsenic, beryllium, cobalt, lithium, and selenium in AP 234 (DGWC-48 and DGWC-20).
- **ZVI:** ZVI can enhance precipitation of cobalt and can sorb this metal. A commercially available product of submicron ZVI (Ferox Nanostar) from Hepure (Flemington NJ) and Nanoiron s.r.o (Zudicgivue, Czech Republic) were evaluated. Three loadings of ZVI were evaluated in the tests to determine the precipitation/sorption of arsenic and molybdenum will be evaluated in the groundwater from AP-1 DGWC-69 and DGWC-68A; determine precipitation of cobalt from one groundwater in AP-1 (DGWC-40); and to address arsenic, beryllium, cobalt, lithium, and selenium in AP-234.
- **Calcium oxide.** Calcium oxide is prepared by heating limestone. In water, it will form calcium hydroxide. Calcium hydroxide has a solubility of about 1.6 g/L and a pH of 12.5 SU. Three loadings of Sigma Aldrich >98% calcium oxide were evaluated for the precipitation of arsenic and molybdenum in two groundwaters from AP-1 (DGWC-69 and DGWC-68A).
- **Ferric oxide.** Ferric oxide (Fe_2O_3) is insoluble in water and has a pH of 6-8. Three loadings of Sigma Aldrich ferric oxide (<5 μm , 96%) were evaluated for the precipitation of arsenic and molybdenum in two groundwaters from AP-1 (DGWC-69 and DGWC-68A).
- **Ferrous sulfide.** Ferrous sulfide (FeS) is insoluble in water and has a pH of 9.5-12.5. Three loadings of Sigma Aldrich ferrous sulfide technical grade were evaluated for the precipitation of arsenic and molybdenum in two groundwaters from AP-1 (DGWC-69 and DGWC-68A).

2.2 Bench-scale Groundwater Collection

Groundwater samples were collected from the five locations. With 1 L reaction vessels for each treatment, about 5 gallons of each of the five groundwaters were required. The samples were delivered to the TSI under a chain of custody. Samples from DGWC-20, DGWC-48, DGWC-68A, DGWC-19, DGWC-47 and DGWC-69 were delivered to TSI on 1/28/22 and stored in refrigerators. The samples from DGWC-20, DGWC-48, and DGWC-69 were transferred to 1.3-

gallon jugs while purging with nitrogen gas. The sample from AP-1 DCWC-68A was received in 1-gallon jugs. Golder/WSP decided not to test the DGWC-19 and DGWC-47 groundwaters. The groundwater sample from AP-1 DGWC-40 was received on 2/10/22.

2.3 Baseline characterization

At the beginning of the bench-scale treatability test, the baseline characterization was performed to verify contaminant concentrations in the samples. The groundwater samples were homogenized to the extent possible. The homogenized groundwater samples were analyzed for total cobalt, arsenic, molybdenum, beryllium, lithium, selenium, iron, potassium, manganese, magnesium, and sodium (metals chosen based upon site characteristics); dissolved arsenic, beryllium, cobalt, molybdenum, lithium, and selenium (based upon site characteristics); dissolved organic carbon (DOC), and sulfate, by the Eurofins Lancaster Laboratories and for pH, ORP, dissolved oxygen (DO), bicarbonate alkalinity, total hardness, ferrous iron, and sulfide by TSI using calibrated meters and Hach procedures.

2.4 Titration Tests

Alkaline titrations were conducted to determine the potassium bicarbonate and sodium bicarbonate testing dosages. An alkaline titration test was completed to determine the pH resulting from 0, 1, 2, 5, and 10 g/L additions of potassium bicarbonate and sodium bicarbonate reagent dosages. The total suspended solids (TSS) were determined by weighing the 0.2 μm nylon filter before filtering the samples and after filtration and drying in a 105 °C oven. The weight of the TSS collected was divided by the volume of groundwater that passed through the filters.

2.5 Reagent Screening

The purpose of this step was to select the most appropriate reagent for each of the nine groundwater samples.

The reagent dosages were determined from the baseline characterization and titration. For each sample, a total of 12 to 13 reactors were set up for each site. The studies were prepared in an anaerobic chamber with a 92% nitrogen, 5% carbon dioxide, and 3% hydrogen atmosphere to maintain the redox state of the groundwater.

AP-1 (Arsenic and Molybdenum) DGWC-69 and DGWC-68A

- Control
- Potassium Bicarbonate: 3 dosages (2, 5, and 10 g/L)
- Calcium Oxide: 3 dosages (1, 2, and 5 g/L)
- Ferric Oxide: 3 Dosages (0.5, 1.0, and 2.0 g/L)
- Ferrous Sulfide: 3 Dosages (0.5, 1.0, and 2.0 g/L)

AP-1 (Cobalt) DGWC-40

- Control
- Potassium Bicarbonate: 4 dosages (1, 2, 5, and 10 g/L)
- Sodium Bicarbonate: 4 dosages (1, 2, 5, and 10 g/L)
- ZVI: 3 Dosages (0.5, 1.0, and 1.5 g/L)

AP-2 and 3/4 (Arsenic, Beryllium, Cobalt, Lithium, and Selenium) DGWC-48 and DGWC-20

- Control
- Potassium Bicarbonate: 4 dosages (1, 2, 5, and 10 g/L)
- Sodium Bicarbonate: 4 dosages (1, 2, 5, and 10 g/L)
- ZVI: 3 Dosages (0.5, 1.0, and 1.5 g/L)

All containers were mixed and turned periodically for seven days. Groundwater samples (the supernatants in the reactors) were analyzed for:

- total arsenic, beryllium, cobalt, molybdenum, and selenium (based upon contaminants of concern for each site);
- total lithium for DGWC-48 and DGWC-20
- total iron, potassium, manganese, magnesium, and sodium
- dissolved arsenic, beryllium, cobalt, lithium, molybdenum, and selenium (based upon contaminants of concern for each site). The samples were filtered through 0.2 μm nylon filters and the filtrates were divided into bottles for DOC and metals.
- dissolved lithium for DGWC-48 and DGWC-20
- dissolved organic carbon (DOC)
- sulfate

Eurofins Lancaster Laboratories of Lancaster PA conducted the metals, DOC, and sulfate analyses. The pH, ORP, dissolved oxygen (DO), bicarbonate alkalinity, total hardness, ferrous iron, and sulfide were conducted by TSI using calibrated meters and Hach procedures. The estimated sample volumes for the initial characterization, screening, and rebound tests are shown in Table 1. The volumes were adjusted to account for required dilutions and volumes of water available.

3.0 AP-1

3.1 AP-1 Initial Characterization Results

Table 2 has the results of the field parameters, Hach tests, metals, DOC, and sulfate results for the three groundwater samples in AP-1.

AP-1 DGWC-69. The pH ranged from 6.4 to 7.3 with a moderate bicarbonate alkalinity of 60 mg/L CaCO_3 . There was a positive ORP (167 mV) and moderately high dissolved oxygen (9.8 mg/L). The TSS was 8.4 mg/L with a hardness 40 mg/L, 0.01 mg/L ferrous iron, and no sulfide. The pH increased from 6.4 to 7.8 SU with 1 g/L sodium bicarbonate and increased to 8.3 with 10 g/L. The pH increased from 7.1 to 8.2 SU with 1 g/L potassium bicarbonate and to 8.4 with 10 g/L. This groundwater has low 6 mg/L sulfate and 1.5 mg/L DOC. Total arsenic was 0.022 mg/L and dissolved arsenic was 0.020 mg/L; both exceeded the GA GWPS. Molybdenum was detected but below 0.006 mg/L and was below the GA GWPS. The groundwater contained 0.13 mg/L total iron, 2.3 mg/L total magnesium, 0.027 mg/L total manganese, 2.4 mg/L potassium, and 9.5 mg/L sodium.

AP-1 DGWC-68A. The pH ranged from 6.3 to 6.8 with a moderate bicarbonate alkalinity of 200 mg/L CaCO_3 . There was a positive ORP (224 mV) and moderately high dissolved oxygen (10.8 mg/L). The TSS was 13.8 mg/L with a hardness 120 mg/L, 0.01 mg/L ferrous iron, and no sulfide. The pH increased from 6.8 to 7.5 SU with 1 g/L sodium bicarbonate and increased to 8.2 with 10 g/L. The pH increased from 6.6 to 7.2 SU with 1 g/L potassium bicarbonate and to 8.2 with 10 g/L. This groundwater has moderate 78 mg/L sulfate and 1.1 mg/L DOC. Total arsenic and

dissolved arsenic not detected. Molybdenum was relatively high with 0.22 g/L total and 0.20 mg/L dissolved; both exceeded the GA GWPS of 0.10 mg/L. The groundwater contained 0.049 mg/L total iron, 18 mg/L total magnesium, 0.096 mg/L total manganese, 3.8 mg/L potassium, and 11 mg/L sodium.

AP-1 DGWC-40. The initial pH was 4.8 with a bicarbonate alkalinity of 5 mg/L CaCO₃. There was a positive ORP (226 mV) and moderate dissolved oxygen (5.5 mg/L). The TSS was 0.8 mg/L with a hardness of 240 mg/L, 0.28 mg/L ferrous iron, and no sulfide. The pH increased from 4.8 to 6.9 SU with 1 g/L sodium bicarbonate and increased to 8.0 with 10 g/L. The pH increased from 4.8 to 6.9 SU with 1 g/L potassium bicarbonate and to 7.9 with 10 g/L. This groundwater has moderate 190 mg/L sulfate and no detectable DOC. Total cobalt was detected at 0.039 mg/L and dissolved cobalt at 0.038 mg/L; both were slightly above the GA GWPS of 0.032 mg/L. The groundwater contained 0.039 mg/L total iron, 19 mg/L total magnesium, 3.4 mg/L total manganese, 6.1 mg/L potassium, and 19 mg/L sodium.

3.2 AP-1 Testing Results

Well DGWC-69 Summary. Table 3 has the field parameters and ELLE results for this groundwater.

On Day 0, the control pH was 6.6 and increased to 7.7 for the 2 g/L loading of potassium bicarbonate. The highest dosage of 10g/L potassium buffers had a pH of 8.5 on Day 0. On Day 7, the pH for the potassium bicarbonate treatments ranged from 7.8 to 8.4, 11.9 to 12.1 for the calcium oxide treatments, from 7.1 to 8.7 for the iron oxide, and from 6.2 to 6.8 for the ferrous sulfide treatments. The ORPs were positive (except for the CaO treatments where the very high pHs caused negative ORPs) and ranged from -76 to 247 mV. DO ranged from 4.4 to 8.0 mg/L. The total suspended solids ranged from 0 to 2,673 mg/L. The treatments with 5 g/L KHCO₃, 1-5 g/L CaO, 0.5-2 g/L Fe₂O₃, and 0.5-2.0 FeS had elevated TSS. Bicarbonate alkalinity was moderate in the control (35 mg/L as CaCO₃) and increased with bicarbonate additions. Phenolphthalein alkalinity was very high in the CaO treatments due to the extreme pHs. The hardness ranged from 40 to 1,820 mg/L as CaCO₃. Only 1 and 2 g/L FeS treatments had a little ferrous iron. Sulfide was low (0.01 to 0.35 mg/L).

Sulfate ranged from 8.4 to 25 mg/L. Little DOC was detected; the higher dosages of buffer had the most, 2.1 and 4.9 mg/L. Total arsenic ranged from 0.0065 to 0.025 mg/L with the following treatments below the GA GWPS: 1 and 2 g/L FeS. Dissolved arsenic ranged from 0.00074 to 0.024 mg/L with the following treatments below the GA GWSP: 1 g/L CaO, 2 g/L CaO, 5 g/L CaO, 0.5 g/L Fe₂O₃, 1 g/L Fe₂O₃, 2 g/L Fe₂O₃, 0.5 g/L FeS, 1.0 g/L FeS, and 2 g/L FeS. Total molybdenum ranged from 0.0034 to 0.010 mg/L; all were below the GA GWPS. Dissolved molybdenum ranged from 0.00017 to 0.0057 mg/L with dissolved molybdenum below the GA GWPS in all treatments. Iron increased in almost all treatments except for the KHCO₃ treatments. Total magnesium did not change much except for the CaO treatments. Total manganese increased in all treatments. Potassium increased with the increasing loadings of potassium bicarbonate. Sodium ranged from 9.1 to 19 mg/L.

The CaO, Fe₂O₃, and FeS treatments showed significant reductions in dissolved arsenic with all of these treatments reducing dissolved arsenic below the GA GWPS. The Fe₂O₃ and the highest dosage of FeS reduced the dissolved molybdenum by more 50% and all treatments including the control were below the GA GWPS for molybdenum of 0.10 mg/L.

Well DGWC-68A Summary. Table 4 has the field parameters and ELLE results for this groundwater. On Day 0, the control pH was 6.6 and increased to 7.7 for the 2 g/L loading of potassium bicarbonate. The highest dosage of 10g/L potassium buffers had a pH of 8.5 on Day 7. The pH drifted down slightly over the 7-day incubation period. By Day 7, the pHs ranged from 11.6 to 11.9 for the calcium oxide treatments, from 6.7 to 8.1 for the iron oxide, and from 6.4 to 6.5 for the ferrous sulfide treatments. The ORPS were positive (except for the CaO treatments where the very high pHs caused negative ORPs) and ranged from -38 to 277 mV. DO ranged from 3.5 to 9.1 mg/L. The total suspended solids ranged from 0.9 to 2,530 mg/L. The treatments with 1-5 g/L CaO, 0.5-2 g/L Fe₂O₃, and 0.5-2.0 FeS had elevated TSS. Bicarbonate alkalinity was moderate in the control (180 mg/L as CaCO₃) and increased with bicarbonate additions. Phenolphthalein alkalinity was very high in the CaO treatments due to the extreme pHs. The hardness ranged from 120 to 1,700 mg/L as CaCO₃. None of the treatments had much ferrous iron. Sulfide was low (0.01 to 0.10 mg/L).

Sulfate ranged from 33 to 54 mg/L. Little DOC was detected; the highest dosage of buffer had the most, 7.8 mg/L. Total arsenic ranged from <0.00068 to 0.0024 mg/L with all treatments below the GA GWPS. Dissolved arsenic was not detected. Total molybdenum ranged from 0.026 to 0.21 mg/L. Dissolved molybdenum ranged from 0.031 to 0.21 mg/L with all measurements higher than the Control Day 0. The following treatments were less than the GA GWPS for dissolved molybdenum on Day 7: 1 g/L Fe₂O₃, 2 g/L Fe₂O₃, and 2 g/L FeS. Iron increased in almost all treatments except for the KHCO₃ treatments. Total magnesium ranged from 10 to 30 mg/L and was highest in the CaO treatments. Total manganese increased in all treatments. Potassium increased with the increasing loadings of potassium bicarbonate. Sodium ranged from 9.1 to 19 mg/L.

Arsenic was below detection limits except for total arsenic in the 5 g/L CaO and 0.5 to 2.0 g/L Fe₂O₃ treatments. The higher dosages of Fe₂O₃ and the highest dosage of FeS reduced the dissolved molybdenum to below the GA GWPS.

Well DGWC-40 Summary. Table 5 has the field parameters and ELLE results for this groundwater. The control pH was 4.8 on Day 0 and increased to between 6.8 and 6.9 for the lowest loading of potassium and sodium bicarbonate with the highest dosage of buffers having pHs of 8.0 to 8.1. The pHs were generally slightly lower (-1.1 to 0.5 SU). The pHs in the ZVI treatments ranged from 5.7 to 6.1 SU on Day 7. The ORPS were positive (except for the highest ZVI loading) and ranged from -335 to 256 mV. DO ranged from 1.4 to 5.4 mg/L. There were not much total suspended solids (0 to 8.2 mg/L) except in the treatments with ZVI (likely due to carryover of the ZVI). Bicarbonate alkalinity was low in the control and increased with potassium and sodium bicarbonate additions. The hardness ranged from 180 to 240 mg/L. Only the control (0.14 mg/L) and the ZVI treatments (0.11 to 9.0 mg/L) had much ferrous iron. Sulfide was low (0.02 to 0.17 mg/L).

Sulfate ranged from 210 to 230 mg/L. Little DOC was detected (0.52 to 3.2 mg/L). Total Co ranged from 0.035 to 0.044 mg/L with the GA GWPS of 0.032 mg/L for cobalt. Only the 1.5 g/L ZVI showed 34.2% reduction to below the GA GWPS. Iron increased in almost all treatments from the IC but the most iron was found in the ZVI treatments. Magnesium ranged from 18 to 20 mg/L and manganese from 3.1 to 4.0; neither of these metals were impacted by the bicarbonate or ZVI treatments. Potassium and sodium increased with the increasing loadings of potassium and sodium bicarbonate.

Only the 1.5 g/L ZVI treatment showed removal of dissolved cobalt to below the GA GWPS with a 34.2% reduction.

3.3 AP-1 Conclusions

Table 6 summarizes the percent removals from the initial characterization samples or the Control Day 0 for the dissolved metals of concern across the various groundwaters. Compounds highlighted in green were reduced to below the GA GWPS by the treatments.

Arsenic. In the AP-1 DGWC-69 all treatments with calcium oxide, ferric oxide, and ferrous sulfide reduced dissolved arsenic to below the GA GWPS but not the potassium bicarbonate treatments. The AP-1 DGWC-68A had no detectable dissolved arsenic.

Cobalt. The GA GWPS for cobalt is 0.032 mg/L. Only the 1.5 g/L ZVI treatment reduced dissolved Co in the AP-1 DGWC-40 groundwater to below the GA GWPS.

Molybdenum. All of the treatments, including the control, were below the GA GWPS for molybdenum in the DGWC-69 groundwater treatments. Ferrous oxide at 1 and 2 g/L loadings and the highest loading of ferrous sulfide was effective in reducing dissolved Mo in the DGWC-68A groundwater to below the GA GWPS.

Overall Conclusions. The calcium oxide, ferric oxide, and ferrous sulfide reduced arsenic to below the GA GWPS in the DGWC-69 groundwater. Only the highest loading of ZVI reduced cobalt in the AP-1 DGWC-40 groundwater to below the GA GWPS. The higher dosages of ferric oxide and ferrous sulfide were effective for dissolved molybdenum in the DGWC-68A groundwater. The AP-1 DGWC-69 groundwater did not have dissolved arsenic above the GA GWPS.

4.0 AP-2 and 3/4

4.1 AP-2 and 3/4 Initial Characterization Results

Table 7 has the results of the field parameters, Hach tests, metals, DOC, and sulfate results for the two groundwater samples in AP-2 and 3/4.

Well DGWC-48. The pH ranged from 4.0 to 4.5 with no bicarbonate alkalinity. There was a positive ORP (338 mV) and moderately high dissolved oxygen (11.2 mg/L). The TSS was 0 mg/L with a hardness 20 mg/L, 2.52 mg/L ferrous iron, and no sulfide. The pH increased from 4.5 to 7.5 SU with 1 g/L sodium bicarbonate and increased to 8.2 with 10 g/L. The pH increased from 4.0 to 7.1 SU with 1 g/L potassium bicarbonate and to 8.2 with 10 g/L. This groundwater has high 520 mg/L sulfate and only 0.97 mg/L DOC. Total arsenic and dissolved arsenic were non-detect. Beryllium ranged from 0.0079 to 0.0086 mg/L which were above the GA GWPS. Cobalt was found at 0.33 to 0.35 mg/L above the GA GWPS of 0.032 mg/L. Lithium was found at 0.10 to 0.11 mg/L above the GA GWPS of 0.040 mg/L. No selenium was detected. The groundwater contained 3.9 mg/L total iron, 16 mg/L total magnesium, 13 mg/L total manganese, 14 mg/L potassium, and 23 mg/L sodium.

Well DGWC-20. The pH ranged from 4.4 to 5.0 with little bicarbonate alkalinity of <5 mg/L CaCO₃. There was a positive ORP (423 mV) and moderately high dissolved oxygen (9.6 mg/L). The TSS was 6.6 mg/L with no hardness, 0.07 mg/L ferrous iron, and no sulfide. The pH increased from 5.0 to 7.3 SU with 1 g/L sodium bicarbonate and increased to 8.1 with 10 g/L. The pH increased from 4.5 to 7.0 SU with 1 g/L potassium bicarbonate and to 8.1 with 10 g/L. This

groundwater has moderate 190 mg/L sulfate and no detectable DOC. Total cobalt was detected at 0.039 mg/L and dissolved cobalt at 0.038 mg/L. The groundwater was slightly hard with 0.039 mg/L total iron, 19 mg/L total magnesium, 3.4 mg/L total manganese, 6.1 mg/L potassium, and 19 mg/L sodium. has high 490 mg/L sulfate and only 0.71 mg/L DOC. Total arsenic and dissolved arsenic were 0.014 to 0.016 mg/L; above the GA GWPS. Beryllium ranged from 0.0073 to 0.0083 mg/L ; above the GA GWPS. Cobalt was found at 0.96 to 1.0 mg/L; above the GA GWPS. Lithium and selenium were not detected. The groundwater contained 0.12 mg/L total iron, 26 mg/L total magnesium, 42 mg/L total manganese, 14 mg/L potassium, and 24 mg/L sodium.

4.2 AP-2 and 3/4 Testing Results

Well DGWC-48 Summary. Table 8 has the field parameters and ELLE results for this groundwater. On Day 0, the control pH was 4.2 and increased to 6.9 for the lowest 1 g/L loading of potassium bicarbonate and to 7.1 for the lowest 1 g/L loading of sodium bicarbonate. The highest dosage of buffers had pHs of 7.9-8.0 on Day 7. The pH in the ZVI treatments on Day 7 ranged 5.0 to 6.4 SU. The ORPS on Day 7 were positive and ranged from 59 to 351 mV. DO ranged from 3.4 to 8.8 mg/L. The total suspended solids ranged from 11 to 150 mg/L. The treatments with 10 g/L KHCO₃, 10 g/L NaHCO₃ and ZVI had elevated TSS. Bicarbonate alkalinity was low in the control and ZVI treatments (5-10 mg/L CaCO₃) and increased with bicarbonate additions. The hardness ranged from <20 to 220 mg/L with higher readings at the higher buffer loadings. Only control, 10 g/L sodium bicarbonate and the ZVI treatments had more than 0.15 mg/L ferrous iron. Sulfide was low (0.02 to 0.09 mg/L).

Sulfate ranged from 330 to 400 mg/L. Little DOC was detected (0.79 to 11 mg/L); the highest dosage of buffer had the most, 9.0 and 11 mg/L. Total and dissolved arsenic were not detected except total arsenic in the treatments with ZVI; dissolved As were well below the GA GWPS in all treatments. Total beryllium ranged from 0.0050 to 0.0073 mg/L; all samples were above the GA GWPS of 0.004 mg/L. Dissolved beryllium ranged from 0.00085 to 0.0071 mg/L with only the Control and ZVI treatments exceeding the GA GWPS. Total cobalt was moderate ranging from 0.17 to 0.34 mg/L. The following treatments showed more than 50% reductions in dissolved Co: 10 g/L KHCO₃ and 10 g/L NaHCO₃ with the no treatments decreasing the cobalt concentrations to below the GA GWPS. Total lithium ranged from 0.11 to 0.12 mg/L and dissolved lithium from 0.099 to 0.13 mg/L. None of the treatments reduced dissolved Li below the GA GWPS. Selenate and selenite were spiked into the AP-2 and 3/4 DGWC-48 groundwater. On Day 7, total Se ranged from 0.17 to 0.52 mg/L and dissolved selenium of 0.14 to 0.46 mg/L. No treatment reached the GA GWPS of 0.050 mg/L. Iron decreased in almost all treatments from the IC except for the ZVI treatments. Total magnesium did not change much ranging from 15 to 16 mg/L. Total manganese ranged from 5.3 to 14 mg/L and was reduced by >50% only in the 10 g/L NaHCO₃ treatments. Potassium and sodium increased with the increasing loadings of potassium and sodium bicarbonate.,

The 1-10 g/L of both the potassium and sodium bicarbonate treatments showed significant (>50%) reductions in dissolved beryllium to below the GA GWPS. No treatment resulted in decreases in dissolved cobalt to below the GA GWPS. None of the treatments reduced the dissolved lithium to below the GA GWPS. Only the highest loading of 1.5 g/L ZVI removed more than 50% of the dissolved selenium from the spiked Control, but no treatment reached the GA GWPS for dissolved selenium. Arsenic was below the GA GWPS in all treatments.

Well DGWC-20 Summary. Table 9 has the field parameters and ELLE results for this groundwater. The total cobalt, selenium, iron, magnesium, manganese, potassium, and sodium in

the 2 g/L KHCO_3 treatment are low with the dissolved cobalt and selenium being considerably higher. The 5 and 10 g/L KHCO_3 treatments were reanalyzed and the tables have been updated.

The control pH at Day 0 was 4.5 SU and increased to 6.8 for the lowest loading of potassium bicarbonate and to 7.7 for the lowest loading of sodium bicarbonate. The highest dosage of buffers had pHs of 7.6-7.7 on Day 7. The ORPS were positive and ranged from 163 to 297 mV. DO ranged from 6.7 to 7.8 mg/L. The total suspended solids ranged from 2.6 to 460 mg/L. The treatments with 10 g/L KHCO_3 , 5 g/L NaHCO_3 , 10 g/L NaHCO_3 and 1.5 g/L ZVI had elevated TSS above 100 mg/L. Bicarbonate alkalinity was low in the control and increased with bicarbonate additions. The hardness ranged from <20 to 460 mg/L. Little ferrous iron was detected (0.03 to 0.45 mg/L). Sulfide was low (0 to 0.02 mg/L).

Sulfate ranged from 480 to 600 mg/L. Little DOC was detected; the highest dosage of buffer had the most, 4.8 and 10 mg/L. Total arsenic ranged from <0.00068 to 0.036 mg/L with the 2 g/L KHCO_3 treatment having no detectable arsenic. Dissolved arsenic ranged from <0.00070 to 0.019 mg/L with the 1, 2, 5, and 10 g/L KHCO_3 , and 1 and 2 g/L NaHCO_3 treatments having no detectable dissolved arsenic and the 5 and 10 g/L NaHCO_3 treatments also having dissolved arsenic below the GA GWPS. Total beryllium ranged from <0.00012 to 0.0011 mg/L; the 2 g/L KHCO_3 treatment was below the GA GWPS. Dissolved beryllium ranged from 0.00022 to 0.0099 mg/L with all KHCO_3 and NaHCO_3 treatments below the GA GWPS. Total cobalt was moderate and ranged from <0.00016 to 1.1 mg/L but none of the treatments reached the GA GWPS. The following treatments showed more than 50% reductions in dissolved Co: 5 g/L KHCO_3 , 10 g/L KHCO_3 , 5 g/L NaHCO_3 , and 10 g/L NaHCO_3 but none met the GA GWPS. Total lithium was not detected. Dissolved Li ranged from 0.014 to 0.023 mg/L in the KHCO_3 and NaHCO_3 treatments and were higher than the control. Lithium was below the GA GWPS in all treatments. Selenate and selenite were spiked into the AP-2 and 3/4 DGWC-20 groundwater. Total Se ranged from <0.00028 to 0.50 mg/L and dissolved Se from 0.22 to 0.49 mg/L. Only the 2 g/L KHCO_3 treatment met the GA GWPS for selenium. No treatments reduced the dissolved Se to the GA GWPS however the ZVI treatments did show lower dissolved Se to 0.26 to 0.30 mg/L. Total iron increased in many treatments especially for the ZVI treatments. Total magnesium did not change much except for the 2 g/L KHCO_3 treatment. Total manganese was reduced by >50% in the 2 g/L KHCO_3 , 5 g/L KHCO_3 , 5 g/L NaHCO_3 , and 10 g/L NaHCO_3 treatments. Potassium and sodium increased with the increasing loadings of potassium and sodium bicarbonate.,

The 1-10 g/L of both the potassium and sodium bicarbonate treatments showed significant reductions in dissolved arsenic and dissolved beryllium. The higher dosages of 5-10 g/L KHCO_3 and 5-10 g/L NaHCO_3 reduced the dissolved cobalt by more than 50% but not to below the GA GWPS. Total lithium was not detected and dissolved lithium was low. Only the ZVI treatments seemed to impact the dissolved selenium and then by only 25 to 35% reductions with no treatment reaching the GA GWPS.

4.3 AP-2 and 3/4 Conclusions

Table 10 summarizes the percent removals from the initial characterization samples or the Control Day 0 for the dissolved metals of concern across the various treatments and groundwaters. Compounds highlighted in green were reduced to below the GA GWPS by the treatments. Compounds highlighted in yellow were reduced by more than 50%. Lithium was not detected in the AP-2 and 3/4 DGWC-20 IC groundwater; the percent removals highlighted in gray were based upon the dissolved lithium detection limit in the IC samples.



Arsenic. Dissolved As was not detected in AP-2 and 3/4 well DGWC-48. Dissolved As in well DGWC-20 was reduced to below the GA GWPS in all potassium and sodium bicarbonate treatments.

Beryllium. In the AP-2 and 3/4 DGWC-48 and 20 groundwaters, all potassium and sodium bicarbonate levels reduced dissolved Be to below the GA GWPS but the ZVI treatments did not.

Cobalt. The GA GWPS for cobalt is 0.032 mg/L. No treatment reduced the dissolved cobalt to below the GA GWPS in either the AP234 DGWC-48 or DGWC-20 groundwaters.

Lithium. None of the treatments were effective against dissolved lithium in the AP-2 and 3/4 DGWC-48 groundwater. There were only trace levels of dissolved lithium in the AP-2 and 3/4 DGWC-20 groundwater.

Selenium. Selenium was not detected in either the AP-2 and 3/4 DGWC-48 or DGWC-20 initial characterization samples. These groundwaters were spiked with a mixture of sodium selenite (Se^{4+}) and sodium selenate (Se^{6+}) to concentrations of 0.32 to 0.40. mg/L. None of the treatments reduced dissolved Se to below the GA GWPS. Only the highest (1.5 g/L) ZVI reduced dissolved Se from the Control 0 by more than 50% in the AP-2 and 3/4 DGWC-48 groundwater and no treatment reached the 50% threshold in the AP-2 and 3/4 DGWC-20 groundwater.

Overall Conclusions. Addition of relatively high dosages of potassium or sodium bicarbonate buffers were generally able to reach the GA GWPS for arsenic and beryllium and reduce cobalt. Lithium was not effectively treated in the AP-2 and 3/4 DGWC-48 groundwaters. Only the highest dosage of ZVI appeared to reduce selenium by more than 50% in one of the two groundwaters with selenium and no treatment reached the GA GWPS of 0.050 mg/L.

Please let me know if you have any questions about this final report.

Sincerely,
TERRA SYSTEMS, INC.

Michael D Lee, Ph.D.

Michael D. Lee, Ph.D.
Vice-President Research and Development

Table 1
Estimated Sample Volumes and Preservatives

Analysis	Matrix	Volume mL per bottle	Preservative
Total As, Be, Co, Mo, Se, Fe, K, Mn, Mg, and Na (metals based upon contaminants at each site)	Aqueous	200	HNO ₃
Total Li (AP 234 only)	Aqueous	200	HNO ₃
Filtered As, Be, Co, Mo, and Se (metals based upon contaminants at each site)	Aqueous	200	HNO ₃
Filtered Li (AP 234 only)	Aqueous	200	HNO ₃
DOC	Aqueous	45	H ₃ PO ₄
Sulfate	Aqueous	50	None
Total		895	

Table 2
Plant McDonough AP-1 Initial Characterization Field and Hach Parameters

Field Parameters			AP-1 DGWC-69	AP-1 DGWC-68A	AP-1 DGWC-40
Well		GA GWPS			
pH	SU		7.3	6.3	
ORP	mV		167	224	226
DO	mg/L		9.8	10.8	5.5
TSS	mg/L		8.4	13.8	0.8
Bicarbonate Alkalinity as CaCO3	mg/L		60	200	5
Hardness as CaCO3	mg/L		40	120	240
Ferrous Iron	mg/L		0.01	0.01	0.28
Sulfide	mg/L		0	0	0
Sodium Hydroxide Titrations					
g/L NaHCO3	pH				
0			6.4	6.8	4.8
1			7.8	7.5	6.9
2			8.1	7.8	7.3
5			8.2	8.1	7.7
10			8.3	8.2	8.0
Potassium Hydroxide Titrations					
g/L KHCO3					
0			7.1	6.6	4.8
1			8.2	7.2	6.9
2			8.4	7.6	7.2
5			8.4	8.0	7.7
10			8.4	8.2	7.9
Sulfate	mg/L		6	78	190
Dissolved Organic Carbon	mg/L		1.5	1.1	<0.5
Total Arsenic	mg/L	0.010	0.022	<0.00068	
Dissolved Arsenic	mg/L	0.010	0.020	<0.00068	
Total Cobalt	mg/L	0.032			0.039
Dissolved Cobalt	mg/L	0.032			0.038
Total Molybdenum	mg/L	0.10	0.0048	0.22	
Dissolved Molybdenum	mg/L	0.10	0.0058	0.20	
Total Iron	mg/L		0.13	0.049 J	0.039 J
Total Magnesium	mg/L		2.3	18	19
Total Manganese	mg/L		0.027	0.096	3.4
Total Potassium	mg/L		2.4	3.8	6.1
Total Sodium	mg/L		9.5	11	19

0.010 GA GWPS = Georgia Groundwater Performance Standard

Table 3
AP-1 DGWC-69 Treatability Results

		GA GWPS	IC	Control	2 g/L KHCO3	5 g/L KHCO3	10 g/L KHCO3	1 g/L CaO	2 g/L CaO	5 g/L CaO	0.5 g/L Fe2O3	1.0 g/L Fe2O3	2.0 g/L Fe2O3	0.5 g/L FeS	1.0 g/L FeS	2.0 g/L FeS
Day				0	0	0	0	0	0	0	0	0	0	0	0	0
pH	SU			6.6	7.7	8.3	8.5	12.2	12.2	12.0	7.8	7.9	7.1	7.0	6.7	6.9
Day				7	7	7	7	7	7	7	7	7	7	7	7	7
pH	SU		7.3	6.8	7.8	8.1	8.4	11.9	12.0	12.1	8.7	7.7	7.1	6.8	6.5	6.2
ORP	mV		167	191	200	200	206	-76	-75	-60	168	214	233	247	214	108
DO	mg/L		9.8	7.1	7.0	5.7	6.4	7.7	6.6	5.4	6.9	8.0	6.9	4.9	5.2	4.4
TSS	mg/L		8.4	0	1.7	286	12	330	712	2673	265	397	945	234	763	1415
Phenolphthalein Alkalinity as CaCO3	mg/L							1180	9440	11800						
Bicarbonate Alkalinity as CaCO3	mg/L		60	35	1180	2360	4720	13580	50600	<5900	40	200	120	50	60	40
Hardness as CaCO3	mg/L		40	40	40	40	40	200	1480	1820	60	80	60	60	40	40
Ferrous Iron	mg/L		0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.04	<0.01	<0.02	<0.05	<0.05	<0.02	0.35	0.90
Sulfide	mg/L		0	0.03	0.03	0.03	0.05	0.03	0.01	0.06	0.04	0.05	0.02	0.12	0.35	0.15
ELLE Results																
Sulfate	mg/L		6	8.4	9.6	16	18	8.6	16	<15	9.0	9.4	10	11	14	25
Dissolved Organic Carbon	mg/L		1.5	0.68	1.4	2.1	4.9	2.6	0.73	0.79	0.66	1.3	0.93	1.2	0.88	1.4
Total Arsenic	mg/L	0.010	0.022	0.023	0.024	0.025	0.021	0.018	0.023	0.016	0.020	0.023	0.021	0.013	0.0065	0.0086
Dissolved Arsenic	mg/L	0.010	0.020	0.019	0.021	0.024	0.023	<0.00070	<0.00070	<0.00070	<0.00070	0.0014	<0.00070	0.0018	0.00074	0.0010
Total Molybdenum	mg/L	0.10	0.0048	0.0050	0.0050	0.0053	0.0051	0.0053	0.0051	0.0054	0.0080	0.0096	0.0092	0.0043	0.0035	0.0034
Dissolved Molybdenum	mg/L	0.10	0.0058	0.0050	0.0049	0.0050	0.0049	0.0057	0.0047	0.0040	0.00025	0.0013	0.00017	0.0045	0.0035	0.0024
Total Iron	mg/L		0.13	<0.020	0.070	0.052	0.055	0.41	0.83	1.2	190	280	440	16	18	180
Total Magnesium	mg/L		2.3	2.1	2.2	2.2	2.1	3.4	6.3	12	2.2	2.4	2.3	2.2	2.1	2.8
Total Manganese	mg/L		0.027	0.0092	0.049	0.049	0.073	0.087	0.047	0.084	0.11	0.14	0.20	0.11	0.097	0.23
Total Potassium	mg/L		2.4	2.5	740	2000	3800	3.7	3.7	3.9	4.4	2.6	2.6	2.7	2.2	2.3
Total Sodium	mg/L		9.5	9.1	12	15	19	12	12	10	9.4	9.9	15	11	9.1	11

0.010 GA GWPS = Georgia Groundwater Performance Standard

0.039

J value. Compound detected above method detection limit but below method calibration limit.

28

Compound detected in blank

Table 4
AP-1 DGWC-68A Treatability Results

		GA GWPS	IC	Control	2 g/L KHCO3	5 g/L KHCO3	10 g/L KHCO3	1 g/L CaO	2 g/L CaO	5 g/L CaO	0.5 g/L Fe2O3	1.0 g/L Fe2O3	2.0 g/L Fe2O3	0.5 g/L FeS	1.0 g/L FeS	2.0 g/L FeS
Day				0	0	0	0	0	0	0	0	0	0	0	0	0
pH	SU			6.6	7.7	8.3	8.5	12.2	12.2	12.0	7.8	7.9	7.1	7.0	6.7	6.9
Day				7	7	7	7	7	7	7	7	7	7	7	7	7
pH	SU		6.3	6.5	7.4	6.5	8.0	11.6	11.7	11.9	8.1	6.9	6.7	6.5	6.4	6.4
ORP	mV		224	249	240	268	251	4	-8	-38	243	258	259	277	266	215
DO	mg/L		10.8	9.1	8.4	7.7	7.9	9.0	8.6	8.2	9.1	8.5	8.6	5.8	4.2	3.5
TSS	mg/L		13.8	0.9	1.8	8.3	21	694	758	2530	133	357	236	152	388	248
Phenolphthalein Alkalinity as CaCO3	mg/L							7080	4720	11800						
Bicarbonate Alkalinity as CaCO3	mg/L		200	180	940	480	4240	<2360	<4720	<11800	240	240	240	240	200	160
Hardness as CaCO3	mg/L		120	220	220	220	120	800	1660	1700	220	220	220	220	200	200
Ferrous Iron	mg/L		0.01	0.12	0.13	0.15	0.01	0.02	0.06	0.03	0.04	0.06	0.06	0.06	0.04	0.06
Sulfide	mg/L		0	0.02	0.01	0.02	<0.01	0.02	<0.01	0.04	0.03	<0.01	<0.01	0.02	0.01	0.10
ELLE Results																
Sulfate	mg/L		78	39	40	37	49	34	34	33	38	38	40	40	45	54
Dissolved Organic Carbon	mg/L		1.1	0.94	1.2	0.89	7.8	1.2	0.82	1.0	0.80	0.92	0.77	0.88	0.78	0.83
Total Arsenic	mg/L	0.010	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	0.0012	0.0013	0.0024	0.0023	<0.00068	<0.00068	<0.00068
Dissolved Arsenic	mg/L	0.010	<0.00068	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070
Total Molybdenum	mg/L	0.10	0.0048	0.21	0.21	0.21	0.19	0.19	0.20	0.19	0.12	0.099	0.026	0.17	0.12	0.088
Dissolved Molybdenum	mg/L	0.10	0.0058	0.21	0.20	0.20	0.20	0.19	0.18	0.17	0.11	0.079	0.031	0.17	0.12	0.097
Total Iron	mg/L		0.13	0.041	0.090	0.14	0.22	0.20	0.59	1.6	44	110	78	44	86	680
Total Magnesium	mg/L		2.3	18	17	18	18	10	21	30	19	19	19	19	19	20
Total Manganese	mg/L		0.027	0.083	0.084	0.088	0.039	0.055	0.11	0.17	0.10	0.12	0.10	0.18	0.25	0.66
Total Potassium	mg/L		2.4	4.0	810	4.2	3800	4.7	3.8	5.1	4.3	4.2	4.0	3.9	4.0	4.0
Total Sodium	mg/L		9.5	9.9	11	10	19	9.1	17	10	10	10	9.9	9.7	9.7	9.6

0.010 GA GWPS = Georgia Groundwater Performance Standard

0.039

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J value. Compound detected above method detection limit but below method calibration limit.

Compound detected in blank

Table 5
AP-1 DGWC-40 Treatability Results

		GA GWPS	IC	Control	1 g/L KHCO ₃	2 g/L KHCO ₃	5 g/L KHCO ₃	10 g/L KHCO ₃	1 g/L NaHCO ₃	2 g/L NaHCO ₃	5 g/L NaHCO ₃	10 g/L NaHCO ₃	0.5 g/L ZVI	1.0 g/L ZVI	1.5 g/L ZVI
Day				0	0	0	0	0	0	0	0	0	0	0	0
pH	SU			4.8	6.9	7.2	7.7	8.1	6.8	6.6	7.2	8.0	5.6	6.4	5.1
Day				7	7	7	7	7	7	7	7	7	7	7	7
pH	SU		4.6	4.6	6.5	7.1	7.7	8.0	6.3	7.7	7.3	7.9	6.1	5.7	6.0
ORP	mV		226	256	239	230	230	227	183	164	185	175	241	147	-335
DO	mg/L		5.5	4.9	4.2	4.9	4.8	4.8	5.0	5.3	4.9	4.5	5.4	4.3	1.4
TSS	mg/L		0.8	2.8	1.3	6.2	7.5	4.1	0	3.6	4.2	8.2	17	59	102
Bicarbonate Alkalinity as CaCO ₃	mg/L		5	0	420	600	1900	4180	640	2440	1140	4940	5	15	35
Hardness as CaCO ₃	mg/L		240	240	200	200	220	200	200	200	200	180	200	220	200
Ferrous Iron	mg/L		0.28	0.14	0.1	<0.01	0.05	0.07	0.08	0.04	<0.01	0.08	0.11	1.43	9.0
Sulfide	mg/L		0	0.02	0.05	0.05	0.05	0.15	0.03	0.07	0.05	0.17	0.05	0.05	0.05
ELLE Results															
Sulfate	mg/L		190	210	210	210	210	210	220	220	210	230	210	220	210
DOC	mg/L		<0.5	<0.5	2.1	0.96	1.3	3.2	0.9	1.7	1.0	1.9	0.52	0.56	<0.5
Total Cobalt	mg/L	0.032	0.039	0.039	0.038	0.042	0.039	0.039	0.039	0.040	0.039	0.038	0.044	0.040	0.035
Dissolved Cobalt	mg/L	0.032	0.038	0.042	0.037	0.038	0.037	0.036	0.037	0.039	0.037	0.034	0.038	0.037	0.025
Total Iron	mg/L		0.039	<0.023	0.2	0.096	0.086	0.25	0.14	0.059	0.15	0.44	20	54	100
Total Magnesium	mg/L		19	19	19	19	20	18	19	20	19	19	20	18	18
Total Manganese	mg/L		3.4	3.5	3.4	3.8	3.6	3.4	3.4	3.3	3.5	3.1	4	3.6	3.5
Total Potassium	mg/L		6.1	6.0	350	710	1900	3700	5.9	8.0	8.2	1900	6.4	6.2	7.3
Total Sodium	mg/L		19	20	22	21	26	28	250	1400	590	2900	20	21	19

0.010 GA GWPS = Georgia
Groundwater Performance Standard

28 Compound detected in blank

Table 6
AP-1 Percent Removal from Initial Characterization for Dissolved Metals

Well	Dis Metal	GA GWPS	IC/Con 0 Conc mg/L	% Rem from	Control	2 g/L KHCO3	5 g/L KHCO3	10 g/L KHCO3	1 g/L CaO	2 g/L CaO	5 g/L CaO	0.5 g/L Fe2O3	1.0 g/L Fe2O3	2.0 g/L Fe2O3	0.5 g/L FeS	1.0 g/L FeS	2.0 g/L FeS
DGWC-69	As	0.010	0.020	% Rem from IC	5.0	-5.0	-20.0	-15.0	>96.5	>96.5	>96.5	>96.5	93.0	>96.5	91.0	96.3	95
	Mo	0.10	0.0058	% Rem from IC	13.8	15.5	13.8	15.5	1.7	19.0	31.0	95.7	77.6	97.1	22.4	39.7	58.6
DGWC-68A	As	0.010	<0.00068	% Rem from IC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mo	0.10	0.0058/0.21	% Rem from Con 0	0.0	4.8	4.8	4.8	9.5	14.3	19.0	47.6	62.4	85.2	19.0	42.9	53.8
Well	Dis Metal	GA GWPS	IC/Con 0 Conc mg/L	% Rem from IC	Control	1 g/L KHCO3	2 g/L KHCO3	5 g/L KHCO3	10 g/L KHCO3	1 g/L NaHCO3	2 g/L NaHCO3	5 g/L NaHCO3	10 g/L NaHCO3	0.5 g/L ZVI	1.0 g/L ZVI	1.5 g/L ZVI	
DGWC-40	Co	0.032	0.038	% Rem from IC	-10.5	2.6	0.0	2.6	5.3	2.6	-2.6	2.6	10.5	0.0	2.6	34.2	

>96.5 Dissolved metal reduced to below GA GWPS
95.7 Dissolved metal reduced by more than 50%

Table 7
Plant McDonough AP-2 and 3/4 Initial Characterization Field and Hach Parameters

Well		GA GWPS	AP-2 and 3/4 DGWC-48	AP-2 and 3/4 DGWC-20
pH	SU		4.0	4.4
ORP	mV		388	423
DO	mg/L		11.2	9.6
TSS	mg/L		0	6.6
Bicarbonate Alkalinity as CaCO3	mg/L		0	<5
Hardness as CaCO3	mg/L		20	0
Ferrous Iron	mg/L		2.52	0.07
Sulfide	mg/L		0	0
Sodium Hydroxide Titrations				
g/L NaHCO3	pH			
	0		4.5	5.0
	1		7.5	7.3
	2		7.8	7.7
	5		8.1	8.0
	10		8.2	8.1
Potassium Hydroxide Titrations				
g/L KHCO3				
	0		4.0	4.5
	1		7.1	7.0
	2		7.6	7.4
	5		8.0	7.9
	10		8.2	8.1
Sulfate	mg/L		520	490
Dissolved Organic Carbon	mg/L		0.97 J	0.71 J
Total Arsenic	mg/L	0.010	<0.00068	0.014
Dissolved Arsenic	mg/L	0.010	<0.00068	0.016
Total Beryllium	mg/L	0.004	0.0073	0.0079
Dissolved Beryllium	mg/L	0.004	0.0083	0.0086
Total Cobalt	mg/L	0.032	0.35	1.00
Dissolved Cobalt	mg/L	0.032	0.33	0.96
Total Lithium	mg/L	0.040	0.11	<0.055
Dissolved Lithium	mg/L	0.040	0.10	<0.055
Total Selenium	mg/L	0.050	<0.00028	<0.00028
Dissolved Selenium	mg/L	0.050	<0.00028	<0.00028
Total Iron	mg/L		3.9	0.12
Total Magnesium	mg/L		16	26
Total Manganese	mg/L		13	42
Total Potassium	mg/L		14	14
Total Sodium	mg/L		23	24

0.010 GA GWPS = Georgia Groundwater Performance
Standard

Table 8
AP-2 and 3/4 DGWC-48 Treatability Results

		GA GWPS	IC	Control	1 g/L KHCO3	2 g/L KHCO3	5 g/L KHCO3	10 g/L KHCO3	1 g/L NaHCO3	2 g/L NaHCO3	5 g/L NaHCO3	10 g/L NaHCO3	0.5 g/L ZVI	1.0 g/L ZVI	1.5 g/L ZVI
Day				0	0	0	0	0	0	0	0	0	0	0	0
pH	SU			4.2	6.9	7.3	7.8	8.1	7.1	7.4	7.8	8.0	5.6	6.5	5.4
Day				7	7	7	7	7	7	7	7	7	7	7	7
pH	SU		4.0	5.8	6.9	7.3	7.8	8.0	7.2	7.4	7.7	7.9	6.4	5.1	5
ORP	mV		388	351	247	237	213	210	192	166	160	165	160	112	59
DO	mg/L		11.2	8.8	8.2	8.3	7.5	8.2	8.8	7.4	8.5	7.9	5.5	7.4	3.4
TSS	mg/L		0	97	12	13	12	118	16	11	27	120	22	67	150
Bicarbonate Alkalinity as CaCO3	mg/L		0	5	480	940	2120	4340	600	1180	2760	5300	10	5	5
Hardness as CaCO3	mg/L		20	<20	<20	<20	160	220	<20	<20	220	110	20	<20	220
Ferrous Iron	mg/L		2.52	0.32	0.12	0.04	<0.02	0.02	0.04	<0.02	0.02	0.10	0.15	<0.10	0.75
Sulfide	mg/L		0	0.01	0.04	0.05	0.03	0.03	0.04	0.07	0.02	0.02	0.04	0.06	0.09
ELLE Results															
Sulfate	mg/L		520	380	350	350	360	380	350	360	340	330	400	400	370
DOC	mg/L		0.97	1.1	1.1	1.4	1.8	9.0	1.2	1.5	2.4	11	0.81	0.85	0.79
Total Arsenic	mg/L	0.010	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.0014	0.00085	0.0060	0.0011
Dissolved Arsenic	mg/L	0.010	<0.00068	<0.00070	<0.00070	<0.00070	<0.00070	<0.00068	<0.00070	<0.00070	<0.00070	<0.00068	<0.00070	<0.00070	<0.00070
Total Beryllium	mg/L	0.0040	0.0073	0.0073	0.0072	0.0065	0.0073	0.0054	0.0060	0.0064	0.0060	0.0050	0.0067	0.0064	0.0052
Dissolved Beryllium	mg/L	0.0040	0.0083	0.0071	0.0012	0.0017	0.0015	0.00085	0.0015	0.0023	0.0023	0.0026	0.0068	0.0057	0.0046
Total Cobalt	mg/L	0.032	0.35	0.34	0.33	0.33	0.32	0.24	0.33	0.33	0.27	0.17	0.33	0.34	0.28
Dissolved Cobalt	mg/L	0.032	0.33	0.35	0.33	0.33	0.32	0.12	0.32	0.31	0.20	0.14	0.31	0.34	0.28
Total Lithium	mg/L	0.040	0.11	0.11	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.12
Dissolved Lithium	mg/L	0.040	0.10	0.099	0.11	0.11	0.11	0.11	0.11	0.12	0.13	0.11	0.10	0.10	0.11
Total Selenium	mg/L	0.050	<0.00028	0.39	0.50	0.45	0.45	0.52	0.45	0.50	0.51	0.46	0.22	0.31	0.17
Dissolved Selenium	mg/L	0.050	<0.00028	0.32	0.42	0.42	0.44	0.42	0.45	0.45	0.46	0.44	0.18	0.24	0.14
Total Iron	mg/L		3.9	0.43	1.5	0.84	1.2	0.83	0.64	0.87	0.72	0.44	11	120	19
Total Magnesium	mg/L		16	16	15	15	15	15	15	15	15	15	16	16	15
Total Manganese	mg/L		13	13	12	12	12	8.7	12	12	8.2	5.3	14	13	13
Total Potassium	mg/L		14	14	370	760	1900	4600	16	15	14	17	14	14	13
Total Sodium	mg/L		23	23	22	24	27	32	280	560	1200	3200	23	23	21

0.010 GA GWPS = Georgia Groundwater Performance Standard

0.039

J value. Compound detected above method detection limit but below method calibration limit.

28

Compound detected in blank

Table 9
AP-2 and 3/4 DGWC-20 Treatability Results

		GA GWPS	IC	Control	1 g/L KHCO3	2 g/L KHCO3	5 g/L KHCO3	10 g/L KHCO3	1 g/L NaHCO3	2 g/L NaHCO3	5 g/L NaHCO3	10 g/L NaHCO3	0.5 g/L ZVI	1.0 g/L ZVI	1.5 g/L ZVI
Day				0	0	0	0	0	0	0	0	0	0	0	0
pH	SU			4.5	6.8	7.3	7.8	8.0	7.7	7.3	7.7	7.9	6.4	6.3	5.2
Day				7	7	7	7	7	7	7	7	7	7	7	7
pH	SU		4.4	5.3	6.7	7.2	7.4	7.7	6.9	7.2	7.4	7.6	6.2	4.7	4.3
ORP	mV		423	297	290	280	278	269	222	200	205	207	164	163	185
DO	mg/L		9.6	7.8	7.2	7.3	7.2	6.9	7.0	7.1	6.7	6.8	7.5	7.3	6.8
TSS	mg/L		6.6	2.6	11	29	94	243	12	5.2	384	808	74	116	103
Bicarbonate Alkalinity as CaCO3	mg/L		<5	10	400	820	2120	4720	590	940	4720	5900	5	5	5
Hardness as CaCO3	mg/L		<20	<20	<20	<20	220	220	<20	340	460	230	<20	<20	<20
Ferrous Iron	mg/L		0.07	0.14	0.16	0.13	0.07	0.04	0.03	0.05	0.09	0.09	0.12	0.08	0.45
Sulfide	mg/L		0	0	0	0	0	0	0.01	0.02	0.01	0.02	0	0	0.01
ELLE Results															
Sulfate	mg/L		490	480	500	510	510	580	500	510	520	600	510	500	500
Dissolved Organic Carbon	mg/L		0.71	0.50	1.3	1.4	2.0	4.8	1.3	1.5	3.2	10	0.91	0.81	0.71
Total Arsenic	mg/L	0.010	0.014	0.016	0.023	<0.00068	0.022	0.017	0.021	0.036	0.014	0.0080	0.026	0.027	0.032
Dissolved Arsenic	mg/L	0.010	0.016	0.018	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	0.0011	0.00077	0.019	0.018	0.017
Total Beryllium	mg/L	0.004	0.0079	0.0071	0.0070	<0.00012	0.0073	0.0071	0.0064	0.011	0.0048	0.0041	0.0070	0.0070	0.0065
Dissolved Beryllium	mg/L	0.004	0.0086	0.0080	0.00053	0.00037	0.00026	0.00022	0.00045	0.00022	0.00045	0.00025	0.0072	0.0099	0.0068
Total Cobalt	mg/L	0.032	1.00	1.0	1.0	<0.00016	0.69	0.69	1.0	1.1	0.51	0.43	1.0	1.0	0.98
Dissolved Cobalt	mg/L	0.032	0.96	1.1	0.96	0.90	0.44	0.24	0.92	0.90	0.38	0.23	1.1	1.0	1.0
Total Lithium	mg/L	0.040	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055
Dissolved Lithium	mg/L	0.040	<0.055	<0.057	0.015	0.015	0.016	0.023	0.014	0.017	0.018	0.019	<0.057	<0.057	<0.057
Total Selenium	mg/L	0.050	<0.00028	0.40	0.45	<0.00028	0.45	0.44	0.47	0.50	0.44	0.46	0.30	0.29	0.26
Dissolved Selenium	mg/L	0.050	<0.00028	0.38	0.45	0.46	0.40	0.45	0.45	0.49	0.45	0.47	0.27	0.24	0.22
Total Iron	mg/L		0.12	0.082	0.19	<0.020	0.14	0.21	0.16	0.31	0.12	0.087	43	90	200
Total Magnesium	mg/L		26	29	25	<0.016	27	25	25	26	25	26	25	26	25
Total Manganese	mg/L		42	38	37	<0.00095	18	26	37	38	9.8	12	37	37	37
Total Potassium	mg/L		14	15	420	<0.065	2000	3800	16	15	16	19	14	14	14
Total Sodium	mg/L		24	24	23	<0.090	26	33	310	600	1500	2700	22	22	22

0.010 GA GWPS = Georgia Groundwater Performance Standard

0.039

J value. Compound detected above method detection limit but below method calibration limit.

28

Compound detected in blank

Table 10
AP-2 and 3/4 Percent Removal from Initial Characterization for Dissolved Metals

		GA GWPS	IC (mg/L)														
DGWC-48	As	0.010	<0.00068	% Rem from IC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Be	0.0040	0.0083	% Rem from IC	14.5	85.5	79.5	81.9	89.8	81.9	72.3	72.3	68.7	18.1	31.3	44.6	
	Co	0.032	0.33	% Rem from IC	-6.1	0.0	0.0	3.0	63.6	3.0	6.1	39.4	57.6	6.1	-3.0	15.2	
	Li	0.040	0.10	% Rem from IC	1.0	-10.0	-10.0	-10.0	-10.0	-10.0	-20.0	-30.0	-10.0	0.0	0.0	-10.0	
	Se	0.050	<0.00028/ 0.32	% Rem from Con 0	0.0	-31.3	-31.3	-37.5	-31.3	-40.6	-40.6	-43.8	-37.5	43.8	25.0	56.3	
DGWC-20	As	0.010	0.016	% Rem from IC	-12.5	>95.6	>95.6	>95.6	>95.6	>95.6	>95.6	93.1	95.2	-18.8	-12.5	-6.3	
	Be	0.0040	0.0086	% Rem from IC	7.0	93.8	95.7	97.0	97.4	94.8	97.4	94.8	97.1	16.3	-15.1	20.9	
	Co	0.032	0.96	% Rem from IC	-14.6	0.0	6.2	54.2	75.0	4.2	6.2	60.4	76.0	-14.6	-4.2	-4.2	
	Li	0.040	<0.055	% Rem from IC		72.7	72.7	70.9	58.2	74.5	69.1	67.3	65.5				
	Se	0.050	<0.00028/ 0.38	% Rem from Con 0	0.0	-18.4	-21.1	-5.3	-18.4	-18.4	-28.9	-18.4	-23.7	28.9	36.8	42.1	

NA	Not applicable
>96.5	Dissolved metal reduced to below GA GWPS
95.7	Dissolved metal reduced by more than 50%
72.7	Percent removal from detection method limit



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APPENDIX G

Alternate Source Demonstration for Molybdenum

REPORT

Alternate Source Demonstration for Molybdenum

Plant McDonough-Atkinson Ash Pond 1

Submitted to:



Georgia Power Company

341 Ralph McGill Blvd, Atlanta, GA 30341

Submitted by:

Golder Associates USA Inc.

5170 Peachtree Road Building 100 Suite 300, Atlanta, Georgia, USA 30341

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166849621

July 29, 2022



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2.2 Hydrogeological Setting	1
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4.1.1 Sample Collection	2
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Figure 1	Site Location Map
Figure 2	Site Plan and Well Location Map

Appendix

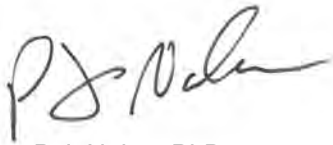
APPENDIX A:	SOIL BORING & WELL CONSTRUCTION LOGS
APPENDIX B:	MINERALOGY RESULTS
APPENDIX C:	TOTAL METALS ANALYSIS RESULTS

Certification

This *Alternate Source Demonstration for Molybdenum*, Georgia Power Company Plant McDonough-Atkinson, Ash Pond 1, has been prepared in compliance with applicable United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) and Georgia Environmental Protection Division Rule 391-3-4-.10(6)(a-c) under the direction of a qualified groundwater scientist or licensed professional engineer with Golder Associates USA Inc.

I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g) and that this *Alternate Source Demonstration for Molybdenum* has been prepared to meet the requirements of 40 CFR §257.95(g)(3)(ii) and Georgia Environmental Protection Division Rule 391-3-4-.10(6)(a-c).

Golder Associates USA Inc.



P.J. Nolan, PhD
Lead Geochemist



Dawn L. Prell, CPG
Senior Hydrogeologist



Todd Rees, PhD, PE
Georgia Registered Professional Engineer No. 047845

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule or the Rule), this Alternate Source Demonstration (ASD) for Plant McDonough Ash Pond 1 (AP-1) has been prepared to document a natural source for Statistically Significant Levels (SSLs) of molybdenum identified in well DGWC-68A at Georgia Power Company's Plant McDonough AP-1 (Site) during assessment monitoring. This document satisfies the requirements of § 257.95(g)(3)(ii) and § 391-3-4-.14(23)(c) which allows the owner or operator to demonstrate that a source other than the CCR Unit has caused an SSL.

This ASD presents the results of an investigation for the presence of naturally occurring molybdenum at DGWC-68A, which is part of the compliance monitoring network for AP-1. This evaluation presents a summary of observations made from review of publicly available information and site-specific data and provides an evaluation of the potential sources of the molybdenum identified in the groundwater samples from DGWC-68A.

The isolated molybdenum exceedance in monitoring well DGWC-68A is attributed to naturally occurring molybdenite in pegmatitic bedrock documented in boring logs at this location. Using mineralogical and chemical analysis, high concentrations [1,787 milligrams per kilogram (mg/kg)] of molybdenum and pure molybdenite (MoS_2) crystals were identified in the pegmatitic bedrock in the rock core for delineation well B-113D adjacent to and immediately below the elevation that comprises the screened interval of DGWC-68A. As presented in this report, the source of molybdenum SSL at DGWC-68A is the naturally occurring molybdenite naturally present in the pegmatitic bedrock in which the well is screened.

2.0 SITE DESCRIPTION AND BACKGROUND

Plant McDonough, a natural gas power plant converted in 2012 from a coal-fired power plant, is located in southeast Cobb County, Georgia near the Fulton County line, and is owned and operated by the Georgia Power Company. The Plant is located approximately 7 miles northwest of Atlanta, Georgia, and is surrounded primarily by industrial and residential land use. The property occupies approximately 390 acres and is bounded on the southeast by the Chattahoochee River. Figure 1 presents the location of Plant McDonough relative to local topography and surrounding features. Figure 2 shows the location of on-site monitoring wells and piezometers.

2.1 Geological Setting

The Site is located in the Piedmont province, in a regional zone of geologic deformation, referred to as the Brevard Zone, which extends from Alabama to Virginia. An unnamed, faulted, intrusive contact traverses' northeast-southwest across the site and is observed throughout most of the metro-Atlanta area. The plant property northwest of the faulted contact is underlain by the Long Island Creek Gneiss, which is a medium- to coarse-grained felsic rock. Near faults and shear zones, the gneiss is locally intruded by another felsic rock, i.e., granitic pegmatites (borehole logs indicating the presence of pegmatites at the Site are presented in Appendix A). Pegmatites are coarse-grained igneous rocks formed in the late stage of magma crystallization and noted for their high textural and compositional variability and enrichment of trace elements such as molybdenum, lithium, beryllium, radionuclides, rare-earth elements, etc. (e.g., Adams et al. 1980; Hess 1924; Rose et al. 1979).

2.2 Hydrogeological Setting

A regional, unconfined surficial aquifer system is present at the Site within the overburden and weathered and fractured upper bedrock (i.e., approximately the first 30 feet), depending on topographic location. Recharge primarily occurs through precipitation and subsequent infiltration. Generally, groundwater flow takes place

through intergranular pore spaces in the overburden and is controlled by topography and top of rock variations. However, a relatively higher transmissive zone is interpreted to occur at the base of the overburden, at the interface of weathered bedrock and competent bedrock, which is the primary groundwater flow path.

A limited and localized bedrock aquifer system is also present beneath the Site. The upper bedrock is fractured and weathered, connected hydraulically with the overburden groundwater, and is considered part of the uppermost aquifer. The overlying silt/clay-rich overburden may act to retard recharge into the bedrock aquifer system. However, deeper bedrock (i.e., approximately greater than 30 feet into the bedrock) is unweathered with few discontinuities (e.g., fractures) available to store and transmit groundwater.

3.0 STATISTICAL ANALYSES METHODS

The monitoring well network at AP-1 in assessment monitoring and an assessment of corrective measures is currently being performed at the Site. During assessment monitoring, concentrations of Appendix IV constituents are compared to an applicable Groundwater Protection Standard (GWPS). The range of molybdenum concentrations at DGWC-68A relative to the GWMPs of 0.1 mg/L are summarized below.

Table 1. Plant McDonough Ash Pond Elevated Molybdenum Concentrations

Appendix IV Parameter	Plant McDonough Ash Pond Monitoring Well	Result ^[1] (mg/L)	GWPS (mg/L)
Molybdenum	DGWC-68A	0.18 – 0.275	0.1

[1] Sixteen groundwater samples have been collected from DGWC-68A between May 2017 and January 2022. The range of concentrations is given.

4.0 CHARACTERIZATION OF AQUIFER MATERIALS

4.1.1 Sample Collection

In March 2021, a core sample of bedrock was collected from B-113D, a delineation well completed immediately adjacent (<40 ft. lateral distance) to monitoring well DGWC-68A (see Figure 2). A sample of the bedrock was collected (sample Core JUN7012-01) and crystals within the core material (see Figure 3) were also identified and collected separately for analysis (sample Core Extruded Material JUN7012-02). Based on boring logs (Appendix A), material collected from B-113D represents the same geological unit that is present immediately below the screen interval of well DGWC-68A (Figure 3). A WSP Golder field geologist preliminarily identified the crystals in the core as molybdenite (MoS₂) and characterized the bedrock core material as medium-grained gneiss with vein quartz and contains epidote and garnets. The samples are listed in Table 2 and the geochemical characterization is described in Section 4.1.2.

Table 2: Boring Sample Identification and Descriptions

Sample ID	Sample Depth (feet below ground surface)	Geologic Material Field Identification
Core JUN7012-01	36.1	Medium-grained gneiss; locally contains vein quartz, epidote, and garnets
Core Extruded Material JUN7012-02	36.1	Molybdenite crystal

4.1.2 Geochemical Characterization

The two samples were analyzed for mineralogical and chemical composition using the following methods:

- **Mineralogical composition:** The purpose of the mineralogical analysis was to identify and quantify the crystalline mineral phases in each sample. The mineralogical analysis was performed using quantitative (Rietveld) X-ray diffraction (XRD) (ME-LR-MIN-MET-MN-DO5) and a Bruker AXS D8 Advance Diffractometer. Results are presented in Appendix B.
- **Total metals:** This test was used to quantify the chemical composition of the rock. The core samples were digested using sodium peroxide using an alkaline fusion method (Bock 1979). Target metals of interest were then analyzed using USEPA Method SW846 6010C “Inductively Coupled Plasma-Atomic Emission Spectrometry”, Revision 3, November 2000. Results are presented in Appendix C.

5.0 ALTERNATE SOURCE DEMONSTRATION

The natural sources of molybdenum in the region and at the Site are presented below.

5.1 Published Data

Molybdenum is naturally occurring in the soils, rock, and groundwater of the aquifers in the U.S. at varying levels (Hem 1985; Smith and Huyck 1999). For reference, the average molybdenum concentration in the earth’s crust is 2 milligrams per kilogram (mg/kg). In basalt (a mafic rock) the average molybdenum content is 1 mg/kg, and in granite (a felsic rock) 2 mg/kg, respectively (Smith and Huyck 1999). Molybdenite-bearing gneiss observed in the Piedmont Heights neighborhood of Atlanta, located approximately 6 miles east of the Site, indicates that molybdenum in local bedrock (gneiss/pegmatites) is elevated relative to general crust/rock (Cook 1978). The Piedmont province, in which the Site is located, contains gneiss and pegmatite bedrock and previous studies in nearby Fulton and Dekalb counties have identified elevated concentration of molybdenum in those formations (Cook 1978).

5.2 Site-Specific Data

Molybdenum in groundwater at the site has only ever exceeded the GWPS of 0.1 mg/L at one well, DGWC--68A. The samples collected from delineation well B-113D confirm the relatively high concentrations of molybdenum in the bedrock unit at DGWC-68A. Crystal sample Core Extruded Material JUN7012-02 was found to consist of pure molybdenite while rock sample Core JUN7012-01 contained 0.2 percent by weight molybdenite.

The concentration of molybdenum in bedrock sample Core JUN7012-01 (1,780 mg/kg) was substantially elevated relative to the average crustal rock concentration of 2 mg/kg, and also well above the average concentrations for granitic and basaltic rocks (2 and 1 mg/kg, respectively; Smith and Huyck 1999). Bedrock with molybdenite mineralogy and crystals weather over geologic time and molybdenum becomes dispersed in the saturated saprolite that now overlies more competent, less weather bedrock (Butt et al. 2000; Greaney et al. 2021). As such, the analytical results demonstrate the natural occurrence of molybdenum at the Site and the bedrock material expressly represents a natural source of molybdenum for the groundwater molybdenum SSL in well DGWC-68A.

6.0 CONCLUSIONS

This ASD has been prepared pursuant to 40 CFR § 257.95(g)(3)(ii) and § 391-3-4-.10(6)(a-c), to address the SSL of molybdenum observed at monitoring well DGWC-68A at Plant McDonough. Based on the evidence

established in this ASD, the molybdenum SSL at the Site is the result of naturally occurring molybdenum in the bedrock influencing groundwater chemistry and not the result of a release from the Ash Pond. The evidence for a natural source of molybdenum to groundwater is as follows:

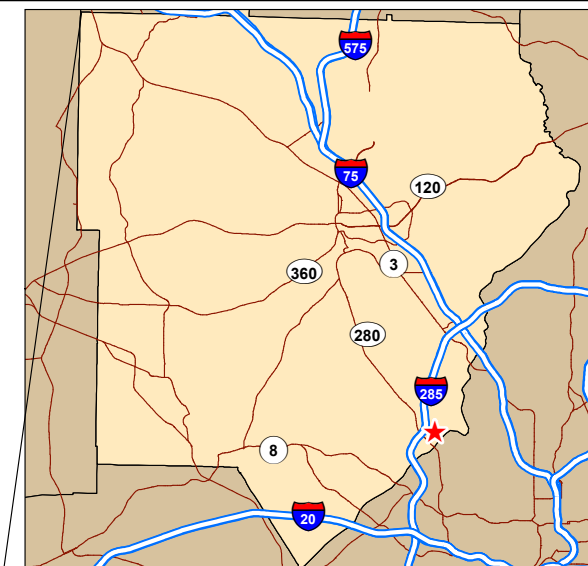
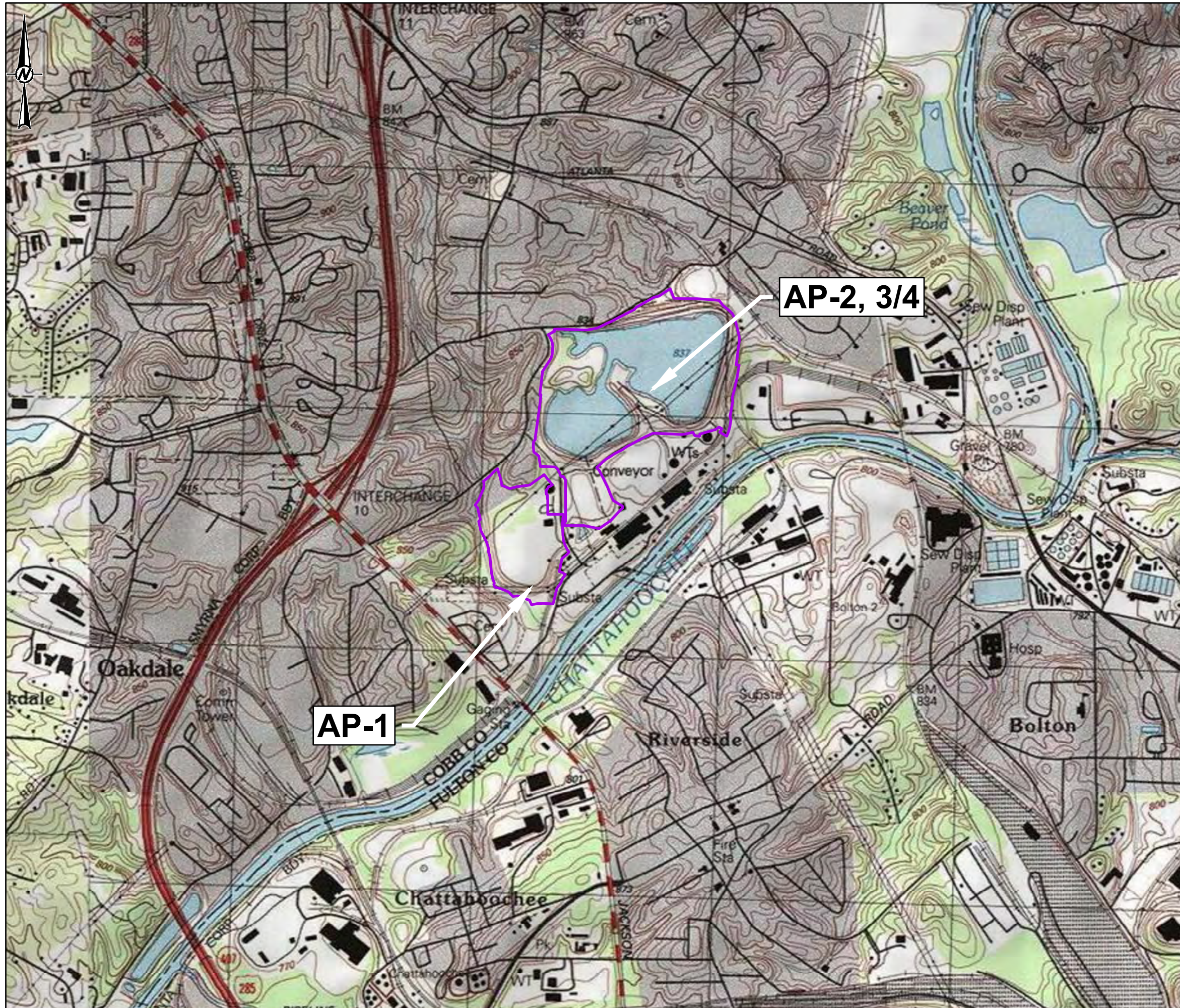
- Pure molybdenite crystals were identified in gneissic/pegmatitic bedrock at the base of the screened interval adjacent to monitoring well DGWC-68A.
- Molybdenum concentrations in bedrock samples were substantially (>800 times) higher than average values for various rock types (i.e., crustal, felsic, or mafic).
- Molybdenum is known to be present in regional aquifer materials based on previous studies.
- The SSL identified at DGWC-68A represents the only SSL of molybdenum at the site.

Based on the evidence presented in this ASD, the molybdenum concentrations at DGWC-68A are attributed to a natural source, i.e., the molybdenum-rich aquifer materials in which DGWC-68A is screened, and not due to a release from the Ash Pond.

7.0 REFERENCES

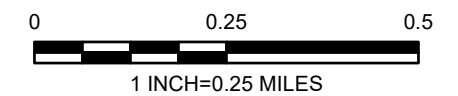
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Figures



REFERENCE

SERVICE LAYER CREDITS: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



PROJECT
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS
 REPORT PLANT MCDONOUGH-ATKINSON

TITLE
SITE LOCATION MAP

CONSULTANT	YYYY-MM-DD	2019-1-31
	PREPARED	SEB
	DESIGN	SEB
	CHECKED	DP
	REVIEWED/APPROVED	RPK

PROJECT No.
 166849618

Rev.
 0

FIGURE
 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B



LEGEND

- ◆ AP-1 MONITORING WELL
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRADIENT WELL
- ★ ASSESSMENT MONITORING WELLS
- ⊕ PIEZOMETER
- ▲ DEWATERING WELL
- ⊙ STAFF GAUGE
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES
 1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE
 1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JUNE 23, 2022 FROM COOPER, BARNETTE & PAGE, INC. (CBP).
 2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
 3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021 AND MAY 2021.



CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH



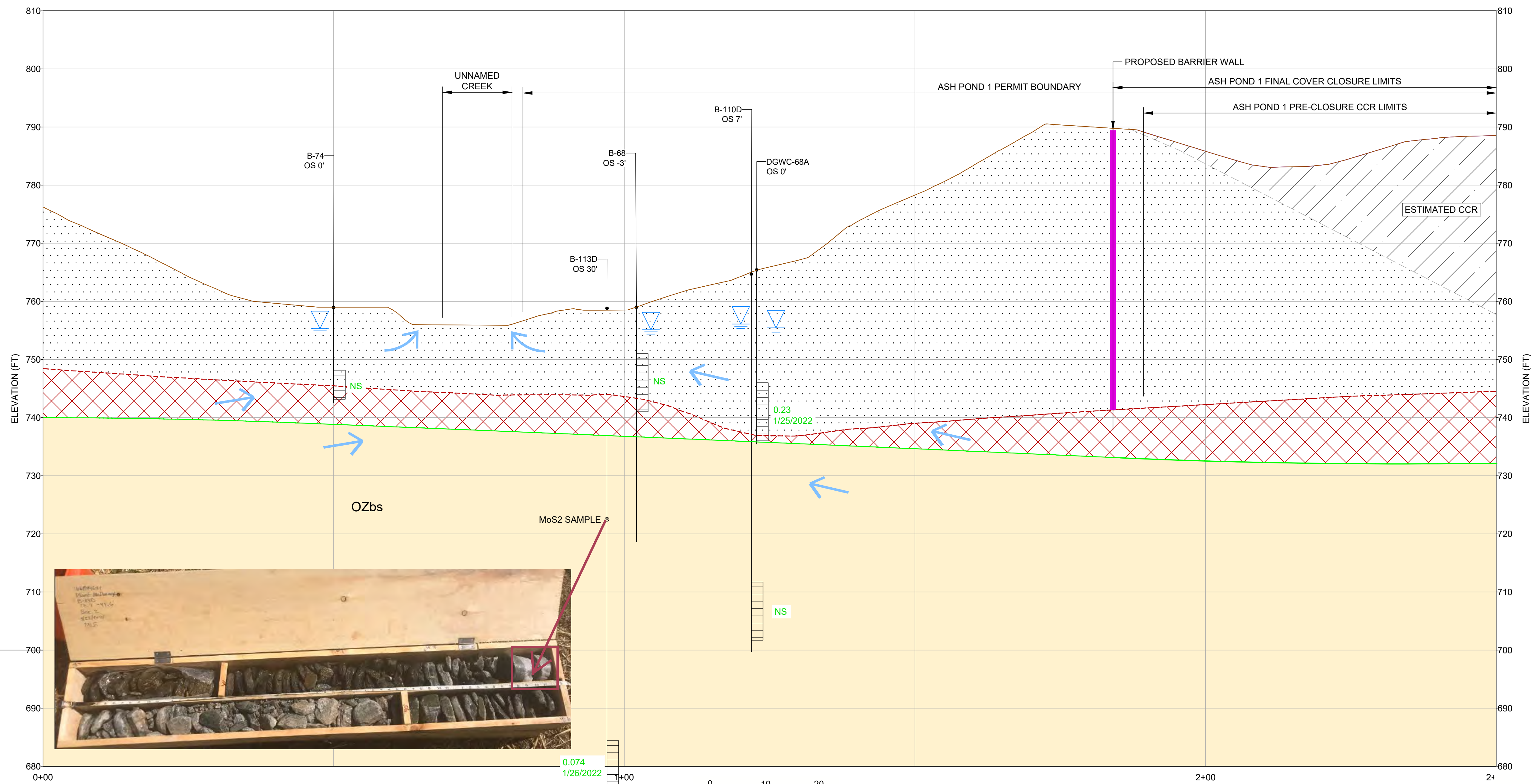
PROJECT
 NATURAL SOURCE EVALUATION FOR MOLYBDENUM PLANT
 MCDONOUGH-ATKINSON ASH POND 1

TITLE
SITE PLAN AND WELL LOCATION MAP

CONSULTANT	YYYY-MM-DD	2022-07-20
wsp GOLDER	PREPARED	SEB
	DESIGN	DLP
	CHECKED	DP/RPK
	REVIEWED/APPROVED	RPK

PROJECT No. 166849621 Rev. 0 FIGURE 2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS.B



LEGEND

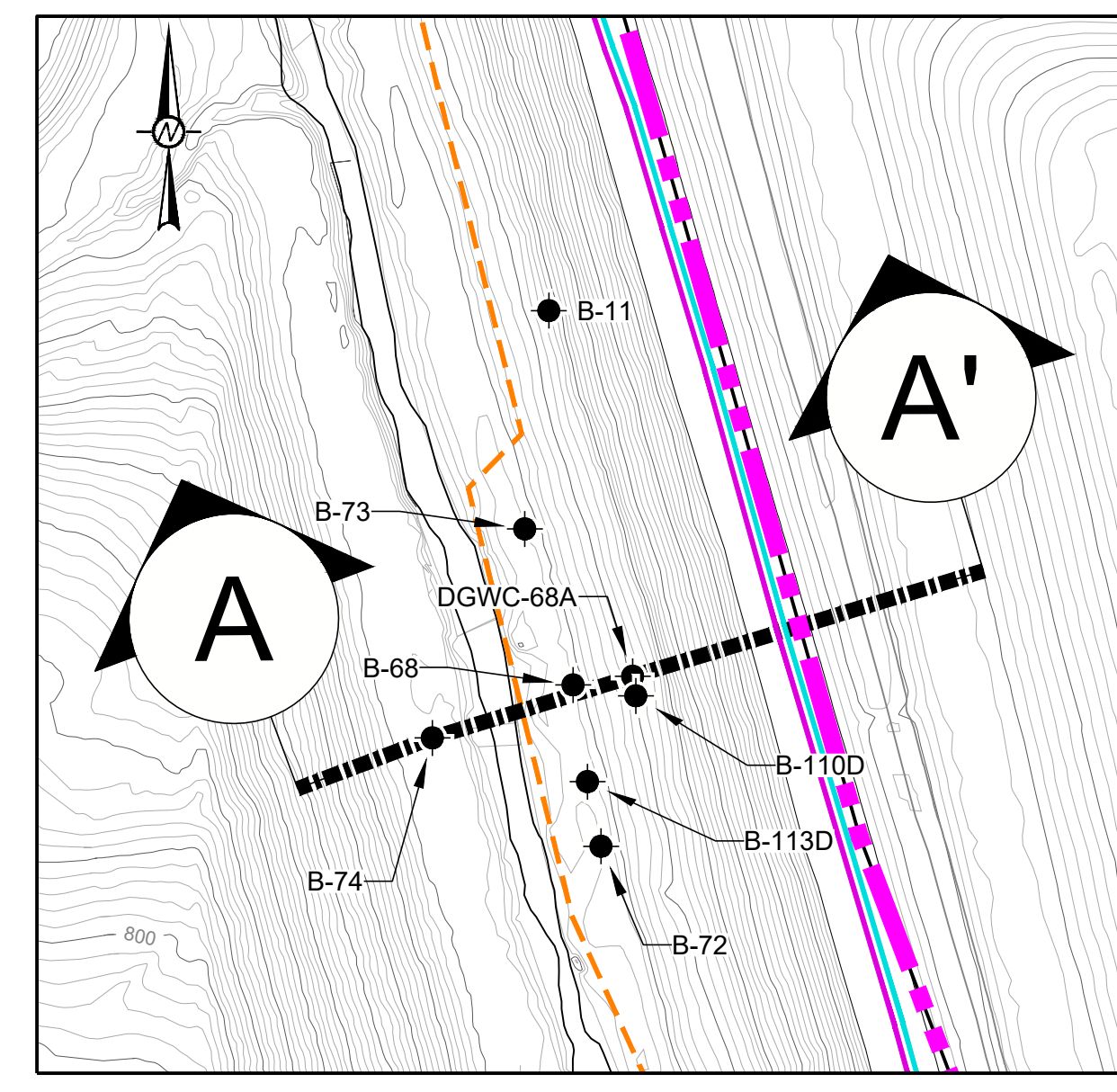
- EXISTING GRADE (SEE REFERENCE 1)
- ESTIMATED TOP OF PARTIALLY WEATHERED ROCK
- ESTIMATED TOP OF ROCK SURFACE
- ESTIMATED PRE-CLOSURE BOTTOM OF CCR LIMITS
- FINAL COVER SYSTEM
- PROPOSED BARRIER WALL
- WATER LEVELS 1/18/2022
- ESTIMATED CCR TO REMAIN IN PLACE
- OVERBURDEN (COMPRISED OF RESIDUAL SOILS, TRANSITIONALLY WEATHERED ROCK, AND FILL)
- PARTIALLY WEATHERED ROCK
- PHYLLONITE, BUTTON SCHIST, MYLONITE, AND MYLONITIC BIOTITE GNEISS (OZbs)
- MOLYBDENUM CONCENTRATION IN mg/L (SEE NOTE 3) AND DATE OF SAMPLING.
- DIRECTION OF GROUNDWATER FLOW
- BORING ID
- DISTANCE FROM CROSS-SECTION (FEET) (- REPRESENTS LEFT OF ALIGNMENT)
- GROUND SURFACE ELEVATION
- SCREEN INTERNAL

REFERENCES

1. THE EXISTING TOPOGRAPHY AND CONTOUR ELEVATIONS WERE PROVIDED BY GEORGIA POWER. THE DATE OF THE SURVEY PROVIDED AND SHOWN ON THIS SET OF PLANS IS JULY 2021. GEORGIA STATE PLANE WEST SURVEY FEET.
2. GEOLOGIC UNITS TAKEN FROM PETROLOGIC SOLUTIONS GEOLOGIC MAPPING, OCTOBER 2016.
3. SELECT BORING/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED AND/OR RESURVEYED BY METRO ENGINEERING & SURVEYING CO., INC., 2020 / 2021.

NOTE

1. THE PWR AND ROCK SURFACES ARE INTERPOLATED FROM AVAILABLE BORINGS.
2. THE ELEVATION OF THE UPPER SURFACE OF PWR AND ROCK IS LIKELY TO VARY SIGNIFICANTLY OVER SHORT HORIZONTAL DISTANCES.
3. REPORTED CONCENTRATIONS ARE FROM JANUARY 2022 UNLESS OTHERWISE NOTED IN FIGURE. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L). J = ESTIMATED CONCENTRATION. LESS THAN (<) REFERS TO CONCENTRATIONS BELOW DETECTION LIMITS. GWPS = GROUNDWATER PROTECTION STANDARD. NS = NOT SAMPLED.
4. THE GWPS FOR THE MOLYBDENUM IS 0.1 mg/L



REV	DES	CADD	CHK	RWV

CLIENT
GEORGIA POWER COMPANY
SOUTHERN COMPANY SERVICES

PROJECT
PLANT McDONOUGH-ATKINSON
ASH POND 1

TITLE
AP-1 SCHEMATIC GEOLOGIC CROSS SECTIONS A - A'

CONSULTANT
wsp GOLDER

YYYY-MM-DD	2022/05/06
DESIGNED	SEP
PREPARED	CRP
CHECKED	DLP
REVIEWED / APPROVED	RPK / GLH

PROJECT NO. 1777449-01

REV.

FIGURE **3**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

APPENDIX A

Boring Logs & Well Construction Diagrams

RECORD OF BOREHOLE DGWC-68A/B-68A

SHEET 1 of 1

PROJECT: Plant McDonough
 PROJECT NUMBER: 1668496-01
 DRILLED DEPTH: 30.00 ft
 LOCATION: ~15' East of B-68

DRILL RIG: Geoprobe 7822DT
 DATE STARTED: 4/19/17
 DATE COMPLETED: 4/20/17

NORTHING: 1,391,301.86
 EASTING: 2,200,732.41
 GS ELEVATION: 765.00
 TOC ELEVATION: 765.61 ft

DEPTH W.L.: 18.8
 DATE W.L.: 4/20/2017
 TIME W.L.: 08:48
 GW ELEVATION: 746.81

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES					MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N-VALUE			REC
0	765	0.00 - 8.50 SM, Silty SAND, fine to coarse, moderate plasticity; red-orange to orange-brown, fill; non-cohesive, moist, w~PL, loose.	SM		756.5						8" Diameter Round Flush Mount	WELL CASING Interval: 0' - 29.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 19.4' - 29.4' Material: Schedule 40 PVC pre-pack Diameter: 2" Slot Size: 0.010" End Cap: 29.4' - 29.8' FILTER PACK Interval: 17.0' - 29.8' Type: FilterSil gravel pack FILTER PACK SEAL Interval: 15.0' - 17.0' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0' - 15.0' Type: Pure Gold Grout Mixture WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 8" Diameter Round Flush Mount DRILLING METHODS Soil Drill: 4.25-inch ID HSA Rock Drill: N/A
5	760				755	S1	DO	13-18-9	27	1.50		
10	755	8.50 - 13.50 CL, CLAY, with trace sand, moderate plasticity; red-orange brown, fill; cohesive, moist, w<PL, soft to firm.	CL		751.5						Pel-Plug 3/8" Bentonite Pellets	
15	750				750	S2	DO	WOH-WOH-3	3	1.50		1.50
20	745	13.50 - 28.50 ML, SILT, low plasticity; brown to silver, relict structure; cohesive, moist to wet, w<PL, very soft.	ML		745						Pre-pack 0.010" Slotted Schedule 40 PVC	
25	740				745	S3	DO	4-6-16	22	1.33		1.50
30	735				740	S4	DO	WOH-16-24	40	1.50		1.50
35	730	28.50 - 30.00 SM, Silty SAND, fine to coarse, non-plastic to low plasticity; gray to white to silver, weathered saprolite, gneiss; cohesive, wet, w<PL, firm. Boring completed at 30.00 ft	SM		736.5						FilterSil gravel pack	
40	725				735	S5	DO	13-50/5	50/5	0.75		0.92
45	720											

BOREHOLE RECORD 165977801_GRP(B-47-B-71)(1).GPJ_PIEDMONT.GDT 1/15/18

LOG SCALE: 1 in = 5.5 ft
 DRILLING COMPANY: Southern Company Services
 DRILLER: S. Milam

GA INSPECTOR: Michael Boatman PG
 CHECKED BY: Rachel Kirkman, PG
 DATE: 1/16/18



RECORD OF BOREHOLE B-113D

SHEET 1 of 3

PROJECT: Plant McDonough
 PROJECT NUMBER: 166849621
 DRILLED DEPTH: 85.00 ft
 LOCATION: Offset of B-72

DRILL RIG: TSi 150CC
 DATE STARTED: 3/22/21
 DATE COMPLETED: 3/30/21

NORTHING: 1,391,264.6
 EASTING: 2,200,719.2
 GS ELEVATION: 758.8
 TOC ELEVATION: 758.22 ft

DEPTH W.L.: 1.46
 ELEVATION W.L.: 756.76
 DATE W.L.: 4/12/2021
 TIME W.L.: 12:00

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			PIEZOMETER DIAGRAM and NOTES	PIEZOMETER CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
0		0.00 - 3.00 CL, Silty CLAY, low plasticity; red-brown; soft, dry to moist, W<PL	CL		755.8 3.00				8" Flush Mount	WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7' FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-68.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Flush Mount DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic
755		3.00 - 10.00 ML, Clayey SILT, non to low plasticity; dark brown to brown; soft, moist to wet (with depth), W<PL	ML			Hand Auger		0.00 10.00		
750					748.8 10.00					
10		10.00 - 15.50 ML, Clayey SILT with some sand, low plasticity; dark brown to brown; soft to firm, dry to moist, W<PL	ML							
745					743.3 15.50		1	7.60 10.00		
15		15.50 - 20.00 TWR, Transitional Weathered Rock; breaks down to a ML, Clayey SILT with some sand, low plasticity; dark brown to brown; soft to firm, dry to moist, W<PL	TWR							
740					738.8 20.00					
20		20.00 - 30.00 Highly weathered, poorly foliated, poorly jointed, gray to black, fine-medium grained, very weak to weak, quartz-feldspar-biotite-muscovite SCHIST; locally contains vein quartz and water staining	BR					3.80 10.00		
735					728.8 30.00					
25		30.00 - 35.15 Highly weathered, poorly foliated, poorly jointed, gray to black, fine-medium grained, very weak to weak, quartz-feldspar-biotite-muscovite SCHIST; locally contains vein quartz, water staining, and garnets	BR							
730					723.65 35.15			7.00 10.00	AquaGuard Grout	
30		35.15 - 50.00 Fresh to slightly weathered, poorly foliated, white to pink and green, very fine to medium grained, medium strong to very strong, muscovite-plagioclase-k-spar-quartz GNEISS; locally contains vein quartz, epidote, and garnets	BR							
725										
35										
720										
40		Log continued on next page								

BOREHOLE RECORD: 166849621.GPJ_PIEDMONT.GDT: 5/24/21

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/24/21



RECORD OF BOREHOLE B-113D

SHEET 2 of 3

PROJECT: Plant McDonough
 PROJECT NUMBER: 166849621
 DRILLED DEPTH: 85.00 ft
 LOCATION: Offset of B-72

DRILL RIG: TSi 150CC
 DATE STARTED: 3/22/21
 DATE COMPLETED: 3/30/21

NORTHING: 1,391,264.6
 EASTING: 2,200,719.2
 GS ELEVATION: 758.8
 TOC ELEVATION: 758.22 ft

DEPTH W.L.: 1.46
 ELEVATION W.L.: 756.76
 DATE W.L.: 4/12/2021
 TIME W.L.: 12:00

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			PIEZOMETER DIAGRAM and NOTES	PIEZOMETER CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
40		35.15 - 50.00 Fresh to slightly weathered, poorly foliated, white to pink and green, very fine to medium grained, medium strong to very strong, muscovite-plagioclase-k-spar-quartz GNEISS; locally contains vein quartz, epidote, and garnets <i>(Continued)</i>							<p>WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw</p> <p>WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7'</p> <p>FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags</p> <p>FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket</p> <p>ANNULUS SEAL Interval: 72.4-84.4' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons</p> <p>WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Flush Mount</p> <p>DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic</p>	<p>WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw</p> <p>WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7'</p> <p>FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags</p> <p>FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket</p> <p>ANNULUS SEAL Interval: 72.4-84.4' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons</p> <p>WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Flush Mount</p> <p>DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic</p>
45	715		BR		708.8	50.00	4	6.50 10.00		
50		50.00 - 60.00 Fresh, weakly foliated, poorly jointed, light gray to greenish white, fine to medium grained, medium strong to strong, epidote-muscovite-biotite-feldspar-quartz GNEISS; locally contains garnets and pyrite.								
55	710		BR		698.8	60.00	5	10.00 10.00		
60		60.00 - 76.00 Fresh, weakly foliated, poorly jointed, green to white to gray, fine to medium grained, medium strong to strong, GNEISS; locally contains vein quartz and garnets								
65	695		BR				6	7.50 10.00		
70	690		BR							
75							7	8.70 10.00		
80	685	76.00 - 85.00 Fresh to slightly weathered, weak to moderately foliated, poorly jointed, greenish white to gray, fine to medium grained, strong, GNEISS; locally contains folds, vein quartz, and garnets; rock becomes schistose in localized areas.	BR		682.8	76.00				
		Log continued on next page								

BOREHOLE RECORD: 166849621.GPJ_PIEDMONT.GDT: 5/24/21

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/24/21



RECORD OF BOREHOLE B-113D

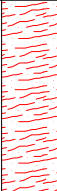

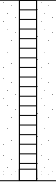
SHEET 3 of 3

PROJECT: Plant McDonough
 PROJECT NUMBER: 166849621
 DRILLED DEPTH: 85.00 ft
 LOCATION: Offset of B-72

DRILL RIG: TSi 150CC
 DATE STARTED: 3/22/21
 DATE COMPLETED: 3/30/21

NORTHING: 1,391,264.6
 EASTING: 2,200,719.2
 GS ELEVATION: 758.8
 TOC ELEVATION: 758.22 ft

DEPTH W.L.: 1.46
 ELEVATION W.L.: 756.76
 DATE W.L.: 4/12/2021
 TIME W.L.: 12:00

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			PIEZOMETER DIAGRAM and NOTES	PIEZOMETER CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	PHOTO	REC		
80		76.00 - 85.00 Fresh to slightly weathered, weak to moderately foliated, poorly jointed, greenish white to gray, fine to medium grained, strong, GNEISS; locally contains folds, vein quartz, and garnets; rock becomes schistose in localized areas. <i>(Continued)</i>	BR			8		4.50 5.00	0.010" Slotted Schedule 40 PVC Sump - 	WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7' FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-68.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Flush Mount DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic
675		Boring completed at 85.00 ft								
85		Boring completed at 85.00 ft								
670		Boring completed at 85.00 ft								
90		Boring completed at 85.00 ft								
665		Boring completed at 85.00 ft								
95		Boring completed at 85.00 ft								
660		Boring completed at 85.00 ft								
100		Boring completed at 85.00 ft								
655		Boring completed at 85.00 ft								
105		Boring completed at 85.00 ft								
650		Boring completed at 85.00 ft								
110		Boring completed at 85.00 ft								
645		Boring completed at 85.00 ft								
115		Boring completed at 85.00 ft								
640		Boring completed at 85.00 ft								
120		Boring completed at 85.00 ft								

BOREHOLE RECORD: 166849621.GPJ - PIEDMONT.GDT: 5/24/21

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: Cascade Drilling
 DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
 CHECKED BY: Rachel Kirkman, PG
 DATE: 5/24/21



APPENDIX B

MINERALOGY RESULTS

Quantitative X-Ray Diffraction by Rietveld Refinement

Report Prepared for: Golder (USA)
Project Number/ LIMS No. CA201-00000-211-18665-01/MI7012-
JUN21
Sample Receipt: June 29, 2021
Sample Analysis: June 30, 2021
Reporting Date: August 11, 2021

Instrument: Panalytical X'pert Pro Diffractometer
Test Conditions: Co radiation, 40 kV, 45 mA
Regular Scanning: Step: 0.033°, Step time:0.15s, 2θ range: 5-80°
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)



Landon Kapusianyk, B.Sc.
Junior Mineralogist



Huyun Zhou, Ph.D., P.Geo.
Senior Mineralogist

Method Summary

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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SGS Minerals	3260 Production Way, Burnaby, British Columbia, Canada V5A 4W4
a division of SGS Canada Inc.	Tel: (604) 638-2349 Fax: (604) 444-5486 www.sgs.com www.sgs.com/met
	Member of the SGS Group (SGS SA)

Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	Core	Core Extruded Material
	JUN7012-01 (wt %)	JUN7012-02 (wt %)
Quartz	71.9	-
Biotite	1.8	-
Muscovite	2.5	-
Microcline	6.1	-
Albite	17.5	-
Molybdenite	0.2	100
TOTAL	100	100

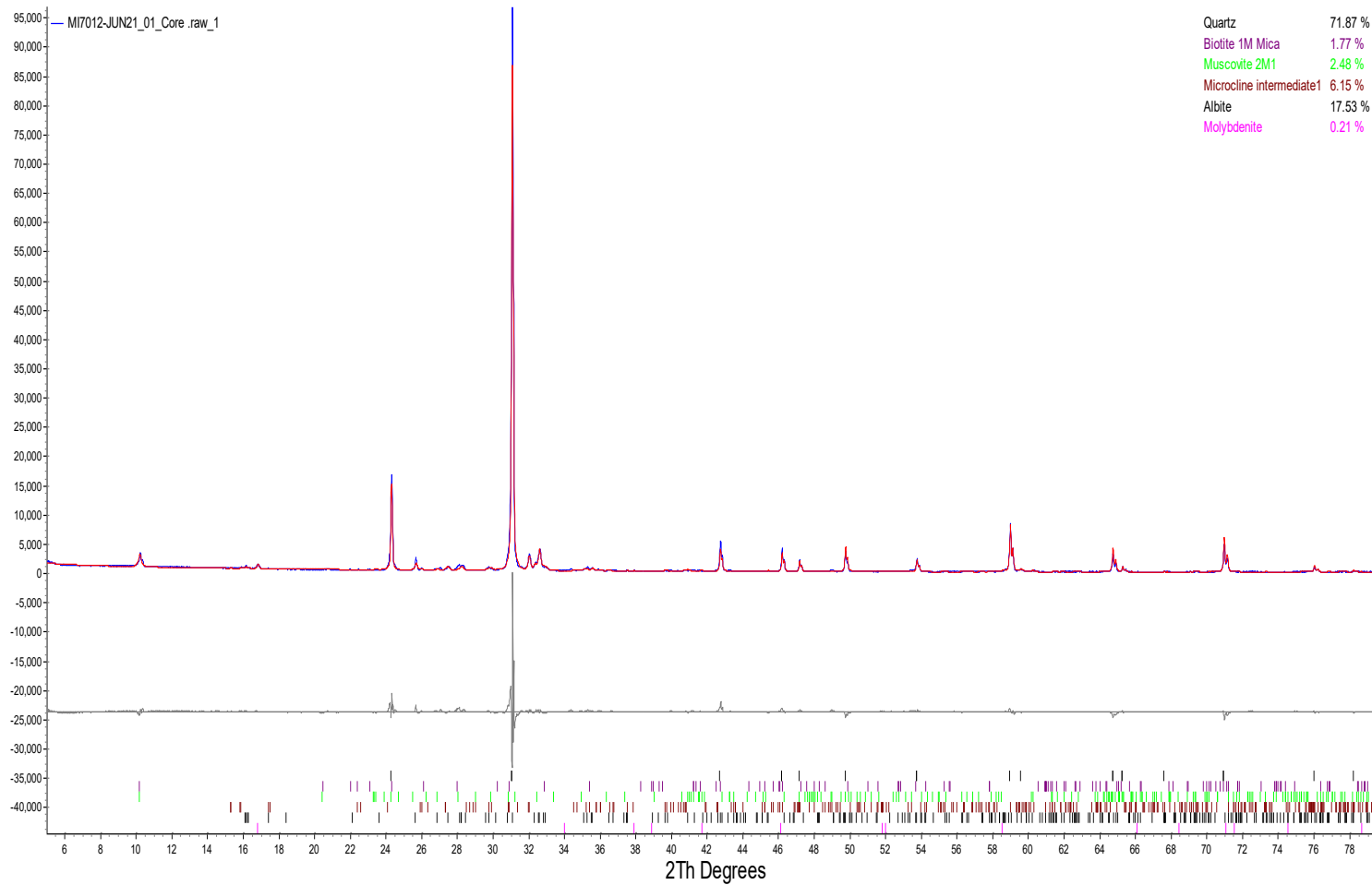
Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

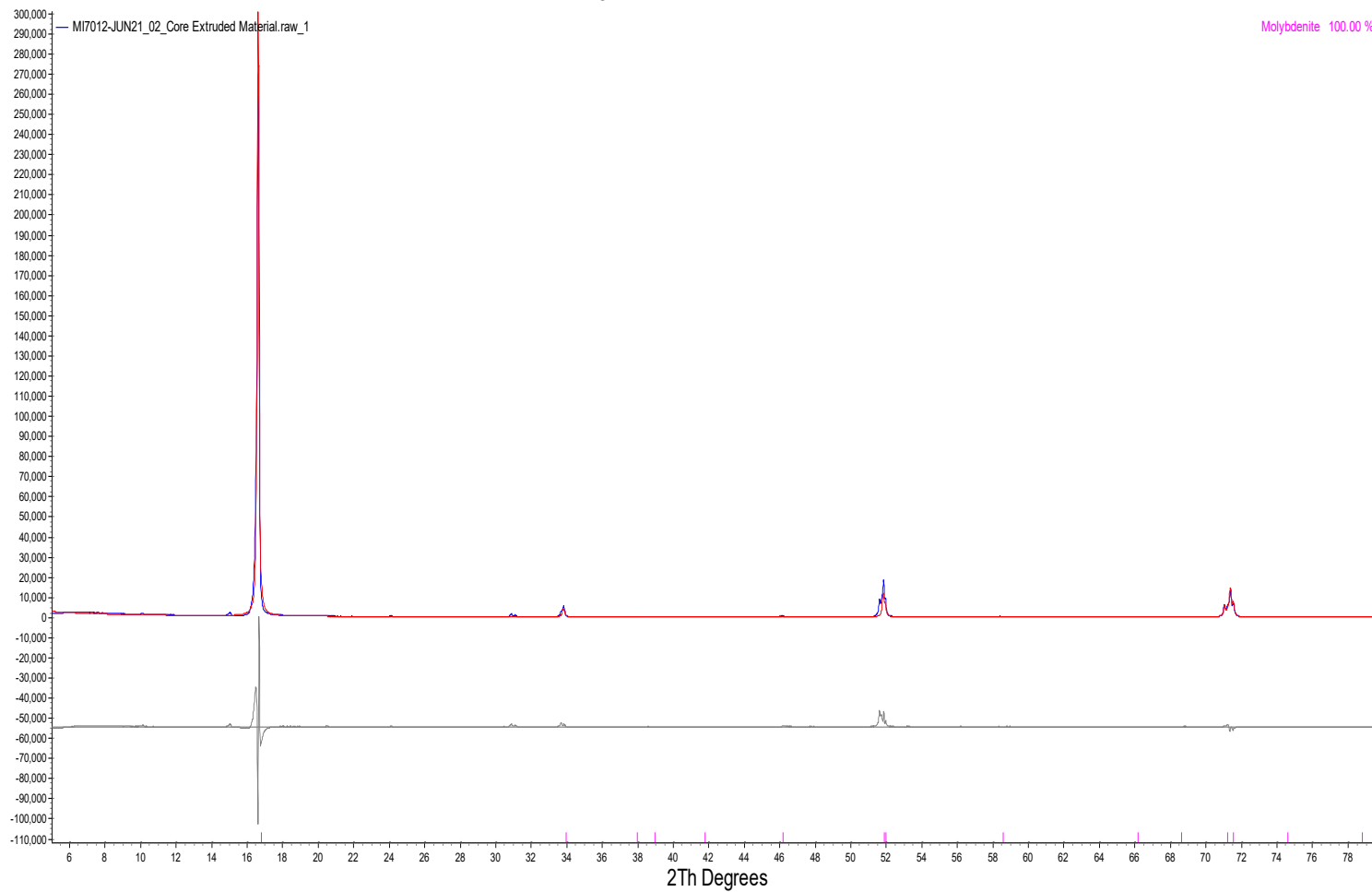
The weight percent quantities indicated have been normalized to a sum of 100%. The quantity of amorphous material has not been determined.

Mineral/Compound	Formula
Quartz	SiO ₂
Biotite	K(Mg,Fe) ₃ (AlSi ₃ O ₁₀)(OH) ₂
Muscovite	KAl ₂ (AlSi ₃ O ₁₀)(OH) ₂
Microcline	KAlSi ₃ O ₈
Albite	NaAlSi ₃ O ₈
Molybdenite	MoS ₂

Core



Core Extruded Material



APPENDIX C

TOTAL METALS ANALYSIS RESULTS



ANALYSIS REPORT BBM21-10949

To F400101 SGS CANADA INC
LAIN GLOSSOP
3260 PRODUCTION WAY
BURNABY V5A 4W4
BC
CANADA

Project	CA20I-00000-110-18664-01	Date Received	12-Jul-2021
Submission Number	*BBY* 18665-01I / MI7012-JUN21 / 1	Date Analysed	14-Jul-2021 - 16-Jul-2021
Pulp		Date Completed	16-Jul-2021
Number of Samples	1	SGS Order Number	BBM21-10949

Methods Summary

Number of Sample	Method Code	Description
1	GE_FUZ90A50	Fusion, 550°C, HNO ₃ , 0.1g-50ml, Zr crucibles
1	GE_ICP90A50	Na ₂ O ₂ Fusion, ICPAES, 0.1g-50ml
1	GC_CSA06V	Control grade Total Sulphur and Carbon, IR Combustion
1	GO_XRF72	Borate Fusion, XRF, Ore Grade, variable wt.g

Authorised Signatory

John Chiang
Laboratory Operations
Manager

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WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

16-Jul-2021 10:17PM BBM_U0011875750

Page 1 of 4

MIN-M_COA_ROW-Last Modified Date: 05-Nov-2019



Project CA20I-00000-110-18664-01
 Submission Number *BBY* 18665-011 / MI7012-JUN21 / 1
 Pulp
 Number of Samples 1

ANALYSIS REPORT BBM21-10949

Element	Al	As	Ba	Be	Ca	Cd
Method	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50
Lower Limit	0.01	30	10	5	0.1	10
Upper Limit	25	100,000	50,000	25,000	25	50,000
Unit	%	ppm m / m	ppm m / m	ppm m / m	%	ppm m / m
Core	3.01	<30	264	<5	0.4	<10

Element	Co	Cr	Cu	Fe	K	La
Method	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50
Lower Limit	10	10	10	0.01	0.1	10
Upper Limit	50,000	50,000	50,000	25	25	50,000
Unit	ppm m / m	ppm m / m	ppm m / m	%	%	ppm m / m
Core	<10	384	32	0.80	1.4	<10

Element	Li	Mg	Mn	Mo	Ni	P
Method	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50
Lower Limit	10	0.01	10	10	10	0.01
Upper Limit	50,000	25	100,000	50,000	100,000	25
Unit	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m	%
Core	<10	0.14	141	1780	16	<0.01

Element	Pb	Sb	Sc	Si	Sn	Sr
Method	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50
Lower Limit	20	50	5	0.1	50	10
Upper Limit	100,000	100,000	50,000	30	50,000	5,000
Unit	ppm m / m	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m
Core	<20	<50	<5	>30.0	<50	45

Element	Ti	V	W	Y	Zn	@S
Method	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GC_CSA06V
Lower Limit	0.01	10	50	5	10	0.01
Upper Limit	25	50,000	40,000	25,000	50,000	100
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project CA20I-00000-110-18664-01
 Submission Number *BBY* 18665-011 / MI7012-JUN21 / 1
 Pulp
 Number of Samples 1

ANALYSIS REPORT BBM21-10949

Element	Ti	V	W	Y	Zn	@S
Method	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GE_ICP90A50	GC_CSA06V
Lower Limit	0.01	10	50	5	10	0.01
Upper Limit	25	50,000	40,000	25,000	50,000	100
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
Core	0.03	22	<50	10	23	0.15
*Rep Core	-	-	-	-	-	0.16
*Std OREAS 135	-	-	-	-	-	7.43
*Blk BLANK	-	-	-	-	-	<0.01

Element	@LOI	@Al2O3	@CaO	@Cr2O3	@Fe2O3	@K2O
Method	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72
Lower Limit	-10	0.01	0.01	0.01	0.01	0.01
Upper Limit	100	100	60	5	100	70
Unit	%	%	%	%	%	%
Core	0.52942	5.79	0.63	0.06	1.09	1.67
*Rep Core	0.53000	5.71	0.64	0.06	1.09	1.67
*Std OREAS 751	0.69600	16.05	1.07	<0.01	2.45	2.93
*Blk BLANK	99.9900	<0.01	<0.01	<0.01	<0.01	<0.01

Element	@MgO	Mn3O4	@Na2O	@P2O5	@SiO2	@TiO2
Method	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72	GO_XRF72
Lower Limit	0.01	0.01	0.01	0.01	0.01	0.01
Upper Limit	100	100	60	55	100	100
Unit	%	%	%	%	%	%
Core	0.29	0.02	1.49	0.03	89.32	0.04
*Rep Core	0.29	0.02	1.48	0.03	88.51	0.05
*Std OREAS 751	0.53	0.09	3.46	0.28	71.99	0.25
*Blk BLANK	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project CA20I-00000-110-18664-01
Submission Number *BBY* 18665-011 / MI7012-JUN21 / 1
Pulp
Number of Samples 1

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Element	@V205	Sum
Method	GO_XRF72	GO_XRF72
Lower Limit	0.01	0.01
Upper Limit	10	100
Unit	%	%
Core	0.01	>100
*Rep Core	<0.01	99.82
*Std OREAS 751	<0.01	99.23
*Blk BLANK	<0.01	0.02

SGS Canada Minerals Burnaby conforms to the requirements of ISO/IEC17025 for specific tests as listed on their scope of accreditation found at <https://www.scc.ca/en/search/laboratories/sgs>
Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



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