REPORT

2023 Semi-Annual Groundwater Monitoring and Corrective Action Report

Georgia Power Company - Plant McDonough-Atkinson Ash Pond 1

Submitted to:

Georgia Power

Georgia Power Company
241 Ralph McGill Boulevard
Atlanta, GA 30308

Submitted by:

WSP USA Inc.
5170 Peachtree Road, Suite 300 Building 100 Atlanta, Georgia 30341
+1 248 295 0135

February 28, 2024

Certification

This *2023 Semi-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), specifically § 257.90(e), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with WSP USA Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.

WSP USA Inc.

Dawn L. Prell, CPG
Senior Hydrogeologist

Rhonda N. Quinn, PG
Senior Geologist
Georgia Professional Geologist No. 1031

Mark T. Prytula, PhD, PE
Georgia Professional Engineer No. 026729

Executive Summary

This summary of the *2023 Semi-Annual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective program from July through December 2023 at Georgia Power Company (Georgia Power)'s Plant McDonough-Atkinson Ash Pond 1 (AP-1). Groundwater monitoring and reporting for AP-1 are performed by WSP USA Inc., 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 Semi-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) at Plant McDonough-Atkinson (Plant McDonough, Site) are reported separately.

Plant McDonough

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, Smyrna, Georgia 30339), the property occupies approximately 390 acres and is bounded on the southeast by the Chattahoochee River.

Groundwater at AP-1 is monitored using a comprehensive network 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 2023 semi-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 to confirm the groundwater flow direction. The AP-1 groundwater monitoring well network remains sufficient to monitor groundwater downgradient of the unit. There were no changes to the AP-1 certified monitoring network in the July through December 2023 monitoring period. The second semi-annual groundwater monitoring event for AP-1 was

conducted in September 2023. Groundwater samples were collected and analyzed for Appendix III[1] and Appendix IV[2] required monitoring parameters.

Analytical data from the September 2023 monitoring event have been statistically analyzed in accordance with the Site's certified statistical analysis method. For the September 2023 semi-annual monitoring event, statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents and statistically significant levels (SSLs) of Appendix IV constituents above the GWPS as summarized below.

Appendix III Constituent	**September 2023 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-40, DGWC-67
pH	DGWC-40
Sulfate	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67
TDS	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A
Appendix IV Constituent	**September 2023 SSLs[2]**
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum	DGWC-68A[3]

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. GA EPD has defined the GWPS as: (i) the MCL or RSL or (ii) background levels for constituents where the background level is higher than the MCL or RSL.
[3] An ASD for molybdenum at DGWC-68A was approved by GA EPD on March 3, 2023.

The Appendix IV SSL of arsenic is horizontally delineated by surface water adjacent to the well and the SSL of cobalt at DGWC-40 is horizontally delineated by well B-100 and by surface water. Surface water samples were collected during the September 2023 sampling event, arsenic and cobalt were not detected in the surface water bodies downgradient of AP-1. Arsenic and cobalt are vertically delineated by on-Site wells. An alternate source demonstration for molybdenum that documents the natural presence of molybdenum in Site soils/rock was approved by GA EPD on March 3, 2023. 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. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on August 31, 2023.

[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.

Table of Contents

Tables

Figures

Appendices

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 *2023 Semi-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 semi-annual report documents groundwater monitoring activity from the semi-annual monitoring event conducted in September 2023 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, Smyrna, 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). 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).

The AP-1 surface impoundment at Plant McDonough has been closed in place. The closure process included placement of a permanent cover system designed to minimize infiltration and erosion and to meet or exceed the requirements of 257.102(d)(3)(ii). To further enhance the in-place closure of AP-1, a subsurface perimeter barrier wall (barrier wall) is included in the Closure Plan as an Advanced Engineering Measure (AEM). The term AEM refers to engineering controls that are technologies or measures designed to enhance the protection of groundwater and closure effectiveness, and/or further minimize future maintenance of the unit. The proposed barrier wall will fully encircle the AP-1 footprint (as a laterally continuous feature); however, the target installation depth is under review and approval by GA EPD. 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 from AP-1. CCR removal and consolidation at Plant McDonough AP-2, and 3/4 is substantially complete, pending certification. Areas of certified CCR removal are shown on Figure 2.

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 (WSP 2023a).

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 65 feet in thickness across the Site, with an average thickness of approximately 43 feet. Saprolitic rock is considered to be transitionally weathered rock (TWR) or partially weathered rock (PWR). Where TWR is a qualitative description based on visual observations, 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 (e.g., approximately the first 30 feet), 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 in the interface of weathered bedrock (i.e., TWR/PWR) to competent bedrock, and is the primary groundwater flow path. The overburden has an average horizontal hydraulic conductivity of 10^{-4} centimeters per second (cm/s) and groundwater flow 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 considered part of the uppermost aquifer. The overlying silt/clay-rich overburden may act to retard recharge into the bedrock aquifer system. In addition, deeper bedrock (i.e., greater than approximately 30 feet into the 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. AP-1 monitoring well and piezometer locations are shown on Figure 3.

A comprehensive network of monitoring wells was installed for groundwater monitoring around AP-1. A separate well network for AP-2 and 3/4 as well as a series of piezometers are also installed at the Site. Construction details are presented in Table 1 for each well in the current Site groundwater monitoring network, including detection monitoring wells, assessment monitoring wells, and piezometers for AP-1; and the separate multi-unit monitoring network wells 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 through December 2023. Routine groundwater sampling was performed in September 2023 in accordance with 40 CFR § 257.93. Field sampling forms for these monitoring events are provided in Appendix A and the laboratory analytical results are provided in Appendix B.

2.1 Monitoring Well Installation and Maintenance

There were no changes to the detection groundwater monitoring system during this reporting period. September 2023 field activities included visual inspection of well conditions prior to sampling, recording conditions around each well, and performing exterior maintenance to provide safe access for sampling. The well condition inspection forms are included in Appendix C.

Monitoring wells are inspected semi-annually 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)). Monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix C. This documentation was performed under the direction of a professional geologist or engineer registered in the State of Georgia.

Site piezometers B-31 and B-74 were abandoned due to onsite construction/replacement of an industrial water line following procedures outlined in *Georgia Water Well Standards Act.* An abandonment report was submitted to GA EPD on November 13, 2023 and a copy is included as Appendix D. Abandonment of these piezometers does not impact the construction of potentiometric surface contours or interpretation of groundwater flow.

2.2 Assessment Monitoring

Pursuant to § 257.94(e)(1), an assessment monitoring program has been established for AP-1 based on identified statistically significant increases (SSIs). A notice of assessment monitoring was placed in the operating record on November 13, 2019. Following the requirements of § 257.96, an assessment of corrective measures is ongoing, and a *Draft Remedy Selection Report* was submitted to GA EPD on August 31, 2023.

Groundwater sampling was conducted for AP-1 in September 2023 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 and the established assessment monitoring network for AP-1 (Table 1). The location of each of these monitoring wells is shown on Figure 3. Table 2 presents a summary of groundwater sampling event completed for AP-1 and the status of the monitoring network.

During the September 2023 semi-annual sampling event, groundwater samples were collected and analyzed for Appendix III and Appendix IV constituents. Results of sampling activities conducted in September 2023 are presented in Appendix B.

2.3 Additional Sampling

The installation of additional wells to characterize groundwater downgradient of the existing AP-1 network wells exhibiting SSLs of arsenic and cobalt is infeasible due to the proximity of the engineered stream channel [also referred to as the unnamed tributary (UT)] to the west and the Chattahoochee River to the southeast. Georgia Power therefore collected surface water samples from the engineered stream channel and the Chattahoochee River. Surface water samples were collected on September 12 and 13, 2023 at the locations shown on Figure 3 and analyzed for Appendix III parameters, selected Appendix IV parameters (i.e., arsenic, and cobalt), and major ions (i.e., magnesium, potassium, sodium, and total and bicarbonate alkalinity). Surface water samples were collected in accordance with *Surface Water Sampling*, (US EPA, 2023a). Laboratory reports associated with September 2023 surface water sampling event are provided in Appendix B. Georgia Power will continue collecting surface water samples semi-annually as needed for site delineation.

Additional data analyses continue to be analyzed to provide data to support the selected corrective measure (i.e., in-situ injections and monitored natural attenuation). Groundwater samples collected from the detection and assessment monitoring well networks in September 2023 were analyzed for major ions (magnesium, potassium, sodium, and total and bicarbonate alkalinity) and minor ions (iron and manganese).

2.4 Annual Water Well Survey

In accordance with the Groundwater Monitoring Plan (WSP 2023b), a potable well survey of potential groundwater wells within a two-mile radius of AP-1 was conducted in January 2024. The review consisted of reviewing federal, state, and county records, and online resources. A survey conducted by Environmental Data Resources (EDR) is included in Appendix E. Additional federal, state, and county records, and online sources outside of the EDR survey were also reviewed by WSP. The Cobb County Environmental Health Department responded that they did not have records of approved water wells within a 2-mile radius of AP-1. The EDR report identified nine water wells and eight U.S. Geological Survey (USGS) wells. Seven of the eight USGS wells are also identified as water wells. Based on review of the EDR report, each of the water wells and USGS wells identified are located upgradient/sidegradient of the Site.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

The following sections describe methods used to conduct the September 2023 semi-annual AP-1 groundwater assessment monitoring. Groundwater analytical data and chain of custody records are presented in Appendix B.

3.1 Groundwater Elevation Measurement

Site-wide groundwater levels were measured at the start of the September 2023 sampling event. Measured groundwater level data are listed in Table 3. These data were used to calculate water level elevations and develop the Site groundwater potentiometric surface map (Figure 4). The potentiometric surface map indicates that groundwater generally flows southeast across the Site and west/southwest in the northeast corner of the Site due to ongoing dewatering in that area, 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 for three piezometer/well pairings were used to calculate hydraulic gradients for AP-1. These pairings (B-29/DGWC-68A, B-28/DGWC-37, and B-50/DGWC-39) were used to calculate the gradients along inferred groundwater flow paths (i.e., perpendicular to the potentiometric contours).

Average groundwater flow velocities at the Site were calculated using hydraulic gradient data, hydraulic conductivity data generated from slug testing results (WSP, 2023a), 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), (WSP 2023a). 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, 1989).

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

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

Where:

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

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

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

n_e = Effective porosity

Using this equation, groundwater flow velocities were calculated for AP-1 using September 2023 groundwater elevation data as presented on Table 4.

Calculated (horizontal) flow velocities ranged from approximately 78 feet per year (ft/yr) to 142 ft/yr during the September 2023 sampling event. 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 *Groundwater Sampling* (US EPA, 2023b) as a guide. 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 the *Field Equipment Cleaning and Decontamination* (US EPA, 2020a). 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 LaMotte or Hach turbidimeters. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

- pH within ±0.1 standard units (S.U.)
- specific conductance within ±5%
- DO within ±10% or ±0.2 mg/L (whichever is greater) where DO>0.5 mg/L; if DO<0.5 mg/L, the DO stabilization criterion does not apply
- Turbidity less than 5 nephelometric turbidity units (NTU)

Upon achieving stabilization, unfiltered samples were collected directly in appropriately preserved laboratory-supplied sample containers, placed in ice-packed coolers, and submitted to the laboratory following standard chain-of-custody protocol.

Field data and sampling notes for each monitoring well are recorded on field information forms generated by the Aqua TROLL® 400. These forms include a description of the sampling equipment, sampling method, test notes, field observations, and purge logs (purge rate, stabilization parameters, and depth to water measurements) at each monitoring location. Deviations from the sample plan and stabilization criteria are noted on the field information forms. Field data sheets and daily field instrument calibration forms are 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). Analytical methods used for monitoring parameters are listed in the analytical data

reports in Appendix B. Table 5 presents a tabulated summary of the September 2023 detection and assessment sample results. Results of surface water samples collected in September 2023 are presented on Table 6.

Laboratory analyses were performed by Pace Analytical Services, LLC (Pace) in Peachtree Corners, Georgia [Pace subcontracted some analyses 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 the parameters analyzed for this project. Analytical data reports including chain-of-custody records for the monitoring events and laboratory NELAP certifications are presented in Appendix B.

3.5 Quality Assurance and Quality Control

Quality assurance/quality control (QA/QC) samples were collected at a minimum rate of one sample per every 10 samples during the semi-annual sampling event. QA/QC samples included equipment blanks (where non-dedicated sampling equipment was used), field blanks, and duplicate samples. QA/QC sample data were evaluated during data validation as described below, and are included in Appendix B.

Groundwater quality data in this report were independently validated in accordance with *Data Validation Standard Operating Procedures* (US EPA, 2016), *National Functional Guidelines for Inorganic Superfund Method Data Review* (US EPA 2020b), *US Department of Energy, Evaluation of Radiochemical Data Usability* (Paar, 1997) 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. The data validation summary report is provided in Appendix B, along with laboratory reports. The validated data meet project objectives.

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 F.

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 Monitoring Data at RCRA Facilities, Unified Guidance*, March 2009, (US EPA, 2009). 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 for Appendix III parameters were statistically analyzed for comparison against background concentrations and to identify trends. Upgradient well data were pooled to establish background statistical limits. Data from the September 2023 assessment monitoring events were analyzed using interwell prediction limits applying an optional 1-of-2 verification resample plan and compared to the background statistical limits to evaluate whether concentrations exceed background levels. The Sen's Slope/Mann Kendall trend test was performed to evaluate whether concentrations in individual wells are statistically increasing, decreasing, or stabilizing over time. The results of the background comparisons and trend analyses are presented in Appendix F.

4.1.2 Appendix IV Assessment Monitoring Statistical Methods

Statistical analysis for assessment monitoring is performed by comparing confidence intervals against groundwater protection standards (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, Federal and State CCR rules specified levels 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.

Following the rule requirements, background concentrations were evaluated to establish Site-specific GWPS for statistical comparison of Appendix IV constituents. Table 7 summarizes the background limit established at each monitoring well and the applicable GWPS established under State and Federal rules.

Confidence intervals were calculated for each of the Appendix IV parameters in each downgradient well for comparison to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard, and thus an SSL exceedance identified.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix F. The background period for statistical analyses included historical data through the current event. Tolerance limits for confidence interval calculations have been updated to include current data. Due to varying reporting limits for background over time, the most recent reporting limit is used when analytes are reported as non-detects. This process results in a more appropriate statistical test for the data set.

4.2 Statistical Analysis Results

Analytical data from September 2023 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 F.

4.2.1 September 2023 Appendix III Statistical Results

The statistical analysis of the Appendix III parameters identified SSIs of boron, calcium, chloride, pH, sulfate, and total dissolved solids (TDS) for the September 2023 assessment monitoring event. A detailed list of the noted exceedances is presented in Appendix F.

4.2.2 September 2023 Appendix IV Statistical Results

The statistical analysis of the Appendix IV analytes identified SSLs of the following parameters for the September 2023 monitoring event using the GWPS established according to both 40 CFR § 257.95(h) and 391-3-4-.10(6)(a):

AP-1 Confidence Interval Statistically Significant Level Exceedances, September 2023	
Appendix IV Parameter	**AP-1 Detection Monitoring Well**
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum[1]	DGWC-68A

Note:

[1] An ASD for Molybdenum at DGWC-68A was approved by GA EPD on March 3, 2023; refer to Section 4.3.

4.3 Alternate Source Demonstration

In accordance with 40 CFR § 257.95, an ASD was submitted to GA EPD on July 29, 2022, to address an SSL of molybdenum in groundwater at AP-1 (Golder, 2022a). The ASD presented multiple lines of evidence for the natural occurrence of molybdenum in groundwater at the Site and support the conclusion that the SSL of molybdenum present in monitoring well DGWC-68A is not the result of impact by AP-1, but rather from an alternate, natural source of molybdenum. GA EPD provided concurrence with the findings presented and approved the ASD for molybdenum in groundwater at monitoring well DGWC-68A on March 3, 2023. The ASD for molybdenum at DGWC-68A is applicable in consideration of the September 2023 monitoring results and the Site will continue with assessment monitoring at this location.

5.0 ASSESSMENT MONITORING AND DELINEATION STATUS

A network of piezometers has been installed at the Site, and several of these piezometers have been sampled to characterize the nature and extent of arsenic and cobalt SSLs. In addition, Georgia Power conservatively elected to sample surface water at multiple locations to complete horizontal delineation where proximity to surface water prevented installation of additional wells downgradient of the detection monitoring wells exhibiting SSLs (Section 2.3). The table below summarizes the delineation wells established for each SSL. Horizontal and vertical delineation of the arsenic and cobalt is complete based on review of the analytical results, and statistical analyses. Figures 5 and 6 present isoconcentration contour maps for the two constituents with an exceedance of the GWPS: arsenic and cobalt, respectively.

Constituent of Concern	Detection Monitoring Well with SSL	Vertical Delineation Well	Horizontal Delineation Well/ Surface Water Monitoring Location
Arsenic	DGWC-69	B-112D	UT02

Constituent of Concern	Detection Monitoring Well with SSL	Vertical Delineation Well	Horizontal Delineation Well/ Surface Water Monitoring Location
Cobalt	DGWC-40	B-105D	B-100 / B-62 / CR-0.1

Potential trends in SSL constituent concentrations were further evaluated by Groundwater Stats Consulting (GSC) using the Sen's Slope/Mann Kendall test (Appendix F). A statistically increasing trend was identified at monitoring well DGWC-69 for arsenic following the September 2023 monitoring event. This trend utilizes historical data from 2016 through 2023. In considering data from 2020 to 2023, the trend has reversed to a negative slope thus suggesting improvement to groundwater quality. No statistically significant trend was noted for monitoring well DGWC-40 for cobalt.

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), remedy selection progress reports have previously been 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 *Draft Remedy Selection Report* was submitted to GA EPD on August 31, 2023. The *Draft Remedy Selection Report* includes the following:

- The current groundwater conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Golder 2020);
- An assessment of corrective action investigations completed to date;
- An evaluation of each corrective measure retained for further consideration following the completed investigations;
- A comparison of corrective measure options using the comparative criteria such as long- and short-term effectiveness and protectiveness, source control effectiveness and ease of implementation; and
- A summary of the proposed corrective measure, or measures, for AP-1.

The Site is currently in the planning stages of a pre-design investigation that will outline the injection zones for treatment as well as provide the necessary information needed for a permit application for an Underground Injection Control (UIC) Pilot Test to confirm the effectiveness of the proposed remedy prior to long-term implementation. These efforts include an ongoing treatability study to determine injectate materials and to identify proper dosage information.

The *Draft Remedy Selection Report* is currently under review by GA EPD and Georgia Power is awaiting concurrence to submit a Pilot Test Workplan for further evaluation of the proposed remedy.

7.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-1 confirm (1) SSIs of Appendix III groundwater monitoring parameters above background and (2) 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 assessment of corrective measures was initiated following the

provisions of 40 CFR § 257.96. Pursuant to 40 CFR 257.95(g)(1)(iv), the additional delineation wells may continue to be sampled as part of the ongoing semi-annual assessment monitoring program.

8.0 CONCLUSIONS AND FUTURE ACTIONS

This *2023 Semi-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 event is 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 have delineated the horizonal and vertical extent of arsenic and cobalt for AP-1. An ASD for the occurrence of molybdenum in groundwater was approved by GA EPD on March 3, 2023. 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. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of corrective measures was submitted to EPD on August 31, 2023 and is pending EPD review. A high-resolution site characterization is in progress that includes an ongoing treatability study to determine injectate materials and to identify proper dosage information in support of the further evaluation of the proposed remedy. The next sampling event is tentatively scheduled for February 2024.

9.0 REFERENCES

Golder, 2020, *Assessment of Corrective Measures*, Georgia Power Company, Plant McDonough-Atkinson Ash Pond 1, December 4, 2020

Golder, 2022a. *Alternate Source Demonstration for Molybdenum*, Plant McDonough-Atkinson Ash Pond 1, Golder Associates USA Inc., July 29, 2022.

Groundwater Stats Consulting, 2019, *Georgia Power Company's Plant McDonough Ash Pond 1 (AP-1) Statistical Analysis Plan*, April 2019.

Heath, R.C., 1982, Basic Ground-Water Hydrology. Water Supply Paper 2220. U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado.

Paar, 1997. *Evaluation of Radiochemical Data Usability*, Paar J.G. and Porterfield D.R., US Department of Energy, April 1997.

US EPA, 1989, U.S. Environmental Protection Agency, Office of Waste Management Division, *Interim Final RCRA Facility Investigation (RFI) Guidance Volume II of IV*. EPA 530/SW-89-031, May 1989.

US EPA, 2009, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery – Program Implementation and Information Division, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. EPA 530/R-09-007, March 2009.

US EPA, 2016, U.S. Environmental Protection Agency Region 4, Science and Ecosystem Support Division, *Data Validation Standard Operating Procedures*, (QAS-SOP-0025), February 16, 2016.

US EPA, 2020a, U.S. Environmental Protection Agency Region 4, Laboratory Services and Applied Science Division, Operating Procedure: *Field Equipment Cleaning and Decontamination,* (LSASDPROC-205-R4), June 22, 2020.

US EPA, 2020b. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Method Data Review,* EPA 542-R-20-006, November 2020.

US EPA, 2023a. U.S. Environmental Protection Agency Region 4, Laboratory Services and Applied Science Division, Operating Procedure: *Surface Water Sampling*, (LSASDPROC-201-R6), April 22, 2023.

US EPA, 2023b. U.S. Environmental Protection Agency Region 4, Laboratory Services and Applied Science Division, Operating Procedure: *Groundwater Sampling* (LSASDPROC-301-R6), April 22, 2023.

WSP, 2023a. *Hydrogeologic Assessment Report*, Georgia Power Company – Plant McDonough-Atkinson CCR Surface Impoundment (CCR Unit AP-1), March 20, 2023.

WSP, 2023b, Groundwater Monitoring Plan, Georgia Power Company – Plant McDonough-Atkinson CCR Surface Impoundment (CCR Unit AP-1) March 2023.

TABLES

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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	841.37	28.9	823.8	813.8	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.67	59.3	756.8	746.8	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.22	43.8	827.8	817.8	10	2/28/2017
DGWC-37	Downgradient	Overburden	1390482.2	2200919.8	766.21	763.64	39.7	734.3	724.3	10	11/28/2012
DGWC-38	Downgradient	Overburden	1390362.7	2201148.6	757.43	754.67	25.0	740.0	730.0	10	11/29/2012
DGWC-39	Downgradient	Overburden	1390303.6	2201540.1	759.89	756.93	21.2	746.1	736.1	10	11/6/2012
DGWC-40	Downgradient	Overburden	1390625.7	2201825.9	779.06	776.12	34.9	751.6	741.6	10	11/5/2012
DGWC-67	Downgradient	Overburden	1390953.8	2200830.7	766.70	766.80	56.3	720.5	710.5	10	3/14/2017
DGWC-68A	Downgradient	Overburden	1391301.2	2200734.9	765.33	765.06	29.8	745.7	735.7	10	4/20/2017
DGWC-69	Downgradient	Overburden	1391585.0	2200657.1	763.75	763.99	24.3	749.7	739.7	10	3/16/2017
DGWC-121	Downgradient	Overburden	1390739.7	2200849.4	764.16	764.52	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	760.40	39.9	730.7	720.7	10	10/4/2016
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.32	44.8	740.5	730.5	10	7/8/2020
B-105D	Downgradient	Upper Bedrock	1390634.5	2201831.9	779.01	776.03	70.0	716.0	706.0	10	10/19/2020
B-112D	Downgradient	Upper Bedrock	1391564.2	2200664.1	765.58	765.98	55.0	721.3	711.3	10	3/22/2021

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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 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	841.37	28.9	823.8	813.8	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.67	59.3	756.8	746.8	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.22	43.8	827.8	817.8	10	2/28/2017
DGWC-2	Downgradient	Overburden/Upper Bedrock	1393958.0	2202119.5	850.88	848.17	49.0	809.5	799.5	10	10/2/2012
DGWC-4	Downgradient	Overburden	1394171.5	2202662.4	814.85	812.06	45.0	777.4	767.4	10	10/3/2012
DGWC-5	Downgradient	Overburden/Upper Bedrock	1394306.3	2202965.1	791.75	788.64	30.0	768.9	758.9	10	10/4/2012
DGWC-8	Downgradient	Overburden	1394322.2	2203882.1	826.38	824.02	49.1	785.3	775.3	10	10/10/2012
DGWC-9	Downgradient	Overburden	1394055.9	2204170.0	824.35	821.86	30.0	802.3	792.3	10	10/10/2012
DGWC-10	Downgradient	Overburden	1393818.3	2204201.1	823.55	820.82	45.4	785.8	775.8	10	10/11/2012
DGWC-11	Downgradient	Overburden	1393547.1	2204166.2	800.57	797.99	49.1	759.2	749.2	10	10/15/2012
DGWC-12	Downgradient	Overburden	1393149.4	2204128.3	773.86	771.10	25.1	756.4	746.4	10	10/15/2012
DGWC-13	Downgradient	Overburden	1392881.1	2204084.6	794.10	791.20	43.8	757.8	747.8	10	11/29/2012
DGWC-14	Downgradient	Overburden/Upper Bedrock	1392574.2	2204013.3	792.40	789.69	34.3	765.8	755.8	10	12/18/2012
DGWC-15	Downgradient	Overburden	1392544.1	2203679.0	824.50	821.43	67.1	764.7	754.7	10	11/29/2012
DGWC-17	Downgradient	Overburden	1392645.6	2203051.0	837.05	834.14	44.5	799.9	789.9	10	1/9/2013
DGWC-19	Downgradient	Overburden	1392342.6	2202601.0	825.46	822.87	39.8	793.5	783.5	10	3/12/2013
DGWC-20	Downgradient	Overburden	1392164.5	2202315.6	822.14	819.66	39.7	790.6	780.6	10	3/5/2013
DGWC-21	Downgradient	Overburden/Upper Bedrock	1392067.5	2202063.5	816.28	813.47	69.0	754.9	744.9	10	10/31/2012
DGWC-22	Downgradient	Upper Bedrock	1392126.3	2201791.9	816.59	813.69	60.0	764.0	754.0	10	10/25/2012
DGWC-23	Downgradient	Upper Bedrock	1392239.7	2201582.0	818.37	815.63	60.1	765.8	755.8	10	10/25/2012
DGWC-42	Downgradient	Overburden	1391327.8	2201870.2	804.68	801.98	50.4	762.1	752.1	10	11/12/2012
DGWC-47	Downgradient	Overburden/Upper Bedrock	1391553.8	2202610.5	797.45	794.35	28.8	776.0	766.0	10	6/23/2016
DGWC-48	Downgradient	Overburden/Upper Bedrock	1391314.6	2202290.2	788.33	785.21	30.0	765.6	755.6	10	6/22/2016

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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 2 and ASH PONDS 3/4 (AP-2, 3/4) ASSESSMENT MONITORING WELL NETWORK											
B-56	Downgradient	Overburden	1393957.9	2204187.8	823.59	820.95	45.0	786.4	776.4	10	10/3/2016
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.40	39.9	730.7	720.7	10	10/4/2016
B-63	Downgradient	Overburden	1390999.1	2202978.1	777.10	777.37	46.0	741.9	731.9	10	10/6/2016
B-66	Downgradient	Overburden	1393858.2	2204277.5	815.90	813.33	55.3	768.3	758.3	10	11/16/2016
B-77	Downgradient	Overburden	1390948.7	2202942.0	776.86	777.12	42.0	745.1	735.1	10	9/17/2019
B-82	Downgradient	Overburden	1393750.0	2204258.1	810.07	807.55	45.0	773.1	763.1	10	9/21/2019
B-83	Downgradient	Overburden	1390735.5	2202695.6	776.98	777.17	48.6	738.6	728.6	10	9/30/2019
B-88	Downgradient	Overburden	1394401.1	2203738.3	820.07	816.80	72.0	754.8	744.8	10	11/15/2019
B-92	Downgradient	Overburden	1394392.7	2203026.7	785.08	785.30	25.0	770.7	760.7	10	12/11/2019
B-93	Downgradient	Overburden	1394348.7	2202946.7	789.07	789.19	29.2	770.3	760.3	10	12/12/2019
B-97	Downgradient	Overburden/Upper Bedrock	1394430.0	2203008.3	786.29	786.50	31.7	765.2	755.2	10	2/11/2020
B-98	Downgradient	Overburden	1394392.5	2202934.0	789.67	789.81	19.4	780.8	770.8	10	2/10/2020
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.32	44.8	740.5	730.5	10	7/8/2020
B-101D	Downgradient	Overburden/Upper Bedrock	1394063.6	2204168.2	824.29	821.24	75.0	756.3	746.3	10	11/12/2020
B-102D	Downgradient	Upper Bedrock	1393828.4	2204200.4	823.42	820.64	85.0	746.2	736.2	10	11/10/2020
B-104D	Downgradient	Upper Bedrock	1391318.3	2202298.5	787.90	785.31	60.0	735.3	725.3	10	10/20/2020
B-106D	Downgradient	Upper Bedrock	1394327.1	2203869.2	826.21	823.39	80.0	754.0	744.0	10	11/13/2020
B-107D	Downgradient	Upper Bedrock	1392334.5	2202596.4	823.38	820.44	85.8	745.3	735.3	10	10/28/2020
B-108D	Downgradient	Upper Bedrock	1392156.1	2202312.5	821.13	818.33	80.0	749.3	739.3	10	10/27/2020
B-111D	Downgradient	Upper Bedrock	1394303.6	2202956.4	791.84	788.99	85.0	714.8	704.8	10	11/3/2020
B-120D	Downgradient	Upper Bedrock	1394047.2	2202436.4	836.42	834.03	69.3	775.0	765.0	10	3/6/2021
B-122D	Downgradient	Bedrock	1390992.8	2202975.4	777.03	777.32	79.8	707.5	697.5	10	3/24/2022
B-125D	Downgradient	Bedrock	1394111.6	2202580.7	821.70	819.15	145.4	684.1	674.1	10	3/31/2023

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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-3	Downgradient	Overburden/Upper Bedrock	1394045.1	2202411.5	837.78	834.86	37.0	808.2	798.2	10	10/3/2012
B-6	Downgradient	Overburden	1394419.5	2203266.5	789.47	786.45	35.4	761.5	751.5	10	10/9/2012
B-7	Downgradient	Overburden	1394374.6	2203596.1	809.16	806.04	25.2	791.2	781.2	10	10/9/2012
B-16	Downgradient	Overburden	1392595.1	2203315.4	826.47	823.54	43.7	790.1	780.1	10	12/19/2012
B-18	Downgradient	Overburden	1392521.0	2202875.5	826.56	823.89	32.6	801.5	791.5	10	1/10/2013
B-24	Downgradient	Upper Bedrock	1392479.9	2201450.0	822.11	819.19	79.1	750.9	740.9	10	10/24/2012
B-25	Downgradient	Upper Bedrock	1392813.3	2201502.7	836.54	833.41	54.8	789.0	779.0	10	10/24/2012
B-26	Downgradient	Upper Bedrock	1393105.6	2201550.4	853.60	850.61	49.3	811.7	801.7	10	10/23/2012
B-28	Downgradient	Overburden/Upper Bedrock	1391967.4	2201679.2	816.08	813.28	69.4	754.3	744.3	10	10/31/2012
B-29	Downgradient	Overburden	1391890.0	2201422.0	816.43	813.47	54.4	769.4	759.4	10	1/11/2013
B-31	Downgradient	Upper Bedrock	1392034.3	2200928.5	797.47	794.84	45.1	760.1	750.1	10	1/22/2013
B-41	Downgradient	Overburden	1390920.8	2201751.9	795.20	792.40	60.0	743.0	733.0	10	11/14/2012
B-50	Downgradient	Overburden	1391657.1	2201841.0	809.67	809.20	35.2	784.4	774.4	10	6/24/2016
B-51	Downgradient	Overburden	1390501.2	2200906.5	765.92	763.29	65.0	708.3	698.3	10	6/27/2016
B-52	Downgradient	Overburden	1392308.3	2201314.8	822.89	820.18	50.0	781.3	771.3	10	9/28/2016
B-54	Downgradient	Overburden/Upper Bedrock	1394423.5	2203140.7	785.46	782.54	34.2	758.7	748.7	10	9/26/2016
B-55	Downgradient	Overburden	1394142.6	2204147.9	825.12	822.86	52.0	781.9	771.9	10	9/22/2016
B-57	Downgradient	Upper Bedrock	1391396.3	2202736.9	789.04	786.03	50.5	746.0	736.0	10	9/24/2016
B-58	Downgradient	Overburden	1391125.7	2202426.5	788.17	785.20	45.0	750.7	740.7	10	9/23/2016
B-59	Downgradient	Overburden/Upper Bedrock	1394349.1	2203001.1	788.00	785.41	30.3	765.2	755.2	10	9/23/2016
B-60	Downgradient	Overburden	1391100.7	2202881.6	782.13	779.25	49.8	740.0	730.0	10	9/29/2016
B-61	Downgradient	Overburden	1390957.8	2202505.8	782.09	778.95	51.9	737.5	727.5	10	9/29/2016
B-64	Downgradient	Overburden	1394381.9	2203031.3	785.83	785.98	30.4	766.0	756.0	10	11/2/2016
B-65	Downgradient	Overburden/Upper Bedrock	1394381.2	2204050.8	821.95	822.30	45.4	787.9	777.9	10	11/15/2016

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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-68	Downgradient	Overburden	1391298.2	2200714.2	758.68	759.05	18.0	751.1	741.1	10	3/16/2017
B-72	Downgradient	Overburden	1391241.4	2200725.9	758.46	758.45	21.9	747.0	737.0	10	4/19/2017
B-73	Downgradient	Overburden	1391351.8	2200699.4	759.21	759.16	15.8	753.8	743.8	10	4/19/2017
B-74	Downgradient	Overburden	1391279.9	2200666.1	759.06	759.18	16.2	748.4	743.4	5	4/25/2017
B-76	Downgradient	Overburden	1390717.4	2202756.9	760.53	760.87	38.5	732.4	722.4	10	9/18/2019
B-78	Downgradient	Overburden/Upper Bedrock	1394328.2	2202958.2	790.75	787.79	30.0	767.8	758.3	10	9/22/2019
B-79	Downgradient	Overburden	1394458.6	2203223.0	788.66	785.84	34.9	760.9	751.4	10	9/21/2019
B-80	Downgradient	Overburden	1394372.6	2203533.9	804.47	801.73	30.0	781.9	772.4	10	9/20/2019
B-81	Downgradient	Overburden	1394364.9	2203741.1	820.56	817.64	50.0	778.5	768.5	10	9/22/2019
B-85	Downgradient	Overburden/Upper Bedrock	1394433.4	2203134.5	782.54	782.71	34.5	758.5	748.5	10	11/18/2019
B-86	Downgradient	Overburden/Upper Bedrock	1394480.0	2203206.6	784.29	784.52	34.1	760.4	750.4	10	11/18/2019
B-87	Downgradient	Overburden	1394401.9	2203531.3	803.37	800.32	42.0	768.6	758.6	10	11/17/2019
B-89	Downgradient	Upper Bedrock	1394398.4	2204049.4	822.36	822.53	49.5	783.0	773.0	10	11/19/2019
B-90	Downgradient	Overburden	1394501.0	2203212.6	784.00	784.16	33.4	760.8	750.8	10	12/10/2019
B-91	Downgradient	Overburden	1394447.1	2203123.9	782.98	783.10	35.0	758.5	748.5	10	12/11/2019
B-94	Downgradient	Overburden	1394402.0	2203513.7	801.74	799.12	45.2	764.5	754.5	10	1/23/2020
B-95	Downgradient	Overburden	1394518.6	2203167.7	784.00	784.18	33.3	761.2	751.2	10	2/11/2020
B-96	Downgradient	Overburden	1394478.7	2203099.3	784.92	785.19	33.1	762.1	752.1	10	2/10/2020
B-99	Downgradient	Overburden	1394524.2	2203084.5	782.39	782.57	12.3	775.3	770.3	5	7/7/2020

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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-103D	Downgradient	Upper Bedrock	1391543.5	2202614.4	795.96	793.77	70.0	733.8	723.8	10	10/15/2020
B-109D	Downgradient	Upper Bedrock	1393957.5	2202127.0	850.73	847.78	100.0	758.4	748.4	10	10/31/2020
B-110D	Downgradient	Upper Bedrock	1391294.4	2200736.0	764.61	764.55	65.0	711.6	701.6	10	11/17/2020
B-113D	Downgradient	Upper Bedrock	1391264.6	2200719.2	758.22	758.87	84.7	684.5	674.5	10	3/30/2021
B-115D	Downgradient	Upper Bedrock	1391265.3	2202580.7	789.17	786.43	79.5	717.2	707.2	10	3/20/2021
B-116D	Upgradient	Upper Bedrock	1390483.7	2200611.0	807.82	805.31	89.5	726.1	716.1	10	3/8/2021
B-117D	Upgradient	Upper Bedrock	1393963.8	2201727.3	863.82	861.23	75.0	796.5	786.5	10	3/17/2021
B-118	Upgradient	Upper Bedrock	1391219.3	2200449.7	807.70	804.99	75.2	740.1	730.1	10	3/9/2021
B-119D	Upgradient	Upper Bedrock	1391236.4	2200446.6	807.15	804.53	105.0	709.8	699.8	10	3/16/2021
B-123D	Downgradient	Bedrock	1391234.4	2202608.4	781.80	778.85	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 of 1988
3. Ground surface elevations shown are the elevation of the survey nail.
4. Piezometers B-31 and B-74 were decommissioned and abandoned in October 2023.

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

Well ID	Hydraulic Location	Summary of Sample Event		Status of Monitoring Well
		September 2023	November 2023	
Purpose of Sampling Event		Detection/ Assessment	Background Sampling	
ASH POND 1 (AP-1) MONITORING WELL NETWORK				
DGWA-53	Upgradient	X	--	Assessment
DGWA-70A	Upgradient	X	--	Assessment
DGWA-71	Upgradient	X	--	Assessment
DGWC-37	Downgradient	X	--	Assessment
DGWC-38	Downgradient	X	--	Assessment
DGWC-39	Downgradient	X	--	Assessment
DGWC-40	Downgradient	X	--	Assessment
DGWC-67	Downgradient	X	--	Assessment
DGWC-68A	Downgradient	X	--	Assessment
DGWC-69	Downgradient	X	--	Assessment
DGWC-121	Downgradient	X	X	Assessment
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK				
B-62	Downgradient	X	--	Assessment
B-100	Downgradient	X	--	Assessment
B-105D	Downgradient	X	--	Assessment
B-112D	Downgradient	X	--	Assessment

Notes:

X - indicates well sampled during event

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, Georgia

Well ID	Top of Casing Elevation (feet NAVD 88)	Groundwater Elevation (feet NAVD 88)
		9/5/2023
ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK		
DGWA-53	844.26	831.05
DGWA-70A	808.52	767.17
DGWA-71	863.84	832.52
DGWC-37	766.21	752.22
DGWC-38	757.43	750.85
DGWC-39	759.89	752.34
DGWC-40	779.06	761.21
DGWC-67	766.70	756.28
DGWC-68A	765.33	754.88
DGWC-69	763.75	757.68
DGWC-121	764.16	754.93
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK		
B-62	760.08	744.20
B-100	777.95	743.98
B-105D	779.01	761.57
B-112D	765.58	758.02
ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) DETECTION MONITORING WELL NETWORK		
DGWA-53	844.26	831.05
DGWA-70A	808.52	767.17
DGWA-71	863.84	832.52
DGWC-2	850.88	821.65
DGWC-4	814.85	789.40
DGWC-5	791.75	777.38
DGWC-8	826.38	790.92
DGWC-9	824.35	Dry
DGWC-10	823.55	793.86
DGWC-11	800.57	787.69
DGWC-12	773.86	764.24
DGWC-13	794.10	760.08
DGWC-14	792.40	772.43
DGWC-15	824.50	784.64
DGWC-17	837.05	799.09
DGWC-19	825.46	798.81
DGWC-20	822.14	797.55
DGWC-21	816.28	797.24
DGWC-22	816.59	794.04
DGWC-23	818.37	796.20
DGWC-42	804.68	774.32
DGWC-47	797.45	780.90
DGWC-48	788.33	773.28

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, Georgia

Well ID	Top of Casing Elevation (feet NAVD 88)	Groundwater Elevation (feet NAVD 88)
		9/5/2023
ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) ASSESSMENT MONITORING WELL NETWORK		
B-56	823.59	793.23
B-62	760.08	744.20
B-63	777.10	747.47
B-66	815.90	796.75
B-77	776.86	747.11
B-82	810.07	795.53
B-83	776.98	746.03
B-88	820.07	781.31
B-92	785.08	777.13
B-93	789.07	778.86
B-97	786.29	780.88
B-98	789.67	777.85
B-100	777.95	743.98
B-101D	824.29	786.09
B-102D	823.42	789.32
B-104D	787.90	781.03
B-106D	826.21	787.25
B-107D	823.38	798.90
B-108D	821.13	797.68
B-111D	791.87	779.50
B-120D	836.42	801.27
B-122D	777.03	746.75
B-125D	821.70	798.30
PIEZOMETERS		
B-3	837.78	801.19
B-6	789.47	777.14
B-7	809.16	781.29
B-16	826.47	789.49
B-18	826.56	801.57
B-24	822.11	800.08
B-25	836.54	820.42
B-26	853.60	831.44
B-28	816.08	785.49
B-29	816.43	787.04
B-31	797.47	763.45
B-41	795.20	770.09
B-50	809.67	786.55
B-51	765.92	752.70
B-52	822.89	792.80
B-54	785.46	776.53
B-55	825.12	798.00
B-57	789.04	770.46

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, Georgia

Well ID	Top of Casing Elevation (feet NAVD 88)	Groundwater Elevation (feet NAVD 88)
		9/5/2023
PIEZOMETERS		
B-58	788.17	768.88
B-59	788.00	775.08
B-60	782.13	750.98
B-61	782.09	763.33
B-64	785.83	776.01
B-65	821.95	807.43
B-68	758.68	754.61
B-72	758.46	754.86
B-73	759.21	754.58
B-74	759.06	754.82
B-76	760.53	745.16
B-78	790.75	777.51
B-79	788.66	778.65
B-80	804.47	781.09
B-81	820.56	782.57
B-85	782.54	777.16
B-86	784.29	779.45
B-87	803.37	781.12
B-89	822.36	798.44
B-90	784.00	779.83
B-91	782.98	777.87
B-94	801.74	780.81
B-95	784.00	780.25
B-96	784.92	777.67
B-99	782.39	777.86
B-103D	795.96	782.46
B-109D	850.73	811.84
B-110D	764.61	755.40
B-113D	758.22	756.25
B-115D	789.17	768.58
B-116D	807.82	764.50
B-117D	863.82	831.99
B-118	807.70	755.74
B-119D	807.15	759.24
B-123D	781.80	769.56

Notes:

1. Elevation data recorded in feet referenced to the North American Vertical Datum 1988 (NAVD 88)
2. Survey data for monitoring wells and piezometers provided by Metro Engineering.

TABLE 4
GROUNDWATER VELOCITY CALCULATIONS - SEPTEMBER 2023
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, Georgia

Flow Paths	Groundwater Elevation (feet NAVD 88)[1]	Δ h (feet)[2]	Δ l (feet)[3]	Hydraulic Gradient (Δ h/Δ l)[4]	Average Hydraulic Conductivity, K (centimeter per second)[6]	Assumed Effective Porosity (n_e)[7]	Average Linear Groundwater Velocity	
							(feet per day)[5]	(feet per year)[5]
ASH POND 1 (AP-1)								
B-29/DGWC-68A	787.04 754.88	32.16	900	0.036	0.00077	0.2	0.39	142
B-28/DGWC-37	785.49 752.22	33.27	1700	0.020	0.00077	0.2	0.21	78
B-50/DGWC-39	786.55 752.34	34.21	1400	0.024	0.00077	0.2	0.27	97

Notes:

1. Elevation data recorded in feet referenced to the North American Vertical Datum 1988 (NAVD 88)
2. Δ h = Change in groundwater elevation
3. Δ l =Distance along flow path
4. i = Δ h / Δ l gradient in feet
5. Velocity = $(i * K)/n_e$
6. Hydraulic conductivity based on historic aquifer performance tests
7. 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 5
ANALYTICAL DATA SUMMARY
September 2023
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, 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
		9/7/2023	9/6/2023	9/6/2023	9/6/2023	9/7/2023	9/7/2023	9/7/2023	9/7/2023	9/7/2023	9/7/2023	9/8/2023
Appendix III												
BORON, TOTAL	mg/L	0.052	0.012 J	0.015 J	1.7	2.8	2.7	0.73	3.9	1.8	0.052	1.9
CALCIUM, TOTAL	mg/L	16.3	6.6	7.0	59.1	86.5	81.2	41.0	43.3	53.6	8.1	43.9
CHLORIDE, TOTAL	mg/L	1.7	2.2	7.8	5.4	8.2	7.2	13.6	9.2	3.9	5.1	4.5
FLUORIDE, TOTAL	mg/L	0.082 J	< 0.050	< 0.050	0.053 J	0.072 J	0.092 J	0.14	< 0.050	0.096 J	0.063 J	< 0.050
pH	S.U.	6.51	5.50	5.82	6.26	6.07	6.55	4.67	6.21	6.60	6.16	6.25
SULFATE, TOTAL	mg/L	15.4	< 0.50	7.2	83.4	212	124	177	106	34.2	6.9	87.8
TOTAL DISSOLVED SOLIDS	mg/L	123	46.0	80.0	324	526	421	359	337	253	106	286
Appendix IV												
ANTIMONY, TOTAL	mg/L	< 0.0012	< 0.0012	0.0045	0.0014 J	< 0.0012	< 0.0012	< 0.0012	0.0039	< 0.0012	< 0.0012	< 0.0012
ARSENIC, TOTAL	mg/L	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	0.029	< 0.0037
BARIUM, TOTAL	mg/L	0.12	0.041	0.030	0.082	0.027	0.11	0.016	0.076	0.11	0.047	0.047
BERYLLIUM, TOTAL	mg/L	< 0.000054	0.00012 J	0.00011 J	0.000058 J	< 0.000054	< 0.000054	0.0031	< 0.000054	< 0.000054	0.000078 J	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.00013 J	< 0.00011	0.00074	< 0.00011	0.00015 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	< 0.0011	< 0.0011
COBALT, TOTAL	mg/L	0.0086	< 0.00039	< 0.00039	< 0.00039	0.0015 J	0.0059	0.035	0.0010 J	< 0.00039	< 0.00039	0.0016 J
FLUORIDE, TOTAL	mg/L	0.082 J	< 0.050	< 0.050	0.053 J	0.072 J	0.092 J	0.14	< 0.050	0.096 J	0.063 J	< 0.050
LEAD, TOTAL	mg/L	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	0.00020 J	< 0.00012
LITHIUM, TOTAL	mg/L	0.0085 J	< 0.00073	0.0013 J	0.0021 J	0.0026 J	< 0.00073	0.0022 J	0.0046 J	< 0.00073	0.0022 J	0.0055 J
MERCURY, TOTAL	mg/L	< 0.00013	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012
MOLYBDENUM, TOTAL	mg/L	0.022	< 0.00074	< 0.00074	< 0.00074	0.0013 J	0.0016 J	< 0.00074	0.0013 J	0.18	0.0056 J	< 0.00074
RADIUM (226 + 228)	pCi/L	2.16	0.651 U	0.572 U	0.732 U	0.358 U	0.728 U	0.902 U	0.565 U	0.782 U	0.910	0.986 U
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	0.00053 J	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018
Additional Parameters												
ALKALINITY, BICARBONATE	mg/L	74.5	27.2	16.4	129	97.7	215	< 5.0	90.9	201	38.9	96.9
ALKALINITY, CARBONATE	mg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
ALKALINITY, TOTAL	mg/L	74.5	27.2	16.4	129	97.7	215	< 5.0	90.9	201	38.9	96.9
MAGNESIUM	mg/L	5.1	2.6	0.98	13.0	25.7	19.8	18.0	17.2	18.1	2.3	13.2
POTASSIUM	mg/L	3.8	1.6	0.77	4.0	4.4	2.8	5.9	3.6	4.0	2.3	3.6
SODIUM	mg/L	7.6	3.4	8.8	10.3	12.1	12.6	18.9	10.3	9.8	9.3	10.9
IRON, TOTAL	mg/L	14.9	< 0.025	0.091	0.040	0.028 J	11.5	< 0.025	< 0.025	0.0930	0.35	2.6
SULFIDE	mg/L	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	0.071 J

Notes:
1. mg/L - milligrams per Liter.
2. pCi/L - picocuries per Liter.
3. S.U. - Standard Units.
4. -- indicates substance was 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. Monitoring well DGWC-121 is sampled on a quarterly basis for background data.

TABLE 5
ANALYTICAL DATA SUMMARY
September 2023
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, Georgia

Analyte	Units		ASSESSMENT MONITORING WELLS			
		DGWC-121	B-62	B-100	B-105D	B-112D
		11/7/2023	9/7/2023	9/6/2023	9/7/2023	9/7/2023
Appendix III						
BORON, TOTAL	mg/L	1.7	0.071	0.24	0.76	0.24
CALCIUM, TOTAL	mg/L	41.3	35.1	49.9	71.8	24.0
CHLORIDE, TOTAL	mg/L	4.6	5.4	10.0	14.9	2.6
FLUORIDE, TOTAL	mg/L	< 0.050	0.13	< 0.050	0.10	0.32
pH	S.U.	6.21	6.38	5.25	6.52	6.77
SULFATE, TOTAL	mg/L	85.7	49.3	322	236	16.3
TOTAL DISSOLVED SOLIDS	mg/L	279	181	641	520	155
Appendix IV						
ANTIMONY, TOTAL	mg/L	<0.00054	< 0.0012	< 0.0012	< 0.0012	< 0.0012
ARSENIC, TOTAL	mg/L	0.0011 J	< 0.0037	< 0.0037	< 0.0037	< 0.0037
BARIUM, TOTAL	mg/L	0.053	0.015	0.021	0.035	0.0027 J
BERYLLIUM, TOTAL	mg/L	<0.000094	0.00011 J	0.00054	< 0.000054	< 0.000054
CADMIUM, TOTAL	mg/L	<0.00010	< 0.00011	0.00035 J	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	<0.0019	< 0.0011	< 0.0011	< 0.0011	< 0.0011
COBALT, TOTAL	mg/L	0.0012 J	< 0.00039	0.031	0.0027 J	0.00040 J
FLUORIDE, TOTAL	mg/L	< 0.050	0.13	< 0.050	0.10	0.32
LEAD, TOTAL	mg/L	<0.00016	< 0.00012	< 0.00012	< 0.00012	< 0.00012
LITHIUM, TOTAL	mg/L	0.0065 J	0.0092 J	0.0023 J	0.013 J	0.0043 J
MERCURY, TOTAL	mg/L	<0.00013	< 0.00013	< 0.00012	< 0.00012	< 0.00012
MOLYBDENUM, TOTAL	mg/L	<0.00062	< 0.00074	< 0.00074	< 0.00074	0.026
RADIUM (226 + 228)	pCi/L	0.643 U	2.24	0.326 U	2.88	0.902
SELENIUM, TOTAL	mg/L	<0.00096	< 0.0014	< 0.0014	< 0.0014	< 0.0014
THALLIUM, TOTAL	mg/L	<0.00038	< 0.00018	< 0.00018	< 0.00018	< 0.00018
Additional Parameters						
ALKALINITY , BICARBONATE	mg/L	--	75.7	< 5.0	45.9	109
ALKALINITY , CARBONATE	mg/L	--	< 5.0	< 5.0	< 5.0	< 5.0
ALKALINITY , TOTAL	mg/L	--	75.7	< 5.0	45.9	109
MAGNESIUM	mg/L	--	5.1	46.9	24.6	7.3
POTASSIUM	mg/L	--	2.4	1.3	8.2	2.8
SODIUM	mg/L	--	10.1	28.1	20.0	12.5
IRON, TOTAL	mg/L	--	5.0	21.7	2.1	0.035 J
SULFIDE	mg/L	--	< 0.022	< 0.022	0.43	< 0.022

Notes:
1. mg/L - milligrams per Liter.
2. pCi/L - picocuries per Liter.
3. S.U. - Standard Units.
4. -- indicates substance was not analyzed.
5. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method
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. Monitoring well DGWC-121 is sampled on a quarterly basis for background data.

TABLE 6
SURFACE WATER ANALYTICAL DATA SUMMARY
September 2023
Georgia Power Company - Plant McDonough Ash Pond 1
Smyrna, Georgia

Analyte	Units	SURFACE WATER SAMPLES						
		UT01_DS	UT01_US	UT02	UT03	CR+0.4	CR+0.2	CR-0.1
		9/13/2023	9/13/2023	9/13/2023	9/13/2023	9/12/2023	9/12/2023	9/12/2023
Appendix III								
Boron	mg/L	0.058	< 0.040	0.040	0.049	0.041	< 0.040	0.043
Calcium	mg/L	11.2	11.8	11.5	11.7	6.7	6.9	7.0
Chloride	mg/L	4.7	5.1	5.2	4.9	9.1	9.2	9.5
Fluoride	mg/L	0.17	0.19	0.20	0.18	0.13	0.13	0.13
Sulfate	mg/L	7.7	7.3	7.8	7.9	6.8	6.6	7.1
Total Dissolved Solids	mg/L	88.0	56.0	63.0	89.0	47.0	65.0	50.0
Appendix IV								
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	--	--
Cobalt	mg/L	--	--	--	--	< 0.0050	< 0.0050	< 0.0050
Major Ions								
Alkalinity, Total as CaCO3	mg/L	34.1	35.3	34.9	35.3	25.7	26.5	27.0
Alkalinity,Bicarbonate (CaCO3)	mg/L	34.1	35.3	34.9	35.3	25.7	26.5	27.0
Magnesium	mg/L	1.8	1.9	1.8	1.9	2.1	2.2	2.2
Potassium	mg/L	2.5	2.8	2.6	2.7	3.3	3.4	3.4
Sodium	mg/L	5.1	5.5	5.5	5.5	8.8	9.2	9.4

Notes:

1. mg/L = miligrams per liter

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

3. "--" = Analyte not analyzed

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

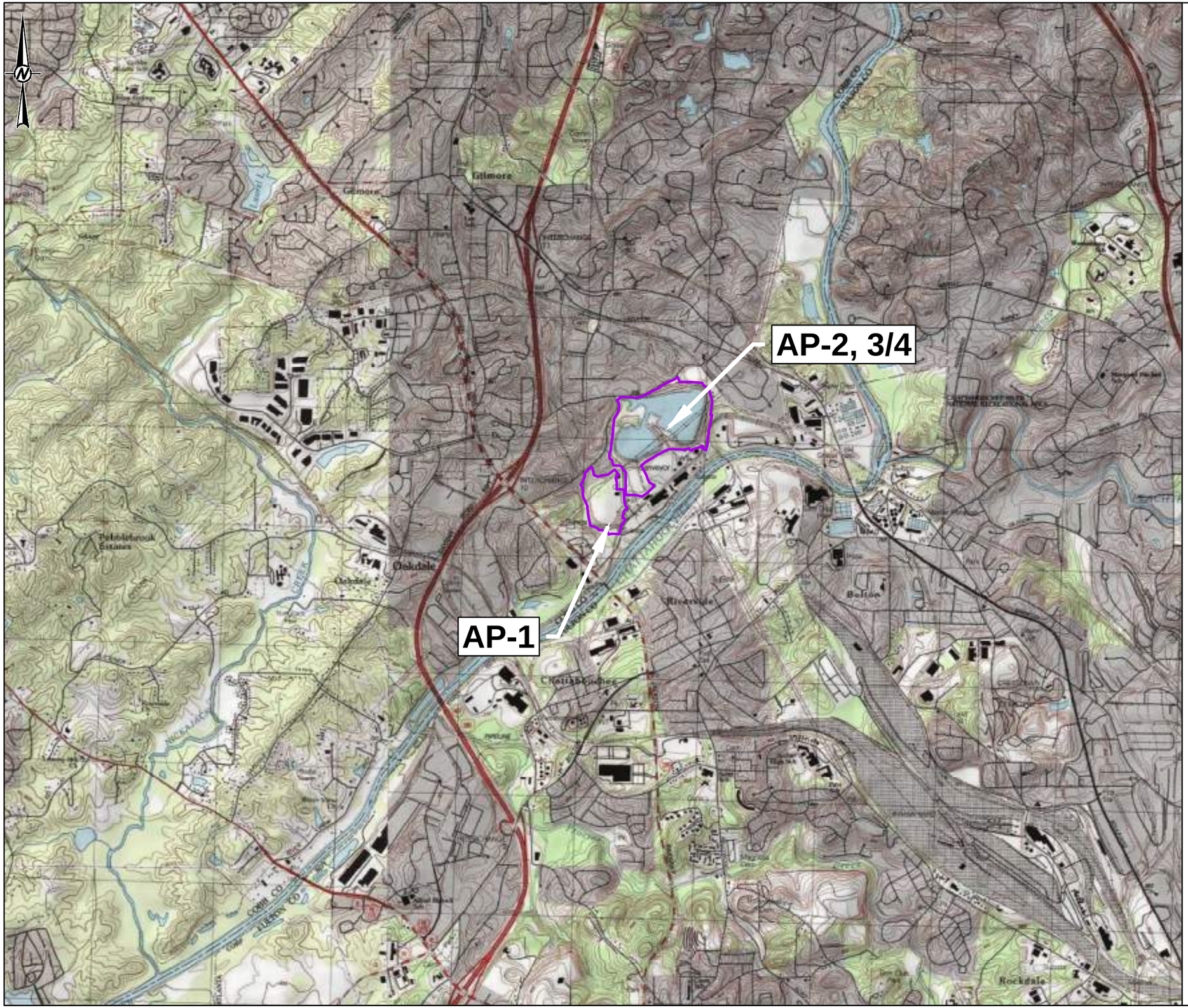
Analyte	Units	Maximum Contaminant Level (MCL)	Federal Regional Screening Level (RSL)	Site Specific Background September 2023[1]	GWPS September 2023
Antimony	mg/L	0.006	--	0.0045[2]	0.006
Arsenic	mg/L	0.01	--	0.0054[2]	0.01
Barium	mg/L	2	--	0.19	2.0
Beryllium	mg/L	0.004	--	0.0009[2]	0.004
Cadmium	mg/L	0.005	--	0.0005[2]	0.005
Chromium	mg/L	0.1	--	0.005[2]	0.1
Cobalt	mg/L	NA	0.006	0.032	0.032
Fluoride	mg/L	4	--	0.42	4.0
Lead	mg/L	NA	0.015	0.001[2]	0.015
Lithium	mg/L	NA	0.04	0.03	0.04
Mercury	mg/L	0.002	--	0.0002[2]	0.002
Molybdenum	mg/L	NA	0.1	0.041[2]	0.1
Radium (226 + 228)	pCi/L	5	--	4.87	5.0
Selenium	mg/L	0.05	--	0.005[2]	0.05
Thallium	mg/L	0.002	--	0.001[2]	0.002

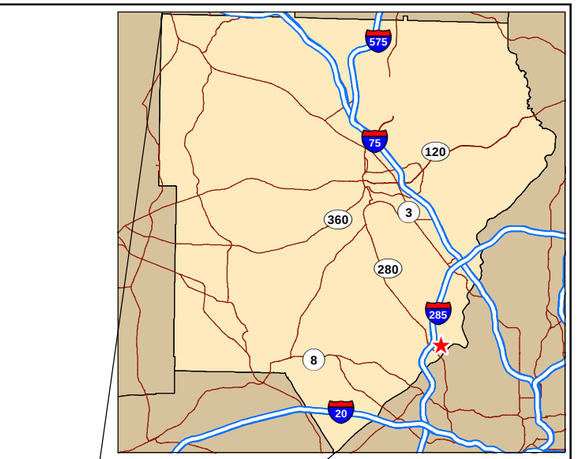
Notes:
mg/L = milligrams per liter; pCi/L = picocuries per liter; NA = Not Available

[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] 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

0 0.5 1

1 INCH=0.5 MILES

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

PROJECT
2023 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
SITE LOCATION MAP

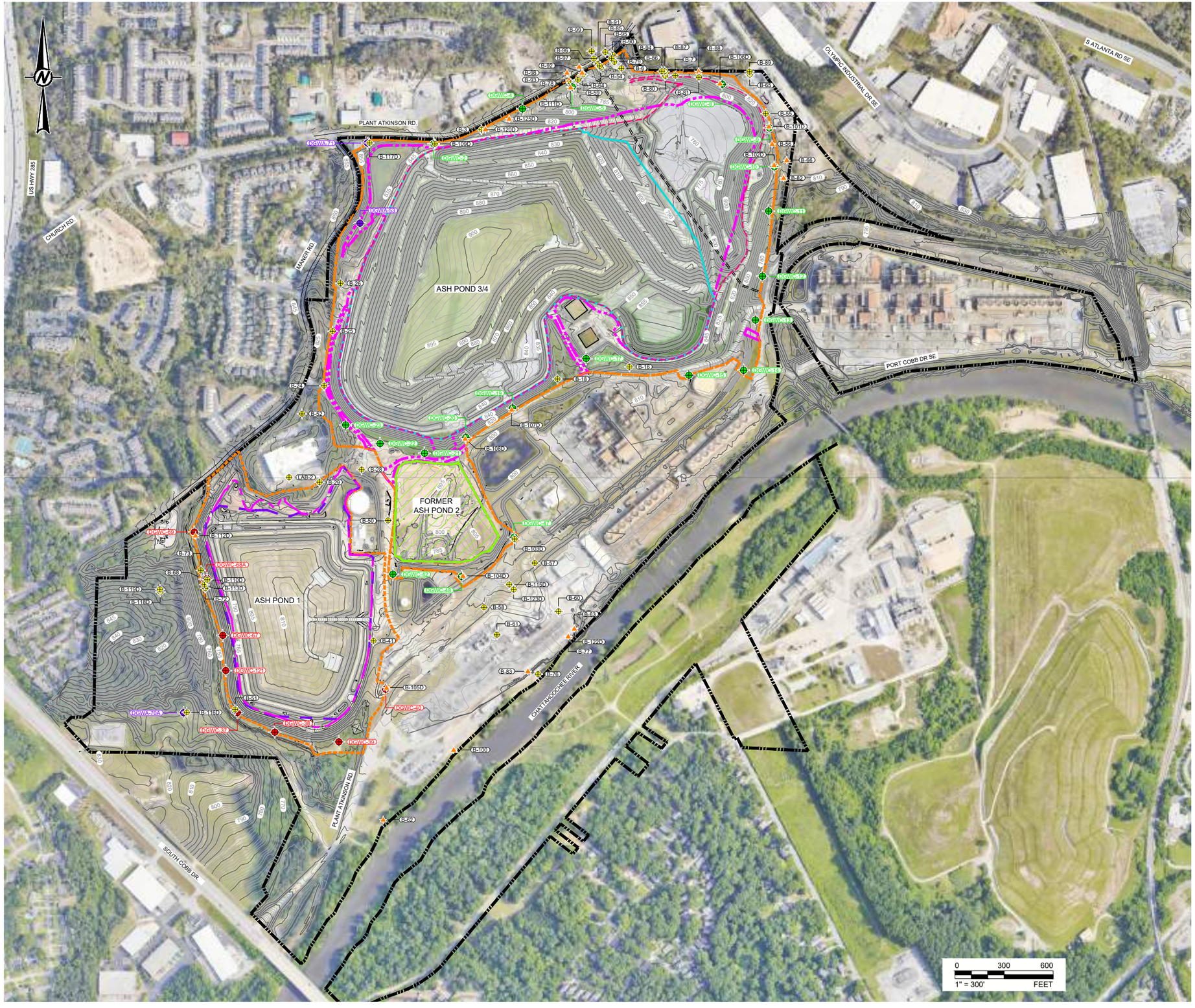
CONSULTANT
wsp

YYYY-MM-DD	2022-4-26
PREPARED	SEB
DESIGN	SEB
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 1

FIGURE **1**



LEGEND

- EXISTING CONTOURS (SEE REFERENCE 2)
- PROPERTY BOUNDARY (SEE REFERENCE 1)
- APPROXIMATE PRE-CLOSURE CCR LIMITS
- FINAL CLOSURE CCR LIMITS
- PERMIT BOUNDARY
- FINAL COVER SYSTEM LIMITS
- POST CLOSURE CCR LIMITS
- UPGRADIENT WELL
- AP-1 MONITORING WELL
- AP-2, 3/4 MONITORING WELL
- ASSESSMENT WELLS
- PIEZOMETER
- AREA WHERE ASH HAS BEEN CERTIFIED REMOVED AS OF 2/28/2024

NOTES

1. EXISTING TOPOGRAPHIC CONTOUR INTERVAL – 1 FOOT.
2. CLOSURE ACTIVITIES FOR AP-1 WERE INITIATED IN JANUARY 2016 AND FINAL COVER CONSTRUCTION ACTIVITIES WERE COMPLETED IN 2017. COMPLETION OF FINAL POST COVER CONSTRUCTION ACTIVITIES AND IMPROVEMENTS AT AP-1 ARE SUBSTANTIALLY COMPLETE. A PLANNED BARRIER WALL INSTALLATION IS CURRENTLY UNDER REVIEW WITH EPD.
3. CLOSURE ACTIVITIES FOR AP-2 WERE INITIATED IN JANUARY 2016. AP-2 CLOSURE ACTIVITIES CONSISTED OF CLOSURE BY REMOVAL OF CCR, WHERE CCR REMOVED FROM AP-2 WAS PLACED IN THE ADJACENT UNITS AP-1 AND AP-3. CLOSURE CONSTRUCTION ACTIVITIES AT AP-2 WERE COMPLETED IN 2017. BACKFILLING OF THE AP-2 FOOTPRINT WAS COMPLETE IN Q4 2023.
4. CLOSURE ACTIVITIES FOR AP-3 AND AP-4 WERE INITIATED IN JANUARY 2016. AP-3 AND AP-4 ARE CURRENTLY UNDERGOING CLOSURE AS A COMBINED UNIT AP-3/4.
5. DATA PRESENTED FOR CCR UNITS AP-2 AND AP-3/4 IS INCLUDED FOR REFERENCE ONLY. THIS DATA SHOULD NOT BE CONSIDERED FOR PERMITTING OF CCR UNIT AP-1.

REFERENCES

1. APPROXIMATE PROPERTY BOUNDARY PROVIDED BY SOUTHERN COMPANY SERVICES (2017).
2. THE EXISTING TOPOGRAPHY, AND CONTOUR ELEVATIONS FOR THE ASH PONDS 1 THROUGH 4 AREAS WERE PROVIDED BY GEORGIA POWER. THE DATE OF THE SURVEY PROVIDED AND SHOWN ON THIS SET OF PLANS, ON THE AP-1 IS AUGUST 31, 2022, ON AP-2, 3/4 IS NOVEMBER 2, 2022. AERIAL IMAGERY DATE FOR AP-3/4 PROVIDED BY GEORGIA POWER IS MAY 24, 2023, AND FOR AP-1, AP-2 AND SURROUNDING AREAS OF AP- 3/4, SOURCED BY PLEXEARTH, IS SEPTEMBER 28, 2023. THE TOPOGRAPHIC CONTOUR INTERVALS IS 1 FOOT.
   THE EXISTING TOPOGRAPHY AND CONTOUR ELEVATIONS FOR THE SURROUNDING AREAS OF ASH PONDS 1 THROUGH 4 WERE PROVIDED BY GEORGIA LAND DEPARTMENT AND METRO ENGINEERING AND SURVEYING CO, INC. THE DATE OF THE SURVEY PROVIDED AND SHOWN ON THIS SET OF PLANS, AT THE SURROUNDING AREAS, IS 03-18-2018. REFER TO THE SURVEY DRAWING TITLED "TOPOGRAPHIC MAP PREPARED FOR GEORGIA POWER COMPANY PLANT MCDONOUGH - GEORGIA STATE PLANE WEST SURVEY FEET.
4 SELECT BORING/PIEZOMETER LOCATIONS AND ELEVATIONS RESURVEYED BY METRO ENGINEERING & SURVEYING CO., INC., 2020-2021.
6. COORDINATES SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET); ELEVATIONS DISPLAY IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (FEET NAVD88).

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH - ATKINSON

Georgia Power

PROJECT
2023 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - ASH POND 1

TITLE
PLANT MCDONOUGH CCR REMOVAL AREA

CONSULTANT
wsp

YYYY-MM-DD	2024-01-05
DESIGNED	SEB
PREPARED	CRP
CHECKED	DLP
REVIEWED / APPROVED	RNQ

PROJECT NO. 31406440.MCD23
REV.
FIGURE 2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D
0 1in

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- DEWATERING WELL
- SURFACE WATER MONITORING LOCATION
- STAFF GUAGE
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JANUARY, 2023 PROVIDED BY GPC.

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, MAY 2021, AND MAY 2023.

0 600 1,200

1 IN= 600 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

PROJECT
2023 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
MONITORING WELL, PIEZOMETER AND SURFACE WATER LOCATION MAP

CONSULTANT

YYYY-MM-DD	2024-02-08
PREPARED	YCS
DESIGN	DLP
CHECKED	DP/RPK
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 0

FIGURE 3

LEGEND

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

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

2. GROUNDWATER ELEVATION MEAUSREMENTS OBTAINED SEPTEMBER 5, 2023 BY WSP.

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.

REFERENCE

1. AERIAL IMAGERY DATE FOR AP-3/4 PROVIDED BY GEORGIA POWER IS MAY 24, 2023, AND FOR AP-1, AP-2 AND SURROUNDING AREAS OF AP- 3/4, SOURCED BY PLEXEARTH, IS SEPTEMBER 28, 2023.

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, MAY 2021, AND MAY 2023.

0 600 1,200

1 IN= 600 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
2023 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
SITE POTENTIOMETRIC MAP – SEPTEMBER 5, 2023

CONSULTANT
wsp

YYYY-MM-DD	2024-02-08
PREPARED	YCS
DESIGN	SEB
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 0

FIGURE 4

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- SURFACE WATER MONITORING LOCATION
- 0.01 ARSENIC GWPS ISOCONCENTRATION CONTOUR
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPT 2023)
- 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.

3. DATA SHOWN REPRESENT THE SEPTEMBER 2023 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 SEPTEMBER 2023 WATER LEVELS.

Analyte	Units	GWPS
Arsenic	mg/L	0.01

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JANUARY 2023 PROVIDED BY GPC.

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.

0 200 400

1 IN= 200 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

PROJECT
2023 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - ASH POND 1

TITLE
ARSENIC ISOCONCENTRATION CONTOUR MAP - SEPTEMBER 2023

CONSULTANT

YYYY-MM-DD	2024-02-25
PREPARED	YCS
DESIGN	DLP
CHECKED	RPK
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 0

FIGURE 5

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

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING
- PIEZOMETER
- SURFACE WATER MONITORING
- 0.032 COBALT GWPS ISOCONCENTRATION
- COBALT GWPS ISOCONCENTRATION CONTOUR (INFERRED)
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPT 2023)
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE

2. GOUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD. RSL = (FEDERAL REGIONAL SCREENING LEVEL)

3. DATA SHOWN REPRESENT THE SEPTEMBER 2023 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 SEPTEMBER 2023 WATER LEVELS.

Analyte	Units	GWPS
Cobalt	mg/L	0.032

REFERENCE

1. AERIAL IMAGE DATED NOVEMBER 2019 FROM GOOGLE EARTH AND JANUARY 2023 PROVIDED BY GPC.

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.

0 300 600

1 IN= 300 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

PROJECT
2023 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - ASH POND 1

TITLE
COBALT ISOCONCENTRATION CONTOUR MAP - SEPTEMBER 2023

CONSULTANT

YYYY-MM-DD	2024-02-25
PREPARED	YCS
DESIGN	DLP
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 0

FIGURE 6

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

APPENDIX A

Field Data Forms and Instrument Calibration Records

APPENDIX A

Field Data Forms
September 2023

Low-Flow Test Report:

Test Date / Time: 9/7/2023 10:05:11 AM
Project: SCS MCD (5)
Operator Name: Dana Bloomfield

Location Name: MCD-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: 17.38 ft**	**Pump Type: Bladder** **Tubing Type: LDPE** **Estimated Total Volume Pumped: 6350 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 140 ml/min** **Final Draw Down: 1.23 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883553**

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 10:05 AM	00:00	6.79 pH	27.98 °C	595.75 µS/cm	4.35 mg/L	6.83 NTU	86.9 mV	17.38 ft	250.00 ml/min
9/7/2023 10:10 AM	05:00	6.67 pH	21.59 °C	654.54 µS/cm	1.48 mg/L	3.43 NTU	-87.2 mV	18.61 ft	150.00 ml/min
9/7/2023 10:15 AM	10:00	6.65 pH	22.16 °C	657.88 µS/cm	0.92 mg/L	3.58 NTU	-145.7 mV	18.66 ft	150.00 ml/min
9/7/2023 10:20 AM	15:00	6.63 pH	22.04 °C	661.89 µS/cm	0.77 mg/L	3.73 NTU	-83.6 mV	18.66 ft	150.00 ml/min
9/7/2023 10:25 AM	20:00	6.63 pH	22.09 °C	668.94 µS/cm	0.71 mg/L	4.29 NTU	-77.5 mV	18.66 ft	150.00 ml/min
9/7/2023 10:30 AM	25:00	6.65 pH	22.05 °C	673.80 µS/cm	0.65 mg/L	4.28 NTU	-75.8 mV	18.66 ft	140.00 ml/min
9/7/2023 10:35 AM	30:00	6.61 pH	23.20 °C	684.31 µS/cm	0.60 mg/L	2.48 NTU	-60.8 mV	18.61 ft	140.00 ml/min
9/7/2023 10:40 AM	35:00	6.55 pH	23.43 °C	679.64 µS/cm	0.45 mg/L	1.67 NTU	-91.7 mV	18.61 ft	140.00 ml/min
9/7/2023 10:45 AM	40:00	6.52 pH	23.39 °C	676.30 µS/cm	0.40 mg/L	1.62 NTU	-43.2 mV	18.61 ft	140.00 ml/min

Samples

Sample ID:	Description:
MCD-B-105D	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 3:57:00 PM
Project: MCD SAGW 2 (7)
Operator Name: P Wahl

Location Name: MCD-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: 7.56 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 50 ft** **Estimated Total Volume Pumped: 9000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.12 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

Test Notes:

Weather Conditions:
Sunny

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 3:57 PM	00:00	7.42 pH	36.89 °C	168.26 µS/cm	4.40 mg/L	17.90 NTU	32.1 mV	7.56 ft	200.00 ml/min
9/7/2023 4:02 PM	05:00	7.41 pH	24.26 °C	246.16 µS/cm	0.34 mg/L	9.51 NTU	-75.2 mV	7.66 ft	200.00 ml/min
9/7/2023 4:07 PM	10:00	7.46 pH	23.47 °C	248.79 µS/cm	0.25 mg/L	8.19 NTU	-115.2 mV	7.68 ft	200.00 ml/min
9/7/2023 4:12 PM	15:00	7.48 pH	23.49 °C	248.50 µS/cm	0.24 mg/L	10.80 NTU	-89.6 mV	7.68 ft	200.00 ml/min
9/7/2023 4:17 PM	20:00	7.47 pH	23.34 °C	248.76 µS/cm	0.21 mg/L	4.95 NTU	-90.2 mV	7.68 ft	200.00 ml/min
9/7/2023 4:22 PM	25:00	7.44 pH	23.17 °C	248.14 µS/cm	0.20 mg/L	6.23 NTU	-87.4 mV	7.68 ft	200.00 ml/min
9/7/2023 4:27 PM	30:00	7.19 pH	23.15 °C	248.43 µS/cm	0.19 mg/L	5.86 NTU	-90.6 mV	7.68 ft	200.00 ml/min
9/7/2023 4:32 PM	35:00	6.79 pH	22.97 °C	248.03 µS/cm	0.21 mg/L	4.88 NTU	-14.6 mV	7.68 ft	200.00 ml/min
9/7/2023 4:37 PM	40:00	6.78 pH	23.10 °C	247.07 µS/cm	0.21 mg/L	4.89 NTU	-29.5 mV	7.68 ft	200.00 ml/min
9/7/2023 4:42 PM	45:00	6.77 pH	23.02 °C	247.05 µS/cm	0.20 mg/L	3.15 NTU	-7.9 mV	7.68 ft	200.00 ml/min

Samples

Sample ID:	Description:

MCD-B-112D	

Low-Flow Test Report:

Test Date / Time: 9/6/2023 2:13:13 PM
Project: MCD SAGW 2 (3)
Operator Name: P Wahl

Location Name: MCD-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: 14.01 ft**	**Pump Type: Dedicated Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 38 ft** **Estimated Total Volume Pumped: 7000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.24 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

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	
9/6/2023 2:13 PM	00:00	7.02 pH	34.71 °C	400.23 µS/cm	5.56 mg/L	4.59 NTU	56.1 mV	14.16 ft	200.00 ml/min
9/6/2023 2:18 PM	05:00	6.24 pH	23.27 °C	469.50 µS/cm	0.87 mg/L	3.32 NTU	72.1 mV	14.18 ft	200.00 ml/min
9/6/2023 2:23 PM	10:00	6.24 pH	22.52 °C	476.12 µS/cm	0.53 mg/L	2.77 NTU	87.3 mV	14.22 ft	200.00 ml/min
9/6/2023 2:28 PM	15:00	6.24 pH	22.12 °C	468.44 µS/cm	0.50 mg/L	1.57 NTU	71.2 mV	14.21 ft	200.00 ml/min
9/6/2023 2:33 PM	20:00	6.24 pH	21.90 °C	460.53 µS/cm	0.60 mg/L	1.49 NTU	88.2 mV	14.23 ft	200.00 ml/min
9/6/2023 2:38 PM	25:00	6.26 pH	21.60 °C	454.84 µS/cm	0.67 mg/L	1.32 NTU	72.5 mV	14.24 ft	200.00 ml/min
9/6/2023 2:43 PM	30:00	6.26 pH	21.38 °C	449.62 µS/cm	0.72 mg/L	0.89 NTU	72.2 mV	14.24 ft	200.00 ml/min
9/6/2023 2:48 PM	35:00	6.26 pH	21.20 °C	445.10 µS/cm	0.76 mg/L	1.24 NTU	89.9 mV	14.25 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-37	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 1:07:17 PM
Project: MCD SAGW 2 (5)
Operator Name: P Wahl

Location Name: MCD-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: 6.65 ft**	**Pump Type: Dedicated Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 23 ft** **Estimated Total Volume Pumped: 4000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.47 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 1:07 PM	00:00	6.08 pH	26.96 °C	603.29 µS/cm	1.53 mg/L	6.39 NTU	88.8 mV	7.00 ft	200.00 ml/min
9/7/2023 1:12 PM	05:00	6.06 pH	21.68 °C	646.95 µS/cm	0.90 mg/L	5.27 NTU	111.8 mV	7.04 ft	200.00 ml/min
9/7/2023 1:17 PM	10:00	6.06 pH	21.49 °C	649.13 µS/cm	0.43 mg/L	2.83 NTU	108.9 mV	7.10 ft	200.00 ml/min
9/7/2023 1:22 PM	15:00	6.07 pH	21.10 °C	646.30 µS/cm	0.28 mg/L	1.52 NTU	106.7 mV	7.12 ft	200.00 ml/min
9/7/2023 1:27 PM	20:00	6.07 pH	20.93 °C	644.58 µS/cm	0.21 mg/L	2.27 NTU	105.2 mV	7.12 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-38	
Extra Rad	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 2:25:14 PM
Project: MCD SAGW 2 (6)
Operator Name: P Wahl

Location Name: MCD-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: 7.23 ft**	**Pump Type: Dedicated Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 4000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.82 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 2:25 PM	00:00	6.56 pH	34.98 °C	527.24 µS/cm	3.69 mg/L	22.20 NTU	11.1 mV	7.76 ft	200.00 ml/min
9/7/2023 2:30 PM	05:00	6.53 pH	22.61 °C	680.79 µS/cm	0.84 mg/L	5.68 NTU	-24.2 mV	7.95 ft	200.00 ml/min
9/7/2023 2:35 PM	10:00	6.55 pH	22.21 °C	693.89 µS/cm	0.28 mg/L	2.27 NTU	-35.2 mV	8.01 ft	200.00 ml/min
9/7/2023 2:40 PM	15:00	6.55 pH	22.05 °C	694.39 µS/cm	0.19 mg/L	2.23 NTU	-29.8 mV	8.02 ft	200.00 ml/min
9/7/2023 2:45 PM	20:00	6.55 pH	22.12 °C	694.36 µS/cm	0.17 mg/L	1.46 NTU	-30.2 mV	8.05 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-39	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 12:05:45 PM
Project: SCS MCD (6)
Operator Name: Dana Bloomfield

Location Name: MCD-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: 17.79 ft**	**Pump Type: Dedicated Bladder** **Tubing Type: LDPE** **Estimated Total Volume Pumped: 6403.167 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 170 ml/min** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883553**

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 12:05 PM	00:00	5.12 pH	27.27 °C	478.05 µS/cm	2.77 mg/L	19.10 NTU	107.6 mV	17.79 ft	200.00 ml/min
9/7/2023 12:10 PM	05:00	4.75 pH	22.29 °C	501.37 µS/cm	2.79 mg/L	24.30 NTU	103.4 mV	17.85 ft	170.00 ml/min
9/7/2023 12:12 PM	06:47	4.74 pH	22.51 °C	498.88 µS/cm	4.66 mg/L	18.30 NTU	163.0 mV	17.85 ft	170.00 ml/min
9/7/2023 12:17 PM	11:47	4.71 pH	22.04 °C	501.03 µS/cm	2.78 mg/L	21.00 NTU	121.9 mV	17.85 ft	170.00 ml/min
9/7/2023 12:22 PM	16:47	4.69 pH	22.39 °C	500.35 µS/cm	2.77 mg/L	12.90 NTU	121.5 mV	17.85 ft	170.00 ml/min
9/7/2023 12:27 PM	21:47	4.69 pH	22.44 °C	500.03 µS/cm	2.76 mg/L	8.51 NTU	178.5 mV	17.85 ft	170.00 ml/min
9/7/2023 12:32 PM	26:47	4.68 pH	22.67 °C	502.51 µS/cm	2.77 mg/L	3.88 NTU	128.4 mV	17.85 ft	170.00 ml/min
9/7/2023 12:37 PM	31:47	4.68 pH	22.92 °C	500.36 µS/cm	2.75 mg/L	2.31 NTU	123.2 mV	17.85 ft	170.00 ml/min
9/7/2023 12:42 PM	36:47	4.67 pH	23.12 °C	501.70 µS/cm	2.76 mg/L	1.53 NTU	123.7 mV	17.85 ft	170.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-40	Sample time 1242
MCD-AP1-EB1	Sample time 1300

Low-Flow Test Report:

Test Date / Time: 9/7/2023 11:04:08 AM
Project: McDonoughSAGW02 2023 (3)
Operator Name: Mark Mann

Location Name: MCD-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: 10.39 ft**	**Pump Type: Peri** **Tubing Type: LDPE** **Pump Intake From TOC: 50 ft** **Estimated Total Volume Pumped: 5500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.61 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 965586**

Test Notes:
Purge stopped between 11:09 and 11:19. Fe2+: 0.0

Weather Conditions:
Sunny

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	
9/7/2023 11:04 AM	00:00	6.60 pH	29.96 °C	402.48 µS/cm	6.02 mg/L	4.38 NTU	139.8 mV	10.39 ft	200.00 ml/min
9/7/2023 11:09 AM	05:00	6.20 pH	21.90 °C	450.62 µS/cm	0.28 mg/L	4.38 NTU	111.3 mV	10.39 ft	0.00 ml/min
9/7/2023 11:14 AM	10:00	6.19 pH	23.02 °C	455.97 µS/cm	0.44 mg/L	4.38 NTU	126.8 mV	10.39 ft	0.00 ml/min
9/7/2023 11:19 AM	15:00	6.18 pH	24.78 °C	456.36 µS/cm	0.54 mg/L	3.02 NTU	97.0 mV	10.63 ft	200.00 ml/min
9/7/2023 11:24 AM	20:00	6.20 pH	22.74 °C	443.69 µS/cm	0.26 mg/L	2.36 NTU	83.1 mV	10.87 ft	200.00 ml/min
9/7/2023 11:29 AM	25:00	6.21 pH	21.01 °C	457.51 µS/cm	1.32 mg/L	1.27 NTU	50.9 mV	10.96 ft	200.00 ml/min
9/7/2023 11:34 AM	30:00	6.20 pH	21.37 °C	462.73 µS/cm	1.12 mg/L	2.13 NTU	80.1 mV	11.01 ft	150.00 ml/min
9/7/2023 11:39 AM	35:00	6.21 pH	22.15 °C	459.15 µS/cm	0.65 mg/L	1.47 NTU	88.0 mV	11.06 ft	150.00 ml/min
9/7/2023 11:44 AM	40:00	6.21 pH	21.55 °C	455.55 µS/cm	0.10 mg/L	1.17 NTU	87.0 mV	11.00 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-67	

MCD-AP1-FB-1	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 1:16:59 PM
Project: McDonoughSAGW02 2023 (4)
Operator Name: Mark Mann

Location Name: MCD-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: 10.51 ft**	**Pump Type: Peri** **Tubing Type: LDPE** **Pump Intake From TOC: 24 ft** **Estimated Total Volume Pumped: 3250 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.27 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 965586**

Test Notes:
Fe2+: 0.0

Weather Conditions:
Sunny

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	
9/7/2023 1:16 PM	00:00	7.16 pH	36.45 °C	393.19 µS/cm	3.81 mg/L	8.24 NTU	95.1 mV	10.51 ft	200.00 ml/min
9/7/2023 1:21 PM	05:00	6.58 pH	23.00 °C	460.52 µS/cm	0.18 mg/L	7.68 NTU	53.7 mV	10.75 ft	150.00 ml/min
9/7/2023 1:26 PM	10:00	6.60 pH	22.26 °C	463.86 µS/cm	0.14 mg/L	2.01 NTU	48.2 mV	10.76 ft	150.00 ml/min
9/7/2023 1:31 PM	15:00	6.61 pH	22.35 °C	466.60 µS/cm	0.12 mg/L	1.95 NTU	43.7 mV	10.76 ft	150.00 ml/min
9/7/2023 1:36 PM	20:00	6.60 pH	22.51 °C	463.62 µS/cm	0.10 mg/L	1.25 NTU	44.6 mV	10.78 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-68A	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 2:36:47 PM
Project: McDonoughSAGW02 2023 (5)
Operator Name: Mark Mann

Location Name: MCD-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: 6.02 ft**	**Pump Type: Peri** **Tubing Type: LDPE** **Pump Intake From TOC: 20 ft** **Estimated Total Volume Pumped: 4125 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 1.11 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 965586**

Test Notes:
Fe2+: 0.0

Weather Conditions:
Sunny

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	
9/7/2023 2:36 PM	00:00	6.91 pH	37.79 °C	98.44 µS/cm	3.61 mg/L	30.70 NTU	91.8 mV	6.02 ft	225.00 ml/min
9/7/2023 2:41 PM	05:00	6.18 pH	23.34 °C	117.37 µS/cm	2.40 mg/L	11.70 NTU	109.6 mV	6.89 ft	150.00 ml/min
9/7/2023 2:46 PM	10:00	6.17 pH	22.84 °C	117.55 µS/cm	2.24 mg/L	7.25 NTU	108.4 mV	6.98 ft	150.00 ml/min
9/7/2023 2:51 PM	15:00	6.17 pH	22.50 °C	117.22 µS/cm	2.18 mg/L	6.15 NTU	106.1 mV	7.04 ft	150.00 ml/min
9/7/2023 2:56 PM	20:00	6.16 pH	22.22 °C	117.28 µS/cm	2.18 mg/L	5.36 NTU	103.9 mV	7.09 ft	150.00 ml/min
9/7/2023 3:01 PM	25:00	6.16 pH	22.03 °C	116.99 µS/cm	2.17 mg/L	4.90 NTU	102.0 mV	7.13 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-69	

Low-Flow Test Report:

Test Date / Time: 9/8/2023 9:03:42 AM
Project: MCD SAGW 2 (8)
Operator Name: P Wahl

Location Name: MCD-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: 9.03 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 44 ft** **Estimated Total Volume Pumped: 4800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 120 ml/min** **Final Draw Down: 3.1 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

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	+/- 10	+/- 10	+/- 0.3	
9/8/2023 9:03 AM	00:00	6.36 pH	20.92 °C	201.42 µS/cm	4.25 mg/L	6.24 NTU	74.4 mV	9.51 ft	120.00 ml/min
9/8/2023 9:08 AM	05:00	6.23 pH	19.67 °C	362.94 µS/cm	0.56 mg/L	12.60 NTU	7.2 mV	9.82 ft	120.00 ml/min
9/8/2023 9:13 AM	10:00	6.26 pH	19.36 °C	334.12 µS/cm	0.35 mg/L	12.40 NTU	0.9 mV	10.63 ft	120.00 ml/min
9/8/2023 9:18 AM	15:00	6.26 pH	19.59 °C	331.93 µS/cm	0.30 mg/L	12.30 NTU	9.8 mV	11.25 ft	120.00 ml/min
9/8/2023 9:23 AM	20:00	6.25 pH	20.26 °C	334.06 µS/cm	0.26 mg/L	13.20 NTU	13.2 mV	11.60 ft	120.00 ml/min
9/8/2023 9:28 AM	25:00	6.25 pH	20.69 °C	342.07 µS/cm	0.25 mg/L	4.85 NTU	7.1 mV	11.87 ft	120.00 ml/min
9/8/2023 9:33 AM	30:00	6.25 pH	21.00 °C	347.41 µS/cm	0.23 mg/L	4.16 NTU	12.9 mV	11.98 ft	120.00 ml/min
9/8/2023 9:38 AM	35:00	6.25 pH	21.19 °C	357.98 µS/cm	0.23 mg/L	5.82 NTU	11.8 mV	12.06 ft	120.00 ml/min
9/8/2023 9:43 AM	40:00	6.25 pH	21.41 °C	363.26 µS/cm	0.22 mg/L	3.10 NTU	3.9 mV	12.13 ft	120.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-121	

Low-Flow Test Report:

Test Date / Time: 9/7/2023 3:09:52 PM
Project: SCS MCD (7)
Operator Name: Dana Bloomfield

Location Name: MCD-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: 13.2 ft**	**Pump Type: peristaltic** **Tubing Type: LDPE** **Estimated Total Volume Pumped: 8500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 0.29 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883553**

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 3:09 PM	00:00	6.55 pH	26.10 °C	424.39 µS/cm	0.35 mg/L	26.60 NTU	29.2 mV	13.49 ft	100.00 ml/min
9/7/2023 3:14 PM	05:00	6.58 pH	26.05 °C	408.50 µS/cm	0.21 mg/L	14.00 NTU	16.7 mV	13.49 ft	100.00 ml/min
9/7/2023 3:19 PM	10:00	6.56 pH	25.51 °C	382.95 µS/cm	0.18 mg/L	11.70 NTU	15.4 mV	13.49 ft	100.00 ml/min
9/7/2023 3:24 PM	15:00	6.52 pH	25.62 °C	360.99 µS/cm	0.15 mg/L	10.20 NTU	5.3 mV	13.49 ft	100.00 ml/min
9/7/2023 3:29 PM	20:00	6.50 pH	25.42 °C	342.22 µS/cm	0.19 mg/L	7.79 NTU	14.1 mV	13.49 ft	100.00 ml/min
9/7/2023 3:34 PM	25:00	6.48 pH	25.55 °C	335.25 µS/cm	0.18 mg/L	6.83 NTU	14.4 mV	13.49 ft	100.00 ml/min
9/7/2023 3:39 PM	30:00	6.47 pH	25.64 °C	325.89 µS/cm	0.18 mg/L	8.37 NTU	15.9 mV	13.49 ft	100.00 ml/min
9/7/2023 3:44 PM	35:00	6.44 pH	25.51 °C	306.78 µS/cm	0.19 mg/L	9.71 NTU	6.4 mV	13.49 ft	100.00 ml/min
9/7/2023 3:49 PM	40:00	6.43 pH	25.21 °C	307.22 µS/cm	0.17 mg/L	5.54 NTU	15.2 mV	13.49 ft	100.00 ml/min
9/7/2023 3:54 PM	45:00	6.42 pH	25.24 °C	303.50 µS/cm	0.17 mg/L	6.30 NTU	8.9 mV	13.49 ft	100.00 ml/min
9/7/2023 3:59 PM	50:00	6.40 pH	25.28 °C	302.27 µS/cm	0.17 mg/L	6.16 NTU	19.0 mV	13.49 ft	100.00 ml/min
9/7/2023 4:04 PM	55:00	6.40 pH	25.41 °C	300.17 µS/cm	0.19 mg/L	7.09 NTU	22.1 mV	13.49 ft	100.00 ml/min
9/7/2023 4:09 PM	01:00:00	6.35 pH	25.19 °C	284.95 µS/cm	0.18 mg/L	3.91 NTU	18.5 mV	13.49 ft	100.00 ml/min
9/7/2023 4:14 PM	01:05:00	6.43 pH	25.32 °C	313.63 µS/cm	0.18 mg/L	3.95 NTU	24.7 mV	13.49 ft	100.00 ml/min
9/7/2023 4:19 PM	01:10:00	6.37 pH	25.34 °C	295.01 µS/cm	0.21 mg/L	4.25 NTU	21.7 mV	13.49 ft	100.00 ml/min
9/7/2023 4:24 PM	01:15:00	6.36 pH	25.44 °C	292.64 µS/cm	0.21 mg/L	4.26 NTU	21.8 mV	13.49 ft	100.00 ml/min

9/7/2023 4:29 PM	01:20:00	6.37 pH	25.19 °C	278.87 µS/cm	0.19 mg/L	4.89 NTU	23.1 mV	13.49 ft	100.00 ml/min
9/7/2023 4:34 PM	01:25:00	6.38 pH	24.69 °C	291.01 µS/cm	0.21 mg/L	4.93 NTU	25.8 mV	13.49 ft	100.00 ml/min

Samples

Sample ID:	Description:
MCD-B-62	

Low-Flow Test Report:

Test Date / Time: 9/6/2023 9:19:43 AM
Project: SCS MCD
Operator Name: Dana Bloomfield

Location Name: MCD-B-100 **Well Diameter: 2 in** **Casing Type: PVC** **Initial Depth to Water: 32.59 ft**	**Pump Type: Bladder** **Tubing Type: LDPE** **Estimated Total Volume Pumped: 9706.667 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -22.657 m**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883553**

Test Notes:

Weather Conditions:
Sunny 85F

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	+/- 10	+/- 10	+/- 0.3	
9/6/2023 9:19 AM	00:00	5.25 pH	23.39 °C	696.92 µS/cm	4.68 mg/L	34.00 NTU	97.9 mV	32.59 ft	200.00 ml/min
9/6/2023 9:24 AM	05:00	5.22 pH	21.43 °C	772.85 µS/cm	0.47 mg/L	16.90 NTU	-24.5 mV	32.59 ft	200.00 ml/min
9/6/2023 9:29 AM	10:00	5.23 pH	21.70 °C	774.04 µS/cm	0.42 mg/L	17.80 NTU	-35.7 mV	32.59 ft	200.00 ml/min
9/6/2023 9:34 AM	15:00	5.24 pH	21.67 °C	774.36 µS/cm	0.39 mg/L	9.98 NTU	-35.1 mV	32.59 ft	200.00 ml/min
9/6/2023 9:39 AM	20:00	5.24 pH	21.68 °C	776.19 µS/cm	0.35 mg/L	8.25 NTU	-32.6 mV	32.59 ft	200.00 ml/min
9/6/2023 9:44 AM	25:00	5.25 pH	21.67 °C	777.56 µS/cm	0.29 mg/L	7.71 NTU	-10.6 mV	32.59 ft	200.00 ml/min
9/6/2023 9:46 AM	26:41	5.24 pH	21.69 °C	777.73 µS/cm	0.29 mg/L	6.62 NTU	-7.2 mV	32.59 ft	200.00 ml/min
9/6/2023 9:51 AM	31:41	5.25 pH	21.73 °C	776.36 µS/cm	0.27 mg/L	5.69 NTU	-7.2 mV	32.59 ft	200.00 ml/min
9/6/2023 9:56 AM	36:41	5.25 pH	21.73 °C	775.13 µS/cm	0.25 mg/L	5.38 NTU	-5.0 mV	32.59 ft	200.00 ml/min
9/6/2023 9:58 AM	38:32	5.25 pH	21.79 °C	774.95 µS/cm	0.25 mg/L	5.68 NTU	-2.7 mV	32.59 ft	200.00 ml/min
9/6/2023 10:03 AM	43:32	5.25 pH	21.86 °C	775.01 µS/cm	0.23 mg/L	5.95 NTU	-3.3 mV	32.59 ft	200.00 ml/min
9/6/2023 10:08 AM	48:32	5.25 pH	21.94 °C	773.74 µS/cm	0.23 mg/L	3.55 NTU	-1.7 mV	32.59 ft	200.00 ml/min

Samples

MCD-B-100	Description:

Low-Flow Test Report:

Test Date / Time: 9/7/2023 9:18:23 AM
Project: MCD SAGW 2 (4)
Operator Name: P Wahl

Location Name: MCD-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: 13.7 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 30 ft** **Estimated Total Volume Pumped: 9500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 4.53 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

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	+/- 10	+/- 10	+/- 0.3	
9/7/2023 9:18 AM	00:00	6.39 pH	23.72 °C	215.96 µS/cm	1.73 mg/L	8.00 NTU	-27.5 mV	14.06 ft	100.00 ml/min
9/7/2023 9:23 AM	05:00	6.45 pH	21.77 °C	220.36 µS/cm	0.43 mg/L	9.19 NTU	-48.0 mV	14.70 ft	100.00 ml/min
9/7/2023 9:28 AM	10:00	6.47 pH	21.92 °C	220.20 µS/cm	0.35 mg/L	7.32 NTU	-40.2 mV	15.20 ft	100.00 ml/min
9/7/2023 9:33 AM	15:00	6.49 pH	22.03 °C	219.42 µS/cm	0.34 mg/L	8.62 NTU	-40.7 mV	15.62 ft	100.00 ml/min
9/7/2023 9:38 AM	20:00	6.49 pH	22.25 °C	219.54 µS/cm	0.31 mg/L	8.81 NTU	-41.8 mV	15.95 ft	100.00 ml/min
9/7/2023 9:43 AM	25:00	6.49 pH	22.45 °C	219.91 µS/cm	0.56 mg/L	8.52 NTU	-42.2 mV	16.22 ft	100.00 ml/min
9/7/2023 9:48 AM	30:00	6.49 pH	22.48 °C	220.00 µS/cm	0.28 mg/L	8.23 NTU	-54.1 mV	16.52 ft	100.00 ml/min
9/7/2023 9:53 AM	35:00	6.49 pH	22.66 °C	219.76 µS/cm	0.27 mg/L	8.63 NTU	-42.5 mV	16.75 ft	100.00 ml/min
9/7/2023 9:58 AM	40:00	6.49 pH	22.84 °C	219.36 µS/cm	0.27 mg/L	7.89 NTU	-43.1 mV	16.95 ft	100.00 ml/min
9/7/2023 10:03 AM	45:00	6.50 pH	22.93 °C	217.45 µS/cm	0.24 mg/L	8.65 NTU	-54.2 mV	17.13 ft	100.00 ml/min
9/7/2023 10:08 AM	50:00	6.49 pH	22.93 °C	217.15 µS/cm	0.25 mg/L	7.49 NTU	-42.4 mV	17.30 ft	100.00 ml/min
9/7/2023 10:13 AM	55:00	6.49 pH	23.13 °C	218.02 µS/cm	0.25 mg/L	6.26 NTU	-44.6 mV	17.45 ft	100.00 ml/min
9/7/2023 10:18 AM	01:00:00	6.49 pH	23.31 °C	216.70 µS/cm	0.24 mg/L	6.37 NTU	-55.7 mV	17.58 ft	100.00 ml/min
9/7/2023 10:23 AM	01:05:00	6.50 pH	23.42 °C	216.36 µS/cm	0.23 mg/L	5.44 NTU	-46.4 mV	17.70 ft	100.00 ml/min
9/7/2023 10:28 AM	01:10:00	6.49 pH	23.12 °C	216.53 µS/cm	0.22 mg/L	5.20 NTU	-56.7 mV	17.80 ft	100.00 ml/min

9/7/2023 10:33 AM	01:15:00	6.49 pH	23.60 °C	217.14 µS/cm	0.22 mg/L	5.23 NTU	-46.9 mV	18.88 ft	100.00 ml/min
9/7/2023 10:38 AM	01:20:00	6.50 pH	23.76 °C	217.00 µS/cm	0.22 mg/L	6.11 NTU	-49.4 mV	18.99 ft	100.00 ml/min
9/7/2023 10:43 AM	01:25:00	6.50 pH	23.62 °C	217.01 µS/cm	0.22 mg/L	6.30 NTU	-49.3 mV	18.09 ft	100.00 ml/min
9/7/2023 10:48 AM	01:30:00	6.50 pH	23.60 °C	217.75 µS/cm	0.22 mg/L	5.13 NTU	-50.3 mV	18.16 ft	100.00 ml/min
9/7/2023 10:53 AM	01:35:00	6.51 pH	23.78 °C	218.59 µS/cm	0.21 mg/L	4.85 NTU	-61.7 mV	18.23 ft	100.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWA-53	

Low-Flow Test Report:

Test Date / Time: 9/6/2023 12:20:36 PM
Project: MCD SAGW 2 (2)
Operator Name: P Wahl

Location Name: MCD-DGWA-70A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 52.54 ft** **Total Depth: 62.54 ft** **Initial Depth to Water: 41.33 ft**	**Pump Type: Dedicated Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 57 ft** **Estimated Total Volume Pumped: 5000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.41 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

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	
9/6/2023 12:20 PM	00:00	5.65 pH	25.87 °C	70.30 µS/cm	5.69 mg/L	13.20 NTU	126.7 mV	41.63 ft	200.00 ml/min
9/6/2023 12:25 PM	05:00	5.49 pH	22.43 °C	69.73 µS/cm	5.01 mg/L	5.30 NTU	136.2 mV	41.65 ft	200.00 ml/min
9/6/2023 12:30 PM	10:00	5.48 pH	21.94 °C	68.56 µS/cm	5.00 mg/L	2.52 NTU	137.6 mV	41.69 ft	200.00 ml/min
9/6/2023 12:35 PM	15:00	5.50 pH	21.52 °C	70.50 µS/cm	4.96 mg/L	2.73 NTU	136.8 mV	41.72 ft	200.00 ml/min
9/6/2023 12:40 PM	20:00	5.51 pH	21.76 °C	70.66 µS/cm	4.95 mg/L	2.09 NTU	136.3 mV	41.73 ft	200.00 ml/min
9/6/2023 12:45 PM	25:00	5.50 pH	21.68 °C	70.93 µS/cm	4.89 mg/L	1.53 NTU	136.0 mV	41.74 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWA-70A	

Low-Flow Test Report:

Test Date / Time: 9/6/2023 3:43:36 PM
Project: SCS MCD (4)
Operator Name: Dana Bloomfield

Location Name: MCD-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: 31.29 ft**	**Pump Type: Bladder** **Tubing Type: LDPE** **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: 883553**

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	+/- 10	+/- 10	+/- 0.3	
9/6/2023 3:43 PM	00:00	5.91 pH	21.06 °C	86.44 µS/cm	1.75 mg/L	9.97 NTU	131.8 mV	31.29 ft	200.00 ml/min
9/6/2023 3:48 PM	05:00	5.88 pH	21.46 °C	88.12 µS/cm	1.37 mg/L	4.25 NTU	139.2 mV	31.50 ft	200.00 ml/min
9/6/2023 3:53 PM	10:00	5.86 pH	21.51 °C	87.92 µS/cm	1.23 mg/L	4.25 NTU	144.2 mV	31.59 ft	200.00 ml/min
9/6/2023 3:58 PM	15:00	5.85 pH	21.50 °C	88.06 µS/cm	1.16 mg/L	5.80 NTU	146.6 mV	31.59 ft	200.00 ml/min
9/6/2023 4:03 PM	20:00	5.83 pH	21.51 °C	87.61 µS/cm	1.22 mg/L	3.93 NTU	140.7 mV	31.59 ft	200.00 ml/min
9/6/2023 4:08 PM	25:00	5.82 pH	21.60 °C	88.04 µS/cm	1.30 mg/L	1.94 NTU	127.8 mV	31.59 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWA-71	

APPENDIX A

Field Data Forms
November 2023

Low-Flow Test Report:

Test Date / Time: 11/7/2023 10:56:17 AM
Project: McDonough Quarterly Q4 2023
Operator Name: Mark Mann

Location Name: MCD-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: 9.37 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 44 ft** **Estimated Total Volume Pumped: 5625 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 105 ml/min** **Final Draw Down: 3.7 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883553**

Test Notes:

Weather Conditions:
Sunny

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	
11/7/2023 10:56 AM	00:00	5.86 pH	23.99 °C	179.61 µS/cm	4.62 mg/L	6.56 NTU	93.8 mV	9.37 ft	150.00 ml/min
11/7/2023 11:01 AM	05:00	6.21 pH	21.42 °C	235.44 µS/cm	0.28 mg/L	7.25 NTU	47.6 mV	10.62 ft	150.00 ml/min
11/7/2023 11:06 AM	10:00	6.21 pH	21.15 °C	226.22 µS/cm	0.19 mg/L	5.34 NTU	-27.5 mV	11.46 ft	150.00 ml/min
11/7/2023 11:11 AM	15:00	6.20 pH	21.18 °C	254.98 µS/cm	0.16 mg/L	6.20 NTU	-57.8 mV	12.05 ft	120.00 ml/min
11/7/2023 11:16 AM	20:00	6.21 pH	21.23 °C	300.34 µS/cm	0.17 mg/L	5.32 NTU	-105.5 mV	12.41 ft	120.00 ml/min
11/7/2023 11:21 AM	25:00	6.20 pH	21.30 °C	314.63 µS/cm	0.16 mg/L	3.21 NTU	-70.0 mV	12.61 ft	120.00 ml/min
11/7/2023 11:26 AM	30:00	6.20 pH	21.45 °C	330.38 µS/cm	0.15 mg/L	3.99 NTU	-72.1 mV	12.84 ft	105.00 ml/min
11/7/2023 11:31 AM	35:00	6.21 pH	21.67 °C	352.15 µS/cm	0.15 mg/L	3.83 NTU	-121.2 mV	12.94 ft	105.00 ml/min
11/7/2023 11:36 AM	40:00	6.20 pH	21.81 °C	363.83 µS/cm	0.15 mg/L	2.86 NTU	-84.1 mV	13.01 ft	105.00 ml/min
11/7/2023 11:41 AM	45:00	6.21 pH	21.69 °C	365.77 µS/cm	0.14 mg/L	2.31 NTU	-84.4 mV	13.07 ft	105.00 ml/min

Samples

Sample ID:	Description:

MCD-DGWC-121	
MCD-AP-1-FD-1	
MCD-AP-1-FB-1	

APPENDIX A

Instrument Calibration Records
September 2023

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/6

Calibrated By: D. Bloomfield

Field Conditions: Sunny, 80°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread	993553
Turbidity Meter	2100Q IsoCal	22090D0022739

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	5/24	AIR
pH (SU)	4.00	"	"	
pH (SU)	7.00	22290139	04/24	
pH (SU)	10.00	22110130	04/24	
D.O. (%)	N/A	24000044	05/24	
ORP (mV)	228.0	24022258	06/24	

Calibration					
Time Start 0750			Time Finish 0815		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4185.5	22.04	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	22.19	± 0.1	GWMP
pH (SU)	7.00	6.95	22.51	± 0.1	GWMP
pH (SU)	10.00	10.31	22.98	± 0.1	GWMP
D.O. (%)	N/A	98.86	22.04	± 10%	NA
ORP (mV)	228.0	226.6	22.82	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.8	± 10% of standard	EPA 2023
	100	98.4		
	800	801		
	10	10.3		

Calibration Check					
Time Start 1521			Time Finish 1530		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4320.6	25.00	± 10% of standard	EPA 2023
pH (SU)	4.00	4.07	34.15	± 0.1	GWMP
pH (SU)	7.00	7.03	34.85	± 0.1	GWMP
pH (SU)	10.00	9.94	34.77	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.7	± 10% of standard	EPA 2023
	100	98.7		
	800	797		
	10	9.05		

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/7/23

Calibrated By: D. Bloomfield

Field Conditions: Sunny, 80°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread	883553
Turbidity Meter	2100QMACH	22090D000239

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490			
pH (SU)	4.00			
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

same as previous

Calibration					
Time Start 0855		Time Finish 0910			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4672.3	25.16	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	25.14	± 0.1	GWMP
pH (SU)	7.00	6.96	26.44	± 0.1	GWMP
pH (SU)	10.00	9.95	27.37	± 0.1	GWMP
D.O. (%)	N/A	96.57	25.15	± 10%	NA
ORP (mV)	228.0	219.1	27.75	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	18.0	± 10% of standard	EPA 2023
	100	90.2		
	800	812		
	10	9.77		

Calibration Check					
Time Start 1730		Time Finish 1745			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4654.3	34.50	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	35.10	± 0.1	GWMP
pH (SU)	7.00	6.98	35.03	± 0.1	GWMP
pH (SU)	10.00	9.92	35.10	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.6	± 10% of standard	EPA 2023
	100	100		
	800	807		
	10	10.6		

Notes:

Site Name: Plant McDonough — **Field Instrumentation Calibration Form** — Date: 9/8

Calibrated By: D. Bloomfield — Field Conditions: 65° Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread	8035533
Turbidity Meter	HACH 2100A	22090B002139

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	2400044	5/24	YSI
pH (SU)	4.00	"	"	"
pH (SU)	7.00	22200139	4/24	"
pH (SU)	10.00	22110152	4/24	"
D.O. (%)	N/A	2400044	5/24	"
ORP (mV)	228.0	24002258	6/24	"

Calibration					
Time Start 0745		Time Finish 0800			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4466.9	24.33	± 10% of standard	EPA 2023
pH (SU)	4.00	4.10	24.03	± 0.1	GWMP
pH (SU)	7.00	7.01	24.44	± 0.1	GWMP
pH (SU)	10.00	9.99	25.06	± 0.1	GWMP
D.O. (%)	N/A	99.7 L	24.05	± 10%	NA
ORP (mV)	228.0	228.8	24.61	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	22.2	± 10% of standard	EPA 2023
	100	104		
	800	802		
	10	9.7		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes: Last sample before 12pm - no cal check

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/12/23

Calibrated By: D. Bloomfield

Field Conditions: sunny, 80°F

Instrument	Manufactuerr Model	Serial Number
Water Quality Meter	Aquaread	08555
Turbidity Meter	HACH 2100Q	12040D002359

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	2405044	5/24	AIR
pH (SU)	4.00	"	"	
pH (SU)	7.00	22200139	4/24	
pH (SU)	10.00	22101130	4/24	
D.O. (%)	N/A	2405044	5/24	
ORP (mV)	228.0	2405 2258	6/24	

Calibration					
Time Start 0910		Time Finish 0925			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4606.5	25.67	± 10% of standard	EPA 2023
pH (SU)	4.00	3.99	25.82	± 0.1	GWMP
pH (SU)	7.00	6.98	26.42	± 0.1	GWMP
pH (SU)	10.00	9.96	26.52	± 0.1	GWMP
D.O. (%)	N/A	103.99	25.98	± 10%	NA
ORP (mV)	228.0	225.3	27.06	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.1	± 10% of standard	EPA 2023
	100	97.6		
	800	796		
	10	10.4		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes: pumped on same well from 10 am ~ 3:30 pm, no cal check

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 2/13/23

Calibrated By: D. Bloomfield

Field Conditions: Rainy, 70° F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AQUATROLL	883555
Turbidity Meter	HACH 2100Q	22040D002734

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24004044	6/24	YSI
pH (SU)	4.00	"	"	"
pH (SU)	7.00	22700134	4/24	"
pH (SU)	10.00	22101326	4/24	"
D.O. (%)	N/A	24000644	5/24	"
ORP (mV)	228.0	24002256	6/24	"

Calibration					
Time Start 0805		Time Finish 0820			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4476.2	24.42	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	24.42	± 0.1	GWMP
pH (SU)	7.00	6.98	24.82	± 0.1	GWMP
pH (SU)	10.00	10.05	24.96	± 0.1	GWMP
D.O. (%)	N/A	98.02	25.06	± 10%	NA
ORP (mV)	228.0	230.5	24.96	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	21.1	± 10% of standard	EPA 2023
	100	100		
	800	785		
	10	9.86		

Calibration Check					
Time Start 1502		Time Finish 1515			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4474.8	29.52	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	29.70	± 0.1	GWMP
pH (SU)	7.00	6.99	29.13	± 0.1	GWMP
pH (SU)	10.00	9.94	28.63	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.2	± 10% of standard	EPA 2023
	100	107		
	800	817		
	10	9.41		

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 09/06/23

Calibrated By: P Wenn

Field Conditions: Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread 400	980712
Turbidity Meter	HACH 2100Q	22050000086

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000019	05/2024	Atlanta Instrument Partners (AIR)
pH (SU)	4.00	24000049	05/2024	AIR
pH (SU)	7.00	22890139	04/2024	AIR
pH (SU)	10.00	21320202	12/2023	AIR
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	21390144	11/2023	AIR

Calibration					
Time Start 0757		Time Finish 0930			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4725.6	24.63	± 10% of standard	EPA 2023
pH (SU)	4.00	PW ~~4.04~~ 4.10	PW ~~24.89~~ 25.27	± 0.1	GWMP
pH (SU)	7.00	PW ~~6.98~~ 6.99	PW ~~25.41~~ 25.27	± 0.1	GWMP
pH (SU)	10.00	9.99	25.41	± 0.1	GWMP
D.O. (%)	N/A	106.70	24.96	± 10%	NA
ORP (mV)	228.0	221.2	25.39	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.1	± 10% of standard	EPA 2023
	100	100		
	800	715		
	10	9.73		

Calibration Check					
Time Start 1350		Time Finish 1410			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4450.6	40.48	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	40.50	± 0.1	GWMP
pH (SU)	7.00	6.98	35.47	± 0.1	GWMP
pH (SU)	10.00	9.93	36.60	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.74	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 09/07/23

Calibrated By: P Wann

Field Conditions: Sunny 75°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread 400	480-712
Turbidity Meter	HACH 2100Q	22090000086

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	21100044	05/2024	Atlanta Fisher Chemical Products (ATA)
pH (SU)	4.00	21000044	05/2024	ATA
pH (SU)	7.00	22290134	04/2024	ATA
pH (SU)	10.00	21320202	12/2023	ATA
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	21390144	11/2023	ATA

Calibration					
Time Start 0935 0800		Time Finish 0930			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4477.7	27.82	± 10% of standard	EPA 2023
pH (SU)	4.00	RW 4.04	RW 27.50 26.41	± 0.1	GWMP
pH (SU)	7.00	6.99	26.59	± 0.1	GWMP
pH (SU)	10.00	10.00	26.17	± 0.1	GWMP
D.O. (%)	N/A	99.71	RW 27 26.36	± 10%	NA
ORP (mV)	228.0	223.9	27.26	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	21.4	± 10% of standard	EPA 2023
	100	104		
	800	807		
	10	9.45		

Calibration Check					
Time Start 1500		Time Finish 1513			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4556-3	37.59	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	37.90	± 0.1	GWMP
pH (SU)	7.00	7.00	36.31	± 0.1	GWMP
pH (SU)	10.00	9.95	34.62	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.73	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 09/08/23

Calibrated By: P Wahl

Field Conditions: Sunny 65°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquacal 400	980712
Turbidity Meter	HACH 2100Q	21090000096

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000049	05/2024	Thermo Instrument Systems (ATI)
pH (SU)	4.00	24000047	05/2024	ATI
pH (SU)	7.00	22290039	01/2024	ATI
pH (SU)	10.00	21320202	12/2023	ATI
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	21390149	11/2023	ATI

Calibration					
Time Start 0800		Time Finish 0830			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4407.8	25.34	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06	25.24	± 0.1	GWMP
pH (SU)	7.00	6.97	25.05	± 0.1	GWMP
pH (SU)	10.00	9.96	25.44	± 0.1	GWMP
D.O. (%)	N/A	100.31	23.23	± 10%	NA
ORP (mV)	228.0	230.1	25.64	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.6	± 10% of standard	EPA 2023
	100	99.3		
	800	800		
	10	9.40		

Calibration Check					
Time Start 1251		Time Finish 1300			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	36.54	± 0.1	GWMP
pH (SU)	7.00	6.99	34.21	± 0.1	GWMP
pH (SU)	10.00	9.94	32.06	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/11/23

Calibrated By: P wahl

Field Conditions: Sunny 67°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquasol 400	980712
Turbidity Meter	HACH 2100Q	22090900008 6

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Amount Instrument Beaufort (AZ Q)
pH (SU)	4.00	24000044	05/2024	AIR
pH (SU)	7.00	22290139	OCT 2024	AIR
pH (SU)	10.00	21320227	12/2023	AIR
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	21391149	11/2023	AIR

Calibration					
Time Start 0745		Time Finish 0802			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4464.7	22.00	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	22.01	± 0.1	GWMP
pH (SU)	7.00	7.01	22.04	± 0.1	GWMP
pH (SU)	10.00	9.99	22.08	± 0.1	GWMP
D.O. (%)	N/A	99.04	21.82	± 10%	NA
ORP (mV)	228.0	233.8	22.05	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	100		
	800	787		
	10	9.69		

Calibration Check					
Time Start 1253		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4469.6	40.23	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	40.12	± 0.1	GWMP
pH (SU)	7.00	7.00	37.64	± 0.1	GWMP
pH (SU)	10.00	9.96	34.92	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.70	± 10% of standard	EPA 2023

Notes:

Site Name: Point McDonough

Field Instrumentation Calibration Form

Date: 9/12/23

Calibrated By: P Wohl

Field Conditions: Sunny 70°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread AP-700	AQ30712
Turbidity Meter	HACH 2100Q	21001C000088

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Aquatic Instrument Rentals (AIR)
pH (SU)	4.00	24000044	05/2024	AIR
pH (SU)	7.00	22290134	04/2024	AIR
pH (SU)	10.00	21320202	12/2023	AIR
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	21320144	11/2023	AIR

Calibration					
Time Start 0740		Time Finish 0800			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductanse (µS/cm)	4,490	4513.5	24.32	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	24.32	± 0.1	GWMP
pH (SU)	7.00	6.95	24.32	± 0.1	GWMP
pH (SU)	10.00	10.00	25.16	± 0.1	GWMP
D.O. (%)	N/A	101.44	24.62	± 10%	NA
ORP (mV)	228.0	221.9	25.18	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.1	± 10% of standard	EPA 2023
	100	101		
	200	203		
	10	9.74		

Calibration Check					
Time Start 1245		Time Finish 1250			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductanse (µS/cm)	4,490	4618.1	32.20	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	34.06	± 0.1	GWMP
pH (SU)	7.00	7.05	33.99	± 0.1	GWMP
pH (SU)	10.00	9.98	33.05	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.45	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/13/23

Calibrated By: P Wahl

Field Conditions: cloudy 70°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	YSI PROPLUS	18D101139
Turbidity Meter	HACH 2100Q	12090C000086

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24C0044	05/2024	Atlanta Instrument Rentals (AIR)
pH (SU)	4.00	24C0044	05/2024	AIR
pH (SU)	7.00	22B0139	04/2024	AIR
pH (SU)	10.00	21C0202	12/2023	AIR
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	23A0144	11/2023	AIR

Calibration					
Time Start 0815		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4455.1	22.79	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	22.79	± 0.1	GWMP
pH (SU)	7.00	6.98	23.45	± 0.1	GWMP
pH (SU)	10.00	10.01	23.88	± 0.1	GWMP
D.O. (%)	N/A	97.30	23.85	± 10%	NA
ORP (mV)	228.0	229.5	24.09	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.70	± 10% of standard	EPA 2023
	20	19.8		
	100	99.7		
	800	787		

Calibration Check					
Time Start 1358		Time Finish 1405			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4444.0	32.90	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	32.79	± 0.1	GWMP
pH (SU)	7.00	7.06	31.20	± 0.1	GWMP
pH (SU)	10.00	9.97	30.49	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.54	± 10% of standard	EPA 2023

Notes:

Site Name: PLANT MCDONOUGH

Field Instrumentation Calibration Form

Date: 09/06/23

Calibrated By: M. MANN

Field Conditions: NOMINAL

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	EXO 2	965586
Turbidity Meter	HACH 2100Q	12050C017705

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000644	05/2024	A.I.C.
pH (SU)	4.00	24000044	05/2024	"
pH (SU)	7.00	22901139	04/2024	"
pH (SU)	10.00	22110130	04/2024	"
D.O. (%)	N/A	/	/	"
ORP (mV)	228.0	24002258	06/2024	"

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4158.8	24.84	± 10% of standard	EPA 2023
pH (SU)	4.00	4.05	25.02	± 0.1	GWMP
pH (SU)	7.00	6.92 7.07	25.28	± 0.1	GWMP
pH (SU)	10.00	10.00	25.82	± 0.1	GWMP
D.O. (%)	N/A	106.6	25.89	± 10%	NA
ORP (mV)	228.0	223.5	25.75	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	19.8	20	± 10% of standard	EPA 2023
	101	100		
	792	800		
	9.87	10		

Calibration Check					
Time Start	1230	Time Finish	1237		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4095.5	32.04	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	32.04	± 0.1	GWMP
pH (SU)	7.00	6.97	32.17	± 0.1	GWMP
pH (SU)	10.00	9.93	32.49	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.95	± 10% of standard	EPA 2023
	20	19.5		
	100	105		
	800	791		

Notes:

Site Name: PLANT MCDONOUGH

Field Instrumentation Calibration Form

Date: 09/07/23

Calibrated By: M. MANN

Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	In-Situ	965586
Turbidity Meter	HACH 2100Q	12050C01725

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	24000044	05/2024	AZR
pH (SU)	4.00	↓	↓	↓
pH (SU)	7.00	22901139	04/2024	
pH (SU)	10.00	22110130	04/2024	
D.O. (%)	N/A	↓	↓	
ORP (mV)	228.0	24004258	06/2024	↓

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4227.5	23.20	± 10% of standard	EPA 2023
pH (SU)	4.00	4.07	23.24	± 0.1	GWMP
pH (SU)	7.00	6.92	23.92	± 0.1	GWMP
pH (SU)	10.00	9.97	24.42	± 0.1	GWMP
D.O. (%)	N/A	99.12	25.52	± 10%	NA
ORP (mV)	228.0	230.7	24.62	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	99.8		
	800	801		
	10	9.84		

Calibration Check					
Time Start	1251	Time Finish	1255		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4429.2	31.28	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	31.28	± 0.1	GWMP
pH (SU)	7.00	7.01	31.46	± 0.1	GWMP
pH (SU)	10.00	9.93	30.54	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.2	± 10% of standard	EPA 2023
	20	20.9		
	100	109		
	800	795		

Notes:

Site Name: PLANT McDONOUGH

Field Instrumentation Calibration Form

Date: 09/08/23

Calibrated By: M. MANN

Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	In-Situ Aquatroll	965586
Turbidity Meter	HACH 2100Q	12050C017705

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	AIR
pH (SU)	4.00	↓	↓	↓
pH (SU)	7.00	22901139	~~22901139~~ 09/2024	
pH (SU)	10.00	22110130	04/2024	
D.O. (%)	N/A	/	/	
ORP (mV)	228.0	24002258	06/2024	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4318.3	22.68	± 10% of standard	EPA 2023
pH (SU)	4.00	3.99	22.68	± 0.1	GWMP
pH (SU)	7.00	6.98	23.47	± 0.1	GWMP
pH (SU)	10.00	9.96	23.62	± 0.1	GWMP
D.O. (%)	N/A	98.4%	22.08	± 10%	NA
ORP (mV)	228.0	228.1	23.57	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.7	± 10% of standard	EPA 2023
	100	101		
	800	798		
	10	10.2		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: PLANT MCDONOUGH **Field Instrumentation Calibration Form** Date: 09/11/23

Calibrated By: M. MANN Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	In-Situ AQuaTroll	965586
Turbidity Meter	HACH 2100Q	12050C012705

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000644	05/2024	AIR
pH (SU)	4.00	↓	↓	↓
pH (SU)	7.00	2290139	04/2024	
pH (SU)	10.00	22110130	04/2024	
D.O. (%)	N/A	/	/	
ORP (mV)	228.0	24002288	06/2024	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4341.7	22.98	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	22.98	± 0.1	GWMP
pH (SU)	7.00	7.01	23.13	± 0.1	GWMP
pH (SU)	10.00	10.06	23.29	± 0.1	GWMP
D.O. (%)	N/A	100.16	23.25	± 10%	NA
ORP (mV)	228.0	228.0	23.38	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	21.9	± 10% of standard	EPA 2023
	100	105		
	800	823		
	10	9.94		

Calibration Check					
Time Start 1258		Time Finish 1304			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4243.0	33.81	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	33.81	± 0.1	GWMP
pH (SU)	7.00	7.05	32.55	± 0.1	GWMP
pH (SU)	10.00	9.92	33.82	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.32	± 10% of standard	EPA 2023
	20	19.8		
	100	94.1		
	800	788		

Notes:

Site Name: PLANT McDONOUGH

Field Instrumentation Calibration Form

Date: 9/12/23

Calibrated By: M. MANN

Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	YSI-556 MPS	16A101586
Turbidity Meter	HACH 2100Q	12050C017705

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	AIR
pH (SU)	4.00	24000044	05/2024	
pH (SU)	7.00	[illegible]	04/2024	
pH (SU)	10.00	22110130	04/2024	
D.O. (%)	N/A	/	/	
ORP (mV)	228.0	24002258	06/2024	

LOT # 22H0139

Calibration					
Time Start 910		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4589.4	24.10	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	24.12	± 0.1	GWMP
pH (SU)	7.00	6.98	25.00	± 0.1	GWMP
pH (SU)	10.00	9.91	25.55	± 0.1	GWMP
D.O. (%)	N/A	104.05	25.32	± 10%	NA
ORP (mV)	228.0	223.5	25.59	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	22.0	± 10% of standard	EPA 2023
	100	109		
	800	822		
	10	9.86		

Calibration Check					
Time Start 1447		Time Finish 1451			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4435.4	32.20	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	✓	± 0.1	GWMP
pH (SU)	7.00	7.00	32.06	± 0.1	GWMP
pH (SU)	10.00	9.99	31.48	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.5	± 10% of standard	EPA 2023
	20	20.1		
	800	746		
	100	93.2		

Notes:

Site Name: PLANT McDONOUGH Field Instrumentation Calibration Form

Date: 9/13/23

Calibrated By: M. MANN

Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	YSI PROPLUS	16A105586
Turbidity Meter	HACH 2100Q	~~19050C002305~~ 22090D000235 MM

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	AER
pH (SU)	4.00	↓	↓	↓
pH (SU)	7.00	22901J9	04/2024	
pH (SU)	10.00	22110130	04/2024	
D.O. (%)	N/A	/	/	↓
ORP (mV)	228.0	24002258	06/2024	

Calibration					
Time Start 855		Time Finish 913			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4368.8	24.06	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	24.55	± 0.1	GWMP
pH (SU)	7.00	6.96	24.86	± 0.1	GWMP
pH (SU)	10.00	9.98	25.21	± 0.1	GWMP
D.O. (%)	N/A	98.42	24.91	± 10%	NA
ORP (mV)	228.0	225.4	~~225.4~~ 25.42 MM	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.1	± 10% of standard	EPA 2023
	100	99.7		
	80	79.7		
	10	9.79		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4383.4	33.79	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	↓	± 0.1	GWMP
pH (SU)	7.00	7.01	32.36	± 0.1	GWMP
pH (SU)	10.00	9.91	31.37	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.2	± 10% of standard	EPA 2023
	20	20.7		
	80	99.3		
	100	790		

Notes:

Site Name: PLANT McDONOUGH **Field Instrumentation Calibration Form** Date: 9/14/23

Calibrated By: M. MANN Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	YSI-SITV PROPLUS	965586
Turbidity Meter	HACH 2100Q	22090D00039

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24300444	05/2024	AIR
pH (SU)	4.00	〃	〃	〃
pH (SU)	7.00	2290139	04/2024	〃
pH (SU)	10.00	22110120	04/2024	〃
D.O. (%)	N/A	/	/	〃
ORP (mV)	228.0	24002258	06/2024	〃

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4360.7	23.66	± 10% of standard	EPA 2023
pH (SU)	4.00	3.99	23.70	± 0.1	GWMP
pH (SU)	7.00	6.98	24.51	± 0.1	GWMP
pH (SU)	10.00	9.93	25.19	± 0.1	GWMP
D.O. (%)	N/A	99.28	24.51	± 10%	NA
ORP (mV)	228.0	219.4	25.14	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	2.0	2.0	± 10% of standard	EPA 2023
	100	101		
	800	805		
	10	9.84		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/7/23

Calibrated By: Daniel Howard

Field Conditions: Clear + Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	850751
Turbidity Meter	Hach 2100 Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	5/24	AIR
pH (SU)	4.00	24000044	5/24	↓
pH (SU)	7.00	22290139	4/24	↓
pH (SU)	10.00	22110130	4/24	↓
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24002258	6/24	AIR

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,490	24.45	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	24.47	± 0.1	GWMP
pH (SU)	7.00	7.00	24.56	± 0.1	GWMP
pH (SU)	10.00	10.00	24.65	± 0.1	GWMP
D.O. (%)	N/A	7.44	23.23	± 10%	NA
ORP (mV)	228.0	229.7	24.52	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.4	± 10% of standard	EPA 2023
	100	101		
	800	803		
Ck std →	10	10.1		

Calibration Check					
Time Start	1301 ~~131~~	Time Finish	1315		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4.53	31.44	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	31.43	± 0.1	GWMP
pH (SU)	7.00	7.03	31.47	± 0.1	GWMP
pH (SU)	10.00	9.96	31.48	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.3	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Calibrated By: Daniel Howard

Field Instrumentation Calibration Form

Date: 9/8/23

Field Conditions: Partly Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	850751
Turbidity Meter	Hach 2100 Q	23060D000298

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	5/24	AIR
pH (SU)	4.00	24000044	5/24	↓
pH (SU)	7.00	22290139	4/24	↓
pH (SU)	10.00	22110130	4/24	↓
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24002258	6/24	AIR

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	23.03	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	23.48	± 0.1	GWMP
pH (SU)	7.00	7.00	23.63	± 0.1	GWMP
pH (SU)	10.00	10.00	23.72	± 0.1	GWMP
D.O. (%)	N/A 7.70	~~231.1740~~	20.96	± 10%	NA
ORP (mV)	228.0	231.1	23.51	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
ck std	20	20.1	± 10% of standard	EPA 2023
	100	99.7		
	800	802		
	10	10.2		

Calibration Check					
Time Start	1140	Time Finish	1155		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4440	24.89	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	24.98	± 0.1	GWMP
pH (SU)	7.00	7.02	24.96	± 0.1	GWMP
pH (SU)	10.00	9.98	24.71	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
ck std	10	10.2	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/11/23

Calibrated By: Daniel Howard

Field Conditions: Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	850751
Turbidity Meter	Hach 2100Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	5/24	AIR
pH (SU)	4.00	24000044	5/24	↓
pH (SU)	7.00	22290139	4/24	↓
pH (SU)	10.00	22110130	4/24	↓
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24002258	6/24	AIR

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	23.48	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	23.53	± 0.1	GWMP
pH (SU)	7.00	7.00	23.57	± 0.1	GWMP
pH (SU)	10.00	10.00	23.66	± 0.1	GWMP
D.O. (%)	N/A	7.40	23.25	± 10%	NA
ORP (mV)	228.0	231.0	23.52	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU) ck std	20	19.9	± 10% of standard	EPA 2023
	100	99.6		
	800	804		
	10	10.2		

Calibration Check					
Time Start	1208	Time Finish	1220		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4400	28.36	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	28.34	± 0.1	GWMP
pH (SU)	7.00	7.07	27.30	± 0.1	GWMP
pH (SU)	10.00	9.96	27.29	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU) ck std	10	10.2	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Calibrated By: Daniel Howard

Field Instrumentation Calibration Form

Date: 9/12/23

Field Conditions: Partly ~~Cloud~~ Sunny OH

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	850251
Turbidity Meter	Hach 2100Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	5/24	AIR
pH (SU)	4.00	24000044	5/24	↓
pH (SU)	7.00	22290139	4/24	↓
pH (SU)	10.00	22110130	4/24	↓
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24002258	6/24	AIR

Calibration

Time Start ____ Time Finish ____

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	24.34	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	24.55	± 0.1	GWMP
pH (SU)	7.00	7.00	24.70	± 0.1	GWMP
pH (SU)	10.00	10.00	24.90	± 0.1	GWMP
D.O. (%)	N/A	7.45	23.11	± 10%	NA
ORP (mV)	228.0	229.5	24.71	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	101		
	800	792		
ckstd	10	10.3		

Calibration Check

Time Start 1155 Time Finish 1205

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4430	30.44	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	30.62	± 0.1	GWMP
pH (SU)	7.00	7.00	29.76	± 0.1	GWMP
pH (SU)	10.00	9.94	29.45	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU) ckstd	10	10.2	± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Calibrated By: Daniel Howard

Field Instrumentation Calibration Form

Date: 9/13/23

Field Conditions: Overcast

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	850751
Turbidity Meter	Hach 2100 Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	5/24	AIR
pH (SU)	4.00	24000044	5/24	↓
pH (SU)	7.00	22290139	4/24	↓
pH (SU)	10.00	22110130	4/24	↓
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24002258	6/24	AIR

Calibration

Time Start — Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	23.61	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	23.84	± 0.1	GWMP
pH (SU)	7.00	7.00	23.92	± 0.1	GWMP
pH (SU)	10.00	10.00	24.02	± 0.1	GWMP
D.O. (%)	N/A	7.57	22.00	± 10%	NA
ORP (mV)	228.0	230.2	24.15	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.1	± 10% of standard	EPA 2023
	100	99.4		
	800	802		
ckstd	10	10.2		

Calibration Check

Time Start 1305 — Time Finish 1317

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4430	27.19	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	27.23	± 0.1	GWMP
pH (SU)	7.00	7.00	27.36	± 0.1	GWMP
pH (SU)	10.00	9.97	28.05	± 0.1	GWMP

Turbidity (NTU) ckstd	Standard	Calibration Value	Acceptance Criteria	Reference
	10	10.1	± 10% of standard	EPA 2023

Notes:

APPENDIX A

Instrument Calibration Records
November 2023

11/7/2023

Site Name: PLANT MCDONOUGH

Field Instrumentation Calibration Form

Date: ~~10/09/23~~

Calibrated By: M. MANN

Field Conditions: GOOD

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	EN-SITU AQUATROLL	883593
Turbidity Meter	HACH 2100Q	23060700290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24800049	05/2024	AIR
pH (SU)	4.00	24000049	05/2024	"
pH (SU)	7.00	22901139	04/2024	"
pH (SU)	10.00	22901130	04/2024	"
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24602858	06/2024	AIR

Calibration					
Time Start: 905		Time Finish: 925			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4379.6	19.91	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	~~19.56~~ 19.22	± 0.1	GWMP
pH (SU)	7.00	7.06	19.24	± 0.1	GWMP
pH (SU)	10.00	10.06	19.15	± 0.1	GWMP
D.O. (%)	N/A	10555	20.10	± 10%	NA
ORP (mV)	228.0	221.8	19.00	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.3	± 10% of standard	EPA 2023
	100	100		
	800	799		
	10	10.1		

Calibration Check					
Time Start: 1220		Time Finish: 1230			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4344.3	24.84	± 10% of standard	EPA 2023
pH (SU)	4.00	3.92	"	± 0.1	GWMP
pH (SU)	7.00	6.90	28.40	± 0.1	GWMP
pH (SU)	10.00	9.96	25.78	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.5	± 10% of standard	EPA 2023
	100	99.9		
	800	781		
	10	10.5		

Notes:

APPENDIX B

Analytical Results, Data Validation Summary and Laboratory Accreditation

APPENDIX B

Analytical Results September 2023

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 04, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Background Wells
Pace Project No.: 92686676

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory between September 07, 2023 and September 08, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Background Wells
Pace Project No.: 92686676

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
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Background Wells
Pace Project No.: 92686676

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686676001	**MCD-DGWA-70A**	Water	09/06/23 12:45	09/07/23 09:00
92686676002	**MCD-DGWA-71**	Water	09/06/23 16:09	09/07/23 09:00
92686676003	**MCD-DGWA-53**	Water	09/07/23 10:53	09/08/23 15:50

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Background Wells
Pace Project No.: 92686676

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92686676001	**MCD-DGWA-70A**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92686676002	**MCD-DGWA-71**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92686676003	**MCD-DGWA-53**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Background Wells
Pace Project No.: 92686676

Sample: MCD-DGWA-70A **Lab ID: 92686676001** Collected: 09/06/23 12:45 Received: 09/07/23 09:00 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	ND	mg/L	0.040	0.025	1	09/09/23 08:25	09/11/23 20:36	7439-89-6	
Potassium	**1.6**	mg/L	0.50	0.15	1	09/09/23 08:25	09/11/23 20:36	7440-09-7	
Sodium	**3.4**	mg/L	1.0	0.58	1	09/09/23 08:25	09/11/23 20:36	7440-23-5	
Calcium	**6.6**	mg/L	1.0	0.12	1	09/09/23 08:25	09/11/23 20:36	7440-70-2	
Magnesium	**2.6**	mg/L	0.050	0.012	1	09/09/23 08:25	09/11/23 20:36	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	0.0012	1	09/09/23 08:50	09/13/23 12:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/09/23 08:50	09/13/23 12:47	7440-38-2	
Barium	**0.041**	mg/L	0.0050	0.00067	1	09/09/23 08:50	09/14/23 16:46	7440-39-3	
Beryllium	**0.00012J**	mg/L	0.00050	0.000054	1	09/09/23 08:50	09/13/23 12:47	7440-41-7	
Boron	**0.012J**	mg/L	0.040	0.0086	1	09/09/23 08:50	09/13/23 12:47	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/09/23 08:50	09/13/23 12:47	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/09/23 08:50	09/13/23 12:47	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/09/23 08:50	09/13/23 12:47	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/09/23 08:50	09/13/23 12:47	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/09/23 08:50	09/13/23 12:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/09/23 08:50	09/13/23 12:47	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/09/23 08:50	09/13/23 12:47	7782-49-2	
Thallium	**0.00053J**	mg/L	0.0010	0.00018	1	09/09/23 08:50	09/13/23 12:47	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**46.0**	mg/L	25.0	25.0	1		09/11/23 13:27		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 13:39	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**27.2**	mg/L	5.0	5.0	1		09/11/23 14:35		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/23 14:35		
Alkalinity, Total as CaCO3	**27.2**	mg/L	5.0	5.0	1		09/11/23 14:35		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/09/23 04:32	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.2**	mg/L	1.0	0.60	1		09/09/23 18:55	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/23 18:55	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Background Wells
Pace Project No.: 92686676

Sample: MCD-DGWA-70A **Lab ID: 92686676001** Collected: 09/06/23 12:45 Received: 09/07/23 09:00 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								
Sulfate	ND	mg/L	1.0	0.50	1		09/09/23 18:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Background Wells
Pace Project No.: 92686676

Sample: MCD-DGWA-71 **Lab ID: 92686676002** Collected: 09/06/23 16:09 Received: 09/07/23 09:00 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	**0.091**	mg/L	0.040	0.025	1	09/09/23 08:25	09/11/23 20:41	7439-89-6	
Potassium	**0.77**	mg/L	0.50	0.15	1	09/09/23 08:25	09/11/23 20:41	7440-09-7	
Sodium	**8.8**	mg/L	1.0	0.58	1	09/09/23 08:25	09/11/23 20:41	7440-23-5	M1
Calcium	**7.0**	mg/L	1.0	0.12	1	09/09/23 08:25	09/11/23 20:41	7440-70-2	M1
Magnesium	**0.98**	mg/L	0.050	0.012	1	09/09/23 08:25	09/11/23 20:41	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0045**	mg/L	0.0030	0.0012	1	09/09/23 08:50	09/13/23 13:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/09/23 08:50	09/13/23 13:03	7440-38-2	
Barium	**0.030**	mg/L	0.0050	0.00067	1	09/09/23 08:50	09/14/23 16:58	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.00050	0.000054	1	09/09/23 08:50	09/13/23 13:03	7440-41-7	
Boron	**0.015J**	mg/L	0.040	0.0086	1	09/09/23 08:50	09/13/23 13:03	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/09/23 08:50	09/13/23 13:03	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/09/23 08:50	09/13/23 13:03	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/09/23 08:50	09/13/23 13:03	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/09/23 08:50	09/13/23 13:03	7439-92-1	
Lithium	**0.0013J**	mg/L	0.030	0.00073	1	09/09/23 08:50	09/13/23 13:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/09/23 08:50	09/13/23 13:03	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/09/23 08:50	09/13/23 13:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/09/23 08:50	09/13/23 13:03	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**80.0**	mg/L	25.0	25.0	1		09/11/23 13:27		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 13:46	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**16.4**	mg/L	5.0	5.0	1		09/11/23 14:41		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/23 14:41		
Alkalinity, Total as CaCO3	**16.4**	mg/L	5.0	5.0	1		09/11/23 14:41		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/09/23 04:33	18496-25-8	
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	0.60	1		09/09/23 19:09	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/23 19:09	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Background Wells
Pace Project No.: 92686676

Sample: MCD-DGWA-71 **Lab ID: 92686676002** Collected: 09/06/23 16:09 Received: 09/07/23 09:00 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								
Sulfate	**7.2**	mg/L	1.0	0.50	1		09/09/23 19:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Background Wells
Pace Project No.: 92686676

Sample: MCD-DGWA-53 **Lab ID: 92686676003** Collected: 09/07/23 10:53 Received: 09/08/23 15:50 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	**14.9**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:59	7439-89-6	
Potassium	**3.8**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:59	7440-09-7	
Sodium	**7.6**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:59	7440-23-5	
Calcium	**16.3**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:59	7440-70-2	
Magnesium	**5.1**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:59	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	0.0012	1	09/11/23 14:11	09/14/23 18:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 18:15	7440-38-2	
Barium	**0.12**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 18:15	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 18:15	7440-41-7	
Boron	**0.052**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 18:15	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 18:15	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 18:15	7440-47-3	
Cobalt	**0.0086**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 18:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 18:15	7439-92-1	
Lithium	**0.0085J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 18:15	7439-93-2	
Molybdenum	**0.022**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 19:10	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 18:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 18:15	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	0.00013	1	10/02/23 12:15	10/02/23 16:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**123**	mg/L	25.0	25.0	1		09/12/23 11:44		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**74.5**	mg/L	5.0	5.0	1		09/12/23 17:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 17:19		
Alkalinity, Total as CaCO3	**74.5**	mg/L	5.0	5.0	1		09/12/23 17:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:29	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.7**	mg/L	1.0	0.60	1		09/12/23 17:51	16887-00-6	
Fluoride	**0.082J**	mg/L	0.10	0.050	1		09/12/23 17:51	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Background Wells
Pace Project No.: 92686676

Sample: MCD-DGWA-53 **Lab ID: 92686676003** Collected: 09/07/23 10:53 Received: 09/08/23 15:50 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								
Sulfate	**15.4**	mg/L	1.0	0.50	1		09/12/23 17:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798622
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4136598 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/11/23 20:25	
Iron	mg/L	ND	0.040	0.025	09/11/23 20:25	
Magnesium	mg/L	ND	0.050	0.012	09/11/23 20:25	
Potassium	mg/L	ND	0.50	0.15	09/11/23 20:25	
Sodium	mg/L	ND	1.0	0.58	09/11/23 20:25	

LABORATORY CONTROL SAMPLE: 4136599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Iron	mg/L	1	1.1	106	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.0	103	80-120	
Sodium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136986 4136987

Parameter	Units	92686676002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	7.0	1	1	8.2	7.6	115	58	75-125	7	20	M1
Iron	mg/L	0.091	1	1	1.2	1.1	108	106	75-125	2	20	
Magnesium	mg/L	0.98	1	1	2.1	2.0	108	101	75-125	4	20	
Potassium	mg/L	0.77	1	1	1.8	1.8	104	101	75-125	1	20	
Sodium	mg/L	8.8	1	1	9.9	9.2	117	42	75-125	8	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798869
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686676003

METHOD BLANK: 4137528 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/23 10:22	
Iron	mg/L	ND	0.040	0.025	09/13/23 10:22	
Magnesium	mg/L	ND	0.050	0.012	09/13/23 10:22	
Potassium	mg/L	ND	0.50	0.15	09/13/23 10:22	
Sodium	mg/L	ND	1.0	0.58	09/13/23 10:22	

LABORATORY CONTROL SAMPLE: 4137529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0J	100	80-120	
Iron	mg/L	1	1.0	100	80-120	
Magnesium	mg/L	1	1.0	102	80-120	
Potassium	mg/L	1	0.92	92	80-120	
Sodium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137530 4137531

Parameter	Units	92686941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	71.8	1	1	68.4	71.2	-338	-59	75-125	4	20	M1
Iron	mg/L	2.1	1	1	3.0	3.0	86	93	75-125	2	20	
Magnesium	mg/L	24.6	1	1	24.1	25.0	-53	33	75-125	4	20	M1
Potassium	mg/L	8.2	1	1	8.7	9.1	42	82	75-125	5	20	M1
Sodium	mg/L	20.0	1	1	19.8	20.6	-19	59	75-125	4	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798623
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4136603 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/13/23 12:38	
Arsenic	mg/L	ND	0.0050	0.0037	09/13/23 12:38	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:38	
Beryllium	mg/L	ND	0.00050	0.000054	09/13/23 12:38	
Boron	mg/L	ND	0.040	0.0086	09/13/23 12:38	
Cadmium	mg/L	ND	0.00050	0.00011	09/13/23 12:38	
Chromium	mg/L	ND	0.0050	0.0011	09/13/23 12:38	
Cobalt	mg/L	ND	0.0050	0.00039	09/13/23 12:38	
Lead	mg/L	ND	0.0010	0.00012	09/13/23 12:38	
Lithium	mg/L	ND	0.030	0.00073	09/13/23 12:38	
Molybdenum	mg/L	ND	0.010	0.00074	09/13/23 12:38	
Selenium	mg/L	ND	0.0050	0.0014	09/13/23 12:38	
Thallium	mg/L	ND	0.0010	0.00018	09/13/23 12:38	

LABORATORY CONTROL SAMPLE: 4136604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.99	99	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	101	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136605 4136606

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	105	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	98	98	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136605 4136606

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.041	0.1	0.1	0.15	0.15	105	107	75-125	2	20	
Beryllium	mg/L	0.00012J	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Boron	mg/L	0.012J	1	1	1.0	1.0	102	102	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.098	97	98	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.098	0.096	97	96	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	2	20	
Thallium	mg/L	0.00053J	0.1	0.1	0.095	0.095	94	95	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798903
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92686676003

METHOD BLANK: 4137724 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/14/23 16:50	
Arsenic	mg/L	ND	0.0050	0.0037	09/14/23 16:50	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:50	
Beryllium	mg/L	ND	0.00050	0.000054	09/14/23 16:50	
Boron	mg/L	ND	0.040	0.0086	09/14/23 16:50	
Cadmium	mg/L	ND	0.00050	0.00011	09/14/23 16:50	
Chromium	mg/L	ND	0.0050	0.0011	09/14/23 16:50	
Cobalt	mg/L	ND	0.0050	0.00039	09/14/23 16:50	
Lead	mg/L	ND	0.0010	0.00012	09/14/23 16:50	
Lithium	mg/L	ND	0.030	0.00073	09/14/23 16:50	
Molybdenum	mg/L	ND	0.010	0.00074	09/14/23 16:50	
Selenium	mg/L	ND	0.0050	0.0014	09/14/23 16:50	
Thallium	mg/L	ND	0.0010	0.00018	09/14/23 16:50	

LABORATORY CONTROL SAMPLE: 4137725

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	102	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	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	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	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	110	104	75-125	6	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.099	106	99	75-125	7	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.0027J	0.1	0.1	0.11	0.10	105	100	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	4	20	
Boron	mg/L	0.24	1	1	1.3	1.2	103	99	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.10	107	100	75-125	6	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.094	102	93	75-125	8	20	
Cobalt	mg/L	0.00040J	0.1	0.1	0.10	0.094	101	94	75-125	8	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.091	95	91	75-125	4	20	
Lithium	mg/L	0.0043J	0.1	0.1	0.10	0.099	100	94	75-125	6	20	
Molybdenum	mg/L	0.026	0.1	0.1	0.13	0.12	105	97	75-125	6	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	104	98	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.092	0.089	92	89	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 803461
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686676003

METHOD BLANK: 4161104 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	10/02/23 16:27	

LABORATORY CONTROL SAMPLE: 4161105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4161106 4161107

Parameter	Units	92686676003 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	0.0027	0.0026	104	101	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798883
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4137624 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/23 13:25	

LABORATORY CONTROL SAMPLE: 4137625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	427	107	80-120	

SAMPLE DUPLICATE: 4137626

Parameter	Units	92686830001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1540	1500	3	10	

SAMPLE DUPLICATE: 4137627

Parameter	Units	92686679004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	174	17	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 799142
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686676003

METHOD BLANK: 4138899 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/12/23 11:42	

LABORATORY CONTROL SAMPLE: 4138900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	80-120	

SAMPLE DUPLICATE: 4138901

Parameter	Units	92686677006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	253	259	2	10	

SAMPLE DUPLICATE: 4138902

Parameter	Units	92687108002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	100	101	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 800476
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4146097 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00012	09/20/23 13:34	

LABORATORY CONTROL SAMPLE: 4146098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0020	81	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4146099 4146100

Parameter	Units	92686676001 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	0.0025	0.0024	100	95	75-125	5	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798842
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4137442 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/11/23 11:24	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/23 11:24	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/23 11:24	

LABORATORY CONTROL SAMPLE: 4137443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.1	102	80-120	

LABORATORY CONTROL SAMPLE: 4137444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137445 4137446

Parameter	Units	92686252001 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	<5.0	50	50	48.4	47.8	97	96	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137447 4137448

Parameter	Units	92686487004 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	32.6	50	50	83.1	82.1	101	99	80-120	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 799173
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686676003

METHOD BLANK: 4139096 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	

LABORATORY CONTROL SAMPLE: 4139097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

LABORATORY CONTROL SAMPLE: 4139098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139099 4139100

Parameter	Units	92686679012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.2	51.0	102	102	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139101 4139102

Parameter	Units	92686677009 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	96.9	50	50	148	148	103	102	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798662
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4136899 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/09/23 04:31	

LABORATORY CONTROL SAMPLE: 4136900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136901 4136902

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.56	106	111	80-120	5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136903 4136904

Parameter	Units	92686861001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.38	0.37	76	75	80-120	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 799296
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686676003

METHOD BLANK: 4140098 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/13/23 02:23	

LABORATORY CONTROL SAMPLE: 4140099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140102 4140103

Parameter	Units	92686679007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.43	87	85	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140133 4140134

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.49	104	97	80-120	7	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 798687
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686676001, 92686676002

METHOD BLANK: 4136953 Matrix: Water
Associated Lab Samples: 92686676001, 92686676002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/09/23 13:26	
Fluoride	mg/L	ND	0.10	0.050	09/09/23 13:26	
Sulfate	mg/L	ND	1.0	0.50	09/09/23 13:26	

LABORATORY CONTROL SAMPLE: 4136954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.0	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136955 4136956

Parameter	Units	92686882001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	23.0	50	50	75.9	75.9	106	106	90-110	0	10	
Fluoride	mg/L	0.13	2.5	2.5	2.6	2.7	101	101	90-110	1	10	
Sulfate	mg/L	13.2	50	50	66.5	66.7	107	107	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136957 4136958

Parameter	Units	92686872001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	840	50	50	885	882	89	82	90-110	0	10	M1
Fluoride	mg/L	15.2	2.5	2.5	17.5	17.7	92	98	90-110	1	10	
Sulfate	mg/L	55.9	50	50	93.3	93.1	75	74	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Background Wells
Pace Project No.: 92686676

QC Batch: 799070
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92686676003

METHOD BLANK: 4138708 Matrix: Water
Associated Lab Samples: 92686676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/12/23 12:51	
Fluoride	mg/L	ND	0.10	0.050	09/12/23 12:51	
Sulfate	mg/L	ND	1.0	0.50	09/12/23 12:51	

LABORATORY CONTROL SAMPLE: 4138709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138710 4138711

Parameter	Units	92687087001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	59.4	59.8	103	104	90-110	1	10	
Fluoride	mg/L	0.63	2.5	2.5	3.5	3.5	113	115	90-110	1	10	M1
Sulfate	mg/L	9.9	50	50	60.7	61.4	102	103	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138712 4138713

Parameter	Units	92686677010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	52.1	53.1	104	106	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	109	108	90-110	0	10	
Sulfate	mg/L	ND	50	50	52.7	54.0	105	108	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Background Wells
Pace Project No.: 92686676

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Background Wells
Pace Project No.: 92686676

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686676001	**MCD-DGWA-70A**	EPA 3010A	798622	EPA 6010D	798709
92686676002	**MCD-DGWA-71**	EPA 3010A	798622	EPA 6010D	798709
92686676003	**MCD-DGWA-53**	EPA 3010A	798869	EPA 6010D	798954
92686676001	**MCD-DGWA-70A**	EPA 3005A	798623	EPA 6020B	798699
92686676002	**MCD-DGWA-71**	EPA 3005A	798623	EPA 6020B	798699
92686676003	**MCD-DGWA-53**	EPA 3005A	798903	EPA 6020B	798992
92686676003	**MCD-DGWA-53**	EPA 7470A	803461	EPA 7470A	803573
92686676001	**MCD-DGWA-70A**	SM 2540C-2015	798883		
92686676002	**MCD-DGWA-71**	SM 2540C-2015	798883		
92686676003	**MCD-DGWA-53**	SM 2540C-2015	799142		
92686676001	**MCD-DGWA-70A**	EPA 7470A	800476	EPA 7470A	800627
92686676002	**MCD-DGWA-71**	EPA 7470A	800476	EPA 7470A	800627
92686676001	**MCD-DGWA-70A**	SM 2320B-2011	798842		
92686676002	**MCD-DGWA-71**	SM 2320B-2011	798842		
92686676003	**MCD-DGWA-53**	SM 2320B-2011	799173		
92686676001	**MCD-DGWA-70A**	SM 4500-S2D-2011	798662		
92686676002	**MCD-DGWA-71**	SM 4500-S2D-2011	798662		
92686676003	**MCD-DGWA-53**	SM 4500-S2D-2011	799296		
92686676001	**MCD-DGWA-70A**	EPA 300.0 Rev 2.1 1993	798687		
92686676002	**MCD-DGWA-71**	EPA 300.0 Rev 2.1 1993	798687		
92686676003	**MCD-DGWA-53**	EPA 300.0 Rev 2.1 1993	799070		

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Me

WO# : 92686676

92686676

Sample Condition Upon Receipt

Client Name: Ga-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: 9-7-23 JLC

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: 2.3 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): 2.3

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

*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#: 92686676

PM: BV Due Date: 09/21/23

CLIENT: 92-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) (DF)	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-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1		1																	2				
2		2	1			1		1																	2				
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Regulatory Agency
Company: Georgia Power - Coal Combustion Residuals	Report To: Lauren Coker	Attention: scsinvoices@southernco.com	
Address: 2480 Maner Road Atlanta, GA 30339	Copy To: WSP	Company Name:	
Email: laucoker@scuthernco.com	Purchase Order #:	Address:	
Phone: (470) 520-6176 Fax:	Project Name: Background Wells	Pace Quote:	State / Location GA
Requested Due Date: 10 Day TAT	Project #: 31400440.McD23	Pace Project Manager: Bonnie Vang	
		Pace Profile #: 16434-2	

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Y/N	Analyses Test: App III/IV + Hg, Ni, K, Fe	Cl, F, SO4	Radium 226/228	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	
	MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS															Y/N	N	N	N	N	N	N	
1	MCD-DGWA-70A	WG	G	9/6/23	12:45		7	3		3		1					X	X	X	X	X	X		04
2	MCD-DGWA-71	WG	G	9/6/23	16:09		7	3		3		1					X	X	X	X	X	X		02
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

92686676

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Rush Copy - MCD-DGWA-70A/MW-71 Please		9/7/23	0900		9/8/23	

DATE Signed:

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project # **WO#: 92686676**

PM: BV **Due Date: 09/21/23**

CLIENT: 92-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: 9/8/23 TBE

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: 4.1 **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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ **Date/Time:** _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

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# : 92686676**

PM: BV Due Date: 09/21/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BP1U	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		1	1																		2				
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A
Required Client Information:
Company: Georgia Power - Coal Combustion Residuals
Address: 2480 Maner Road
Atlanta, GA 30339
Email: tpucker@southernco.com
Phone: (470) 620-6176 Fax:
Requested Due Date: 10 Day TAT

Section B
Required Project Information:
Report To: Lauren Coker
Copy To: WSP
Purchase Order #:
Project Name: Background Wells
Project #: 31406440.MCD23

Section C
Invoice Information:
Attention: scsinvoices@southernco.com
Company Name:
Address:
Pace Quote:
Pace Project Manager: Bonnie Vang
Pace Profile #

Regulatory Agency
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 95136320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	92666676
	MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS															Y/N	N	N	N	N	N	N		
1	MCD-DGWA-53	WG	G	9/7/23	10:53		7	3		3		1					X	X	X	X	X	X		1153
3																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S2	MARK MILLER WSP	09/08/23	1550	Tucker Pace	9/11/23	

DATE Signed:

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 04, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory between September 07, 2023 and September 08, 2023. 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,

Bonnie Vang

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

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
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686677001	**MCD-DGWC-37**	Water	09/06/23 14:48	09/07/23 09:00
92686677002	**MCD-AP1-FD-1**	Water	09/06/23 00:00	09/07/23 09:00
92686677003	**MCD-DGWC-67**	Water	09/07/23 11:44	09/08/23 15:50
92686677004	**MCD-DGWC-40**	Water	09/07/23 12:42	09/08/23 15:50
92686677005	**MCD-DGWC-38**	Water	09/07/23 13:27	09/08/23 15:50
92686677006	**MCD-DGWC-68A**	Water	09/07/23 13:38	09/08/23 15:50
92686677007	**MCD-DGWC-39**	Water	09/07/23 14:45	09/08/23 15:50
92686677008	**MCD-DGWC-69**	Water	09/07/23 15:01	09/08/23 15:50
92686677009	**MCD-DGWC-121**	Water	09/08/23 09:43	09/08/23 15:50
92686677010	**MCD-AP1-FB-1**	Water	09/08/23 12:00	09/08/23 15:50
92686677011	**MCD-AP1-EB-1**	Water	09/08/23 13:00	09/08/23 15:50

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92686677001	**MCD-DGWC-37**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92686677002	**MCD-AP1-FD-1**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92686677003	**MCD-DGWC-67**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677004	**MCD-DGWC-40**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677005	**MCD-DGWC-38**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677006	**MCD-DGWC-68A**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677007	**MCD-DGWC-39**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677008	**MCD-DGWC-69**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677009	**MCD-DGWC-121**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677010	**MCD-AP1-FB-1**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686677011	**MCD-AP1-EB-1**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-37 **Lab ID: 92686677001** Collected: 09/06/23 14:48 Received: 09/07/23 09:00 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	**0.040**	mg/L	0.040	0.025	1	09/09/23 08:25	09/11/23 21:02	7439-89-6	
Potassium	**4.0**	mg/L	0.50	0.15	1	09/09/23 08:25	09/11/23 21:02	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.58	1	09/09/23 08:25	09/11/23 21:02	7440-23-5	
Calcium	**59.1**	mg/L	1.0	0.12	1	09/09/23 08:25	09/11/23 21:02	7440-70-2	
Magnesium	**13.0**	mg/L	0.050	0.012	1	09/09/23 08:25	09/11/23 21:02	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0014J**	mg/L	0.0030	0.0012	1	09/09/23 08:50	09/13/23 13:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/09/23 08:50	09/13/23 13:07	7440-38-2	
Barium	**0.082**	mg/L	0.0050	0.00067	1	09/09/23 08:50	09/14/23 17:02	7440-39-3	
Beryllium	**0.000058J**	mg/L	0.00050	0.000054	1	09/09/23 08:50	09/13/23 13:07	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.0086	1	09/09/23 08:50	09/13/23 13:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/09/23 08:50	09/13/23 13:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/09/23 08:50	09/13/23 13:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/09/23 08:50	09/13/23 13:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/09/23 08:50	09/13/23 13:07	7439-92-1	
Lithium	**0.0021J**	mg/L	0.030	0.00073	1	09/09/23 08:50	09/13/23 13:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/09/23 08:50	09/13/23 13:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/09/23 08:50	09/13/23 13:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/09/23 08:50	09/13/23 13:07	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**324**	mg/L	25.0	25.0	1		09/11/23 13:27		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 13:48	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**129**	mg/L	5.0	5.0	1		09/11/23 14:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/23 14:46		
Alkalinity, Total as CaCO3	**129**	mg/L	5.0	5.0	1		09/11/23 14:46		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/09/23 04:34	18496-25-8	
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		09/09/23 19:23	16887-00-6	
Fluoride	**0.053J**	mg/L	0.10	0.050	1		09/09/23 19:23	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-37 **Lab ID: 92686677001** Collected: 09/06/23 14:48 Received: 09/07/23 09:00 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								
Sulfate	**83.4**	mg/L	1.0	0.50	1		09/09/23 19:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-AP1-FD-1 **Lab ID: 92686677002** Collected: 09/06/23 00:00 Received: 09/07/23 09:00 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	**0.041**	mg/L	0.040	0.025	1	09/09/23 08:25	09/11/23 21:07	7439-89-6	
Potassium	**3.9**	mg/L	0.50	0.15	1	09/09/23 08:25	09/11/23 21:07	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.58	1	09/09/23 08:25	09/11/23 21:07	7440-23-5	
Calcium	**58.9**	mg/L	1.0	0.12	1	09/09/23 08:25	09/11/23 21:07	7440-70-2	
Magnesium	**12.9**	mg/L	0.050	0.012	1	09/09/23 08:25	09/11/23 21:07	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	0.0012	1	09/09/23 08:50	09/13/23 13:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/09/23 08:50	09/13/23 13:11	7440-38-2	
Barium	**0.076**	mg/L	0.0050	0.00067	1	09/09/23 08:50	09/14/23 17:06	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/09/23 08:50	09/13/23 13:11	7440-41-7	
Boron	**1.6**	mg/L	0.040	0.0086	1	09/09/23 08:50	09/13/23 13:11	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/09/23 08:50	09/13/23 13:11	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/09/23 08:50	09/13/23 13:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/09/23 08:50	09/13/23 13:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/09/23 08:50	09/13/23 13:11	7439-92-1	
Lithium	**0.0021J**	mg/L	0.030	0.00073	1	09/09/23 08:50	09/13/23 13:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/09/23 08:50	09/13/23 13:11	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/09/23 08:50	09/13/23 13:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/09/23 08:50	09/13/23 13:11	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**304**	mg/L	25.0	25.0	1		09/11/23 13:27		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 13:50	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**128**	mg/L	5.0	5.0	1		09/11/23 14:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/23 14:57		
Alkalinity, Total as CaCO3	**128**	mg/L	5.0	5.0	1		09/11/23 14:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/09/23 04:34	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.3**	mg/L	1.0	0.60	1		09/09/23 19:38	16887-00-6	
Fluoride	**0.052J**	mg/L	0.10	0.050	1		09/09/23 19:38	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-AP1-FD-1 **Lab ID: 92686677002** Collected: 09/06/23 00:00 Received: 09/07/23 09:00 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								
Sulfate	**83.2**	mg/L	1.0	0.50	1		09/09/23 19:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-67 **Lab ID: 92686677003** Collected: 09/07/23 11:44 Received: 09/08/23 15:50 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	ND	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:12	7439-89-6	
Potassium	**3.6**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:12	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:12	7440-23-5	
Calcium	**43.3**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:12	7440-70-2	
Magnesium	**17.2**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:12	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0039**	mg/L	0.0030	0.0012	1	09/11/23 14:11	09/14/23 17:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:22	7440-38-2	
Barium	**0.076**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:22	7440-41-7	
Boron	**3.9**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:22	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:22	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:22	7440-47-3	
Cobalt	**0.0010J**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:22	7439-92-1	
Lithium	**0.0046J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:22	7439-93-2	
Molybdenum	**0.0013J**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/14/23 17:22	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:22	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**337**	mg/L	25.0	25.0	1		09/11/23 13:32		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:25	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**90.9**	mg/L	5.0	5.0	1		09/12/23 16:23		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:23		
Alkalinity, Total as CaCO3	**90.9**	mg/L	5.0	5.0	1		09/12/23 16:23		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:26	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.2**	mg/L	1.0	0.60	1		09/12/23 14:36	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/12/23 14:36	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-67 **Lab ID: 92686677003** Collected: 09/07/23 11:44 Received: 09/08/23 15:50 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								
Sulfate	**106**	mg/L	2.0	1.0	2		09/13/23 07:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-40 **Lab ID: 92686677004** Collected: 09/07/23 12:42 Received: 09/08/23 15:50 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	ND	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:17	7439-89-6	
Potassium	**5.9**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:17	7440-09-7	
Sodium	**18.9**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:17	7440-23-5	
Calcium	**41.0**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:17	7440-70-2	
Magnesium	**18.0**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:17	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	0.0012	1	09/11/23 14:11	09/14/23 17:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:26	7440-38-2	
Barium	**0.016**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:26	7440-39-3	
Beryllium	**0.0031**	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:26	7440-41-7	
Boron	**0.73**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:26	7440-42-8	
Cadmium	**0.00074**	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:26	7440-47-3	
Cobalt	**0.035**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:26	7439-92-1	
Lithium	**0.0022J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/23 14:11	09/14/23 17:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:26	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**359**	mg/L	25.0	25.0	1		09/11/23 13:33		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:27	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:32		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:32		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/12/23 16:32		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:27	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**13.6**	mg/L	1.0	0.60	1		09/12/23 14:51	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		09/12/23 14:51	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-40 **Lab ID: 92686677004** Collected: 09/07/23 12:42 Received: 09/08/23 15:50 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								
Sulfate	**177**	mg/L	4.0	2.0	4		09/13/23 07:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-38 **Lab ID: 92686677005** Collected: 09/07/23 13:27 Received: 09/08/23 15:50 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	**0.028J**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:22	7439-89-6	
Potassium	**4.4**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:22	7440-09-7	
Sodium	**12.1**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:22	7440-23-5	
Calcium	**86.5**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:22	7440-70-2	
Magnesium	**25.7**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:22	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	0.0012	1	09/11/23 14:11	09/14/23 17:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:30	7440-38-2	
Barium	**0.027**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:30	7440-41-7	
Boron	**2.8**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:30	7440-42-8	
Cadmium	**0.00013J**	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:30	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:30	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:30	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:30	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:30	7439-93-2	
Molybdenum	**0.0013J**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/14/23 17:30	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**526**	mg/L	25.0	25.0	1		09/11/23 13:33		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:30	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**97.7**	mg/L	5.0	5.0	1		09/12/23 16:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:36		
Alkalinity, Total as CaCO3	**97.7**	mg/L	5.0	5.0	1		09/12/23 16:36		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:27	18496-25-8	
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	0.60	1		09/12/23 15:06	16887-00-6	
Fluoride	**0.072J**	mg/L	0.10	0.050	1		09/12/23 15:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-38 **Lab ID: 92686677005** Collected: 09/07/23 13:27 Received: 09/08/23 15:50 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								
Sulfate	**212**	mg/L	4.0	2.0	4		09/13/23 08:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-68A **Lab ID: 92686677006** Collected: 09/07/23 13:38 Received: 09/08/23 15:50 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	**0.093**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:27	7439-89-6	
Potassium	**4.0**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:27	7440-09-7	
Sodium	**9.8**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:27	7440-23-5	
Calcium	**53.6**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:27	7440-70-2	
Magnesium	**18.1**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:27	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	0.0012	1	09/11/23 14:11	09/14/23 17:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:50	7440-38-2	
Barium	**0.11**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:50	7440-41-7	
Boron	**1.8**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:50	7440-42-8	
Cadmium	**0.00015J**	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:50	7439-93-2	
Molybdenum	**0.18**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 18:45	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:50	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**253**	mg/L	25.0	25.0	1		09/12/23 11:42		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:32	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**201**	mg/L	5.0	5.0	1		09/12/23 16:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:46		
Alkalinity, Total as CaCO3	**201**	mg/L	5.0	5.0	1		09/12/23 16:46		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:27	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.9**	mg/L	1.0	0.60	1		09/12/23 15:51	16887-00-6	
Fluoride	**0.096J**	mg/L	0.10	0.050	1		09/12/23 15:51	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-68A **Lab ID: 92686677006** Collected: 09/07/23 13:38 Received: 09/08/23 15:50 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								
Sulfate	**34.2**	mg/L	1.0	0.50	1		09/12/23 15:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-39 **Lab ID: 92686677007** Collected: 09/07/23 14:45 Received: 09/08/23 15:50 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	**11.5**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:32	7439-89-6	
Potassium	**2.8**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:32	7440-09-7	
Sodium	**12.6**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:32	7440-23-5	
Calcium	**81.2**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:32	7440-70-2	
Magnesium	**19.8**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:32	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	0.0012	1	09/11/23 14:11	09/14/23 17:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:55	7440-38-2	
Barium	**0.11**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:55	7440-41-7	
Boron	**2.7**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:55	7440-47-3	
Cobalt	**0.0059**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:55	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:55	7439-93-2	
Molybdenum	**0.0016J**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 18:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:55	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**421**	mg/L	25.0	25.0	1		09/12/23 11:43		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:34	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**215**	mg/L	5.0	5.0	1		09/12/23 16:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:59		
Alkalinity, Total as CaCO3	**215**	mg/L	5.0	5.0	1		09/12/23 16:59		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:28	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7.2**	mg/L	1.0	0.60	1		09/12/23 16:06	16887-00-6	
Fluoride	**0.092J**	mg/L	0.10	0.050	1		09/12/23 16:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-39 **Lab ID: 92686677007** Collected: 09/07/23 14:45 Received: 09/08/23 15:50 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								
Sulfate	**124**	mg/L	3.0	1.5	3		09/13/23 08:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-69 **Lab ID: 92686677008** Collected: 09/07/23 15:01 Received: 09/08/23 15:50 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	**0.35**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:38	7439-89-6	
Potassium	**2.3**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:38	7440-09-7	
Sodium	**9.3**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:38	7440-23-5	
Calcium	**8.1**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:38	7440-70-2	
Magnesium	**2.3**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:38	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	0.0012	1	09/11/23 14:11	09/14/23 17:59	7440-36-0	
Arsenic	**0.029**	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:59	7440-38-2	
Barium	**0.047**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:59	7440-39-3	
Beryllium	**0.000078J**	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:59	7440-41-7	
Boron	**0.052**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:59	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:59	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:59	7440-48-4	
Lead	**0.00020J**	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:59	7439-92-1	
Lithium	**0.0022J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:59	7439-93-2	
Molybdenum	**0.0056J**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 18:53	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:59	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**106**	mg/L	25.0	25.0	1		09/12/23 11:43		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:36	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**38.9**	mg/L	5.0	5.0	1		09/12/23 17:13		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 17:13		
Alkalinity, Total as CaCO3	**38.9**	mg/L	5.0	5.0	1		09/12/23 17:13		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:29	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.1**	mg/L	1.0	0.60	1		09/12/23 16:21	16887-00-6	
Fluoride	**0.063J**	mg/L	0.10	0.050	1		09/12/23 16:21	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-69 **Lab ID: 92686677008** Collected: 09/07/23 15:01 Received: 09/08/23 15:50 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								
Sulfate	**6.9**	mg/L	1.0	0.50	1		09/12/23 16:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-121 **Lab ID: 92686677009** Collected: 09/08/23 09:43 Received: 09/08/23 15:50 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	**2.6**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:43	7439-89-6	
Potassium	**3.6**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:43	7440-09-7	
Sodium	**10.9**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:43	7440-23-5	
Calcium	**43.9**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:43	7440-70-2	
Magnesium	**13.2**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:43	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	0.0012	1	09/11/23 14:11	09/14/23 18:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 18:03	7440-38-2	
Barium	**0.047**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 18:03	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 18:03	7440-41-7	
Boron	**1.9**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 18:03	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 18:03	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 18:03	7440-47-3	
Cobalt	**0.0016J**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 18:03	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 18:03	7439-92-1	
Lithium	**0.0055J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 18:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 18:57	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 18:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 18:03	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**286**	mg/L	25.0	25.0	1		09/12/23 12:00		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:39	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**96.9**	mg/L	5.0	5.0	1		09/12/23 18:29		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 18:29		
Alkalinity, Total as CaCO3	**96.9**	mg/L	5.0	5.0	1		09/12/23 18:29		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.071J**	mg/L	0.10	0.022	1		09/13/23 02:35	18496-25-8	
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		09/12/23 16:36	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/12/23 16:36	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-DGWC-121 **Lab ID: 92686677009** Collected: 09/08/23 09:43 Received: 09/08/23 15:50 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								
Sulfate	**87.8**	mg/L	1.0	0.50	1		09/12/23 16:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-AP1-FB-1 **Lab ID: 92686677010** Collected: 09/08/23 12:00 Received: 09/08/23 15:50 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	ND	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 11:48	7439-89-6	
Potassium	ND	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 11:48	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 11:48	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 11:48	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 11:48	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	0.0012	1	09/11/23 14:11	09/14/23 18:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 18:07	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 18:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 18:07	7440-41-7	
Boron	**0.028J**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 18:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 18:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 18:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 18:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 18:07	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 18:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 19:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 18:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 18:07	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		09/12/23 12:00		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:41	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/14/23 11:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/14/23 11:54		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/14/23 11:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:35	18496-25-8	
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		09/12/23 16:51	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/12/23 16:51	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-AP1-FB-1 **Lab ID: 92686677010** Collected: 09/08/23 12:00 Received: 09/08/23 15:50 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								
Sulfate	ND	mg/L	1.0	0.50	1		09/12/23 16:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-AP1-EB-1 **Lab ID: 92686677011** Collected: 09/08/23 13:00 Received: 09/08/23 15:50 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	ND	mg/L	0.040	0.025	1	09/26/23 13:30	09/27/23 19:49	7439-89-6	
Potassium	ND	mg/L	0.50	0.15	1	09/26/23 13:30	09/27/23 19:49	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	09/26/23 13:30	09/27/23 19:49	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	09/26/23 13:30	09/27/23 19:49	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	09/26/23 13:30	09/27/23 19:49	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	0.0012	1	09/11/23 14:11	09/14/23 18:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 18:11	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 18:11	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 18:11	7440-41-7	
Boron	**0.011J**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 18:11	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 18:11	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 18:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 18:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 18:11	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 18:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 19:05	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 18:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 18:11	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	0.00013	1	10/02/23 12:15	10/02/23 16:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		09/12/23 12:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/14/23 11:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/14/23 11:59		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/14/23 11:59		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:37	18496-25-8	
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		09/12/23 17:36	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/12/23 17:36	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Sample: MCD-AP1-EB-1 **Lab ID: 92686677011** Collected: 09/08/23 13:00 Received: 09/08/23 15:50 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								
Sulfate	ND	mg/L	1.0	0.50	1		09/12/23 17:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798622
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686677001, 92686677002

METHOD BLANK: 4136598 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/11/23 20:25	
Iron	mg/L	ND	0.040	0.025	09/11/23 20:25	
Magnesium	mg/L	ND	0.050	0.012	09/11/23 20:25	
Potassium	mg/L	ND	0.50	0.15	09/11/23 20:25	
Sodium	mg/L	ND	1.0	0.58	09/11/23 20:25	

LABORATORY CONTROL SAMPLE: 4136599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Iron	mg/L	1	1.1	106	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.0	103	80-120	
Sodium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136986 4136987

Parameter	Units	92686676002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	7.0	1	1	8.2	7.6	115	58	75-125	7	20	M1
Iron	mg/L	0.091	1	1	1.2	1.1	108	106	75-125	2	20	
Magnesium	mg/L	0.98	1	1	2.1	2.0	108	101	75-125	4	20	
Potassium	mg/L	0.77	1	1	1.8	1.8	104	101	75-125	1	20	
Sodium	mg/L	8.8	1	1	9.9	9.2	117	42	75-125	8	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798869
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010

METHOD BLANK: 4137528 Matrix: Water
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/23 10:22	
Iron	mg/L	ND	0.040	0.025	09/13/23 10:22	
Magnesium	mg/L	ND	0.050	0.012	09/13/23 10:22	
Potassium	mg/L	ND	0.50	0.15	09/13/23 10:22	
Sodium	mg/L	ND	1.0	0.58	09/13/23 10:22	

LABORATORY CONTROL SAMPLE: 4137529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0J	100	80-120	
Iron	mg/L	1	1.0	100	80-120	
Magnesium	mg/L	1	1.0	102	80-120	
Potassium	mg/L	1	0.92	92	80-120	
Sodium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137530 4137531

Parameter	Units	92686941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	71.8	1	1	68.4	71.2	-338	-59	75-125	4	20	M1
Iron	mg/L	2.1	1	1	3.0	3.0	86	93	75-125	2	20	
Magnesium	mg/L	24.6	1	1	24.1	25.0	-53	33	75-125	4	20	M1
Potassium	mg/L	8.2	1	1	8.7	9.1	42	82	75-125	5	20	M1
Sodium	mg/L	20.0	1	1	19.8	20.6	-19	59	75-125	4	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 802166
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686677011

METHOD BLANK: 4155260 Matrix: Water
Associated Lab Samples: 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/27/23 19:28	
Iron	mg/L	ND	0.040	0.025	09/27/23 19:28	
Magnesium	mg/L	ND	0.050	0.012	09/27/23 19:28	
Potassium	mg/L	ND	0.50	0.15	09/27/23 19:28	
Sodium	mg/L	ND	1.0	0.58	09/27/23 19:28	

LABORATORY CONTROL SAMPLE: 4155261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Potassium	mg/L	1	0.95	95	80-120	
Sodium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4155262 4155263

Parameter	Units	92688921026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	3780 ug/L	1	1	4.5	4.6	72	82	75-125	2	20	M1
Iron	mg/L	ND	1	1	0.97	1.1	93	107	75-125	13	20	
Magnesium	mg/L	1740 ug/L	1	1	2.6	2.7	83	94	75-125	4	20	
Potassium	mg/L	1080 ug/L	1	1	1.9	2.0	82	92	75-125	6	20	
Sodium	mg/L	5260 ug/L	1	1	5.8	5.9	58	67	75-125	2	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798623
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686677001, 92686677002

METHOD BLANK: 4136603 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/13/23 12:38	
Arsenic	mg/L	ND	0.0050	0.0037	09/13/23 12:38	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:38	
Beryllium	mg/L	ND	0.00050	0.000054	09/13/23 12:38	
Boron	mg/L	ND	0.040	0.0086	09/13/23 12:38	
Cadmium	mg/L	ND	0.00050	0.00011	09/13/23 12:38	
Chromium	mg/L	ND	0.0050	0.0011	09/13/23 12:38	
Cobalt	mg/L	ND	0.0050	0.00039	09/13/23 12:38	
Lead	mg/L	ND	0.0010	0.00012	09/13/23 12:38	
Lithium	mg/L	ND	0.030	0.00073	09/13/23 12:38	
Molybdenum	mg/L	ND	0.010	0.00074	09/13/23 12:38	
Selenium	mg/L	ND	0.0050	0.0014	09/13/23 12:38	
Thallium	mg/L	ND	0.0010	0.00018	09/13/23 12:38	

LABORATORY CONTROL SAMPLE: 4136604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.99	99	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	101	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136605 4136606

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	105	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	98	98	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136605 4136606

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.041	0.1	0.1	0.15	0.15	105	107	75-125	2	20	
Beryllium	mg/L	0.00012J	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Boron	mg/L	0.012J	1	1	1.0	1.0	102	102	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.098	97	98	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.098	0.096	97	96	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	2	20	
Thallium	mg/L	0.00053J	0.1	0.1	0.095	0.095	94	95	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798903
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010, 92686677011

METHOD BLANK: 4137724 Matrix: Water
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010, 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/14/23 16:50	
Arsenic	mg/L	ND	0.0050	0.0037	09/14/23 16:50	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:50	
Beryllium	mg/L	ND	0.00050	0.000054	09/14/23 16:50	
Boron	mg/L	ND	0.040	0.0086	09/14/23 16:50	
Cadmium	mg/L	ND	0.00050	0.00011	09/14/23 16:50	
Chromium	mg/L	ND	0.0050	0.0011	09/14/23 16:50	
Cobalt	mg/L	ND	0.0050	0.00039	09/14/23 16:50	
Lead	mg/L	ND	0.0010	0.00012	09/14/23 16:50	
Lithium	mg/L	ND	0.030	0.00073	09/14/23 16:50	
Molybdenum	mg/L	ND	0.010	0.00074	09/14/23 16:50	
Selenium	mg/L	ND	0.0050	0.0014	09/14/23 16:50	
Thallium	mg/L	ND	0.0010	0.00018	09/14/23 16:50	

LABORATORY CONTROL SAMPLE: 4137725

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	102	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	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	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	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	110	104	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.11	0.099	106	99	75-125	7	20	
Barium	mg/L	0.0027J	0.1	0.1	0.11	0.10	105	100	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	4	20	
Boron	mg/L	0.24	1	1	1.3	1.2	103	99	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.10	107	100	75-125	6	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.094	102	93	75-125	8	20	
Cobalt	mg/L	0.00040J	0.1	0.1	0.10	0.094	101	94	75-125	8	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.091	95	91	75-125	4	20	
Lithium	mg/L	0.0043J	0.1	0.1	0.10	0.099	100	94	75-125	6	20	
Molybdenum	mg/L	0.026	0.1	0.1	0.13	0.12	105	97	75-125	6	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	104	98	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.092	0.089	92	89	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 803461
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686677011

METHOD BLANK: 4161104 Matrix: Water
Associated Lab Samples: 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	10/02/23 16:27	

LABORATORY CONTROL SAMPLE: 4161105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4161106 4161107

Parameter	Units	92686676003 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	0.0027	0.0026	104	101	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798883 | 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: 92686677001, 92686677002, 92686677003, 92686677004, 92686677005

METHOD BLANK: 4137624 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002, 92686677003, 92686677004, 92686677005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/23 13:25	

LABORATORY CONTROL SAMPLE: 4137625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	427	107	80-120	

SAMPLE DUPLICATE: 4137626

Parameter	Units	92686830001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1540	1500	3	10	

SAMPLE DUPLICATE: 4137627

Parameter	Units	92686679004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	174	17	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 799142 | 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: 92686677006, 92686677007, 92686677008, 92686677009, 92686677010, 92686677011

METHOD BLANK: 4138899 Matrix: Water
Associated Lab Samples: 92686677006, 92686677007, 92686677008, 92686677009, 92686677010, 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/12/23 11:42	

LABORATORY CONTROL SAMPLE: 4138900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	80-120	

SAMPLE DUPLICATE: 4138901

Parameter	Units	92686677006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	253	259	2	10	

SAMPLE DUPLICATE: 4138902

Parameter	Units	92687108002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	100	101	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 800476
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677001, 92686677002

METHOD BLANK: 4146097 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00012	09/20/23 13:34	

LABORATORY CONTROL SAMPLE: 4146098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0020	81	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4146099 4146100

Parameter	Units	92686676001 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	0.0025	0.0024	100	95	75-125	5	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 800478
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010

METHOD BLANK: 4146121 Matrix: Water
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00012	09/20/23 14:38	

LABORATORY CONTROL SAMPLE: 4146122

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: 4146123 4146124

Parameter	Units	92686920009 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	0.0026	0.0026	102	104	75-125	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798842
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677001, 92686677002

METHOD BLANK: 4137442 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/11/23 11:24	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/23 11:24	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/23 11:24	

LABORATORY CONTROL SAMPLE: 4137443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.1	102	80-120	

LABORATORY CONTROL SAMPLE: 4137444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137445 4137446

Parameter	Units	92686252001 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	<5.0	50	50	48.4	47.8	97	96	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137447 4137448

Parameter	Units	92686487004 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	32.6	50	50	83.1	82.1	101	99	80-120	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 799173 | Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009

METHOD BLANK: 4139096 Matrix: Water
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	

LABORATORY CONTROL SAMPLE: 4139097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

LABORATORY CONTROL SAMPLE: 4139098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139099 4139100

Parameter	Units	92686679012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.2	51.0	102	102	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139101 4139102

Parameter	Units	92686677009 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	96.9	50	50	148	148	103	102	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 799657
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677010, 92686677011

METHOD BLANK: 4141803 Matrix: Water
Associated Lab Samples: 92686677010, 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/14/23 11:08	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/14/23 11:08	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/14/23 11:08	

LABORATORY CONTROL SAMPLE: 4141804

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

LABORATORY CONTROL SAMPLE: 4141805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4141806 4141807

Parameter	Units	92686947003 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	17.5	50	50	70.9	70.2	107	105	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4141808 4141809

Parameter	Units	92686947004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	55.2	55.3	104	104	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798662
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677001, 92686677002

METHOD BLANK: 4136899 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/09/23 04:31	

LABORATORY CONTROL SAMPLE: 4136900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136901 4136902

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.56	106	111	80-120	5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136903 4136904

Parameter	Units	92686861001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.38	0.37	76	75	80-120	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 799296
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010

METHOD BLANK: 4140098 Matrix: Water
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/13/23 02:23	

LABORATORY CONTROL SAMPLE: 4140099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140102 4140103

Parameter	Units	92686679007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.43	87	85	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140133 4140134

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.49	104	97	80-120	7	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 799297
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677011

METHOD BLANK: 4140104 Matrix: Water
Associated Lab Samples: 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/13/23 02:36	

LABORATORY CONTROL SAMPLE: 4140105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140106 4140107

Parameter	Units	92686677011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.53	100	107	80-120	6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140108 4140109

Parameter	Units	92686947008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.51	104	102	80-120	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 798687
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677001, 92686677002

METHOD BLANK: 4136953 Matrix: Water
Associated Lab Samples: 92686677001, 92686677002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/09/23 13:26	
Fluoride	mg/L	ND	0.10	0.050	09/09/23 13:26	
Sulfate	mg/L	ND	1.0	0.50	09/09/23 13:26	

LABORATORY CONTROL SAMPLE: 4136954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.0	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136955 4136956

Parameter	Units	92686882001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	23.0	50	50	75.9	75.9	106	106	90-110	0	10	
Fluoride	mg/L	0.13	2.5	2.5	2.6	2.7	101	101	90-110	1	10	
Sulfate	mg/L	13.2	50	50	66.5	66.7	107	107	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136957 4136958

Parameter	Units	92686872001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	840	50	50	885	882	89	82	90-110	0	10	M1
Fluoride	mg/L	15.2	2.5	2.5	17.5	17.7	92	98	90-110	1	10	
Sulfate	mg/L	55.9	50	50	93.3	93.1	75	74	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

QC Batch: 799070
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010, 92686677011

METHOD BLANK: 4138708 Matrix: Water
Associated Lab Samples: 92686677003, 92686677004, 92686677005, 92686677006, 92686677007, 92686677008, 92686677009, 92686677010, 92686677011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/12/23 12:51	
Fluoride	mg/L	ND	0.10	0.050	09/12/23 12:51	
Sulfate	mg/L	ND	1.0	0.50	09/12/23 12:51	

LABORATORY CONTROL SAMPLE: 4138709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138710 4138711

Parameter	Units	92687087001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	59.4	59.8	103	104	90-110	1	10	
Fluoride	mg/L	0.63	2.5	2.5	3.5	3.5	113	115	90-110	1	10	M1
Sulfate	mg/L	9.9	50	50	60.7	61.4	102	103	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138712 4138713

Parameter	Units	92686677010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	52.1	53.1	104	106	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	109	108	90-110	0	10	
Sulfate	mg/L	ND	50	50	52.7	54.0	105	108	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686677001	**MCD-DGWC-37**	EPA 3010A	798622	EPA 6010D	798709
92686677002	**MCD-AP1-FD-1**	EPA 3010A	798622	EPA 6010D	798709
92686677003	**MCD-DGWC-67**	EPA 3010A	798869	EPA 6010D	798954
92686677004	**MCD-DGWC-40**	EPA 3010A	798869	EPA 6010D	798954
92686677005	**MCD-DGWC-38**	EPA 3010A	798869	EPA 6010D	798954
92686677006	**MCD-DGWC-68A**	EPA 3010A	798869	EPA 6010D	798954
92686677007	**MCD-DGWC-39**	EPA 3010A	798869	EPA 6010D	798954
92686677008	**MCD-DGWC-69**	EPA 3010A	798869	EPA 6010D	798954
92686677009	**MCD-DGWC-121**	EPA 3010A	798869	EPA 6010D	798954
92686677010	**MCD-AP1-FB-1**	EPA 3010A	798869	EPA 6010D	798954
92686677011	**MCD-AP1-EB-1**	EPA 3010A	802166	EPA 6010D	802210
92686677001	**MCD-DGWC-37**	EPA 3005A	798623	EPA 6020B	798699
92686677002	**MCD-AP1-FD-1**	EPA 3005A	798623	EPA 6020B	798699
92686677003	**MCD-DGWC-67**	EPA 3005A	798903	EPA 6020B	798992
92686677004	**MCD-DGWC-40**	EPA 3005A	798903	EPA 6020B	798992
92686677005	**MCD-DGWC-38**	EPA 3005A	798903	EPA 6020B	798992
92686677006	**MCD-DGWC-68A**	EPA 3005A	798903	EPA 6020B	798992
92686677007	**MCD-DGWC-39**	EPA 3005A	798903	EPA 6020B	798992
92686677008	**MCD-DGWC-69**	EPA 3005A	798903	EPA 6020B	798992
92686677009	**MCD-DGWC-121**	EPA 3005A	798903	EPA 6020B	798992
92686677010	**MCD-AP1-FB-1**	EPA 3005A	798903	EPA 6020B	798992
92686677011	**MCD-AP1-EB-1**	EPA 3005A	798903	EPA 6020B	798992
92686677011	**MCD-AP1-EB-1**	EPA 7470A	803461	EPA 7470A	803573
92686677001	**MCD-DGWC-37**	SM 2540C-2015	798883		
92686677002	**MCD-AP1-FD-1**	SM 2540C-2015	798883		
92686677003	**MCD-DGWC-67**	SM 2540C-2015	798883		
92686677004	**MCD-DGWC-40**	SM 2540C-2015	798883		
92686677005	**MCD-DGWC-38**	SM 2540C-2015	798883		
92686677006	**MCD-DGWC-68A**	SM 2540C-2015	799142		
92686677007	**MCD-DGWC-39**	SM 2540C-2015	799142		
92686677008	**MCD-DGWC-69**	SM 2540C-2015	799142		
92686677009	**MCD-DGWC-121**	SM 2540C-2015	799142		
92686677010	**MCD-AP1-FB-1**	SM 2540C-2015	799142		
92686677011	**MCD-AP1-EB-1**	SM 2540C-2015	799142		
92686677001	**MCD-DGWC-37**	EPA 7470A	800476	EPA 7470A	800627
92686677002	**MCD-AP1-FD-1**	EPA 7470A	800476	EPA 7470A	800627
92686677003	**MCD-DGWC-67**	EPA 7470A	800478	EPA 7470A	800630
92686677004	**MCD-DGWC-40**	EPA 7470A	800478	EPA 7470A	800630
92686677005	**MCD-DGWC-38**	EPA 7470A	800478	EPA 7470A	800630
92686677006	**MCD-DGWC-68A**	EPA 7470A	800478	EPA 7470A	800630
92686677007	**MCD-DGWC-39**	EPA 7470A	800478	EPA 7470A	800630
92686677008	**MCD-DGWC-69**	EPA 7470A	800478	EPA 7470A	800630
92686677009	**MCD-DGWC-121**	EPA 7470A	800478	EPA 7470A	800630
92686677010	**MCD-AP1-FB-1**	EPA 7470A	800478	EPA 7470A	800630

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1- Well Network
Pace Project No.: 92686677

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686677001	**MCD-DGWC-37**	SM 2320B-2011	798842		
92686677002	**MCD-AP1-FD-1**	SM 2320B-2011	798842		
92686677003	**MCD-DGWC-67**	SM 2320B-2011	799173		
92686677004	**MCD-DGWC-40**	SM 2320B-2011	799173		
92686677005	**MCD-DGWC-38**	SM 2320B-2011	799173		
92686677006	**MCD-DGWC-68A**	SM 2320B-2011	799173		
92686677007	**MCD-DGWC-39**	SM 2320B-2011	799173		
92686677008	**MCD-DGWC-69**	SM 2320B-2011	799173		
92686677009	**MCD-DGWC-121**	SM 2320B-2011	799173		
92686677010	**MCD-AP1-FB-1**	SM 2320B-2011	799657		
92686677011	**MCD-AP1-EB-1**	SM 2320B-2011	799657		
92686677001	**MCD-DGWC-37**	SM 4500-S2D-2011	798662		
92686677002	**MCD-AP1-FD-1**	SM 4500-S2D-2011	798662		
92686677003	**MCD-DGWC-67**	SM 4500-S2D-2011	799296		
92686677004	**MCD-DGWC-40**	SM 4500-S2D-2011	799296		
92686677005	**MCD-DGWC-38**	SM 4500-S2D-2011	799296		
92686677006	**MCD-DGWC-68A**	SM 4500-S2D-2011	799296		
92686677007	**MCD-DGWC-39**	SM 4500-S2D-2011	799296		
92686677008	**MCD-DGWC-69**	SM 4500-S2D-2011	799296		
92686677009	**MCD-DGWC-121**	SM 4500-S2D-2011	799296		
92686677010	**MCD-AP1-FB-1**	SM 4500-S2D-2011	799296		
92686677011	**MCD-AP1-EB-1**	SM 4500-S2D-2011	799297		
92686677001	**MCD-DGWC-37**	EPA 300.0 Rev 2.1 1993	798687		
92686677002	**MCD-AP1-FD-1**	EPA 300.0 Rev 2.1 1993	798687		
92686677003	**MCD-DGWC-67**	EPA 300.0 Rev 2.1 1993	799070		
92686677004	**MCD-DGWC-40**	EPA 300.0 Rev 2.1 1993	799070		
92686677005	**MCD-DGWC-38**	EPA 300.0 Rev 2.1 1993	799070		
92686677006	**MCD-DGWC-68A**	EPA 300.0 Rev 2.1 1993	799070		
92686677007	**MCD-DGWC-39**	EPA 300.0 Rev 2.1 1993	799070		
92686677008	**MCD-DGWC-69**	EPA 300.0 Rev 2.1 1993	799070		
92686677009	**MCD-DGWC-121**	EPA 300.0 Rev 2.1 1993	799070		
92686677010	**MCD-AP1-FB-1**	EPA 300.0 Rev 2.1 1993	799070		
92686677011	**MCD-AP1-EB-1**	EPA 300.0 Rev 2.1 1993	799070		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

oratory receiving samples:

heville ☐ **Eden** ☐ **Greenwood** ☐ **Huntersville** ☐ **Raleigh** ☐ **Mech...** ☐

Sample Condition Upon Receipt

Client Name: Ga-Power

Project #:

WO#: 92686677

92686677

urier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client
Commercial ☐ Pace ☐ Other:____

stody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: 9-7-23 JLC

cking Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

ermometer:
☐ IR Gun ID: 230

Type of ice: ☑ Wet ☐ Blue ☐ None

oler Temp: 2.3 **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

oler Temp Corrected (°C) 2.3

DA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

IMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

ENT NOTIFICATION/RESOLUTION

erson contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

*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#: 92686677**

PM: BV Due Date: 09/21/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1		1																	2				
2		2	1			1		1																	2				
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	lacoker@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Well Network	Pace Project Manager:	Bonnie Vahg
Requested Due Date:	10 Day TAT	Project #:	31405440.McD23	Pace Profile #:	

Regulatory Agency

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analysis Test Y/N	Pace 1IRV + Mg, Na, K, Fe	Cl, F, SO4	Radium 226/228	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	92686677
																	N	N	N	N	N	N	
2	MCD-DGWC-37	WG	G	9/6/23	14:48		7	3		3		1					X	X	X	X	X	X		001
4	MCD-AP1-FD-1	WG	G	9/6/23	--		7	3		3		1					X	X	X	X	X	X		002
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

MATRIX Drinking Water DW; Water WT; Waste Water WW; Product PD; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITION
Task Code = MCD-CCR-ASSMT-2023S2	MARK MANN WSP	09/6/23	0900	[signature]	9/6/23	

DATE Signed:

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

aboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mec[illegible] ☐ [illegible] ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO#: 92686677

PM: BV Due Date: 09/21/23

CLIENT: 92-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: 9/8/23 TAE

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: 4.1 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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

*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# : 92686677**

PM: BV Due Date: 09/21/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																		2				
2		2	1			1	1																		2				
3		2	1			1	1																		4				
4		2	1			1	1																		2				
5		2	1			1	1																		2				
6		2	1			1	1																		2				
7		2	1			1	1																		2				
8		2	1			1	1																		2				
9		2	1			1	1																		2				
10		2	1			1	1																		2				
11		2	1			1	1																		2				
12																													

pH Adjustment Log for Preserved Samples

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	laucoker@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax	Project Name:	Plant McD AP-1 Wells Network	Pace Project Manager:	Bonnie Varig
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	92686677
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS															N	N	N	N	N	N		
2	MCD-DGWC-67	WG	G	9/7/23	11:44		7	3		3		1					X	X	X	X	X	X		003
4	MCD-DGWC-40	WG	G	9/7/23	12:42		7	3		3		1					X	X	X	X	X	X		004
5	MCD-DGWC-38	WG	G	9/7/23	13:27		9	3		5		1					X	X	X	X	X	X		005 EXTRA RADS
6	MCD-DGWC-68A	WG	G	9/7/23	13:38		7	3		3		1					X	X	X	X	X	X		006
7	MCD-DGWC-39	WG	G	9/7/23	14:45		7	3		3		1					X	X	X	X	X	X		007
8	MGD-DGWC-69	WG	G	9/7/23	15:01		7	3		3		1					X	X	X	X	X	X		008
9	MCD-DGWC-121	WG	G	9/8/2023	9:43		7	3		3		1					X	X	X	X	X	X		009
10	MCD-AP1-FB-1	WQ	G	9/7/2023	12:00		7	3		3		1					X	X	X	X	X	X		010
11	MCD-AP1-EB-1	WQ	G	9/7/2023	13:00		7	3		3		1					X	X	X	X	X	X		011
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S2	MARK MANN WSP	09/08/23	1550	JEC	9/8/23 1550	

DATE Signed:

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 18, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory between September 07, 2023 and September 08, 2023. 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

Revision 1: Report revised to amend collected time on MCD-DGWC-37.

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686680001	**MCD-DGWC-37**	Water	09/06/23 14:48	09/07/23 00:00
92686680002	**MCD-AP1-FD-1**	Water	09/06/23 00:00	09/07/23 00:00
92686680003	**MCD-DGWC-67**	Water	09/07/23 11:44	09/08/23 15:50
92686680004	**MCD-DGWC-40**	Water	09/07/23 12:42	09/08/23 15:50
92686680005	**MCD-DGWC-38**	Water	09/07/23 13:27	09/08/23 15:50
92686680006	**MCD-DGWC-68A**	Water	09/07/23 13:38	09/08/23 15:50
92686680007	**MCD-DGWC-39**	Water	09/07/23 14:45	09/08/23 15:50
92686680008	**MCD-DGWC-69**	Water	09/07/23 15:01	09/08/23 15:50
92686680009	**MCD-DGWC-121**	Water	09/08/23 09:43	09/08/23 15:50
92686680010	**MCD-AP1-FB-1**	Water	09/07/23 12:00	09/08/23 15:50
92686680011	**MCD-AP1-EB-1**	Water	09/07/23 13:00	09/08/23 15:50

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92686680001	**MCD-DGWC-37**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680002	**MCD-AP1-FD-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680003	**MCD-DGWC-67**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680004	**MCD-DGWC-40**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680005	**MCD-DGWC-38**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680006	**MCD-DGWC-68A**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680007	**MCD-DGWC-39**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680008	**MCD-DGWC-69**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680009	**MCD-DGWC-121**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680010	**MCD-AP1-FB-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686680011	**MCD-AP1-EB-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-37 **Lab ID: 92686680001** Collected: 09/06/23 14:48 Received: 09/07/23 00:00 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	**0.129U ± 0.106 (0.185) C:79% T:NA**	pCi/L	10/03/23 08:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.603U ± 0.436 (0.855) C:82% T:83%**	pCi/L	09/26/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.732U ± 0.542 (1.04)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-AP1-FD-1 **Lab ID: 92686680002** Collected: 09/06/23 00:00 Received: 09/07/23 00:00 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	**0.194U ± 0.137 (0.243) C:86% T:NA**	pCi/L	10/03/23 08:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.161U ± 0.381 (0.846) C:78% T:87%**	pCi/L	09/26/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.355U ± 0.518 (1.09)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-67 **Lab ID: 92686680003** Collected: 09/07/23 11:44 Received: 09/08/23 15:50 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	**0.256 ± 0.141 (0.199) C:78% T:NA**	pCi/L	10/03/23 08:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.309U ± 0.360 (0.757) C:79% T:86%**	pCi/L	09/26/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.565U ± 0.501 (0.956)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-40 **Lab ID: 92686680004** Collected: 09/07/23 12:42 Received: 09/08/23 15:50 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	**0.135U ± 0.111 (0.204) C:92% T:NA**	pCi/L	10/03/23 13:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.767 ± 0.418 (0.747) C:79% T:83%**	pCi/L	09/26/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.902U ± 0.529 (0.951)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-38 **Lab ID: 92686680005** Collected: 09/07/23 13:27 Received: 09/08/23 15:50 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	**0.0704U ± 0.113 (0.252) C:84% T:NA**	pCi/L	10/03/23 08:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.288U ± 0.416 (0.896) C:81% T:77%**	pCi/L	09/26/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.358U ± 0.529 (1.15)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-68A **Lab ID: 92686680006** Collected: 09/07/23 13:38 Received: 09/08/23 15:50 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	**0.288 ± 0.143 (0.200) C:96% T:NA**	pCi/L	10/03/23 08:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.494U ± 0.349 (0.669) C:82% T:88%**	pCi/L	09/26/23 15:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.782U ± 0.492 (0.869)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-39 **Lab ID: 92686680007** Collected: 09/07/23 14:45 Received: 09/08/23 15:50 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	**0.233 ± 0.134 (0.201) C:93% T:NA**	pCi/L	10/03/23 08:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.495U ± 0.366 (0.700) C:77% T:82%**	pCi/L	09/26/23 15:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.728U ± 0.500 (0.901)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-69 **Lab ID: 92686680008** Collected: 09/07/23 15:01 Received: 09/08/23 15:50 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	**0.501 ± 0.194 (0.232) C:85% T:NA**	pCi/L	10/03/23 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.409U ± 0.319 (0.624) C:81% T:90%**	pCi/L	09/26/23 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.910 ± 0.513 (0.856)**	pCi/L	10/03/23 15:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-DGWC-121 **Lab ID: 92686680009** Collected: 09/08/23 09:43 Received: 09/08/23 15:50 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	**0.212U ± 0.143 (0.239) C:78% T:NA**	pCi/L	10/03/23 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.774U ± 0.475 (0.899) C:78% T:86%**	pCi/L	09/26/23 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.986U ± 0.618 (1.14)**	pCi/L	10/03/23 15:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-AP1-FB-1 **Lab ID: 92686680010** Collected: 09/07/23 12:00 Received: 09/08/23 15:50 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	**0.164U ± 0.117 (0.196) C:87% T:NA**	pCi/L	10/03/23 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.493U ± 0.329 (0.616) C:79% T:91%**	pCi/L	09/26/23 11:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.657U ± 0.446 (0.812)**	pCi/L	10/03/23 15:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Sample: MCD-AP1-EB-1 **Lab ID: 92686680011** Collected: 09/07/23 13:00 Received: 09/08/23 15:50 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	**0.133U ± 0.119 (0.228) C:85% T:NA**	pCi/L	10/03/23 08:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.526U ± 0.366 (0.700) C:79% T:85%**	pCi/L	09/26/23 11:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.659U ± 0.485 (0.928)**	pCi/L	10/03/23 15:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

QC Batch: 615444 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686680001, 92686680002, 92686680003, 92686680004, 92686680005, 92686680006, 92686680007

METHOD BLANK: 2997136 Matrix: Water
Associated Lab Samples: 92686680001, 92686680002, 92686680003, 92686680004, 92686680005, 92686680006, 92686680007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.131 ± 0.132 (0.266) C:78% T:NA	pCi/L	10/02/23 13:17	

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

QC Batch:	615447	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92686680008, 92686680009, 92686680010, 92686680011

METHOD BLANK: 2997146 Matrix: Water

Associated Lab Samples: 92686680008, 92686680009, 92686680010, 92686680011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.171 ± 0.140 (0.267) C:87% T:NA	pCi/L	10/03/23 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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

QC Batch: 615445 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686680001, 92686680002, 92686680003, 92686680004, 92686680005, 92686680006, 92686680007

METHOD BLANK: 2997141 Matrix: Water
Associated Lab Samples: 92686680001, 92686680002, 92686680003, 92686680004, 92686680005, 92686680006, 92686680007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.465 ± 0.323 (0.609) C:77% T:85%	pCi/L	09/26/23 12:28	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

QC Batch: 615448
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686680008, 92686680009, 92686680010, 92686680011

METHOD BLANK: 2997151 Matrix: Water
Associated Lab Samples: 92686680008, 92686680009, 92686680010, 92686680011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.338 ± 0.316 (0.637) C:80% T:88%	pCi/L	09/26/23 11:59	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Well Networ-RAD
Pace Project No.: 92686680

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686680001	**MCD-DGWC-37**	EPA 9315	615444		
92686680002	**MCD-AP1-FD-1**	EPA 9315	615444		
92686680003	**MCD-DGWC-67**	EPA 9315	615444		
92686680004	**MCD-DGWC-40**	EPA 9315	615444		
92686680005	**MCD-DGWC-38**	EPA 9315	615444		
92686680006	**MCD-DGWC-68A**	EPA 9315	615444		
92686680007	**MCD-DGWC-39**	EPA 9315	615444		
92686680008	**MCD-DGWC-69**	EPA 9315	615447		
92686680009	**MCD-DGWC-121**	EPA 9315	615447		
92686680010	**MCD-AP1-FB-1**	EPA 9315	615447		
92686680011	**MCD-AP1-EB-1**	EPA 9315	615447		
92686680001	**MCD-DGWC-37**	EPA 9320	615445		
92686680002	**MCD-AP1-FD-1**	EPA 9320	615445		
92686680003	**MCD-DGWC-67**	EPA 9320	615445		
92686680004	**MCD-DGWC-40**	EPA 9320	615445		
92686680005	**MCD-DGWC-38**	EPA 9320	615445		
92686680006	**MCD-DGWC-68A**	EPA 9320	615445		
92686680007	**MCD-DGWC-39**	EPA 9320	615445		
92686680008	**MCD-DGWC-69**	EPA 9320	615448		
92686680009	**MCD-DGWC-121**	EPA 9320	615448		
92686680010	**MCD-AP1-FB-1**	EPA 9320	615448		
92686680011	**MCD-AP1-EB-1**	EPA 9320	615448		
92686680001	**MCD-DGWC-37**	Total Radium Calculation	619773		
92686680002	**MCD-AP1-FD-1**	Total Radium Calculation	619773		
92686680003	**MCD-DGWC-67**	Total Radium Calculation	619773		
92686680004	**MCD-DGWC-40**	Total Radium Calculation	619773		
92686680005	**MCD-DGWC-38**	Total Radium Calculation	619773		
92686680006	**MCD-DGWC-68A**	Total Radium Calculation	619773		
92686680007	**MCD-DGWC-39**	Total Radium Calculation	619773		
92686680008	**MCD-DGWC-69**	Total Radium Calculation	619760		
92686680009	**MCD-DGWC-121**	Total Radium Calculation	619760		
92686680010	**MCD-AP1-FB-1**	Total Radium Calculation	619760		
92686680011	**MCD-AP1-EB-1**	Total Radium Calculation	619760		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

oratory receiving samples:

heville ☐ **Eden** ☐ **Greenwood** ☐ **Huntersville** ☐ **Raleigh** ☐ **Mechanicsville** ☐ **Atlanta** ☑ **Kernersville** ☐

Sample Condition Upon Receipt

Client Name: Ga-Power

Project #: **WO# : 92686680**

92686680

urier: Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

stody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 9-7-23 JLC

cking Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

ermometer: ☐ IR Gun ID: 210

Type of Ice: ☑ Wet ☐ Blue ☐ None

oler Temp: 2.3 **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

oler Temp Corrected (°C) 2.3

DA Regulated Soil (☐ N/A, water sample)

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

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

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

IMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

ENT NOTIFICATION/RESOLUTION

erson 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

***Check all unpreserved Nitrates for chlorine

Project # **WO#: 92686680**

PM: BV Due Date: 09/28/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BP3N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1		1																	2				
2		2	1			1		1																	2				
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina 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.

1 Of 1

Section A – Required Client Information:

Company: Georgia Power - Coal Combustion Residuals
Address: 2480 Maner Road
Atlanta, GA 30339
Email: aucoker@southernco.com
Phone: (470) 620-6176 Fax:
Requested Due Date: 10 Day TAT

Section B – Required Project Information:

Report To: Lauren Coles
Copy To: WSP
Purchase Order #:
Project Name: Plant McD AP-1 Well Network
Project #: 31408440.McD23

Section C – Invoice Information:

Attention: scslnvoices@southernco.com
Company Name:
Address:
Pace Quote:
Pace Project Manager: Bonnie Valg
Pace Profile #:

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	$AMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	App IV/V + Hg, Na, K, Pb	Cl, F, SO4	Radium 226/228	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	
2	MCD-DGWC-37	WG	G	9/6/23	14:48		7	3		3		1					X	X	X	X	X	X	
4	MCD-AP1-FD-1	WG	G	9/6/23	--		7	3		3		1					X	X	X	X	X	X	
6																							
8																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							

Residual Chlorine (Y/N): 92686680 001 002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-202352	MARK MANN WSP	9/6/23	0900	[illegible]	9/6/23	

DATE Signed:

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

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO#: 92686680**

PM: BV Due Date: 09/28/23

CLIENT: 92-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: 9/8/23

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: 4.1 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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*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#:92686680

PM: BV Due Date: 09/28/23

CLIENT: 92-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 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)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																	2				
2		2	1			1	1																	2				
3		2	1			1	1																	2				
4		2	1			1	1																	2				
5		2	1			1	1																	2				
6		2	1			1	1																	2				
7		2	1			1	1																	2				
8		2	1			1	1																	2				
9		2	1			1	1																	2				
10		2	1			1	1																	2				
11		2	1			1	1																	2				
12																												

pH Adjustment Log for Preserved Samples

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A — Required Client Information:
Company: Georgia Power - Coal Combustion Residuals
Address: 2480 Maner Road, Atlanta, GA 30339
Email: laucoker@southernco.com
Phone: (470) 620-6176 Fax:
Requested Due Date: 10 Day TAT

Section B — Required Project Information:
Report To: Lauren Coker
Copy To: WSP
Purchase Order #:
Project Name: Plant McD AP-1 Well Network
Project #: 31406440 McD23

Section C — Invoice Information:
Attention: scsinvoices@southernco.com
Company Name:
Address:
Pace Quote:
Pace Project Manager: Bonnie Vang
Pace Profile #:

Regulatory Agency:
State / Location: GA

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Requested Analysis Filtered (Y/N): App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	92686680
																	N	N	N	N	N	N		
2	MCD-DGWC-67	WG	G	9/7/23	11:44		7	3		3		1					X	X	X	X	X	X		003
4	MCD-DGWC-40	WG	G	9/7/23	12:42		7	3		3		1					X	X	X	X	X	X		004
5	MCD-DGWC-38	WG	G	9/7/23	13:27		9	3		5		1					X	X	X	X	X	X		005 EXTRA RADS
6	MCD-DGWC-68A	WG	G	9/7/23	13:38		7	3		3		1					X	X	X	X	X	X		006
7	MCD-DGWC-39	WG	G	9/7/23	14:45		7	3		3		1					X	X	X	X	X	X		007
8	MGD-DGWC-69	WG	G	9/7/23	15:01		7	3		3		1					X	X	X	X	X	X		008
9	MCD-DGWC-121	WG	G	9/8/2023	9:43		7	3		3		1					X	X	X	X	X	X		009
10	MCD-AP1-FB-1	WQ	G	9/7/2023	12:00		7	3		3		1					X	X	X	X	X	X		010
11	MCD-AP1-EB-1	WQ	G	9/7/2023	13:00		7	3		3		1					X	X	X	X	X	X		011
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S2	MARK MANN WSP	09/08/23	1550	JC	9/8/23 1550	

DATE Signed:

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	9/19/2023
Worklist:	75311
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997141
MB concentration:	0.465
M/B 2 Sigma CSU:	0.323
MB MDC:	0.609
MB Numerical Performance Indicator:	2.83
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75311	LCSD75311
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.817
Target Conc. (pCi/L, g, F):	4.854	4.857
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.557	3.686
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.042	0.891
Numerical Performance Indicator:	-0.54	-2.49
Percent Recovery:	93.89%	75.90%
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		
Sample I.D.:	LCS75311	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD75311	
Sample Result (pCi/L, g, F):	4.557	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.042	
Sample Duplicate Result (pCi/L, g, F):	3.686	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.891	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.245	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.19%	
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.		
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):		
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:

VAL
9/27/23

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JJS1
Date:	9/19/2023
Worklist:	75313
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997151
MB concentration:	0.338
M/B 2 Sigma CSU:	0.316
MB MDC:	0.637
MB Numerical Performance Indicator:	2.10
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75313	LCSD75313
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.816
Target Conc. (pCi/L, g, F):	4.857	4.860
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.556	5.205
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.028	1.164
Numerical Performance Indicator:	-0.56	0.57
Percent Recovery:	93.80%	107.12%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75313	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD75313	
Sample Result (pCi/L, g, F):	4.556	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.028	
Sample Duplicate Result (pCi/L, g, F):	5.205	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.164	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.820	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.26%	
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.		
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):		
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:

VAL
9/27/23

VAM 9/27/23

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2023
Worklist:	75310
Matrix:	WI

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997136
MB concentration:	0.131
M/B 2 Sigma CSU:	0.132
MB MDC:	0.266
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75310	LCSD75310
Count Date:	10/3/2023	10/3/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.030	25.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.504
Target Conc. (pCi/L, g, F):	4.951	4.969
Uncertainty (Calculated):	0.233	0.234
Result (pCi/L, g, F):	4.534	5.823
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.814	1.006
Numerical Performance Indicator:	-0.96	1.62
Percent Recovery:	91.59%	117.17%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75310	92686680007
Duplicate Sample I.D.	LCSD75310	92686680007DUP
Sample Result (pCi/L, g, F):	4.534	0.233
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.814	0.134
Sample Duplicate Result (pCi/L, g, F):	5.823	0.176
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.006	0.137
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-1.951	0.580
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	24.51%	27.72%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% 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 2 Sigma CSU (pCi/L, g, F):		
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.

Comments:

ET 10-3-23

VAM 10/3/23

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2023
Worklist:	75312
Matrix:	W I

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997146
MB concentration:	0.171
M/B 2 Sigma CSU:	0.140
MB MDC:	0.267
MB Numerical Performance Indicator:	2.41
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75312	LCSD75312
Count Date:	10/3/2023	10/3/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.030	25.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.506
Target Conc. (pCi/L, g, F):	4.976	4.942
Uncertainty (Calculated):	0.234	0.232
Result (pCi/L, g, F):	5.204	4.922
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.905	0.879
Numerical Performance Indicator:	0.48	-0.04
Percent Recovery:	104.59%	99.59%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75312	92686684012
Duplicate Sample I.D.	LCSD75312	92686684012DUP
Sample Result (pCi/L, g, F):	5.204	0.088
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.905	0.102
Sample Duplicate Result (pCi/L, g, F):	4.922	0.169
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.879	0.128
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.438	-0.967
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	4.90%	62.74%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% 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 2 Sigma CSU (pCi/L, g, F):		
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.

Comments:

ET 10-3-23

LAM 10/3/23

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 04, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory between September 07, 2023 and September 08, 2023. 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,

Bonnie Vang

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

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
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686681001	**MCD-B-100**	Water	09/06/23 10:10	09/07/23 09:00
92686681002	**MCD-B-62**	Water	09/07/23 16:36	09/08/23 15:50

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92686681001	**MCD-B-100**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92686681002	**MCD-B-62**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Sample: MCD-B-100 **Lab ID: 92686681001** Collected: 09/06/23 10:10 Received: 09/07/23 09:00 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	**21.7**	mg/L	0.040	0.025	1	09/09/23 08:25	09/11/23 21:54	7439-89-6	
Potassium	**1.3**	mg/L	0.50	0.15	1	09/09/23 08:25	09/11/23 21:54	7440-09-7	
Sodium	**28.1**	mg/L	1.0	0.58	1	09/09/23 08:25	09/11/23 21:54	7440-23-5	
Calcium	**49.9**	mg/L	1.0	0.12	1	09/09/23 08:25	09/11/23 21:54	7440-70-2	
Magnesium	**46.9**	mg/L	0.050	0.012	1	09/09/23 08:25	09/11/23 21:54	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	0.0012	1	09/09/23 08:50	09/13/23 13:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/09/23 08:50	09/13/23 13:54	7440-38-2	
Barium	**0.021**	mg/L	0.0050	0.00067	1	09/09/23 08:50	09/13/23 13:54	7440-39-3	
Beryllium	**0.00054**	mg/L	0.00050	0.000054	1	09/09/23 08:50	09/13/23 13:54	7440-41-7	
Boron	**0.24**	mg/L	0.040	0.0086	1	09/09/23 08:50	09/13/23 13:54	7440-42-8	
Cadmium	**0.00035J**	mg/L	0.00050	0.00011	1	09/09/23 08:50	09/13/23 13:54	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/09/23 08:50	09/13/23 13:54	7440-47-3	
Cobalt	**0.031**	mg/L	0.0050	0.00039	1	09/09/23 08:50	09/13/23 13:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/09/23 08:50	09/13/23 13:54	7439-92-1	
Lithium	**0.0023J**	mg/L	0.030	0.00073	1	09/09/23 08:50	09/13/23 13:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/09/23 08:50	09/13/23 13:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/09/23 08:50	09/13/23 13:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/09/23 08:50	09/13/23 13:54	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**641**	mg/L	25.0	25.0	1		09/11/23 13:31		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 14:10	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/23 16:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/23 16:48		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/11/23 16:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/09/23 04:37	18496-25-8	
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	0.60	1		09/09/23 22:44	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/23 22:44	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Sample: MCD-B-100 **Lab ID: 92686681001** Collected: 09/06/23 10:10 Received: 09/07/23 09:00 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								
Sulfate	**322**	mg/L	7.0	3.5	7		09/10/23 06:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Sample: MCD-B-62 **Lab ID: 92686681002** Collected: 09/07/23 16:36 Received: 09/08/23 15:50 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	**5.0**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 12:36	7439-89-6	
Potassium	**2.4**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 12:36	7440-09-7	
Sodium	**10.1**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 12:36	7440-23-5	
Calcium	**35.1**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 12:36	7440-70-2	
Magnesium	**5.1**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 12:36	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	0.0012	1	09/11/23 14:11	09/14/23 18:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 18:19	7440-38-2	
Barium	**0.015**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 18:19	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 18:19	7440-41-7	
Boron	**0.071**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 18:19	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 18:19	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 18:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 18:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 18:19	7439-92-1	
Lithium	**0.0092J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 18:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/23 14:11	09/15/23 19:14	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 18:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 18:19	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	0.00013	1	10/02/23 12:15	10/02/23 16:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**181**	mg/L	25.0	25.0	1		09/12/23 11:44		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**75.7**	mg/L	5.0	5.0	1		09/12/23 17:28		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 17:28		
Alkalinity, Total as CaCO3	**75.7**	mg/L	5.0	5.0	1		09/12/23 17:28		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:30	18496-25-8	
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		09/12/23 18:06	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.050	1		09/12/23 18:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Sample: MCD-B-62 **Lab ID: 92686681002** Collected: 09/07/23 16:36 Received: 09/08/23 15:50 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								
Sulfate	**49.3**	mg/L	1.0	0.50	1		09/12/23 18:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798622
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686681001

METHOD BLANK: 4136598 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/11/23 20:25	
Iron	mg/L	ND	0.040	0.025	09/11/23 20:25	
Magnesium	mg/L	ND	0.050	0.012	09/11/23 20:25	
Potassium	mg/L	ND	0.50	0.15	09/11/23 20:25	
Sodium	mg/L	ND	1.0	0.58	09/11/23 20:25	

LABORATORY CONTROL SAMPLE: 4136599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Iron	mg/L	1	1.1	106	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.0	103	80-120	
Sodium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136986 4136987

Parameter	Units	92686676002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	7.0	1	1	8.2	7.6	115	58	75-125	7	20	M1
Iron	mg/L	0.091	1	1	1.2	1.1	108	106	75-125	2	20	
Magnesium	mg/L	0.98	1	1	2.1	2.0	108	101	75-125	4	20	
Potassium	mg/L	0.77	1	1	1.8	1.8	104	101	75-125	1	20	
Sodium	mg/L	8.8	1	1	9.9	9.2	117	42	75-125	8	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798869
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686681002

METHOD BLANK: 4137528 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/23 10:22	
Iron	mg/L	ND	0.040	0.025	09/13/23 10:22	
Magnesium	mg/L	ND	0.050	0.012	09/13/23 10:22	
Potassium	mg/L	ND	0.50	0.15	09/13/23 10:22	
Sodium	mg/L	ND	1.0	0.58	09/13/23 10:22	

LABORATORY CONTROL SAMPLE: 4137529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0J	100	80-120	
Iron	mg/L	1	1.0	100	80-120	
Magnesium	mg/L	1	1.0	102	80-120	
Potassium	mg/L	1	0.92	92	80-120	
Sodium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137530 4137531

Parameter	Units	92686941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	71.8	1	1	68.4	71.2	-338	-59	75-125	4	20	M1
Iron	mg/L	2.1	1	1	3.0	3.0	86	93	75-125	2	20	
Magnesium	mg/L	24.6	1	1	24.1	25.0	-53	33	75-125	4	20	M1
Potassium	mg/L	8.2	1	1	8.7	9.1	42	82	75-125	5	20	M1
Sodium	mg/L	20.0	1	1	19.8	20.6	-19	59	75-125	4	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798623
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92686681001

METHOD BLANK: 4136603 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/13/23 12:38	
Arsenic	mg/L	ND	0.0050	0.0037	09/13/23 12:38	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:38	
Beryllium	mg/L	ND	0.00050	0.000054	09/13/23 12:38	
Boron	mg/L	ND	0.040	0.0086	09/13/23 12:38	
Cadmium	mg/L	ND	0.00050	0.00011	09/13/23 12:38	
Chromium	mg/L	ND	0.0050	0.0011	09/13/23 12:38	
Cobalt	mg/L	ND	0.0050	0.00039	09/13/23 12:38	
Lead	mg/L	ND	0.0010	0.00012	09/13/23 12:38	
Lithium	mg/L	ND	0.030	0.00073	09/13/23 12:38	
Molybdenum	mg/L	ND	0.010	0.00074	09/13/23 12:38	
Selenium	mg/L	ND	0.0050	0.0014	09/13/23 12:38	
Thallium	mg/L	ND	0.0010	0.00018	09/13/23 12:38	

LABORATORY CONTROL SAMPLE: 4136604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.99	99	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	101	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136605 4136606

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	105	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	98	98	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136605 4136606

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.041	0.1	0.1	0.15	0.15	105	107	75-125	2	20	
Beryllium	mg/L	0.00012J	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Boron	mg/L	0.012J	1	1	1.0	1.0	102	102	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.098	97	98	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.098	0.096	97	96	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	2	20	
Thallium	mg/L	0.00053J	0.1	0.1	0.095	0.095	94	95	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798903
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92686681002

METHOD BLANK: 4137724 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/14/23 16:50	
Arsenic	mg/L	ND	0.0050	0.0037	09/14/23 16:50	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:50	
Beryllium	mg/L	ND	0.00050	0.000054	09/14/23 16:50	
Boron	mg/L	ND	0.040	0.0086	09/14/23 16:50	
Cadmium	mg/L	ND	0.00050	0.00011	09/14/23 16:50	
Chromium	mg/L	ND	0.0050	0.0011	09/14/23 16:50	
Cobalt	mg/L	ND	0.0050	0.00039	09/14/23 16:50	
Lead	mg/L	ND	0.0010	0.00012	09/14/23 16:50	
Lithium	mg/L	ND	0.030	0.00073	09/14/23 16:50	
Molybdenum	mg/L	ND	0.010	0.00074	09/14/23 16:50	
Selenium	mg/L	ND	0.0050	0.0014	09/14/23 16:50	
Thallium	mg/L	ND	0.0010	0.00018	09/14/23 16:50	

LABORATORY CONTROL SAMPLE: 4137725

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	102	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	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	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	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	110	104	75-125	6	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.099	106	99	75-125	7	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.0027J	0.1	0.1	0.11	0.10	105	100	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	4	20	
Boron	mg/L	0.24	1	1	1.3	1.2	103	99	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.10	107	100	75-125	6	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.094	102	93	75-125	8	20	
Cobalt	mg/L	0.00040J	0.1	0.1	0.10	0.094	101	94	75-125	8	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.091	95	91	75-125	4	20	
Lithium	mg/L	0.0043J	0.1	0.1	0.10	0.099	100	94	75-125	6	20	
Molybdenum	mg/L	0.026	0.1	0.1	0.13	0.12	105	97	75-125	6	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	104	98	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.092	0.089	92	89	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 803461
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686681002

METHOD BLANK: 4161104 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	10/02/23 16:27	

LABORATORY CONTROL SAMPLE: 4161105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4161106 4161107

Parameter	Units	92686676003 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	0.0027	0.0026	104	101	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798883
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686681001

METHOD BLANK: 4137624 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/23 13:25	

LABORATORY CONTROL SAMPLE: 4137625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	427	107	80-120	

SAMPLE DUPLICATE: 4137626

Parameter	Units	92686830001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1540	1500	3	10	

SAMPLE DUPLICATE: 4137627

Parameter	Units	92686679004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	174	17	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 799142
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92686681002

METHOD BLANK: 4138899 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/12/23 11:42	

LABORATORY CONTROL SAMPLE: 4138900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	80-120	

SAMPLE DUPLICATE: 4138901

Parameter	Units	92686677006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	253	259	2	10	

SAMPLE DUPLICATE: 4138902

Parameter	Units	92687108002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	100	101	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 800476
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681001

METHOD BLANK: 4146097 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00012	09/20/23 13:34	

LABORATORY CONTROL SAMPLE: 4146098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0020	81	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4146099 4146100

Parameter	Units	92686676001 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	0.0025	0.0024	100	95	75-125	5	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798846
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681001

METHOD BLANK: 4137453 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/11/23 15:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/23 15:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/23 15:34	

LABORATORY CONTROL SAMPLE: 4137454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	80-120	

LABORATORY CONTROL SAMPLE: 4137455

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137456 4137457

Parameter	Units	92686679001 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	9.5	50	50	60.9	61.8	103	105	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137458 4137459

Parameter	Units	92686836005 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	15.3	50	50	67.7	68.0	105	105	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 799173
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681002

METHOD BLANK: 4139096 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	

LABORATORY CONTROL SAMPLE: 4139097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

LABORATORY CONTROL SAMPLE: 4139098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139099 4139100

Parameter	Units	92686679012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.2	51.0	102	102	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139101 4139102

Parameter	Units	92686677009 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	96.9	50	50	148	148	103	102	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798662
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681001

METHOD BLANK: 4136899 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/09/23 04:31	

LABORATORY CONTROL SAMPLE: 4136900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136901 4136902

Parameter	Units	92686676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.56	106	111	80-120	5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136903 4136904

Parameter	Units	92686861001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.38	0.37	76	75	80-120	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 799296
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681002

METHOD BLANK: 4140098 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/13/23 02:23	

LABORATORY CONTROL SAMPLE: 4140099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140102 4140103

Parameter	Units	92686679007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.43	87	85	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140133 4140134

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.49	104	97	80-120	7	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 798688
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681001

METHOD BLANK: 4136959 Matrix: Water
Associated Lab Samples: 92686681001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/09/23 21:04	
Fluoride	mg/L	ND	0.10	0.050	09/09/23 21:04	
Sulfate	mg/L	ND	1.0	0.50	09/09/23 21:04	

LABORATORY CONTROL SAMPLE: 4136960

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	2.5	101	90-110	
Sulfate	mg/L	50	50.6	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4136961 4136962

Parameter	Units	92686679004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.2	50	50	56.8	57.1	107	108	90-110	1	10	
Fluoride	mg/L	0.10	2.5	2.5	2.7	2.7	102	104	90-110	1	10	
Sulfate	mg/L	53.9	50	50	100	99.4	92	91	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

QC Batch: 799070
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686681002

METHOD BLANK: 4138708 Matrix: Water
Associated Lab Samples: 92686681002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/12/23 12:51	
Fluoride	mg/L	ND	0.10	0.050	09/12/23 12:51	
Sulfate	mg/L	ND	1.0	0.50	09/12/23 12:51	

LABORATORY CONTROL SAMPLE: 4138709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138710 4138711

Parameter	Units	92687087001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	59.4	59.8	103	104	90-110	1	10	
Fluoride	mg/L	0.63	2.5	2.5	3.5	3.5	113	115	90-110	1	10	M1
Sulfate	mg/L	9.9	50	50	60.7	61.4	102	103	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138712 4138713

Parameter	Units	92686677010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	52.1	53.1	104	106	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	109	108	90-110	0	10	
Sulfate	mg/L	ND	50	50	52.7	54.0	105	108	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92686681

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686681001	**MCD-B-100**	EPA 3010A	798622	EPA 6010D	798709
92686681002	**MCD-B-62**	EPA 3010A	798869	EPA 6010D	798954
92686681001	**MCD-B-100**	EPA 3005A	798623	EPA 6020B	798699
92686681002	**MCD-B-62**	EPA 3005A	798903	EPA 6020B	798992
92686681002	**MCD-B-62**	EPA 7470A	803461	EPA 7470A	803573
92686681001	**MCD-B-100**	SM 2540C-2015	798883		
92686681002	**MCD-B-62**	SM 2540C-2015	799142		
92686681001	**MCD-B-100**	EPA 7470A	800476	EPA 7470A	800627
92686681001	**MCD-B-100**	SM 2320B-2011	798846		
92686681002	**MCD-B-62**	SM 2320B-2011	799173		
92686681001	**MCD-B-100**	SM 4500-S2D-2011	798662		
92686681002	**MCD-B-62**	SM 4500-S2D-2011	799296		
92686681001	**MCD-B-100**	EPA 300.0 Rev 2.1 1993	798688		
92686681002	**MCD-B-62**	EPA 300.0 Rev 2.1 1993	799070		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

oratory receiving samples:

sheville ☐ **Eden** ☐ **Greenwood** ☐ **Huntersville** ☐ **Raleigh** ☐ **Mechanicsville** ☐ **Atlanta** ☑ **Kernersville** ☐

Sample Condition Upon Receipt

Client Name: Ga - Power

Project #: **WO# : 92686681**

92686681

urier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client
] Commercial ☐ Pace ☐ Other:____

istody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: 9-7-23 JLC

icking Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

ermometer:
☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

ooler Temp: 2.3 **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

ooler Temp Corrected (°C): 2.3

SDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

OMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

IENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: **Date:**

Project Manager SRF Review: **Date:**

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

WO#: 92686681

***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

Project #

PM: BV **Due Date: 09/21/23**

CLIENT: 92-GA Power

****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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	15 mL	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1		1																	2				
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	apalinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	lacoker@southernco.com	Purchase Order #:		Pace Quote:	
Phone: (470) 820-6176	Fax	Project Name:	Plant McD AP-1234 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31408440.MCD23	Pace Profile #:	

Page : 1 Of 1

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analysis Test: Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 95139220	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																Pace Analytical Test:	N	N	N	N	N	N		92606661
1	MCD-B-100	WG	G	9/6/23	10:10		7	3		3		1					X	X	X	X	X	X		001
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Pace Proj. - MCD-CCR-Assmt-Stands	Client-gfw WSP	9/07/23	0900		9/7/23	

DATE Signed:

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project # WO#: 92686681

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

PM: BV **Due Date:** 09/21/23

CLIENT: 92-GA Power

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

Date/Initials Person Examining Contents: 9/8/23 TBK

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: 4.1 **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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

***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# : 92686681

PM: BV Due Date: 09/21/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BPIU	BP3R-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1		1	1	1																		2				
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Qualtrax ID: 69614

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	laucoker@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1234 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 951/349/320	TDS	Alkalinity	Sulfide				Residual Chlorine (Y/N)	92666681
																Requested Analysis Filtered (Y/N)	N	N	N	N	N	N					
1	MCD-B-62	WG	G	9/7/23	16:36		7	3		3		1					X	X	X	X	X	X					002
2																											
3																											
4																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S2	MARK MANN WSP	09/08/23	1550	JCL	9/8 1550	

DATE Signed:

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 13, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory between September 07, 2023 and September 08, 2023. 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

Revision 1: Sample ID for 92686682-001 corrected to match COC

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

Sincerely,

Kayla Slaughter for
Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686682001	**MCD-B-100**	Water	09/06/23 10:10	09/07/23 00:00
92686682002	**MCD-B-62**	Water	09/07/23 16:36	09/08/23 15:50

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92686682001	**MCD-B-100**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686682002	**MCD-B-62**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Sample: MCD-B-100 **Lab ID: 92686682001** Collected: 09/06/23 10:10 Received: 09/07/23 00:00 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	**0.204U ± 0.130 (0.215) C:90% T:NA**	pCi/L	10/03/23 08:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.122U ± 0.416 (0.936) C:78% T:79%**	pCi/L	09/26/23 15:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.326U ± 0.546 (1.15)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Sample: MCD-B-62 **Lab ID: 92686682002** Collected: 09/07/23 16:36 Received: 09/08/23 15:50 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	**0.756 ± 0.230 (0.167) C:80% T:NA**	pCi/L	10/03/23 08:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.48 ± 0.533 (0.786) C:81% T:84%**	pCi/L	09/26/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.24 ± 0.763 (0.953)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

QC Batch: 615444
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686682001, 92686682002

METHOD BLANK: 2997136 Matrix: Water
Associated Lab Samples: 92686682001, 92686682002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.131 ± 0.132 (0.266) C:78% T:NA	pCi/L	10/02/23 13:17	

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

QC Batch: 615445
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686682001, 92686682002

METHOD BLANK: 2997141
Matrix: Water
Associated Lab Samples: 92686682001, 92686682002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.465 ± 0.323 (0.609) C:77% T:85%	pCi/L	09/26/23 12:28	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1234 Assessme-RAD
Pace Project No.: 92686682

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686682001	**MCD-B-100**	EPA 9315	615444		
92686682002	**MCD-B-62**	EPA 9315	615444		
92686682001	**MCD-B-100**	EPA 9320	615445		
92686682002	**MCD-B-62**	EPA 9320	615445		
92686682001	**MCD-B-100**	Total Radium Calculation	619773		
92686682002	**MCD-B-62**	Total Radium Calculation	619773		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

oratory receiving samples:

sheville ☐ **Eden** ☐ **Greenwood** ☐ **Huntersville** ☐ **Raleigh** ☐ **Mechanicsville** ☐ **Atlanta** ☑ **Kernersville** ☐

Sample Condition Upon Receipt

Client Name: Gw - Power

Project #: **WO# : 92686682**

92686682

urier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client
☐ Commercial ☐ Pace ☐ Other:____

istody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: 9-7-23 JLC

icking Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

ermometer:
☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

oler Temp: 2.3 **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

oler Temp Corrected (°C): 2.3

SDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

OMMENTS/SAMPLE DISCREPANCY **Field Data Required?** ☐ Yes ☐ No

Lot ID of split containers:

IENT 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

***Check all unpreserved Nitrates for chlorine

Project # **WO# : 92686682**

PM: BV Due Date: 09/28/23

CLIENT: 92-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 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)	KP7U-50 mL Plastic Unpreserved (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)	1SPUV	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1		1																	2				
2		2	1			1		1																	2				
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Qualtrax ID: 69614

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	lacoker@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 820-6176 Fax	Project Name:	Plant McD AP-1234 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.MCD23	Pace Profile #:	

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (Enter valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test	Requested Analysis Filtered (Y/N): Appendix III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 95136300	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	
		MATRIX CODE: Drinking Water (DW), Water (WT), Waste Water (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Other (OT), Tissue (TS)																						
1	MCD-B-100	WW	G	9/6/23	10:10		7	3		3		1					X	X	X	X	X	X		92686682 001
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Pace Sub - Mid-Con Test Group	Maria Gia WSP	9/07/23	0900	[illegible]	9/7/23	

DATE Signed:

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

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO#: 92686682**

PM: BV Due Date: 09/28/23

CLIENT: 92-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: 9/8/23 TBR

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: 4.1 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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Qualtrax ID: 69614

*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# : 92686682**

PM: BV Due Date: 09/28/23

CLIENT: 92-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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpresarved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																		2				
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

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:		Section B Required Project Information:		Section C Invoice Information:		Page : 1 Of 1
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com	
Address:	2480 Maner Road	Copy To:	WSP	Company Name:		
	Atlanta, GA 30339			Address:		
Email:	laucoker@southernco.com	Purchase Order #:		Pace Quote:		
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1234 Assessment	Pace Project Manager:	Bonnie Vang	
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:		

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Y/N	Analyses Test: App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide			Residual Chlorine (Y/N)	
								Requested Analysis Filtered (Y/N)									N	N	N	N	N	N				
1	MCD-B-62	WG	G	9/7/23	16:36		7	3		3		1					X	X	X	X	X	X				92486688
2																										or
3																										
4																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S2	MARK MANN WSP	09/08/23	1550	JCL	9/8 1550	

DATE Signed:

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	9/19/2023
Worklist:	75311
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997141
MB concentration:	0.465
M/B 2 Sigma CSU:	0.323
MB MDC:	0.609
MB Numerical Performance Indicator:	2.83
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75311	LCSD75311
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.817
Target Conc. (pCi/L, g, F):	4.854	4.857
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.557	3.686
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.042	0.891
Numerical Performance Indicator:	-0.54	-2.49
Percent Recovery:	93.89%	75.90%
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		
Sample I.D.:	LCS75311	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD75311	
Sample Result (pCi/L, g, F):	4.557	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.042	
Sample Duplicate Result (pCi/L, g, F):	3.686	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.891	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.245	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.19%	
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.		
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):		
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:

VAL
9/27/23

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2023
Worklist:	75310
Matrix:	WI

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997136
MB concentration:	0.131
M/B 2 Sigma CSU:	0.132
MB MDC:	0.266
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75310	LCSD75310
Count Date:	10/3/2023	10/3/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.030	25.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.504
Target Conc. (pCi/L, g, F):	4.951	4.969
Uncertainty (Calculated):	0.233	0.234
Result (pCi/L, g, F):	4.534	5.823
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.814	1.006
Numerical Performance Indicator:	-0.96	1.62
Percent Recovery:	91.59%	117.17%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75310	92686680007
Duplicate Sample I.D.	LCSD75310	92686680007DUP
Sample Result (pCi/L, g, F):	4.534	0.233
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.814	0.134
Sample Duplicate Result (pCi/L, g, F):	5.823	0.176
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.006	0.137
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-1.951	0.580
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	24.51%	27.72%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% 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 2 Sigma CSU (pCi/L, g, F):		
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.

Comments:

ET 10-3-23

VAM 10/3/23

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 18, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Background Wells- RAD
Pace Project No.: 92686685

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory between September 07, 2023 and September 08, 2023. 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

Revision 1: Report revised to amend collected time for MCD-DGWA-71.

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Background Wells- RAD
Pace Project No.: 92686685

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Background Wells- RAD
Pace Project No.: 92686685

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686685001	**MCD-DGWA-70A**	Water	09/06/23 12:45	09/07/23 00:00
92686685002	**MCD-DGWA-71**	Water	09/06/23 16:09	09/07/23 00:00
92686685003	**MCD-DGWA-53**	Water	09/07/23 10:53	09/08/23 15:50

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Background Wells- RAD
Pace Project No.: 92686685

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92686685001	**MCD-DGWA-70A**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686685002	**MCD-DGWA-71**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686685003	**MCD-DGWA-53**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Background Wells- RAD
Pace Project No.: 92686685

Sample: MCD-DGWA-70A **Lab ID: 92686685001** Collected: 09/06/23 12:45 Received: 09/07/23 00:00 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	**0.0368U ± 0.0854 (0.202) C:91% T:NA**	pCi/L	10/02/23 13:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.614U ± 0.394 (0.750) C:80% T:92%**	pCi/L	09/26/23 12:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.651U ± 0.479 (0.952)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Background Wells- RAD
Pace Project No.: 92686685

Sample: MCD-DGWA-71 **Lab ID: 92686685002** Collected: 09/06/23 16:09 Received: 09/07/23 00:00 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	**0.203U ± 0.130 (0.215) C:92% T:NA**	pCi/L	10/02/23 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.369U ± 0.305 (0.595) C:81% T:86%**	pCi/L	09/26/23 12:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.572U ± 0.435 (0.810)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Background Wells- RAD
Pace Project No.: 92686685

Sample: MCD-DGWA-53 **Lab ID: 92686685003** Collected: 09/07/23 10:53 Received: 09/08/23 15:50 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	**1.49 ± 0.350 (0.173) C:89% T:NA**	pCi/L	10/02/23 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.666U ± 0.428 (0.807) C:76% T:84%**	pCi/L	09/26/23 15:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.16 ± 0.778 (0.980)**	pCi/L	10/03/23 15:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Background Wells- RAD
Pace Project No.: 92686685

QC Batch: 615444
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686685001, 92686685002, 92686685003

METHOD BLANK: 2997136 Matrix: Water
Associated Lab Samples: 92686685001, 92686685002, 92686685003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.131 ± 0.132 (0.266) C:78% T:NA	pCi/L	10/02/23 13:17	

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Background Wells- RAD
Pace Project No.: 92686685

QC Batch: 615445
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92686685001, 92686685002, 92686685003

METHOD BLANK: 2997141 Matrix: Water
Associated Lab Samples: 92686685001, 92686685002, 92686685003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.465 ± 0.323 (0.609) C:77% T:85%	pCi/L	09/26/23 12:28	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Background Wells- RAD
Pace Project No.: 92686685

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Background Wells- RAD
Pace Project No.: 92686685

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686685001	**MCD-DGWA-70A**	EPA 9315	615444		
92686685002	**MCD-DGWA-71**	EPA 9315	615444		
92686685003	**MCD-DGWA-53**	EPA 9315	615444		
92686685001	**MCD-DGWA-70A**	EPA 9320	615445		
92686685002	**MCD-DGWA-71**	EPA 9320	615445		
92686685003	**MCD-DGWA-53**	EPA 9320	615445		
92686685001	**MCD-DGWA-70A**	Total Radium Calculation	619773		
92686685002	**MCD-DGWA-71**	Total Radium Calculation	619773		
92686685003	**MCD-DGWA-53**	Total Radium Calculation	619773		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ **Eden** ☐ **Greenwood** ☐ **Huntersville** ☐ **Raleigh** ☐ **Mechanicsville** ☐ **Atlanta** ☑ **Kernersville** ☐

Sample Condition Upon Receipt

Client Name: Ga - Power

Project #: **WO# : 92686685**

92686685

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:____

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

Date/Initials Person Examining Contents: 9-7-23 JLC

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: 2.3 **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): 2.3

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

*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#: 92686685**

PM: BV Due Date: 09/28/23

CLIENT: 92-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1		1																	2				
2		2	1			1		1																	2				
3		2	1			1		1																	2				
4		2	1			1		1																	2				
5		2	1			1		1																	2				
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Georgia Power - Coal Combustion Residuals	Report To: Lauren Coker	Attention: scainvoices@southernco.com
Address: 2480 Maner Road Atlanta, GA 30339	Copy To: WSP	Company Name:
Email: laucoker@southernco.com	Purchase Order #:	Address:
Phone: (470) 620-6176 Fax	Project Name: Background Wells	Pace Quote:
Requested Due Date: 10 Day TAT	Project #: 3140/6440.McD23	Pace Project Manager: Bonnie Vahg
		Pace Profile #:

Requested Analysis Filtered (Y/N) — Reference/Facility: — State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analysis Test Y/N	App III/IV + Hg, Ra, Ir, Ca	Cl, F, SO4	Radium 226/228	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	92686685
1	MCD-DGWA-70A	WG	G	9/5/23	12:45		7	3		3		1					X	X	X	X	X	X		001
2	MCD-DGWA-71	WG	G	9/5/23	16:09		7	3		3		1					X	X	X	X	X	X		002
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Rush Coop - MCD-DGWA-70A/71 Please	[illegible] WSP	09/06/23	0900	[illegible]	9/6/23	

DATE Signed:

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO#: 92686685**

PM: BV **Due Date: 09/28/23**

CLIENT: 92-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: 9/8/23 [illegible]

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: 4.1 **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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

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# : 92686685**

PM: BV Due Date: 09/28/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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		1	1																		2 BP1U			
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Lauren Coker	Attention: scsinvoices@southernco.com	
Address: 2480 Maner Road Atlanta, GA 30339	Copy To: WSP	Company Name:	Regulatory Agency
Email: lbcoker@southernco.com	Purchase Order #:	Pace Quote:	
Phone: (470) 626-6176 Fax:	Project Name: Background Wells	Pace Project Manager: Bonnie Vang	State / Location GA
Requested Due Date: 10 Day TAT	Project #: 31406440 McD23	Pace Profile #:	

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Agg III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	
																Y/N	N	N	N	N	N	N		9268 66 65
1	MCD-DGWA-53	WG	G	9/7/23	10:53		7	3		3		1					X	X	X	X	X	X		W3
3																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S2	MARK MEIER WSP	09/08/23	1550	FCC - Pace	9/8/23	

DATE Signed:

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	9/19/2023
Worklist:	75311
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997141
MB concentration:	0.465
M/B 2 Sigma CSU:	0.323
MB MDC:	0.609
MB Numerical Performance Indicator:	2.83
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75311	LCSD75311
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.817
Target Conc. (pCi/L, g, F):	4.854	4.857
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.557	3.686
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.042	0.891
Numerical Performance Indicator:	-0.54	-2.49
Percent Recovery:	93.89%	75.90%
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		
Sample I.D.:	LCS75311	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD75311	
Sample Result (pCi/L, g, F):	4.557	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.042	
Sample Duplicate Result (pCi/L, g, F):	3.686	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.891	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.245	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.19%	
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.		
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):		
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:

VAL
9/27/23

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2023
Worklist:	75310
Matrix:	WI

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997136
MB concentration:	0.131
M/B 2 Sigma CSU:	0.132
MB MDC:	0.266
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75310	LCSD75310
Count Date:	10/3/2023	10/3/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.030	25.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.504
Target Conc. (pCi/L, g, F):	4.951	4.969
Uncertainty (Calculated):	0.233	0.234
Result (pCi/L, g, F):	4.534	5.823
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.814	1.006
Numerical Performance Indicator:	-0.96	1.62
Percent Recovery:	91.59%	117.17%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75310	92686680007
Duplicate Sample I.D.	LCSD75310	92686680007DUP
Sample Result (pCi/L, g, F):	4.534	0.233
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.814	0.134
Sample Duplicate Result (pCi/L, g, F):	5.823	0.176
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.006	0.137
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-1.951	0.580
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	24.51%	27.72%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% 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 2 Sigma CSU (pCi/L, g, F):		
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.

Comments:

ET 10-3-23

VAM 10/3/23

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 22, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory on September 08, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

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
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686941001	**MCD-B-105D**	Water	09/07/23 10:52	09/08/23 15:50
92686941002	**MCD-B-112D**	Water	09/07/23 16:42	09/08/23 15:50

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92686941001	**MCD-B-105D**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92686941002	**MCD-B-112D**	EPA 6010D	DRB	5
		EPA 6020B	CW1	13
		SM 2540C-2015	DL1	1
		EPA 7470A	BM	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Sample: MCD-B-105D **Lab ID: 92686941001** Collected: 09/07/23 10:52 Received: 09/08/23 15:50 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	**2.1**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 10:32	7439-89-6	
Potassium	**8.2**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 10:32	7440-09-7	M1
Sodium	**20.0**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 10:32	7440-23-5	M1
Calcium	**71.8**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 10:32	7440-70-2	M1
Magnesium	**24.6**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 10:32	7439-95-4	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.0012	1	09/11/23 14:11	09/14/23 17:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:01	7440-38-2	
Barium	**0.035**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:01	7440-41-7	
Boron	**0.76**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:01	7440-47-3	
Cobalt	**0.0027J**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:01	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/11/23 14:11	09/14/23 17:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:01	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**520**	mg/L	25.0	25.0	1		09/11/23 13:32		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:14	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**45.9**	mg/L	5.0	5.0	1		09/12/23 15:56		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 15:56		
Alkalinity, Total as CaCO3	**45.9**	mg/L	5.0	5.0	1		09/12/23 15:56		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.43**	mg/L	0.10	0.022	1		09/13/23 02:25	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**14.9**	mg/L	1.0	0.60	1		09/12/23 14:06	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.050	1		09/12/23 14:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Sample: MCD-B-105D **Lab ID: 92686941001** Collected: 09/07/23 10:52 Received: 09/08/23 15:50 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								
Sulfate	**236**	mg/L	5.0	2.5	5		09/13/23 07:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Sample: MCD-B-112D **Lab ID: 92686941002** Collected: 09/07/23 16:42 Received: 09/08/23 15:50 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	**0.035J**	mg/L	0.040	0.025	1	09/11/23 11:12	09/13/23 10:53	7439-89-6	
Potassium	**2.8**	mg/L	0.50	0.15	1	09/11/23 11:12	09/13/23 10:53	7440-09-7	
Sodium	**12.5**	mg/L	1.0	0.58	1	09/11/23 11:12	09/13/23 10:53	7440-23-5	
Calcium	**24.0**	mg/L	1.0	0.12	1	09/11/23 11:12	09/13/23 10:53	7440-70-2	
Magnesium	**7.3**	mg/L	0.050	0.012	1	09/11/23 11:12	09/13/23 10:53	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	0.0012	1	09/11/23 14:11	09/14/23 17:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0037	1	09/11/23 14:11	09/14/23 17:05	7440-38-2	
Barium	**0.0027J**	mg/L	0.0050	0.00067	1	09/11/23 14:11	09/14/23 17:05	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/11/23 14:11	09/14/23 17:05	7440-41-7	
Boron	**0.24**	mg/L	0.040	0.0086	1	09/11/23 14:11	09/14/23 17:05	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/11/23 14:11	09/14/23 17:05	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/11/23 14:11	09/14/23 17:05	7440-47-3	
Cobalt	**0.00040J**	mg/L	0.0050	0.00039	1	09/11/23 14:11	09/14/23 17:05	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	09/11/23 14:11	09/14/23 17:05	7439-92-1	
Lithium	**0.0043J**	mg/L	0.030	0.00073	1	09/11/23 14:11	09/14/23 17:05	7439-93-2	
Molybdenum	**0.026**	mg/L	0.010	0.00074	1	09/11/23 14:11	09/14/23 17:05	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/11/23 14:11	09/14/23 17:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/11/23 14:11	09/14/23 17:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**155**	mg/L	25.0	25.0	1		09/11/23 13:32		
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	mg/L	0.00020	0.00012	1	09/19/23 17:10	09/20/23 15:16	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**109**	mg/L	5.0	5.0	1		09/12/23 16:04		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/12/23 16:04		
Alkalinity, Total as CaCO3	**109**	mg/L	5.0	5.0	1		09/12/23 16:04		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/13/23 02:26	18496-25-8	
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		09/12/23 14:21	16887-00-6	
Fluoride	**0.32**	mg/L	0.10	0.050	1		09/12/23 14:21	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Sample: MCD-B-112D **Lab ID: 92686941002** Collected: 09/07/23 16:42 Received: 09/08/23 15:50 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								
Sulfate	**16.3**	mg/L	1.0	0.50	1		09/12/23 14:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 798869
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4137528 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/23 10:22	
Iron	mg/L	ND	0.040	0.025	09/13/23 10:22	
Magnesium	mg/L	ND	0.050	0.012	09/13/23 10:22	
Potassium	mg/L	ND	0.50	0.15	09/13/23 10:22	
Sodium	mg/L	ND	1.0	0.58	09/13/23 10:22	

LABORATORY CONTROL SAMPLE: 4137529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0J	100	80-120	
Iron	mg/L	1	1.0	100	80-120	
Magnesium	mg/L	1	1.0	102	80-120	
Potassium	mg/L	1	0.92	92	80-120	
Sodium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137530 4137531

Parameter	Units	92686941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	71.8	1	1	68.4	71.2	-338	-59	75-125	4	20	M1
Iron	mg/L	2.1	1	1	3.0	3.0	86	93	75-125	2	20	
Magnesium	mg/L	24.6	1	1	24.1	25.0	-53	33	75-125	4	20	M1
Potassium	mg/L	8.2	1	1	8.7	9.1	42	82	75-125	5	20	M1
Sodium	mg/L	20.0	1	1	19.8	20.6	-19	59	75-125	4	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 798903
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4137724 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	09/14/23 16:50	
Arsenic	mg/L	ND	0.0050	0.0037	09/14/23 16:50	
Barium	mg/L	ND	0.0050	0.00067	09/14/23 16:50	
Beryllium	mg/L	ND	0.00050	0.000054	09/14/23 16:50	
Boron	mg/L	ND	0.040	0.0086	09/14/23 16:50	
Cadmium	mg/L	ND	0.00050	0.00011	09/14/23 16:50	
Chromium	mg/L	ND	0.0050	0.0011	09/14/23 16:50	
Cobalt	mg/L	ND	0.0050	0.00039	09/14/23 16:50	
Lead	mg/L	ND	0.0010	0.00012	09/14/23 16:50	
Lithium	mg/L	ND	0.030	0.00073	09/14/23 16:50	
Molybdenum	mg/L	ND	0.010	0.00074	09/14/23 16:50	
Selenium	mg/L	ND	0.0050	0.0014	09/14/23 16:50	
Thallium	mg/L	ND	0.0010	0.00018	09/14/23 16:50	

LABORATORY CONTROL SAMPLE: 4137725

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	102	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	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	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	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	110	104	75-125	6	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.099	106	99	75-125	7	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4137726 4137727

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.0027J	0.1	0.1	0.11	0.10	105	100	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	4	20	
Boron	mg/L	0.24	1	1	1.3	1.2	103	99	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.10	107	100	75-125	6	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.094	102	93	75-125	8	20	
Cobalt	mg/L	0.00040J	0.1	0.1	0.10	0.094	101	94	75-125	8	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.091	95	91	75-125	4	20	
Lithium	mg/L	0.0043J	0.1	0.1	0.10	0.099	100	94	75-125	6	20	
Molybdenum	mg/L	0.026	0.1	0.1	0.13	0.12	105	97	75-125	6	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	104	98	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.092	0.089	92	89	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 798883
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4137624 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/23 13:25	

LABORATORY CONTROL SAMPLE: 4137625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	427	107	80-120	

SAMPLE DUPLICATE: 4137626

Parameter	Units	92686830001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1540	1500	3	10	

SAMPLE DUPLICATE: 4137627

Parameter	Units	92686679004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	174	17	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 800478
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4146121 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00012	09/20/23 14:38	

LABORATORY CONTROL SAMPLE: 4146122

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: 4146123 4146124

Parameter	Units	92686920009 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	0.0026	0.0026	102	104	75-125	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 799173
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4139096 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/12/23 15:04	

LABORATORY CONTROL SAMPLE: 4139097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

LABORATORY CONTROL SAMPLE: 4139098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139099 4139100

Parameter	Units	92686679012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.2	51.0	102	102	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4139101 4139102

Parameter	Units	92686677009 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	96.9	50	50	148	148	103	102	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 799296
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4140098 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/13/23 02:23	

LABORATORY CONTROL SAMPLE: 4140099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140102 4140103

Parameter	Units	92686679007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.43	87	85	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4140133 4140134

Parameter	Units	92686941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.49	104	97	80-120	7	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

QC Batch: 799070
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92686941001, 92686941002

METHOD BLANK: 4138708 Matrix: Water
Associated Lab Samples: 92686941001, 92686941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/12/23 12:51	
Fluoride	mg/L	ND	0.10	0.050	09/12/23 12:51	
Sulfate	mg/L	ND	1.0	0.50	09/12/23 12:51	

LABORATORY CONTROL SAMPLE: 4138709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138710 4138711

Parameter	Units	92687087001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	59.4	59.8	103	104	90-110	1	10	
Fluoride	mg/L	0.63	2.5	2.5	3.5	3.5	113	115	90-110	1	10	M1
Sulfate	mg/L	9.9	50	50	60.7	61.4	102	103	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4138712 4138713

Parameter	Units	92686677010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	52.1	53.1	104	106	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	109	108	90-110	0	10	
Sulfate	mg/L	ND	50	50	52.7	54.0	105	108	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Assessment
Pace Project No.: 92686941

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686941001	**MCD-B-105D**	EPA 3010A	798869	EPA 6010D	798954
92686941002	**MCD-B-112D**	EPA 3010A	798869	EPA 6010D	798954
92686941001	**MCD-B-105D**	EPA 3005A	798903	EPA 6020B	798992
92686941002	**MCD-B-112D**	EPA 3005A	798903	EPA 6020B	798992
92686941001	**MCD-B-105D**	SM 2540C-2015	798883		
92686941002	**MCD-B-112D**	SM 2540C-2015	798883		
92686941001	**MCD-B-105D**	EPA 7470A	800478	EPA 7470A	800630
92686941002	**MCD-B-112D**	EPA 7470A	800478	EPA 7470A	800630
92686941001	**MCD-B-105D**	SM 2320B-2011	799173		
92686941002	**MCD-B-112D**	SM 2320B-2011	799173		
92686941001	**MCD-B-105D**	SM 4500-S2D-2011	799296		
92686941002	**MCD-B-112D**	SM 4500-S2D-2011	799296		
92686941001	**MCD-B-105D**	EPA 300.0 Rev 2.1 1993	799070		
92686941002	**MCD-B-112D**	EPA 300.0 Rev 2.1 1993	799070		

Pace

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO#: 92686941

92686941

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other: ☑ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 9/8/23 TDS

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: 4.1 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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Qualtrax ID: 69614

Pace

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

WO#: 92686941

PM: BV Due Date: 09/25/23

CLIENT: 92-GA Power

*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

Project #

**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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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-200 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																					
2		2	1			1	1																					
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Golder	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	laucoker@southernco.com	Purchase Order #:		Pace Quote	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	GL166849622	Pace Profile #:	

Regulatory Agency

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test: Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 8513/9320	TDS	Alkalinity	Sulfide			Residual Chlorine (Y/N)	92686941
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																N	N	N	N	N	N				
1	MCD-B-105D	WG	G	9/7/23	10:52		7	3		3		1					X	X	X	X	X	X				001
2	MCD-B-112D	WG	G	9/7/23	16:42		7	3		3		1					X	X	X	X	X	X				002
3																										
4																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S1	MARK MANN WSP	09/08/23	1550	TCR	9-8-23 1550	

DATE Signed:

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 04, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory on September 08, 2023. 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,

Bonnie Vang

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92686975001	**MCD-B-105D**	Water	09/07/23 10:52	09/08/23 15:50
92686975002	**MCD-B-112D**	Water	09/07/23 16:42	09/08/23 15:50

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92686975001	**MCD-B-105D**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92686975002	**MCD-B-112D**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Sample: MCD-B-105D **Lab ID: 92686975001** Collected: 09/07/23 10:52 Received: 09/08/23 15:50 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	**0.807 ± 0.253 (0.208) C:76% T:NA**	pCi/L	10/03/23 08:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**2.07 ± 0.629 (0.754) C:79% T:78%**	pCi/L	09/26/23 11:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.88 ± 0.882 (0.962)**	pCi/L	10/03/23 15:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Sample: MCD-B-112D **Lab ID: 92686975002** Collected: 09/07/23 16:42 Received: 09/08/23 15:50 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	**0.267 ± 0.142 (0.204) C:88% T:NA**	pCi/L	10/03/23 08:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.635U ± 0.369 (0.660) C:77% T:84%**	pCi/L	09/26/23 11:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.902 ± 0.511 (0.864)**	pCi/L	10/03/23 15:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

QC Batch:	615447	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92686975001, 92686975002

METHOD BLANK: 2997146 Matrix: Water

Associated Lab Samples: 92686975001, 92686975002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.171 ± 0.140 (0.267) C:87% T:NA	pCi/L	10/03/23 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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

QC Batch:	615448	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92686975001, 92686975002

METHOD BLANK: 2997151 Matrix: Water

Associated Lab Samples: 92686975001, 92686975002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.338 ± 0.316 (0.637) C:80% T:88%	pCi/L	09/26/23 11:59	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Assessment- RAD
Pace Project No.: 92686975

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92686975001	**MCD-B-105D**	EPA 9315	615447		
92686975002	**MCD-B-112D**	EPA 9315	615447		
92686975001	**MCD-B-105D**	EPA 9320	615448		
92686975002	**MCD-B-112D**	EPA 9320	615448		
92686975001	**MCD-B-105D**	Total Radium Calculation	619760		
92686975002	**MCD-B-112D**	Total Radium Calculation	619760		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: WO# : 92686975

92686975

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:

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

Date/Initials Person Examining Contents: 9/8/23 TBE

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: 4.1 **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): 4.1

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

***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# : 92686975

PM: BV Due Date: 10/02/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	13 BM	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	—			1	1	1																	2	1			
2		2	1			1	1																		2	1			
3																									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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road Atlanta, GA 30339	Copy To:	Golder	Company Name:	
				Address:	
Email:	laucoker@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	GL166849622	Pace Profile #:	

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)	92666975
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																N	N	N	N	N	N		
1	MCD-B-105D	WG	G	9/7/23	10:52		7	3		3		1					X	X	X	X	X	X		
2	MCD-B-112D	WG	G	9/7/23	16:42		7	3		3		1					X	X	X	X	X	X		
3																								
4																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2023S1	MARK MANA WSP	09/08/23	1550	ICE	9-8-23	

DATE Signed:

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JJS1
Date:	9/19/2023
Worklist:	75313
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997151
MB concentration:	0.338
M/B 2 Sigma CSU:	0.316
MB MDC:	0.637
MB Numerical Performance Indicator:	2.10
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75313	LCSD75313
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.816
Target Conc. (pCi/L, g, F):	4.857	4.860
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.556	5.205
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.028	1.164
Numerical Performance Indicator:	-0.56	0.57
Percent Recovery:	93.80%	107.12%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75313	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD75313	
Sample Result (pCi/L, g, F):	4.556	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.028	
Sample Duplicate Result (pCi/L, g, F):	5.205	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.164	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.820	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.26%	
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.		
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):		
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:

VAL
9/27/23

VAM 9/27/23

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2023
Worklist:	75312
Matrix:	W I

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2997146
MB concentration:	0.171
M/B 2 Sigma CSU:	0.140
MB MDC:	0.267
MB Numerical Performance Indicator:	2.41
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75312	LCSD75312
Count Date:	10/3/2023	10/3/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.030	25.030
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.506
Target Conc. (pCi/L, g, F):	4.976	4.942
Uncertainty (Calculated):	0.234	0.232
Result (pCi/L, g, F):	5.204	4.922
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.905	0.879
Numerical Performance Indicator:	0.48	-0.04
Percent Recovery:	104.59%	99.59%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS75312	92686684012
Duplicate Sample I.D.	LCSD75312	92686684012DUP
Sample Result (pCi/L, g, F):	5.204	0.088
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.905	0.102
Sample Duplicate Result (pCi/L, g, F):	4.922	0.169
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.879	0.128
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.438	-0.967
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	4.90%	62.74%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% 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 2 Sigma CSU (pCi/L, g, F):		
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.

Comments:

ET 10-3-23

LAM 10/3/23

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

September 22, 2023

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on September 14, 2023. 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
770-734-4205
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Jordan Gamble, ARCADIS - Atlanta
Ben Hodges, Georgia Power-CCR
Warren Johnson, ARCADIS - Atlanta
Allison Keefer, Southern Company
Laura Midkiff, Georgia Power
Tina Sullivan, ERM

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

CERTIFICATIONS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

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
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92687817001	**MCD-UT01_US**	Water	09/13/23 14:06	09/14/23 09:29
92687817002	**MCD-UT02**	Water	09/13/23 13:58	09/14/23 09:29
92687817003	**MCD-UT03**	Water	09/13/23 13:47	09/14/23 09:29
92687817004	**MCD-UT01_DS**	Water	09/13/23 13:37	09/14/23 09:29
92687817005	**MCD-CR-0.1**	Water	09/12/23 13:40	09/14/23 09:29
92687817006	**MCD-CR+0.2**	Water	09/12/23 13:44	09/14/23 09:29
92687817007	**MCD-CR+0.4**	Water	09/12/23 13:47	09/14/23 09:29
92687817008	**MCD-DW_DS**	Water	09/12/23 13:35	09/14/23 09:29
92687817009	**MCD-DW_US**	Water	09/12/23 13:30	09/14/23 09:29
92687817010	**MCD-CR-0.2**	Water	09/12/23 13:24	09/14/23 09:29
92687817011	**MCD-CR-0.5**	Water	09/12/23 13:15	09/14/23 09:29

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

SAMPLE ANALYTE COUNT

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92687817001	**MCD-UT01_US**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817002	**MCD-UT02**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817003	**MCD-UT03**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817004	**MCD-UT01_DS**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817005	**MCD-CR-0.1**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817006	**MCD-CR+0.2**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817007	**MCD-CR+0.4**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817008	**MCD-DW_DS**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	2	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817009	**MCD-DW_US**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817010	**MCD-CR-0.2**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92687817011	**MCD-CR-0.5**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	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

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-UT01_US **Lab ID: 92687817001** Collected: 09/13/23 14:06 Received: 09/14/23 09:29 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							
Boron	ND	mg/L	0.040	1	09/15/23 13:12	09/17/23 14:38	7440-42-8	
Potassium	**2.8**	mg/L	0.50	1	09/15/23 13:12	09/17/23 14:38	7440-09-7	
Sodium	**5.5**	mg/L	1.0	1	09/15/23 13:12	09/17/23 14:38	7440-23-5	
Calcium	**11.8**	mg/L	1.0	1	09/15/23 13:12	09/17/23 14:38	7440-70-2	
Magnesium	**1.9**	mg/L	0.050	1	09/15/23 13:12	09/17/23 14:38	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	09/15/23 09:34	09/15/23 19:19	7440-38-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**56.0**	mg/L	25.0	1		09/19/23 17:46		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**35.3**	mg/L	5.0	1		09/15/23 16:12		
Alkalinity, Total as CaCO3	**35.3**	mg/L	5.0	1		09/15/23 16:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**5.1**	mg/L	1.0	1		09/15/23 13:06	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	1		09/15/23 13:06	16984-48-8	
Sulfate	**7.3**	mg/L	1.0	1		09/15/23 13:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-UT02 **Lab ID: 92687817002** Collected: 09/13/23 13:58 Received: 09/14/23 09:29 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							
Boron	**0.040**	mg/L	0.040	1	09/15/23 13:12	09/17/23 14:43	7440-42-8	
Potassium	**2.6**	mg/L	0.50	1	09/15/23 13:12	09/17/23 14:43	7440-09-7	
Sodium	**5.5**	mg/L	1.0	1	09/15/23 13:12	09/17/23 14:43	7440-23-5	
Calcium	**11.5**	mg/L	1.0	1	09/15/23 13:12	09/17/23 14:43	7440-70-2	
Magnesium	**1.8**	mg/L	0.050	1	09/15/23 13:12	09/17/23 14:43	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	09/15/23 09:34	09/15/23 19:23	7440-38-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**63.0**	mg/L	25.0	1		09/19/23 17:46		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**34.9**	mg/L	5.0	1		09/15/23 16:19		
Alkalinity, Total as CaCO3	**34.9**	mg/L	5.0	1		09/15/23 16:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**5.2**	mg/L	1.0	1		09/15/23 13:52	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	1		09/15/23 13:52	16984-48-8	
Sulfate	**7.8**	mg/L	1.0	1		09/15/23 13:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-UT03 **Lab ID: 92687817003** Collected: 09/13/23 13:47 Received: 09/14/23 09:29 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							
Boron	**0.049**	mg/L	0.040	1	09/15/23 13:12	09/17/23 14:48	7440-42-8	
Potassium	**2.7**	mg/L	0.50	1	09/15/23 13:12	09/17/23 14:48	7440-09-7	
Sodium	**5.5**	mg/L	1.0	1	09/15/23 13:12	09/17/23 14:48	7440-23-5	
Calcium	**11.7**	mg/L	1.0	1	09/15/23 13:12	09/17/23 14:48	7440-70-2	M1
Magnesium	**1.9**	mg/L	0.050	1	09/15/23 13:12	09/17/23 14:48	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	09/15/23 09:34	09/15/23 19:27	7440-38-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**89.0**	mg/L	25.0	1		09/19/23 14:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**35.3**	mg/L	5.0	1		09/15/23 16:25		
Alkalinity, Total as CaCO3	**35.3**	mg/L	5.0	1		09/15/23 16:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**4.9**	mg/L	1.0	1		09/15/23 14:08	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	1		09/15/23 14:08	16984-48-8	
Sulfate	**7.9**	mg/L	1.0	1		09/15/23 14:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-UT01_DS **Lab ID: 92687817004** Collected: 09/13/23 13:37 Received: 09/14/23 09:29 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							
Boron	**0.058**	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:09	7440-42-8	
Potassium	**2.5**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:09	7440-09-7	
Sodium	**5.1**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:09	7440-23-5	
Calcium	**11.2**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:09	7440-70-2	
Magnesium	**1.8**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:09	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	09/15/23 09:34	09/15/23 19:30	7440-38-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**88.0**	mg/L	25.0	1		09/19/23 14:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**34.1**	mg/L	5.0	1		09/15/23 16:31		
Alkalinity, Total as CaCO3	**34.1**	mg/L	5.0	1		09/15/23 16:31		
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	1		09/15/23 14:23	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	1		09/15/23 14:23	16984-48-8	
Sulfate	**7.7**	mg/L	1.0	1		09/15/23 14:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-CR-0.1 **Lab ID: 92687817005** Collected: 09/12/23 13:40 Received: 09/14/23 09:29 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							
Boron	**0.043**	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:14	7440-42-8	
Potassium	**3.4**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:14	7440-09-7	
Sodium	**9.4**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:14	7440-23-5	
Calcium	**7.0**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:14	7440-70-2	
Magnesium	**2.2**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:14	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 19:34	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 19:34	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**50.0**	mg/L	25.0	1		09/18/23 12:54		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**27.0**	mg/L	5.0	1		09/15/23 16:38		
Alkalinity, Total as CaCO3	**27.0**	mg/L	5.0	1		09/15/23 16:38		
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		09/15/23 15:10	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	1		09/15/23 15:10	16984-48-8	
Sulfate	**7.1**	mg/L	1.0	1		09/15/23 15:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-CR+0.2 **Lab ID: 92687817006** Collected: 09/12/23 13:44 Received: 09/14/23 09:29 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							
Boron	ND	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:19	7440-42-8	
Potassium	**3.4**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:19	7440-09-7	
Sodium	**9.2**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:19	7440-23-5	
Calcium	**6.9**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:19	7440-70-2	
Magnesium	**2.2**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:19	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 19:38	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 19:38	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**65.0**	mg/L	25.0	1		09/18/23 12:54		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**26.5**	mg/L	5.0	1		09/15/23 16:44		
Alkalinity, Total as CaCO3	**26.5**	mg/L	5.0	1		09/15/23 16:44		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**9.2**	mg/L	1.0	1		09/15/23 15:25	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	1		09/15/23 15:25	16984-48-8	
Sulfate	**6.6**	mg/L	1.0	1		09/15/23 15:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-CR+0.4 **Lab ID: 92687817007** Collected: 09/12/23 13:47 Received: 09/14/23 09:29 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							
Boron	**0.041**	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:35	7440-42-8	
Potassium	**3.3**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:35	7440-09-7	
Sodium	**8.8**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:35	7440-23-5	
Calcium	**6.7**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:35	7440-70-2	
Magnesium	**2.1**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:35	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	09/15/23 09:34	09/15/23 19:42	7440-38-2	
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 19:42	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 19:42	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**47.0**	mg/L	25.0	1		09/18/23 12:55		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**25.7**	mg/L	5.0	1		09/15/23 16:50		
Alkalinity, Total as CaCO3	**25.7**	mg/L	5.0	1		09/15/23 16:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**9.1**	mg/L	1.0	1		09/15/23 15:41	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	1		09/15/23 15:41	16984-48-8	
Sulfate	**6.8**	mg/L	1.0	1		09/15/23 15:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-DW_DS **Lab ID: 92687817008** Collected: 09/12/23 13:35 Received: 09/14/23 09:29 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							
Boron	**0.050**	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:40	7440-42-8	
Potassium	**3.3**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:40	7440-09-7	
Sodium	**9.4**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:40	7440-23-5	
Calcium	**7.1**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:40	7440-70-2	
Magnesium	**2.3**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:40	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 19:54	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 19:54	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**63.0**	mg/L	25.0	1		09/18/23 12:55		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**25.7**	mg/L	5.0	1		09/15/23 17:05		
Alkalinity, Total as CaCO3	**25.7**	mg/L	5.0	1		09/15/23 17:05		
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		09/15/23 15:56	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	1		09/15/23 15:56	16984-48-8	
Sulfate	**7.8**	mg/L	1.0	1		09/15/23 15:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-DW_US **Lab ID: 92687817009** Collected: 09/12/23 13:30 Received: 09/14/23 09:29 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							
Boron	ND	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:45	7440-42-8	
Potassium	**3.2**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:45	7440-09-7	
Sodium	**8.5**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:45	7440-23-5	
Calcium	**6.4**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:45	7440-70-2	
Magnesium	**2.0**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:45	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 19:58	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 19:58	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**46.0**	mg/L	25.0	1		09/18/23 12:55		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**25.7**	mg/L	5.0	1		09/15/23 17:11		
Alkalinity, Total as CaCO3	**25.7**	mg/L	5.0	1		09/15/23 17:11		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**9.0**	mg/L	1.0	1		09/15/23 16:12	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/15/23 16:12	16984-48-8	
Sulfate	**6.2**	mg/L	1.0	1		09/15/23 16:12	14808-79-8	

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-CR-0.2 **Lab ID: 92687817010** Collected: 09/12/23 13:24 Received: 09/14/23 09:29 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							
Boron	ND	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:50	7440-42-8	
Potassium	**3.4**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:50	7440-09-7	
Sodium	**9.0**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:50	7440-23-5	
Calcium	**6.8**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:50	7440-70-2	
Magnesium	**2.2**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:50	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 20:02	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 20:02	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**53.0**	mg/L	25.0	1		09/18/23 12:55		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**25.3**	mg/L	5.0	1		09/15/23 17:17		
Alkalinity, Total as CaCO3	**25.3**	mg/L	5.0	1		09/15/23 17:17		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**9.2**	mg/L	1.0	1		09/15/23 16:58	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	1		09/15/23 16:58	16984-48-8	
Sulfate	**6.4**	mg/L	1.0	1		09/15/23 16:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Sample: MCD-CR-0.5 **Lab ID: 92687817011** Collected: 09/12/23 13:15 Received: 09/14/23 09:29 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							
Boron	ND	mg/L	0.040	1	09/15/23 13:12	09/17/23 15:55	7440-42-8	
Potassium	**3.2**	mg/L	0.50	1	09/15/23 13:12	09/17/23 15:55	7440-09-7	
Sodium	**8.6**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:55	7440-23-5	
Calcium	**6.5**	mg/L	1.0	1	09/15/23 13:12	09/17/23 15:55	7440-70-2	
Magnesium	**2.1**	mg/L	0.050	1	09/15/23 13:12	09/17/23 15:55	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/15/23 09:34	09/15/23 20:06	7440-48-4	
Lithium	ND	mg/L	0.030	1	09/15/23 09:34	09/15/23 20:06	7439-93-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**50.0**	mg/L	25.0	1		09/19/23 17:35		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**25.5**	mg/L	5.0	1		09/15/23 17:23		
Alkalinity, Total as CaCO3	**25.5**	mg/L	5.0	1		09/15/23 17:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**9.2**	mg/L	1.0	1		09/15/23 17:14	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/15/23 17:14	16984-48-8	
Sulfate	**6.2**	mg/L	1.0	1		09/15/23 17:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 799977
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

METHOD BLANK: 4143584 Matrix: Water
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/17/23 14:17	
Calcium	mg/L	ND	1.0	09/17/23 14:17	
Magnesium	mg/L	ND	0.050	09/17/23 14:17	
Potassium	mg/L	ND	0.50	09/17/23 14:17	
Sodium	mg/L	ND	1.0	09/17/23 14:17	

LABORATORY CONTROL SAMPLE: 4143585

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.95	95	80-120	
Calcium	mg/L	1	.99J	99	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Potassium	mg/L	1	0.85	85	80-120	
Sodium	mg/L	1	ND	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4143586 4143587

Parameter	Units	92687817003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.049	1	1	1.1	1.1	104	103	75-125	0	20	
Calcium	mg/L	11.7	1	1	12.5	12.4	89	71	75-125	1	20	M1
Magnesium	mg/L	1.9	1	1	2.9	2.9	106	104	75-125	1	20	
Potassium	mg/L	2.7	1	1	3.7	3.6	104	92	75-125	3	20	
Sodium	mg/L	5.5	1	1	6.3	6.3	84	81	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

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 799918
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

METHOD BLANK: 4143353 Matrix: Water
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	09/15/23 18:19	
Cobalt	mg/L	ND	0.0050	09/15/23 18:19	
Lithium	mg/L	ND	0.030	09/15/23 18:19	

LABORATORY CONTROL SAMPLE: 4143354

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4143355 4143356

Parameter	Units	92687591008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Cobalt	mg/L	12.0 ug/L	0.1	0.1	0.12	0.12	103	104	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.096	0.098	95	97	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 800282 | 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: 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010

METHOD BLANK: 4144980 Matrix: Water
Associated Lab Samples: 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/18/23 12:43	

LABORATORY CONTROL SAMPLE: 4144981

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	370	92	80-120	

SAMPLE DUPLICATE: 4144982

Parameter	Units	92687223010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 4144983

Parameter	Units	92686679022 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	560	567	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 800459
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92687817001, 92687817002, 92687817011

METHOD BLANK: 4145961 Matrix: Water
Associated Lab Samples: 92687817001, 92687817002, 92687817011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/19/23 17:34	

LABORATORY CONTROL SAMPLE: 4145962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	378	94	80-120	

SAMPLE DUPLICATE: 4145963

Parameter	Units	92687817011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	50.0	51.0	2	10	

SAMPLE DUPLICATE: 4145964

Parameter	Units	92687572003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	77.0	81.0	5	10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 800526
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92687817003, 92687817004

METHOD BLANK: 4146467 Matrix: Water
Associated Lab Samples: 92687817003, 92687817004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/19/23 14:21	

LABORATORY CONTROL SAMPLE: 4146468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	379	95	80-120	

SAMPLE DUPLICATE: 4146469

Parameter	Units	92687621001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	65.0	52.0	22	10	D6

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 799970
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

METHOD BLANK: 4143554 Matrix: Water
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	09/15/23 15:54	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	09/15/23 15:54	

LABORATORY CONTROL SAMPLE: 4143555

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.6	103	80-120	

LABORATORY CONTROL SAMPLE: 4143556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.2	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4143557 4143558

Parameter	Units	92686679021 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	13.1	50	50	66.9	67.5	107	109	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4143559 4143560

Parameter	Units	92686679022 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	28.4	50	50	80.2	81.5	104	106	80-120	2	25	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

QC Batch: 799893
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

METHOD BLANK: 4143260 Matrix: Water
Associated Lab Samples: 92687817001, 92687817002, 92687817003, 92687817004, 92687817005, 92687817006, 92687817007, 92687817008, 92687817009, 92687817010, 92687817011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/15/23 12:02	
Fluoride	mg/L	ND	0.10	09/15/23 12:02	
Sulfate	mg/L	ND	1.0	09/15/23 12:02	

LABORATORY CONTROL SAMPLE: 4143261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.1	100	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	50	50.8	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4143264 4143265

Parameter	Units	92687817009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9.0	50	50	58.5	59.5	99	101	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	101	103	90-110	2	10	
Sulfate	mg/L	6.2	50	50	55.8	56.9	99	101	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4143456 4143457

Parameter	Units	92687817001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.1	50	50	54.3	55.5	98	101	90-110	2	10	
Fluoride	mg/L	0.19	2.5	2.5	2.7	2.8	100	103	90-110	3	10	
Sulfate	mg/L	7.3	50	50	56.6	58.0	99	101	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

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.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92687817001	**MCD-UT01_US**	EPA 3010A	799977	EPA 6010D	800078
92687817002	**MCD-UT02**	EPA 3010A	799977	EPA 6010D	800078
92687817003	**MCD-UT03**	EPA 3010A	799977	EPA 6010D	800078
92687817004	**MCD-UT01_DS**	EPA 3010A	799977	EPA 6010D	800078
92687817005	**MCD-CR-0.1**	EPA 3010A	799977	EPA 6010D	800078
92687817006	**MCD-CR+0.2**	EPA 3010A	799977	EPA 6010D	800078
92687817007	**MCD-CR+0.4**	EPA 3010A	799977	EPA 6010D	800078
92687817008	**MCD-DW_DS**	EPA 3010A	799977	EPA 6010D	800078
92687817009	**MCD-DW_US**	EPA 3010A	799977	EPA 6010D	800078
92687817010	**MCD-CR-0.2**	EPA 3010A	799977	EPA 6010D	800078
92687817011	**MCD-CR-0.5**	EPA 3010A	799977	EPA 6010D	800078
92687817001	**MCD-UT01_US**	EPA 3005A	799918	EPA 6020B	800012
92687817002	**MCD-UT02**	EPA 3005A	799918	EPA 6020B	800012
92687817003	**MCD-UT03**	EPA 3005A	799918	EPA 6020B	800012
92687817004	**MCD-UT01_DS**	EPA 3005A	799918	EPA 6020B	800012
92687817005	**MCD-CR-0.1**	EPA 3005A	799918	EPA 6020B	800012
92687817006	**MCD-CR+0.2**	EPA 3005A	799918	EPA 6020B	800012
92687817007	**MCD-CR+0.4**	EPA 3005A	799918	EPA 6020B	800012
92687817008	**MCD-DW_DS**	EPA 3005A	799918	EPA 6020B	800012
92687817009	**MCD-DW_US**	EPA 3005A	799918	EPA 6020B	800012
92687817010	**MCD-CR-0.2**	EPA 3005A	799918	EPA 6020B	800012
92687817011	**MCD-CR-0.5**	EPA 3005A	799918	EPA 6020B	800012
92687817001	**MCD-UT01_US**	SM 2540C-2015	800459		
92687817002	**MCD-UT02**	SM 2540C-2015	800459		
92687817003	**MCD-UT03**	SM 2540C-2015	800526		
92687817004	**MCD-UT01_DS**	SM 2540C-2015	800526		
92687817005	**MCD-CR-0.1**	SM 2540C-2015	800282		
92687817006	**MCD-CR+0.2**	SM 2540C-2015	800282		
92687817007	**MCD-CR+0.4**	SM 2540C-2015	800282		
92687817008	**MCD-DW_DS**	SM 2540C-2015	800282		
92687817009	**MCD-DW_US**	SM 2540C-2015	800282		
92687817010	**MCD-CR-0.2**	SM 2540C-2015	800282		
92687817011	**MCD-CR-0.5**	SM 2540C-2015	800459		
92687817001	**MCD-UT01_US**	SM 2320B-2011	799970		
92687817002	**MCD-UT02**	SM 2320B-2011	799970		
92687817003	**MCD-UT03**	SM 2320B-2011	799970		
92687817004	**MCD-UT01_DS**	SM 2320B-2011	799970		
92687817005	**MCD-CR-0.1**	SM 2320B-2011	799970		
92687817006	**MCD-CR+0.2**	SM 2320B-2011	799970		
92687817007	**MCD-CR+0.4**	SM 2320B-2011	799970		
92687817008	**MCD-DW_DS**	SM 2320B-2011	799970		
92687817009	**MCD-DW_US**	SM 2320B-2011	799970		
92687817010	**MCD-CR-0.2**	SM 2320B-2011	799970		
92687817011	**MCD-CR-0.5**	SM 2320B-2011	799970		
92687817001	**MCD-UT01_US**	EPA 300.0 Rev 2.1 1993	799893		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92687817

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92687817002	**MCD-UT02**	EPA 300.0 Rev 2.1 1993	799893		
92687817003	**MCD-UT03**	EPA 300.0 Rev 2.1 1993	799893		
92687817004	**MCD-UT01_DS**	EPA 300.0 Rev 2.1 1993	799893		
92687817005	**MCD-CR-0.1**	EPA 300.0 Rev 2.1 1993	799893		
92687817006	**MCD-CR+0.2**	EPA 300.0 Rev 2.1 1993	799893		
92687817007	**MCD-CR+0.4**	EPA 300.0 Rev 2.1 1993	799893		
92687817008	**MCD-DW_DS**	EPA 300.0 Rev 2.1 1993	799893		
92687817009	**MCD-DW_US**	EPA 300.0 Rev 2.1 1993	799893		
92687817010	**MCD-CR-0.2**	EPA 300.0 Rev 2.1 1993	799893		
92687817011	**MCD-CR-0.5**	EPA 300.0 Rev 2.1 1993	799893		

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

WO# : 92687817

92687817

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	ARCADIS - Atlanta	Report To:	Kelley Sharpe, Warren Johnson	Attention:	
Address:	2839 Paces Ferry Rd	Copy To:	Ben Hodges, Joju Abraham	Company Name:	
Atlanta, GA 30339		Copy To:		Address:	
Email:	kelley.sharpe@arcadis.com	Purchase Order #:	GPC11066177	Pace Quote:	
Phone:	(770)384-6584 Fax:	Project Name:	Plant McDonough/CCR-Ash Pond Closure	Pace Project Manager:	maiya.perks@pacelabs.com,
Requested Due Date:	5 Day TAT	Project #:		Pace Profile #:	12896

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total/Bicarb Alkalinity	TDS	Cl, F, SO4	App. III Metals + Mg, Na, K	Metals - As, Co, Li	Metals - As	Metals - Co, Li	Residual Chlorine (Y/N)
1	MCD-UT01_US	WS	G	9/13/23	1406				3	X		X														
2	MCD-UT02	WS	G	9/13/23	1358				3	X		X														
3	MCD-UT03	WS	G	9/13/23	1347				3	X		X														
4	MCD-UT01_DS	WS	G	9/13/23	1337				3	X		X														
5	MCD-CR-0.1	WS	G	9/12/23	1340				3	X		X														
6	MCD-CR+0.2	WS	G	9/12/23	1344				3	X		X														
7	MCD-CR+0.4	WS	G	9/12/23	1347				3	X		X														
8	MCD-DW_DS	WS	G	9/12/23	1335				3	X		X														
9	MCD-DW_US	WS	G	9/12/23	1330				3	X		X														
10	MCD-CR-0.2	WS	G	9/12/23	1324				3	X		X														
11	MCD-CR-0.5	WS	G	9/12/23	1315				3	X		X														
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
MCD-CSURF-ASSMT-2023	/Arcadis	9/14/23	0915		9-14	0929	
6020: As, Co, Li							
6010: B, Ca, Mg, K, Na							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Garrett G					
SIGNATURE of SAMPLER:		DATE Signed: 9-14-23				

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: ARCADIS

Project #: WO#: 92687817

PM: MP Due Date: 09/21/23

CLIENT: GA-ArcadAtl

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Date/Initials Person Examining Contents: 4-14-23 AL

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☑ IR Gun ID: 093

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 16.6 Correction Factor: Add/Subtract (°C) 0.0

Cooler Temp Corrected (°C): 16.6

Temp should be above freezing to 6°C

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

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

WO# : 92687817

PM: MP **Due Date: 09/21/23**

CLIENT: GA-ArcadAtl

***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

Project #

****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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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	X																						
2			2			1	X																						
3			2			1	X																						
4			2			1	X																						
5			2			1	X																						
6			2			1	X																						
7			2			1	X																						
8			2			1	X																						
9			2			1	X																						
10			2			1	X																						
11			2			1	X																						
12																													

pH Adjustment Log for Preserved Samples

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

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

APPENDIX B

Analytical Results November 2023

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 28, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McDonough QTR
Pace Project No.: 92697332

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McDonough QTR
Pace Project No.: 92697332

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
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McDonough QTR
Pace Project No.: 92697332

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92697332001	**MCD-DGWC-121**	Water	11/07/23 11:41	11/07/23 17:30
92697332002	**MCD-AP-1-FD-1**	Water	11/07/23 00:00	11/07/23 17:30
92697332003	**MCD-AP-1-FB-1**	Water	11/07/23 12:00	11/07/23 17:30

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McDonough QTR
Pace Project No.: 92697332

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92697332001	**MCD-DGWC-121**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92697332002	**MCD-AP-1-FD-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92697332003	**MCD-AP-1-FB-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McDonough QTR
Pace Project No.: 92697332

Sample: MCD-DGWC-121 **Lab ID: 92697332001** Collected: 11/07/23 11:41 Received: 11/07/23 17:30 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	**41.3**	mg/L	1.0	0.12	1	11/16/23 11:00	11/27/23 11:51	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	0.00054	1	11/08/23 14:06	11/10/23 21:19	7440-36-0	
Arsenic	**0.0011J**	mg/L	0.0050	0.00084	1	11/08/23 14:06	11/10/23 21:19	7440-38-2	
Barium	**0.053**	mg/L	0.0050	0.00047	1	11/08/23 14:06	11/10/23 21:19	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	11/08/23 14:06	11/10/23 21:19	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.012	1	11/08/23 14:06	11/14/23 17:12	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	11/08/23 14:06	11/10/23 21:19	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	11/08/23 14:06	11/10/23 21:19	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00032	1	11/08/23 14:06	11/14/23 17:12	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	11/08/23 14:06	11/10/23 21:19	7439-92-1	
Lithium	**0.0065J**	mg/L	0.030	0.0016	1	11/08/23 14:06	11/10/23 21:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	11/08/23 14:06	11/10/23 21:19	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	11/08/23 14:06	11/10/23 21:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	11/08/23 14:06	11/10/23 21:19	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	0.00013	1	11/16/23 16:00	11/17/23 09:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**279**	mg/L	25.0	25.0	1		11/08/23 15:49		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.6**	mg/L	1.0	0.60	1		11/09/23 02:19	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		11/09/23 02:19	16984-48-8	
Sulfate	**85.7**	mg/L	1.0	0.50	1		11/09/23 02:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McDonough QTR
Pace Project No.: 92697332

Sample: MCD-AP-1-FD-1 **Lab ID: 92697332002** Collected: 11/07/23 00:00 Received: 11/07/23 17:30 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	**41.9**	mg/L	1.0	0.12	1	11/16/23 11:00	11/27/23 12:10	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	0.00054	1	11/08/23 14:06	11/10/23 21:36	7440-36-0	
Arsenic	**0.0012J**	mg/L	0.0050	0.00084	1	11/08/23 14:06	11/10/23 21:36	7440-38-2	
Barium	**0.055**	mg/L	0.0050	0.00047	1	11/08/23 14:06	11/10/23 21:36	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	11/08/23 14:06	11/10/23 21:36	7440-41-7	
Boron	**1.8**	mg/L	0.040	0.012	1	11/08/23 14:06	11/16/23 14:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	11/08/23 14:06	11/10/23 21:36	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	11/08/23 14:06	11/10/23 21:36	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00032	1	11/08/23 14:06	11/16/23 14:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	11/08/23 14:06	11/10/23 21:36	7439-92-1	
Lithium	**0.0060J**	mg/L	0.030	0.0016	1	11/08/23 14:06	11/10/23 21:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	11/08/23 14:06	11/10/23 21:36	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	11/08/23 14:06	11/10/23 21:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	11/08/23 14:06	11/10/23 21:36	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	11/16/23 16:00	11/17/23 09:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**272**	mg/L	25.0	25.0	1		11/08/23 15:49		
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		11/09/23 02:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		11/09/23 02:32	16984-48-8	
Sulfate	**81.1**	mg/L	1.0	0.50	1		11/09/23 02:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McDonough QTR
Pace Project No.: 92697332

Sample: MCD-AP-1-FB-1 **Lab ID: 92697332003** Collected: 11/07/23 12:00 Received: 11/07/23 17:30 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	ND	mg/L	1.0	0.12	1	11/16/23 11:00	11/27/23 12:50	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	0.00054	1	11/08/23 14:06	11/10/23 21:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	11/08/23 14:06	11/10/23 21:40	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	11/08/23 14:06	11/10/23 21:40	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	11/08/23 14:06	11/10/23 21:40	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	11/08/23 14:06	11/14/23 16:53	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	11/08/23 14:06	11/10/23 21:40	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	11/08/23 14:06	11/10/23 21:40	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	11/08/23 14:06	11/14/23 16:53	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	11/08/23 14:06	11/10/23 21:40	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	11/08/23 14:06	11/10/23 21:40	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	11/08/23 14:06	11/10/23 21:40	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	11/08/23 14:06	11/10/23 21:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	11/08/23 14:06	11/10/23 21:40	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	11/16/23 16:00	11/17/23 09:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		11/08/23 15:50		
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		11/09/23 02:46	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		11/09/23 02:46	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		11/09/23 02:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough QTR
Pace Project No.: 92697332

QC Batch: 813738
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92697332001, 92697332002, 92697332003

METHOD BLANK: 4213032 Matrix: Water
Associated Lab Samples: 92697332001, 92697332002, 92697332003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	11/27/23 11:41	

LABORATORY CONTROL SAMPLE: 4213033

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: 4213034 4213035

Parameter	Units	92697332001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	41.3	1	1	44.1	42.4	276	108	75-125	4	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough QTR
Pace Project No.: 92697332

QC Batch: 811845
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92697332001, 92697332002, 92697332003

METHOD BLANK: 4203300 Matrix: Water
Associated Lab Samples: 92697332001, 92697332002, 92697332003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	11/10/23 20:42	
Arsenic	mg/L	ND	0.0050	0.00084	11/10/23 20:42	
Barium	mg/L	ND	0.0050	0.00047	11/10/23 20:42	
Beryllium	mg/L	ND	0.00050	0.000094	11/10/23 20:42	
Boron	mg/L	ND	0.040	0.012	11/10/23 20:42	
Cadmium	mg/L	ND	0.00050	0.00010	11/10/23 20:42	
Chromium	mg/L	ND	0.0050	0.0019	11/10/23 20:42	
Cobalt	mg/L	ND	0.0050	0.00032	11/14/23 16:36	
Lead	mg/L	ND	0.0010	0.00016	11/10/23 20:42	
Lithium	mg/L	ND	0.030	0.0016	11/10/23 20:42	
Molybdenum	mg/L	ND	0.010	0.00062	11/10/23 20:42	
Selenium	mg/L	ND	0.0050	0.00096	11/10/23 20:42	
Thallium	mg/L	ND	0.0010	0.00038	11/10/23 20:42	

LABORATORY CONTROL SAMPLE: 4203301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	118	80-120	
Arsenic	mg/L	0.1	0.11	110	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.12	115	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.11	113	80-120	
Lithium	mg/L	0.1	0.12	116	80-120	
Molybdenum	mg/L	0.1	0.11	109	80-120	
Selenium	mg/L	0.1	0.11	113	80-120	
Thallium	mg/L	0.1	0.11	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4203302 4203303

Parameter	Units	92696416001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	113	112	75-125	1	20	
Arsenic	mg/L	10 ug/L	0.1	0.1	0.12	0.13	112	121	75-125	7	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough QTR
Pace Project No.: 92697332

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4203302 4203303

Parameter	Units	92696416001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	91.7 ug/L	0.1	0.1	0.19	0.19	101	94	75-125	4	20	
Beryllium	mg/L	0.16J ug/L	0.1	0.1	0.089	0.088	89	88	75-125	1	20	
Boron	mg/L	18.1	1	1	20.7	22.2	254	412	75-125	7	20	M1
Cadmium	mg/L	ND	0.1	0.1	0.093	0.092	93	92	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	2	20	
Cobalt	mg/L	0.020J	0.1	0.1	0.12	0.11	97	95	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	4	20	
Lithium	mg/L	27.2J ug/L	0.1	0.1	0.12	0.12	97	94	75-125	2	20	
Molybdenum	mg/L	62.5 ug/L	0.1	0.1	0.17	0.17	110	111	75-125	1	20	
Selenium	mg/L	1.8J ug/L	0.1	0.1	0.12	0.13	118	128	75-125	8	20	M1
Thallium	mg/L	1.1 ug/L	0.1	0.1	0.11	0.10	104	101	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough QTR
Pace Project No.: 92697332

QC Batch: 813851
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92697332001, 92697332002, 92697332003

METHOD BLANK: 4213634 Matrix: Water
Associated Lab Samples: 92697332001, 92697332002, 92697332003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	11/17/23 09:20	

LABORATORY CONTROL SAMPLE: 4213635

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: 4213636 4213637

Parameter	Units	92698092002 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	0.0023	0.0022	91	88	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough QTR
Pace Project No.: 92697332

QC Batch: 811761
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92697332001, 92697332002, 92697332003

METHOD BLANK: 4202861 Matrix: Water
Associated Lab Samples: 92697332001, 92697332002, 92697332003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	11/08/23 15:40	

LABORATORY CONTROL SAMPLE: 4202862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	381	95	80-120	

SAMPLE DUPLICATE: 4202863

Parameter	Units	92696723001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	4280	4380	2	10	

SAMPLE DUPLICATE: 4202864

Parameter	Units	92697332001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	279	289	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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough QTR
Pace Project No.: 92697332

QC Batch: 811950
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92697332001, 92697332002, 92697332003

METHOD BLANK: 4204159 Matrix: Water
Associated Lab Samples: 92697332001, 92697332002, 92697332003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	11/08/23 20:26	
Fluoride	mg/L	ND	0.10	0.050	11/08/23 20:26	
Sulfate	mg/L	ND	1.0	0.50	11/08/23 20:26	

LABORATORY CONTROL SAMPLE: 4204160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.5	105	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	51.7	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4204161 4204162

Parameter	Units	92697397007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.0	50	50	57.0	58.3	106	109	90-110	2	10	
Fluoride	mg/L	0.052J	2.5	2.5	2.7	2.7	105	108	90-110	2	10	
Sulfate	mg/L	ND	50	50	52.0	53.3	103	106	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4204163 4204164

Parameter	Units	92697473001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.8	50	50	55.7	57.4	106	109	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	106	108	90-110	2	10	
Sulfate	mg/L	1.4	50	50	53.0	54.7	103	107	90-110	3	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McDonough QTR
Pace Project No.: 92697332

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough QTR
Pace Project No.: 92697332

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92697332001	**MCD-DGWC-121**	EPA 3010A	813738	EPA 6010D	813803
92697332002	**MCD-AP-1-FD-1**	EPA 3010A	813738	EPA 6010D	813803
92697332003	**MCD-AP-1-FB-1**	EPA 3010A	813738	EPA 6010D	813803
92697332001	**MCD-DGWC-121**	EPA 3005A	811845	EPA 6020B	811959
92697332002	**MCD-AP-1-FD-1**	EPA 3005A	811845	EPA 6020B	811959
92697332003	**MCD-AP-1-FB-1**	EPA 3005A	811845	EPA 6020B	811959
92697332001	**MCD-DGWC-121**	EPA 7470A	813851	EPA 7470A	813986
92697332002	**MCD-AP-1-FD-1**	EPA 7470A	813851	EPA 7470A	813986
92697332003	**MCD-AP-1-FB-1**	EPA 7470A	813851	EPA 7470A	813986
92697332001	**MCD-DGWC-121**	SM 2540C-2015	811761		
92697332002	**MCD-AP-1-FD-1**	SM 2540C-2015	811761		
92697332003	**MCD-AP-1-FB-1**	SM 2540C-2015	811761		
92697332001	**MCD-DGWC-121**	EPA 300.0 Rev 2.1 1993	811950		
92697332002	**MCD-AP-1-FD-1**	EPA 300.0 Rev 2.1 1993	811950		
92697332003	**MCD-AP-1-FB-1**	EPA 300.0 Rev 2.1 1993	811950		

Pace

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

aboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: WO# : 92697332

92697332

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other: ☑ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 11/7/23 tmf

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: 5.9 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): 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)? ☐ Yes ☐ No

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

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

OMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

IENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

ualtrax ID: 69614

Page 1 of 2

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

***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#: 92697332

PM: BV Due Date: 11/22/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	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		1	1			1 ✓	1 ✓																	2				
2		1	1			1 ✓	1 ✓																	2				
3		1	1			1 ✓	1 ✓																	2				
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 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

Pace Analytical

Section A	Section B	Section C	
Required Client Information:	Required Project Information:	Invoice Information:	1 Of 1
Company: Georgia Power - Coal Combustion Residuals	Report To: Lauren Coker	Attention: scsinvoices@southernco.com	
Address: 2480 Maner Road	Copy To: WSP	Company Name:	Regulatory Agency
Atlanta, GA 30339		Address:	
Email: laucoker@southernco.com	Purchase Order #:	Pace Quote:	
Phone: (470) 620-6175 Fax:	Project Name: Plant McDonough Quarterly	Pace Project Manager: Bonnie Vang	State / Location: GA
Requested Due Date: 10 Day TAT	Project #: 31406440.McD23	Pace Profile #:	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Sulfide					Residual Chlorine (Y/N)	92697392
1	MCD-DGWC-121	WG	G	11/7/23	11:41		6	2		3		1				N	X	X	X	X	X					WG1
3	MCD-AP-1-FD-1	WG	G	11/7/23	-		6	2		3		1				N	X	X	X	X	X					WG2
5	MCD-AP-1-FB-1	WQ	G	11/7/23	12:00		6	2		3		1				N	X	X	X	X	X					WG3
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Risk Code: MCD-CCR-OTH-20231107	[illegible] WSP	11/07/23	1730	[signature]	11/9/23	1730

DATE Signed:

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 30, 2023

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, Golder
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc_Atlanta

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92697333001	**MCD-DGWC-121**	Water	11/07/23 11:41	11/07/23 17:30
92697333002	**MCD-AP-1-FD-1**	Water	11/07/23 00:00	11/07/23 17:30
92697333003	**MCD-AP-1-FB-1**	Water	11/07/23 12:00	11/07/23 17:30

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92697333001	**MCD-DGWC-121**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92697333002	**MCD-AP-1-FD-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92697333003	**MCD-AP-1-FB-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Sample: MCD-DGWC-121 **Lab ID: 92697333001** Collected: 11/07/23 11:41 Received: 11/07/23 17:30 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	**0.285 ± 0.150 (0.210) C:78% T:NA**	pCi/L	11/28/23 08:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.358U ± 0.350 (0.719) C:82% T:86%**	pCi/L	11/20/23 15:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.643U ± 0.500 (0.929)**	pCi/L	11/30/23 10:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Sample: MCD-AP-1-FD-1 **Lab ID: 92697333002** Collected: 11/07/23 00:00 Received: 11/07/23 17:30 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	**0.161U ± 0.128 (0.229) C:75% T:NA**	pCi/L	11/28/23 08:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.650 ± 0.360 (0.633) C:82% T:85%**	pCi/L	11/20/23 15:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.811U ± 0.488 (0.862)**	pCi/L	11/30/23 10:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Sample: MCD-AP-1-FB-1 **Lab ID: 92697333003** Collected: 11/07/23 12:00 Received: 11/07/23 17:30 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	**0.0267U ± 0.109 (0.268) C:85% T:NA**	pCi/L	11/28/23 08:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.322U ± 0.311 (0.634) C:85% T:83%**	pCi/L	11/20/23 15:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.349U ± 0.420 (0.902)**	pCi/L	11/30/23 10:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

QC Batch: 629157
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92697333001, 92697333002, 92697333003

METHOD BLANK: 3067420 Matrix: Water
Associated Lab Samples: 92697333001, 92697333002, 92697333003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0320 ± 0.0670 (0.209) C:96% T:NA	pCi/L	11/28/23 08:15	

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

QC Batch: 629421
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92697333001, 92697333002, 92697333003

METHOD BLANK: 3068446
Matrix: Water
Associated Lab Samples: 92697333001, 92697333002, 92697333003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.204 ± 0.284 (0.605) C:83% T:91%	pCi/L	11/20/23 15:09	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

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.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough QTR- RADs
Pace Project No.: 92697333

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92697333001	**MCD-DGWC-121**	EPA 9315	629157		
92697333002	**MCD-AP-1-FD-1**	EPA 9315	629157		
92697333003	**MCD-AP-1-FB-1**	EPA 9315	629157		
92697333001	**MCD-DGWC-121**	EPA 9320	629421		
92697333002	**MCD-AP-1-FD-1**	EPA 9320	629421		
92697333003	**MCD-AP-1-FB-1**	EPA 9320	629421		
92697333001	**MCD-DGWC-121**	Total Radium Calculation	632927		
92697333002	**MCD-AP-1-FD-1**	Total Radium Calculation	632927		
92697333003	**MCD-AP-1-FB-1**	Total Radium Calculation	632927		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: WO# : 92697333

92697333

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 11/7/23 tmm

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: 5.9 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): 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)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

***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#: 92697333

PM: BV Due Date: 12/01/23

CLIENT: 92-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)	DG94-40 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)	KP7U-50 mL Plastic Unpreserved (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)	8012	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		1	1			1	1																		2				
2		1	1			1	1																		2				
3		1	1			1	1																		2				
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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Lauren Coker	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road Atlanta, GA 30339	Copy To:	WSP	Company Name:	
Email:	laucoker@southernco.com			Address:	
Phone:	(470) 620-6176 Fax:	Purchase Order #:		Pace Quote:	
Requested Due Date:	10 Day TAT	Project Name:	Plant McDonough Quarterly	Pace Project Manager:	Bonnie Vang
		Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency: —

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Sulfide	Residual Chlorine (Y/N)	92697333
	MATRIX: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS															Y/N	N	N	N	N	N		
1	MCD-DGWC-121	WG	G	11/7/23	11:41		6	2		3		1					X	X	X	X	X		01
3	MCD-AP-1-FD-1	WG	G	11/7/23	-		6	2		3		1					X	X	X	X	X		02
5	MCD-AP-1-FB-1	WQ	G	11/7/23	12:00		6	2		3		1					X	X	X	X	X		03
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code: MCD-CCR-OTH-20231107	MICHAEL MANN WSP	11/07/23	1730	Claude Hanks	11/9/23	1730

DATE Signed:

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	11/16/2023
Worklist:	76364
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3068446
MB concentration:	0.204
M/B 2 Sigma CSU:	0.284
MB MDC:	0.605
MB Numerical Performance Indicator:	1.41
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS76364	LCSD76364
Count Date:	11/20/2023	11/20/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	38.955	38.955
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.821
Target Conc. (pCi/L, g, F):	4.766	4.746
Uncertainty (Calculated):	0.234	0.233
Result (pCi/L, g, F):	4.696	4.344
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.038	0.977
Numerical Performance Indicator:	-0.13	-0.78
Percent Recovery:	98.52%	91.55%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	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 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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS76364	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD76364	
Sample Result (pCi/L, g, F):	4.696	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.038	
Sample Duplicate Result (pCi/L, g, F):	4.344	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.977	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.483	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.34%	
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.		
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):		
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:

VAL
11/21/23

11.21.23 ZC

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	11/15/2023
Worklist:	76332
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3067420
MB concentration:	-0.032
M/B Counting Uncertainty:	0.067
MB MDC:	0.209
MB Numerical Performance Indicator:	-0.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS76332	LCSD76332
Count Date:	11/28/2023	11/28/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.028	25.028
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.501	0.501
Target Conc. (pCi/L, g, F):	4.992	4.991
Uncertainty (Calculated):	0.235	0.235
Result (pCi/L, g, F):	5.340	4.917
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.507	0.480
Numerical Performance Indicator:	1.22	-0.27
Percent Recovery:	106.99%	98.50%
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 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:		
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		
Sample I.D.:	LCS76332	
Duplicate Sample I.D.	LCSD76332	
Sample Result (pCi/L, g, F):	5.340	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.507	
Sample Duplicate Result (pCi/L, g, F):	4.917	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.480	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.190	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	8.26%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	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:

CT 11-28-23

LAM 11/28/23

APPENDIX B

Data Validation Summary

Quality Control Review of Analytical Data- Ash Pond AP-1
Submitted by Pace Analytical Services, LLC
September - November 2023

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 6 and November 7, 2023. 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. Additional analysis included alkalinity, cations (magnesium, potassium, and sodium), sulfide, and total iron. 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 (Standard Methods 2540C), Radium-226 (USEPA Method 9315), Radium-228 (USEPA Method 9320), Alkalinity by Titration (Standard Methods 2320B) and Sulfide (Standard Methods SM 4500-S2D).

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 and field duplicates, matrix spike/matrix spike duplicates, laboratory control sample/ laboratory control sample 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.

Field Precision: Field goals for precision were met.

Accuracy: Laboratory goals for accuracy were met with the exception of calcium, magnesium, potassium, and sodium as described in the qualification section below.

Detection Limits and Blanks: Project goals for detection limits were met with the exception of boron. 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%.

Representativeness: All holding time and sample preservation requirements were met in accordance with specific analytical methods except total dissolved solids, alkalinity, chloride, fluoride, and sulfate for surface water samples as described in the qualification section below.

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.

J The analyte was reported above the method detection limit and below the reporting limit. The concentration reported is an estimated value.

U The analyte was not detected above the method detection limit.

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) listed in Table 1, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- Certain calcium and sodium results from SDG 92686676 and calcium, magnesium, potassium, and sodium from SDG 92686941 had matrix spike duplicate (MSD) recoveries below the lower QC criteria. All corresponding sample results were greater than 4x the added spike concentration and therefore no qualification was required.

- Boron was detected in field and equipment blanks from SDG 92686677 but did not receive qualification due to the associated samples having a concentration 10x greater than the blank concentration.

- All results except metals from SDG 92687817 were qualified as estimated (J/UJ) due to arriving to the laboratory outside of temperature criteria.

WSP reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-1 between September 6 and November 7, 2023, 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

						Analyses								
SDGs	***Field Identification***	***Collection Date***	***Lab Identification***	***Matrix***	***QC Samples***	**Total Mercury (EPA 7470A)**	**Alkalinity (SM 2320B)**	**TDS (SM 2540C-2011)**	**Total Metals (EPA 6020B)**	**Anions (EPA 300.0)**	**Cations (EPA 6010D)**	**Sulfide (SM4500-S2D)**	**Radium-226 (EPA 9315)**	**Radium-228 (EPA 9320)**
92686676	MCD-DGWA-70A	9/7/2023	92686676001	WG	-	X	X	X	X	X	X	X	-	-
92686676	MCD-DGWA-71	9/7/2023	92686676002	WG	-	X	X	X	X	X	X	X	-	-
92686676	MCD-DGWA-53	9/7/2023	92686676003	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-37	9/6/2023	92686677001	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-AP1-FD-1	9/6/2023	92686677002	WG	FD (MCD-DGWC-37)	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-67	9/7/2023	92686677003	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-40	9/7/2023	92686677004	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-38	9/7/2023	92686677005	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-68A	9/7/2023	92686677006	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-39	9/7/2023	92686677007	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-69	9/7/2023	92686677008	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-DGWC-121	9/8/2023	92686677009	WG	-	X	X	X	X	X	X	X	-	-
92686677	MCD-AP1-FB-1	9/8/2023	92686677010	WQ	FB (MCD-DGWC-67)	X	X	X	X	X	X	X	-	-
92686677	MCD-AP1-EB-1	9/8/2023	92686677011	WQ	EB (MCD-DGWC-40)	X	X	X	X	X	X	X	-	-
92686680	MCD-DGWC-37	9/6/2023	92686680001	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-AP1-FD-1	9/6/2023	92686680002	WG	FD (MCD-DGWC-37)	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-67	9/7/2023	92686680003	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-40	9/7/2023	92686680004	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-38	9/7/2023	92686680005	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-68A	9/7/2023	92686680006	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-39	9/7/2023	92686680007	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-69	9/7/2023	92686680008	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-DGWC-121	9/8/2023	92686680009	WG	-	-	-	-	-	-	-	-	X	X
92686680	MCD-AP1-FB-1	9/8/2023	92686680010	WQ	FB (MCD-DGWC-67)	-	-	-	-	-	-	-	X	X
92686680	MCD-AP1-EB-1	9/8/2023	92686680011	WQ	EB (MCD-DGWC-40)	-	-	-	-	-	-	-	X	X
92686681	MCD-B-100	9/6/2023	92686681001	WG	-	X	X	X	X	X	X	X	-	-
92686681	MCD-B-62	9/7/2023	92686681002	WG	-	X	X	X	X	X	X	X	-	-
92686682	DGWC-39	9/7/2023	92686682001	WG	-	-	-	-	-	-	-	-	X	X
92686682	DGWC-40	9/7/2023	92686682002	WG	-	-	-	-	-	-	-	-	X	X
92686685	MCD-DGWA-70A	9/6/2023	92686685001	WG	-	-	-	-	-	-	-	-	X	X
92686685	MCD-DGWA-71	9/6/2023	92686685002	WG	-	-	-	-	-	-	-	-	X	X
92686685	MCD-DGWA-53	9/7/2023	92686685003	WG	-	-	-	-	-	-	-	-	X	X
92686941	MCD-B-105D	9/7/2023	92686941001	WG	-	X	X	X	X	X	X	X	-	-
92686941	MCD-B-112D	9/7/2023	92686941002	WG	-	X	X	X	X	X	X	X	-	-
92686975	MCD-B-105D	9/7/2023	92686975001	WG	-	-	-	-	-	-	-	-	X	X
92686975	MCD-B-112D	9/7/2023	92686975002	WG	-	-	-	-	-	-	-	-	X	X
92687817	MCD-UT01_US	9/13/2023	92687817001	WS	-	-	X	X	X	X	X	-	-	-

TABLE 1

Sample Summary Table
SCS Plant McDonough

						Analyses								
SDGs	***Field Identification***	***Collection Date***	***Lab Identification***	***Matrix***	***QC Samples***	**Total Mercury (EPA 7470A)**	**Alkalinity (SM 2320B)**	**TDS (SM 2540C-2011)**	**Total Metals (EPA 6020B)**	**Anions (EPA 300.0)**	**Cations (EPA 6010D)**	**Sulfide (SM4500-S2D)**	**Radium-226 (EPA 9315)**	**Radium-228 (EPA 9320)**
92687817	MCD-UT02	9/13/2023	92687817002	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-UT03	9/13/2023	92687817003	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-UT01_DS	9/13/2023	92687817004	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-CR-0.1	9/12/2023	92687817005	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-CR+0.2	9/12/2023	92687817006	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-CR+0.4	9/12/2023	92687817007	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-DW_DS	9/12/2023	92687817008	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-DW_US	9/12/2023	92687817009	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-CR-0.2	9/12/2023	92687817010	WS	-	-	X	X	X	X	X	-	-	-
92687817	MCD-CR-0.5	9/12/2023	92687817011	WS	-	-	X	X	X	X	X	-	-	-
92697332	MCD-DGWC-121	11/7/2023	92697332001	WG	-	X	-	X	X	X	X	-	-	-
92697332	MCD-AP-1-FD-1	11/7/2023	92697332002	WG	FD (MCD-DGWC-121)	X	-	X	X	X	X	-	-	-
92697332	MCD-AP-1-FB-1	11/7/2023	92697332003	WQ	FB (MCD-DGWC-121)	X	-	X	X	X	X	-	-	-
92697333	MCD-DGWC-121	11/7/2023	92697333001	WG	-	-	-	-	-	-	-	-	X	X
92697333	MCD-AP-1-FD-1	11/7/2023	92697333002	WG	FD (MCD-DGWC-121)	-	-	-	-	-	-	-	X	X
92697333	MCD-AP-1-FB-1	11/7/2023	92697333003	WQ	FB (MCD-DGWC-121)	-	-	-	-	-	-	-	X	X

Abbreviations:

SDG- Sample Delivery Group
QC - Quality Control
EPA - US Environmental Protection Agency
SM - Standard Method
WG - Groundwater
WQ - Water Quality control
FD - Field Duplicate
FB - Field Blank
EB - Equipment Blank
TDS - Total Dissolved Solids
WS - Surface Water

TABLE 2
Qualifier Summary Table
SCS Plant McDonough

SDG	*Sample Name*	*Constituent*	*New Result*	*New RL or MDC*	*Qualifier*	*Reason*
92687817	MCD-UT01_US	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_US	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_US	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_US	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_US	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_US	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT02	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT02	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT02	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT02	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT02	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT02	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT03	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT03	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT03	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT03	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT03	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT03	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_DS	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_DS	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_DS	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_DS	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_DS	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-UT01_DS	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.1	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.1	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.1	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.1	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.1	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.1	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.2	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.2	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.2	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.2	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.2	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.2	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	Boron	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR+0.4	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_DS	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_DS	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_DS	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_DS	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_DS	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_DS	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_US	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_US	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_US	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_US	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-DW_US	Fluoride	-	-	UJ	Cooler arrived outside of temperature limits
92687817	MCD-DW_US	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.2	TDS	-	-	J	Cooler arrived outside of temperature limits

TABLE 2
Qualifier Summary Table
SCS Plant McDonough

SDG	*Sample Name*	*Constituent*	*New Result*	*New RL or MDC*	*Qualifier*	*Reason*
92687817	MCD-CR-0.2	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.2	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.2	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.2	Fluoride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.2	Sulfate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.5	TDS	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.5	Alkalinity, bicarbonate	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.5	Alkalinity, total	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.5	Chloride	-	-	J	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.5	Fluoride	-	-	UJ	Cooler arrived outside of temperature limits
92687817	MCD-CR-0.5	Sulfate	-	-	J	Cooler arrived outside of temperature limits

Abbreviations:
RL : Reporting limit
MDC : Minimum detectable concentration
MDL: Method detection limit
SDG : Sample delivery group

Qualifier
U: Non-detect
UJ: Non-detect, estimated

APPENDIX B

Laboratory Accreditation

June 13, 2023

RE: Georgia Commercial Laboratory Accreditation Rule

Stipulation Requirements for Analysis of Non-Potable Water and Solid and Chemical Materials
Georgia state law requires any person submitting data to the GA Environmental Protection Division for regulatory purposes to stipulate that the laboratory responsible for preparing the data is approved or accredited to perform analysis of environmental samples. This stipulation must be included within each report or may be submitted in a separate document with the first report of the calendar year; alternatively, the attached scope of accreditation may be submitted in lieu of a stipulation.

The information provided below may be used to generate a stipulation for data reporting purposes:

Name of Laboratory:	Pace Analytical Services, LLC – Asheville, NC
Name of Accrediting Agency:	Commonwealth of Virginia Department of General Services Division of Consolidated Laboratory Services [Primary NELAP Accreditation]
Accreditation Number:	460222
Scopes of Accreditation:	Non-Potable Water Solid and Chemical Materials
Accreditation Effective Date:	June 15, 2023
Accreditation Expiration Date:	June 14, 2024

For additional information regarding the Georgia Commercial Laboratory Accreditation Rule, please contact the Georgia Environmental Protection Division at 404-656-4713.

Sincerely,

Jacob Cottrell
Quality Manager

[O] 828.417.6052
jacob.cottrell@pacelabs.com
2225 Riverside Drive, Asheville, NC 28804

PEOPLE ADVANCING SCIENCE

Stipulation of Approval for Commercial Environmental Laboratories

Pursuant to the *Rules and Regulations of the State of Georgia* (O.C.G.A. 12-2-9) and *Rule 391-3-26.05* for "Commercial Environmental Laboratories", any person submitting data prepared by a commercial analytical laboratory to the Division for regulatory purposes shall stipulate that the laboratory is approved.

The stipulations for which Pace-Atlanta is approved, is as follows:

Laboratory:	**Pace Analytical Services, LLC – Atlanta GA** 110 Technology Parkway Peachtree Corners, GA 30092 Phone: (770) 734-4200 Fax: (770) 734-4201
Accredited By:	Authority Florida Department of Health (FL - DOH) Program Florida Environmental Laboratory Certification Program (TNI/NELAP)
Accreditation ID:	E87315
Scope of Accreditation:	Non-Potable Water (NPW) -General Chemistry (Wet Chemistry) -Metals -Microbiology Solid and Chemical Materials (SCM) -General Chemistry -Metals - Microbiology
Effective Dates:	July 1, 2023 – June 30, 2024

Any question regarding this stipulation of approval may be directed to Pace-Atlanta at (770) 734-4200. Thank you for your business and please do not hesitate to contact us if we can be of further assistance.

Sincerely,

Kyle Henderson
Quality Manager – Atlanta Laboratory
Pace Analytical Services, LLC

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1470A, East Tower
Atlanta, Georgia 30334
404-463-1511

Ms. LeighAnn Miller, Laboratory Director
Pace Analytical Services, LLC - Pittsburgh
1638 Roseytown Road, Suites 2, 3 and 4
Greensburg, PA 15601

February 8, 2023

RE: Certification by Reciprocity
Pace Analytical Services, Inc. - Pittsburgh
Georgia ID #C040

Dear Ms. Miller:

The Georgia Department of Natural Resources, Environmental Protection Division (EPD) is in receipt of all required data necessary to fulfill your laboratory's request for Certification by Reciprocity in Georgia for the analysis of the parameters listed in the attached certificate. Therefore, in accordance with the Georgia Safe Drinking Water Act of 1977 (Sections 12-5-170 through 12-5-193, O.C.G.A.) and the Rules for Safe Drinking Water (Chapter 391-3-5), this certification is valid until March 31, 2024. This certificate is contingent upon continued Certification by the Commonwealth of Pennsylvania's Department of Environmental Protection and is non-transferable. This certificate is also contingent upon continued acceptable semi-annual Proficiency Testing results.

If Pace Analytical Services, LLC – Pittsburgh's certification status is downgraded for any analyte/method by your Primary Accrediting Agency, the GA Certification Program must be notified. Any downgrade will result in the withdrawal of reciprocity for that analyte.

Prior to the expiration of this certification, please contact your accrediting/certifying authority and request that the following information be forwarded to me at lynne.grubb@dnr.ga.gov.

1. Copies of the most current on-site report, and proposed and accepted corrective actions
2. Copies of the Certificate and scope of accreditation listing analytes

For additional information please feel free to contact Lynne Grubb at 470-604-9528.

Sincerely,

Lynne Grubb

Lynne Grubb
Laboratory Certification Officer
Drinking Water Compliance Unit

Sean Earley
Program Manager
Drinking Water Compliance Unit

PACE ANALYTICAL SERVICES, LLC - PITTSBURGH (GA LAB ID# C040)
1638 Roseytown Road, Suites 2,3 and 4, Greensburg, PA 15601
Effective April 1, 2023 - March 31, 2024

ANALYTE	CERTIFIED BY	METHOD
RADIONUCLIDES		
Gross Alpha	PA DEP	900.0, SM 7110C
Gross Beta	PA DEP	900.0
Radium 226	PA DEP	903.0, 903.1
Radium 228	PA DEP	904.0
Uranium	PA DEP	ASTM D5174-97

APPENDIX C

Well Condition Assessment Table

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number:_____

Field Conditions:_____

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
DGWA-53	NO	YES	NO	YES
DGWA-70A	YES	YES	NO	YES
DGWA-71	YES	YES	NO	YES
DGWC-37	YES	YES	NO	YES
DGWC-38	YES	YES	NO	YES
DGWC-39	NO	YES	NO	YES
DGWC-40	YES	YES	NO	YES
DGWC-67	YES	YES	NO	YES
DGWC-68A	YES	YES	NO	YES
DGWC-69	YES	YES	NO	YES
DGWC-121	YES	YES	NO	YES
B-62	YES	YES	NO	YES
B-100	YES	YES	NO	YES
B-105D	YES	YES	NO	YES
B-112D	YES	YES	NO	YES
DGWC-2	YES	YES	NO	YES
DGWC-4	YES	YES	NO	YES
DGWC-5	YES	YES	NO	YES
DGWC-8	YES	YES	NO	YES
DGWC-9	YES	YES	NO	YES
DGWC-10	YES	YES	NO	YES
DGWC-11	YES	YES	NO	YES
DGWC-12	YES	YES	NO	YES
DGWC-13	YES	YES	NO	YES
DGWC-14	YES	YES	NO	YES
DGWC-15	YES	YES	NO	YES
DGWC-17	YES	YES	NO	YES
DGWC-19	YES	YES	NO	YES
DGWC-20	YES	YES	NO	YES
DGWC-21	YES	YES	NO	YES
DGWC-22	NO	YES	NO	YES
DGWC-23	YES	YES	NO	YES
DGWC-42	YES	YES	NO	YES
DGWC-47	NO	YES	NO	YES
DGWC-48	YES	YES	NO	NO
B-56	YES	YES	NO	YES
B-62	YES	YES	NO	YES
B-63	YES	NO	NO	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
B-66	YES	YES	NO	YES
B-77	YES	YES	NO	YES
B-82	YES	YES	NO	YES
B-83	YES	YES	NO	YES
B-88	YES	YES	NO	YES
B-92	NO	YES	YES	YES
B-93	NO	YES	YES	YES
B-97	YES	YES	YES	YES
B-98	NO	YES	YES	YES
B-100	YES	YES	NO	YES
B-101D	YES	YES	NO	YES
B-102D	YES	YES	NO	YES
B-104D	YES	YES	NO	NO
B-106D	YES	YES	NO	YES
B-107D	YES	YES	NO	YES
B-108D	YES	YES	NO	YES
B-111D	YES	YES	NO	YES
B-120D	YES	YES	NO	YES
B-122D	YES	YES	NO	YES
B-125D	YES	YES	NO	YES
B-3	YES	YES	NO	YES
B-6	YES	YES	NO	YES
B-7	YES	YES	NO	YES
B-16	YES	YES	NO	YES
B-18	YES	YES	NO	YES
B-24	YES	YES	NO	YES
B-25	YES	YES	NO	YES
B-26	YES	YES	NO	YES
B-28	YES	YES	NO	YES
B-29	YES	YES	NO	YES
B-31	YES	YES	NO	YES
B-41	NO	YES	NO	YES
B-50	YES	YES	NO	YES
B-51	YES	YES	NO	YES
B-52	YES	YES	NO	YES
B-54	YES	YES	NO	YES
B-55	YES	YES	NO	YES
B-57	YES	YES	NO	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
B-58	YES	YES	NO	YES
B-59	YES	YES	NO	YES
B-60	YES	YES	NO	YES
B-61	YES	YES	NO	YES
B-64	YES	YES	NO	YES
B-65	YES	YES	NO	YES
B-68	YES	YES	NO	YES
B-72	YES	YES	NO	YES
B-73	YES	YES	NO	YES
B-74	YES	YES	NO	YES
B-76	YES	YES	NO	YES
B-78	YES	YES	NO	YES
B-79	YES	YES	NO	YES
B-80	YES	YES	NO	YES
B-81	YES	YES	NO	YES
B-84	YES	YES	NO	YES
B-85	YES	YES	NO	YES
B-86	YES	YES	NO	YES
B-87	NO	YES	NO	YES
B-89	YES	YES	NO	YES
B-90	YES	YES	YES	YES
B-91	YES	YES	YES	YES
B-94	YES	YES	NO	YES
B-95	YES	YES	YES	YES
B-96	YES	YES	YES	YES
B-99	YES	YES	NO	YES
B-103D	YES	YES	NO	YES
B-109D	YES	YES	NO	YES
B-110D	YES	YES	NO	YES
B-113D	YES	YES	NO	YES
B-115D	YES	YES	NO	YES
B-116D	YES	YES	NO	YES
B-117D	YES	YES	NO	YES
B-118	YES	YES	NO	YES
B-119D	YES	YES	NO	YES
B-123D	YES	YES	NO	YES
AP-1-B-3	YES	YES	NO	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
AP-1-B-7	YES	YES	NO	YES
AP-1-B-8	YES	YES	NO	YES
DW-1	YES	YES	NO	YES
DW-2	YES	YES	NO	YES
DW-3	YES	YES	NO	YES
DW-4	YES	YES	NO	YES
WT-1	YES	YES	NO	YES
WT-2	YES	YES	NO	YES
WT-3	YES	YES	NO	YES
WT-4	YES	YES	NO	YES
WT-5	YES	YES	NO	YES
WT-6	YES	YES	NO	YES
WT-7	YES	YES	NO	YES
ET-1	YES	YES	NO	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
DGWA-53	YES	YES	YES	YES	YES
DGWA-70A	YES	YES	YES	YES	YES
DGWA-71	YES	YES	YES	YES	YES
DGWC-37	YES	YES	YES	YES	YES
DGWC-38	YES	YES	YES	YES	YES
DGWC-39	YES	YES	YES	YES	YES
DGWC-40	YES	YES	YES	YES	YES
DGWC-67	YES	YES	YES	YES	YES
DGWC-68A	YES	YES	YES	YES	YES
DGWC-69	YES	YES	YES	YES	YES
DGWC-121	YES	YES	YES	YES	YES
B-62	YES	YES	YES	YES	YES
B-100	YES	YES	YES	YES	YES
B-105D	YES	YES	YES	YES	YES
B-112D	YES	YES	YES	YES	YES
DGWC-2	YES	YES	YES	YES	YES
DGWC-4	YES	YES	YES	YES	YES
DGWC-5	YES	YES	YES	YES	YES
DGWC-8	YES	YES	YES	YES	YES
DGWC-9	YES	YES	YES	YES	YES
DGWC-10	YES	YES	YES	YES	YES
DGWC-11	YES	YES	YES	YES	YES
DGWC-12	YES	YES	YES	YES	YES
DGWC-13	YES	YES	YES	YES	YES
DGWC-14	YES	YES	YES	YES	YES
DGWC-15	YES	YES	YES	YES	YES
DGWC-17	YES	YES	YES	YES	YES
DGWC-19	YES	YES	YES	YES	YES
DGWC-20	YES	YES	YES	YES	YES
DGWC-21	YES	YES	YES	YES	YES
DGWC-22	YES	YES	YES	YES	YES
DGWC-23	YES	YES	YES	YES	YES
DGWC-42	YES	YES	YES	YES	YES
DGWC-47	YES	YES	YES	YES	YES
DGWC-48	YES	YES	YES	YES	YES
B-56	YES	YES	YES	YES	YES
B-62	YES	YES	YES	YES	YES
B-63	YES	YES	YES	YES	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
B-66	YES	YES	YES	YES	YES
B-77	YES	YES	YES	YES	YES
B-82	YES	YES	YES	YES	YES
B-83	YES	YES	YES	YES	YES
B-88	YES	YES	YES	YES	YES
B-92	YES	YES	YES	YES	YES
B-93	YES	YES	YES	YES	YES
B-97	YES	YES	YES	YES	YES
B-98	YES	YES	YES	YES	YES
B-100	YES	YES	YES	YES	YES
B-101D	YES	YES	YES	YES	YES
B-102D	YES	YES	YES	YES	YES
B-104D	YES	YES	YES	YES	YES
B-106D	YES	YES	YES	YES	YES
B-107D	YES	YES	YES	YES	YES
B-108D	YES	YES	YES	YES	YES
B-111D	YES	YES	YES	YES	YES
B-120D	YES	YES	YES	YES	YES
B-122D	YES	YES	YES	YES	YES
B-125D	YES	YES	YES	NO	YES
B-3	YES	YES	YES	YES	YES
B-6	YES	YES	YES	YES	YES
B-7	YES	YES	YES	YES	YES
B-16	YES	YES	YES	YES	YES
B-18	YES	YES	YES	YES	YES
B-24	YES	YES	YES	YES	YES
B-25	YES	YES	YES	YES	YES
B-26	YES	YES	YES	YES	YES
B-28	YES	YES	YES	YES	YES
B-29	YES	YES	YES	YES	YES
B-31	YES	YES	YES	YES	YES
B-41	YES	YES	YES	YES	YES
B-50	YES	YES	YES	YES	YES
B-51	YES	YES	YES	YES	YES
B-52	YES	YES	YES	YES	YES
B-54	YES	YES	YES	YES	YES
B-55	YES	YES	YES	YES	YES
B-57	YES	YES	YES	YES	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
B-58	YES	YES	YES	YES	YES
B-59	YES	YES	YES	YES	YES
B-60	YES	YES	YES	YES	YES
B-61	YES	YES	YES	YES	YES
B-64	YES	YES	YES	YES	YES
B-65	YES	YES	YES	YES	YES
B-68	YES	YES	YES	YES	YES
B-72	YES	YES	YES	YES	YES
B-73	YES	YES	YES	YES	YES
B-74	YES	YES	YES	YES	YES
B-76	YES	YES	YES	YES	YES
B-78	YES	YES	YES	YES	YES
B-79	YES	YES	YES	YES	YES
B-80	NO	YES	YES	YES	YES
B-81	YES	YES	YES	YES	YES
B-84	YES	YES	YES	YES	YES
B-85	YES	YES	YES	YES	YES
B-86	NO	YES	YES	YES	YES
B-87	YES	YES	YES	YES	YES
B-89	YES	YES	YES	YES	YES
B-90	YES	YES	YES	YES	YES
B-91	YES	YES	YES	YES	YES
B-94	YES	YES	YES	YES	YES
B-95	YES	YES	NO	YES	NO
B-96	YES	YES	NO	YES	NO
B-99	YES	YES	YES	YES	YES
B-103D	YES	YES	YES	YES	YES
B-109D	YES	YES	YES	YES	YES
B-110D	YES	YES	YES	YES	YES
B-113D	YES	YES	YES	YES	YES
B-115D	YES	YES	YES	YES	YES
B-116D	YES	YES	YES	YES	YES
B-117D	YES	YES	YES	YES	YES
B-118	YES	YES	YES	YES	YES
B-119D	YES	YES	YES	YES	YES
B-123D	YES	YES	YES	YES	YES
AP-1-B-3	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
AP-1-B-7	YES	YES	YES	YES	YES
AP-1-B-8	YES	YES	YES	YES	YES
DW-1	YES	YES	YES	YES	YES
DW-2	YES	YES	YES	YES	YES
DW-3	YES	YES	YES	YES	YES
DW-4	YES	YES	YES	YES	YES
WT-1	NO	NO	YES	YES	YES
WT-2	YES	YES	YES	YES	YES
WT-3	YES	YES	YES	YES	YES
WT-4	YES	YES	YES	YES	YES
WT-5	YES	YES	YES	YES	YES
WT-6	NO	NO	YES	YES	YES
WT-7	NO	NO	YES	YES	YES
ET-1	YES	YES	YES	YES	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
DGWA-53	YES	YES	YES	YES	YES	YES
DGWA-70A	YES	YES	YES	YES	YES	YES
DGWA-71	YES	YES	YES	YES	YES	YES
DGWC-37	YES	YES	YES	YES	YES	YES
DGWC-38	YES	YES	YES	YES	YES	YES
DGWC-39	YES	YES	YES	YES	YES	YES
DGWC-40	YES	YES	YES	YES	YES	YES
DGWC-67	YES	YES	YES	YES	YES	YES
DGWC-68A	YES	YES	NO	NO	YES	YES
DGWC-69	YES	YES	YES	YES	YES	YES
DGWC-121	YES	YES	YES	YES	YES	YES
B-62	YES	YES	YES	YES	YES	YES
B-100	YES	YES	YES	YES	YES	YES
B-105D	YES	YES	YES	YES	YES	YES
B-112D	YES	YES	YES	YES	YES	YES
DGWC-2	YES	YES	YES	YES	YES	YES
DGWC-4	YES	YES	YES	YES	YES	YES
DGWC-5	YES	YES	YES	YES	YES	YES
DGWC-8	YES	YES	YES	YES	YES	YES
DGWC-9	YES	YES	YES	YES	YES	YES
DGWC-10	YES	YES	YES	YES	YES	YES
DGWC-11	YES	YES	YES	YES	YES	YES
DGWC-12	YES	YES	YES	YES	YES	YES
DGWC-13	YES	YES	YES	YES	YES	YES
DGWC-14	YES	YES	YES	YES	YES	YES
DGWC-15	YES	YES	YES	YES	YES	YES
DGWC-17	YES	YES	YES	YES	YES	YES
DGWC-19	YES	YES	YES	YES	YES	YES
DGWC-20	YES	YES	YES	YES	YES	YES
DGWC-21	YES	YES	YES	YES	YES	YES
DGWC-22	YES	YES	YES	YES	YES	YES
DGWC-23	YES	YES	YES	YES	YES	YES
DGWC-42	YES	YES	YES	YES	YES	YES
DGWC-47	YES	YES	YES	YES	YES	YES
DGWC-48	YES	NO	YES	YES	YES	YES
B-56	YES	YES	YES	YES	YES	YES
B-62	YES	YES	YES	YES	YES	YES
B-63	YES	YES	YES	YES	YES	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
B-66	YES	YES	YES	YES	YES	YES
B-77	YES	YES	YES	YES	YES	YES
B-82	YES	YES	YES	YES	YES	YES
B-83	YES	YES	YES	YES	YES	YES
B-88	YES	YES	YES	YES	YES	YES
B-92	YES	YES	YES	YES	YES	YES
B-93	YES	YES	YES	YES	YES	YES
B-97	YES	YES	NO	NO	YES	YES
B-98	YES	YES	YES	YES	YES	YES
B-100	YES	YES	YES	YES	YES	YES
B-101D	YES	YES	YES	YES	YES	YES
B-102D	YES	YES	YES	YES	YES	YES
B-104D	YES	NO	YES	YES	YES	YES
B-106D	YES	YES	YES	YES	YES	YES
B-107D	YES	YES	YES	YES	YES	YES
B-108D	YES	YES	YES	YES	YES	YES
B-111D	YES	YES	YES	YES	YES	YES
B-120D	YES	YES	YES	YES	YES	YES
B-122D	YES	YES	YES	YES	YES	YES
B-125D	YES	YES	YES	YES	YES	YES
B-3	YES	YES	YES	YES	YES	YES
B-6	YES	YES	YES	YES	YES	YES
B-7	YES	YES	YES	YES	YES	YES
B-16	YES	YES	YES	YES	YES	YES
B-18	YES	YES	YES	YES	YES	YES
B-24	YES	YES	YES	YES	YES	YES
B-25	YES	YES	YES	YES	YES	YES
B-26	YES	YES	YES	YES	YES	YES
B-28	YES	YES	YES	YES	YES	YES
B-29	YES	YES	YES	YES	YES	YES
B-31	YES	YES	YES	YES	YES	YES
B-41	YES	YES	YES	YES	YES	YES
B-50	YES	YES	YES	YES	YES	YES
B-51	YES	YES	YES	YES	YES	YES
B-52	YES	YES	YES	YES	YES	YES
B-54	YES	YES	YES	YES	YES	YES
B-55	YES	YES	YES	YES	YES	YES
B-57	YES	YES	YES	YES	YES	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
B-58	YES	YES	YES	YES	YES	YES
B-59	YES	YES	YES	YES	YES	YES
B-60	YES	YES	YES	YES	YES	YES
B-61	YES	YES	YES	YES	YES	YES
B-64	YES	YES	YES	YES	YES	YES
B-65	YES	YES	YES	YES	YES	YES
B-68	YES	YES	YES	YES	YES	YES
B-72	YES	YES	NO	NO	YES	YES
B-73	YES	YES	YES	YES	YES	YES
B-74	YES	YES	NO	NO	YES	YES
B-76	YES	YES	YES	YES	YES	YES
B-78	YES	YES	YES	YES	YES	YES
B-79	YES	YES	YES	YES	YES	YES
B-80	YES	YES	YES	YES	YES	YES
B-81	YES	YES	YES	YES	YES	YES
B-84	YES	YES	YES	YES	YES	YES
B-85	YES	YES	YES	YES	YES	YES
B-86	YES	YES	YES	YES	YES	YES
B-87	YES	YES	YES	YES	YES	YES
B-89	YES	YES	YES	YES	YES	YES
B-90	YES	YES	YES	YES	YES	YES
B-91	YES	YES	YES	YES	YES	YES
B-94	YES	YES	YES	YES	YES	YES
B-95	YES	YES	YES	YES	YES	NO
B-96	YES	YES	YES	YES	YES	NO
B-99	YES	YES	YES	YES	YES	YES
B-103D	YES	YES	YES	YES	YES	YES
B-109D	YES	YES	YES	YES	YES	YES
B-110D	YES	YES	YES	YES	YES	YES
B-113D	YES	YES	YES	YES	YES	YES
B-115D	YES	YES	YES	YES	YES	YES
B-116D	YES	YES	YES	YES	YES	YES
B-117D	YES	YES	YES	YES	YES	YES
B-118	YES	YES	YES	YES	YES	YES
B-119D	YES	YES	YES	YES	YES	YES
B-123D	YES	YES	YES	YES	YES	YES
AP-1-B-3	YES	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
AP-1-B-7	YES	YES	YES	YES	YES	YES
AP-1-B-8	YES	YES	YES	YES	YES	YES
DW-1	YES	YES	YES	YES	YES	YES
DW-2	YES	YES	YES	YES	YES	YES
DW-3	YES	YES	YES	YES	YES	YES
DW-4	YES	YES	YES	YES	YES	YES
WT-1	NO	YES	NO	YES	YES	YES
WT-2	YES	YES	YES	YES	YES	YES
WT-3	YES	YES	YES	YES	YES	YES
WT-4	YES	YES	YES	YES	YES	YES
WT-5	YES	YES	YES	YES	YES	YES
WT-6	NO	YES	NO	YES	YES	YES
WT-7	NO	YES	NO	YES	YES	YES
ET-1	YES	YES	YES	YES	YES	YES

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Corrective actions as needed, by date:
DGWA-53	Overgrown, clear brush around well
DGWA-70A	
DGWA-71	
DGWC-37	
DGWC-38	
DGWC-39	Overgrown, clear brush around well and clear path to well
DGWC-40	
DGWC-67	
DGWC-68A	Needs flat well cap to properly close well
DGWC-69	
DGWC-121	
B-62	
B-100	
B-105D	
B-112D	
DGWC-2	
DGWC-4	
DGWC-5	
DGWC-8	
DGWC-9	
DGWC-10	
DGWC-11	
DGWC-12	
DGWC-13	
DGWC-14	
DGWC-15	
DGWC-17	
DGWC-19	
DGWC-20	
DGWC-21	
DGWC-22	Clear ants from around well
DGWC-23	
DGWC-42	
DGWC-47	Clear ants from around well
DGWC-48	Standing water and mud on well pad from recent construction- flow path need diverting
B-56	
B-62	
B-63	Needs suitable identification

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Corrective actions as needed, by date:
B-66	
B-77	
B-82	
B-83	
B-88	
B-92	Clear ants from around well
B-93	Overgrown, clear brush around well
B-97	Needs flat well cap to properly close well
B-98	Overgrown, clear brush around well
B-100	
B-101D	
B-102D	
B-104D	Standing water and mud on well pad from recent construction- flow path need diverting
B-106D	
B-107D	
B-108D	
B-111D	
B-120D	
B-122D	
B-125D	~2 ft of loose casing near top of well, needs to be filled with pea gravel
B-3	
B-6	
B-7	
B-16	
B-18	
B-24	
B-25	
B-26	
B-28	
B-29	
B-31	
B-41	Remove wasp nest from well
B-50	
B-51	
B-52	
B-54	
B-55	
B-57	

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Corrective actions as needed, by date:
B-58	
B-59	
B-60	
B-61	
B-64	
B-65	
B-68	
B-72	Needs flat well cap to properly close well
B-73	
B-74	Needs flat well cap to properly close well
B-76	
B-78	
B-79	
B-80	Casing lid askew and tilted, needs to be replaced
B-81	
B-84	
B-85	
B-86	Missing bolt needs to be replaced
B-87	Overgrown, clear brush around well
B-89	
B-90	
B-91	
B-94	
B-95	Need new lock, weep hole to depressurize well
B-96	Needs lock bar, weep hole to depressurize well
B-99	
B-103D	
B-109D	
B-110D	
B-113D	
B-115D	
B-116D	
B-117D	
B-118	
B-119D	
B-123D	
AP-1-B-3	

Site Name: Plant McDonough

Well Inspection

Date: 9/5/2023

Permit Number: _____

Field Conditions: _____

Well ID:	Corrective actions as needed, by date:
AP-1-B-7	
AP-1-B-8	
DW-1	
DW-2	
DW-3	
DW-4	
WT-1	Staff gauge- gauge tilted and innacurate. Needs to be straightened or replaced
WT-2	
WT-3	
WT-4	
WT-5	
WT-6	Staff gauge- gauge destroyed by felled tree. Needs to be replaced
WT-7	Staff gauge- gauge tilted and innacurate. Needs to be straightened or replaced
ET-1	

APPENDIX D

Piezometer Decommissioning and Abandonment Report (B-31 and B-74)

November 13, 2023 Project No.31406640.McD23

Ms. Lauren Hartley, Senior Geologist
Southern Company Services
241 Ralph McGill Boulevard NE
Atlanta, GA 30308
laucoker@southernco.com

SUBJECT: PIEZOMETER DECOMMISSIONING AND ABANDONMENT (B-31 AND B-74) REPORT GEORGIA POWER COMPANY - PLANT MCDONOUGH-ATKINSON, SMYRNA, GEORGIA

Dear Ms. Hartley:

WSP USA Inc. (WSP) is submitting this *Piezometer Decommissioning and Abandonment (B-31 and B-74) Report* to Southern Company Services, Inc. (SCS) and Georgia Power Company (Georgia Power), to document the decommissioning and abandonment of two piezometers at Plant McDonough-Atkinson in Smyrna, Georgia (Site). The two Site piezometers (B-31 and B-74) required abandonment to allow for a local infrastructure project (a watermain project along Maner road) in the area of Plant McDonough-Atkinson.

Piezometer abandonment activities were performed using industry-accepted practices and following the Manual for Groundwater Monitoring (1991) and Georgia Water Well Standards Act of 1985 [Official Code of Georgia Annotated (O.C.G.A.) 12-5-120, 1985] as guides. The decommissioning and abandonment of the piezometers was conducted under the oversight and direction of a Georgia Registered Professional Geologist (PG).

The field activities for the abandonment were performed on October 4, 2023. The field work consisted of the decommissioning and abandonment of two Site piezometers (B-31 and B-74). A summary of the activities is presented below. Figure 1 presents the former locations of the abandoned piezometers.

Piezometer Decommissioning and Abandonment Activities

On October 4th, Site piezometers B-31 and B-74 were abandoned by Southern Company Civil Field Services (CFS). CFS has a current and valid bond with the Water Wells Standards Advisory Council for the State of Georgia (Appendix A). An experienced WSP professional geologist registered to practice in the state of Georgia was present on site to oversee and record the piezometer decommissioning and abandonment.

Piezometer Decommissioning and Abandonment

Prior to piezometer decommissioning, WSP utilized a water level probe to confirm the total depth of the well. As piezometers B-31 and B-74 were located outside the footprint of the waste unit, decommissioning and abandonment procedures included removal of the piezometer's protective cover and concrete pad. The piezometers were then tremie-grouted from the bottom to 10' below top of casing with care taken to remove the column of water within the well. The initial grout mixture for B-74 was 17 lbs. AquaGuard bentonite powder and 4 gallons of potable water. The initial grout mixture for B-31 was 25 lbs AquaGuard bentonite powder and 7 gallons of water. The top 10 feet of the piezometers were then overdrilled, and the PVC pipe destroyed or removed. The driller then grouted the remaining borehole of each piezometer to the ground surface. The final grout mixture for B-74 was 38 lbs Quikrete non-shrink precision grout, 10 lbs AquaGuard bentonite powder, and 6.5 gallons of

water. The final grout mixture for B-31 was 38 lbs Quikrete non-shrink precision grout 10 lbs AquaGuard bentonite powder and 6.5 gallons of water.

A summary of piezometer decommissioning data is presented in Table 1, and the former locations of the abandoned piezometers are provided in Figure 1. The original construction logs and the abandonment logs for B-31 and B-74 documenting pipe removal and grouting details are included in Appendix B.

Certification

We appreciate the opportunity to assist Southern Company Services, Inc. and Georgia Power with this project. Should you have any questions or require additional information, please contact the undersigned at (770) 496-1893.

Sincerely,

WSP USA INC.

Dawn L. Prell, CPG
Senior Consultant, Hydrogeologist

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction. We certify that the information included is to the best of our knowledge and belief, true, accurate and complete. In preparing this report, we have relied on information provided by Southern Company Services and Georgia Power.

CHRISTOPHER AARON TIDWELL
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 2377
11-13-23

Christopher Tidwell, PG
Georgia Registered Professional Geologist No. 2377

Attachments:

	Figure 1:	Location of Piezometers Abandoned
	Table 1:	Summary of Piezometer Decommissioning Data
	Appendix A:	Cascade Drilling Bond
	Appendix B:	Piezometer Construction Diagrams/Abandonment Logs

Attachments

Figures &Tables

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELLS
- PIEZOMETER
- TEMPORARY AEM WELL
- SURFACE WATER MONITORING LOCATION
- ABANDONED PIEZOMETER
- 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 JANUARY 2023 PROVIDED BY GPC.

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, MAY 2021, AND MAY 2023.

0 600 1,200

1 IN= 600 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
PIEZOMETER DECOMMISSIONING AND ABANDONMENT (B-31 AND B-74) REPORT

TITLE
LOCATION OF PIEZOMETERS ABANDONED

CONSULTANT
wsp

YYYY-MM-DD	2023-10-20
PREPARED	SEB
DESIGN	DLP
CHECKED	DP/RPK
REVIEWED/APPROVED	RNQ

PROJECT No. 166849622
Rev. 0
FIGURE 1

TABLE 1.
SUMMARY OF PIEZOMETER DECOMISSIONING DATA
Georgia Power Company - Plant McDonough-Atkinson
Smyrna, Georgia

Piezometer Identification	Date of Decommissioning	Time of Decommissioning	Total Depth (feet)	Well Diamerer (inches)	Volume of Well (cu ft)	Material Used to Decommission	Comments
B-31	10/4/2023	11:20	38.5	2	5.04	Grout Mixture	Surface features removed; Approximately 14 gallons of grout
B-74	10/4/2023	8:50	16.3	2	2.13	Grout Mixture	Surface features removed; Approximately 10 gallons of grout

Notes:

cu ft = cubic feet

Times listed for decomissioning are the starting times of decommissioning activities.

APPENDIX A

Cascade Drilling Bond

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, 2023
(MONTH-DAY-YEAR)

and ending on June 30, 2024
(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 05/22/2023
(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, LLC
Agent

2211 7th Avenue South, Birmingham, AL 35233
Address of Agent

(205) 252-9871
Telephone Number of Agent

S-0157/GE 8/08

XDP

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.

Liberty Mutual. SURETY

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
County of MONTGOMERY ss

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 22nd day of May, 2023.

By: _____
Renee C. Llewellyn, Assistant Secretary

McGriff
SURETY DIVISION
2211 7TH AVENUE SOUTH, BIRMINGHAM, AL 35233
MEAGAN CARTER

LETTER OF TRANSMITTAL

To: Clementine Broaders
Southern Power Company

Date: 5/22/2023

We are sending you:

☐	Duplicate Original	☐	Consent of Surety	☐	Certificate of Insurance
☒	CC / VC	☐	Change Order	☐	Motor Fuel Bonds
☐	Invoice	☐	Financial/ Indemnity	☐	Bond

No. of Copies: Description:

(1) CC

Bond No. 4993104

**Please review and notify if you should have any questions, or if changes or amendments are needed. **

These are transmitted as checked below:

☐	Info and/or necessary action in remarks	☐	For your file	☒	As requested
☒	For your use	☐	Returned for corrections	☐	Please sign as indicated and return

REMARKS: UPS

If enclosures are not as noted, kindly notify at once.

Signed: Meagan Carter, *Senior Client Service Specialist – Surety*

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, 2024
(MONTH-DAY-YEAR)

and ending on June 30, 2025
(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 05/31/2023
(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, LLC
Agent

2211 7th Avenue South, Birmingham, AL 35233
Address of Agent

(205) 252-9871
Telephone Number of Agent

S-0157/GE 8/08

XDF

TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Jeffrey M Wilson** of **BIRMINGHAM**, **Alabama**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, **2021**.

State of Connecticut

City of Hartford ss.

By: _____
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, **2021**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, **2026**

_____
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **31st** day of **May**, **2023**.

_____
Kevin E. Hughes, Assistant Secretary

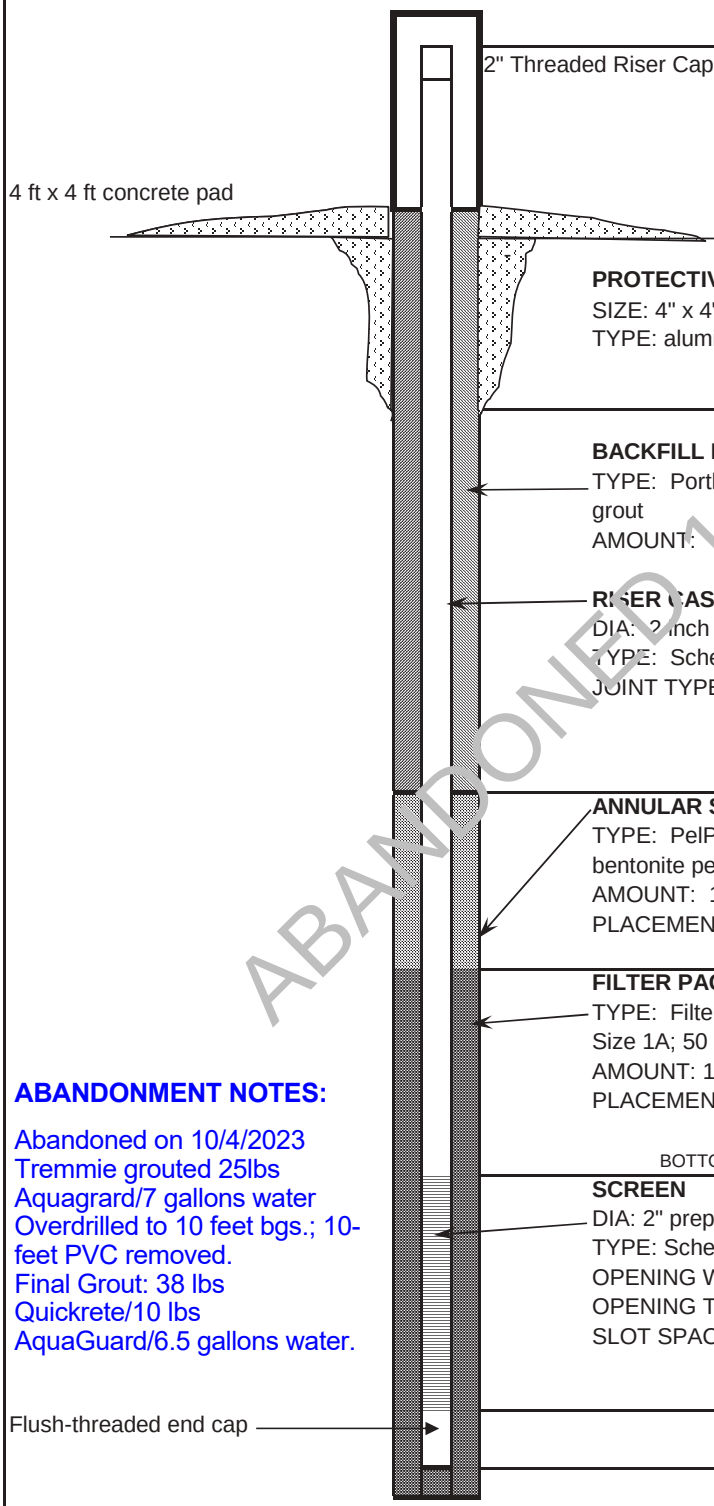
To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.

APPENDIX B

Piezometer Construction Diagrams and Abandonment Logs

WELL CONSTRUCTION LOG — Southern Company Generation

PROJECT: Plant McDonough	DRILLING CO.: SCS Field Services	WELL NAME
Hydrogeologic Investigation	DRILLER: S. Denty	
LOCATION: Ash Pond 1	RIG TYPE: CME550	B-31
LOGGER: B. Gallagher	DRILLING METHODS: HS Auger/HQ Rock Core	
DATE CONSTRUCTED: 1/22/2013	N: 1392034.3 E:2200928.5	



	DEPTH FEET	ELEVATION FT, MSL
TOP OF RISER	-2.6	797.47
2" Threaded Riser Cap		
GROUND SURFACE	0.0	794.84
PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum		
BOTTOM OF GROUT		
BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 5 bags cement 3 lbs bentonite		
RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded		
TOP OF SEAL	25.7	769.1
ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1/4 bucket PLACEMENT: Poured		
TOP OF FILTER PACK	29.1	765.7
FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 1/2 Bags PLACEMENT: Tremie		
BOTTOM OF RISER / TOP OF SCREEN	34.7	760.1
SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch		
BOTTOM OF SCREEN	44.7	750.1
BOTTOM OF CASING	45.1	749.7

ABANDONMENT NOTES:

Abandoned on 10/4/2023
Tremmie grouted 25lbs Aquagrard/7 gallons water
Overdrilled to 10 feet bgs.; 10-feet PVC removed.
Final Grout: 38 lbs Quickrete/10 lbs AquaGuard/6.5 gallons water.

HOLE DIA: 7 inch (auger)
3.8 inch (HQ core)

RECORD OF BOREHOLE B-74

SHEET 1 of 1

PROJECT: SCS-Plant McDonough
PROJECT NUMBER: 1779172
DRILLED DEPTH: 16.50 ft
LOCATION: ~50' West of B-68

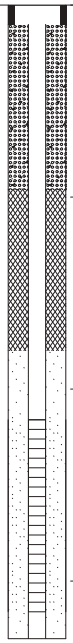
DRILL RIG: Geoprobe 7822DT
DATE STARTED: 4/24/17
DATE COMPLETED: 4/25/17

NORTHING: 1,391,279.9
EASTING: 2,200,666.1
GS ELEVATION: 759.18
TOC ELEVATION: 759.06 ft

DEPTH W.L.:3.3'
DATE W.L.:4/25/2017
TIME W.L.:09:37

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	SAMPLE NO.	TYPE	BLOWS per 6 in (140 lb hammer 30 inch drop)	N-VALUE	REC
0	755	0.00 - 4.00 CL, CLAY, with some silt, low plasticity; red brown, fill; cohesive, moist, w<PL, soft.	CL		755.2					
		4.00 - 13.50 SP-SM, Poorly-graded SAND with Silt and trace gravel , fine to coarse, non-plastic; white to tan, deeply weathered, granitic; non-cohesive, moist, w<PL, loose/soft.	SP-SM		4.00					
5	750					S1	DO	3-18-20	38	0.75 1.50
10	745				745.7					
		13.50 - 16.50 SM, Silty SAND, non-plastic; white to light gray; non-cohesive, dry to moist, w<PL, dense.	SM		13.50	S2	DO	50/3	50/3	0.25 1.50
15	740	Boring completed at 16.50 ft			742.7					
20	735									
25	730									
30	725									
35	720									
40										

MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES



WELL CONSTRUCTION DETAILS

WELL CASING
Interval: 0' - 16.2
Material: Schedule 40 PVC
Diameter: 2"
Joint Type: Flush/Screw

SURFACE CASING
Interval:
Material:
Diameter:

WELL SCREEN
Interval: 10.8' - 15.8'
Material: Pre-pack Schedule 40 PVC
Diameter: 2"
Slot Size: 0.010"
End Cap: 15.8' - 16.2'

FILTER PACK
Interval: 9.0' - 16.5'
Type: FilterSil gravel pack

FILTER PACK SEAL
Interval: 4.8' - 9.0'
Type: Pel-Plug 3/8" Bentonite Pellets

ANNULUS SEAL
Interval: 0' - 4.8'
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

NOTES
N/A

ABANDONMENT NOTES:

Abandoned on 10/4/2023
Tremmie grouted 17lbs Aquagrard/4 gallons water Overdrilled to 10 feet bgs.; 10-feet PVC removed.
Final Grout: 38 lbs Quickrete/10 lbs AquaGuard/6.5 gallons water.

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/17/17

Golder Associates

BOREHOLE RECORD 1779172.GPJ PIEDMONT.GDT 5/18/17

APPENDIX E

Annual Water Well Survey

Plant McDonough
5551 South Cobb Drive SE
Atlanta, GA 30339

Inquiry Number: 7536473.3s
January 08, 2024

The EDR GeoCheck® Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION **PAGE**

GEOCHECK ADDENDUM

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

TARGET PROPERTY ADDRESS

PLANT MCDONOUGH
5551 SOUTH COBB DRIVE SE
ATLANTA, GA 30339

TARGET PROPERTY COORDINATES

Latitude (North):	33.818566 - 33° 49' 6.84''
Longitude (West):	84.481499 - 84° 28' 53.40''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	733105.4
UTM Y (Meters):	3744697.8
Elevation:	791 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33084-G4 NORTHWEST ATLANTA, GA
Version Date:	1997

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

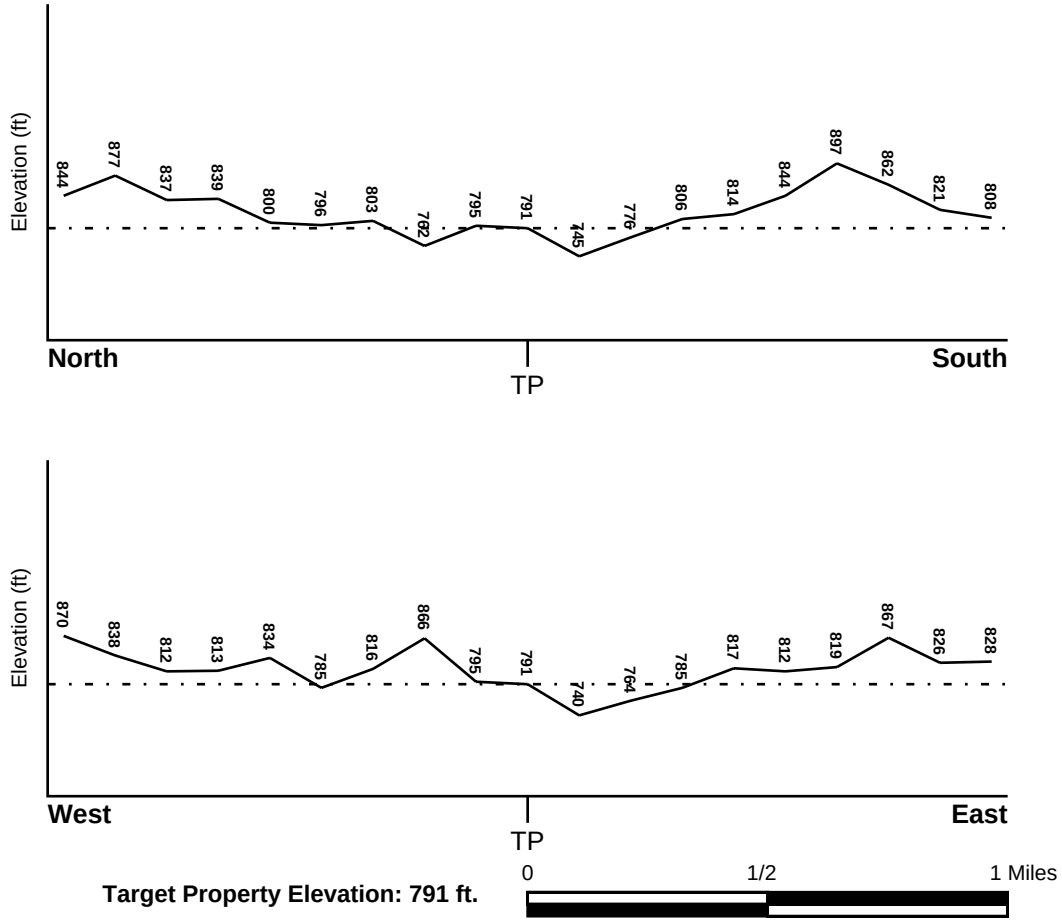
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ESE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 791 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
13067C0228H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
13067C0229H	FEMA FIRM Flood data
13121C0229F	FEMA FIRM Flood data
13067C0236H	FEMA FIRM Flood data
13121C0237F	FEMA FIRM Flood data
13121C0236F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NORTHWEST ATLANTA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile SE	SSW
2	1/2 - 1 Mile SSE	SW
3	1/2 - 1 Mile South	SW

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

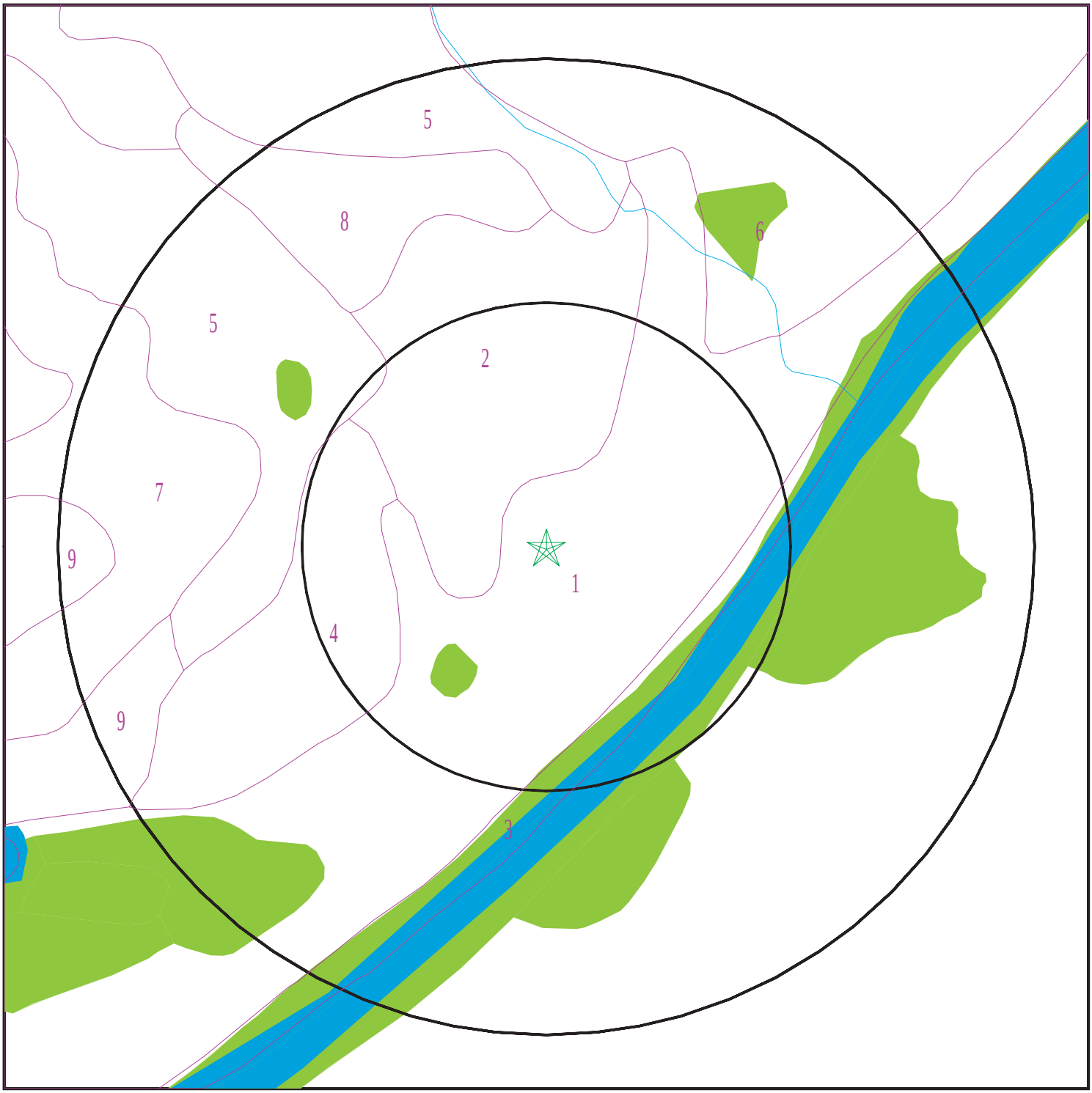
Era:	Paleozoic
System:	Pennsylvanian
Series:	Catacalastic rocks
Code:	cat *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Metamorphic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7536473.3s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Plant McDonough	CLIENT:	WSP USA Environment & Infrastructure Inc.
ADDRESS:	5551 South Cobb Drive SE Atlanta GA 30339	CONTACT:	Tanya Kinnard
LAT/LONG:	33.818566 / 84.481499	INQUIRY #:	7536473.3s
		DATE:	January 08, 2024 4:33 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Toccoa

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 114 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.1
2	9 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.1

Soil Map ID: 2

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	29 inches	35 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	35 inches	66 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 5

Soil Component Name: Madison

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	29 inches	35 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 6

Soil Component Name: Urban land

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 200 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 7

Soil Component Name: Madison

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 8

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 9

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	2.000
Federal FRDS PWS	2.000
State Database	2.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A4	USGS40000265087	1 - 2 Miles ENE
A7	USGS40000265094	1 - 2 Miles ENE
A9	USGS40000265091	1 - 2 Miles ENE
B10	USGS40000265121	1 - 2 Miles NNE
D22	USGS40000265168	1 - 2 Miles NNW
E23	USGS40000265030	1 - 2 Miles WSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

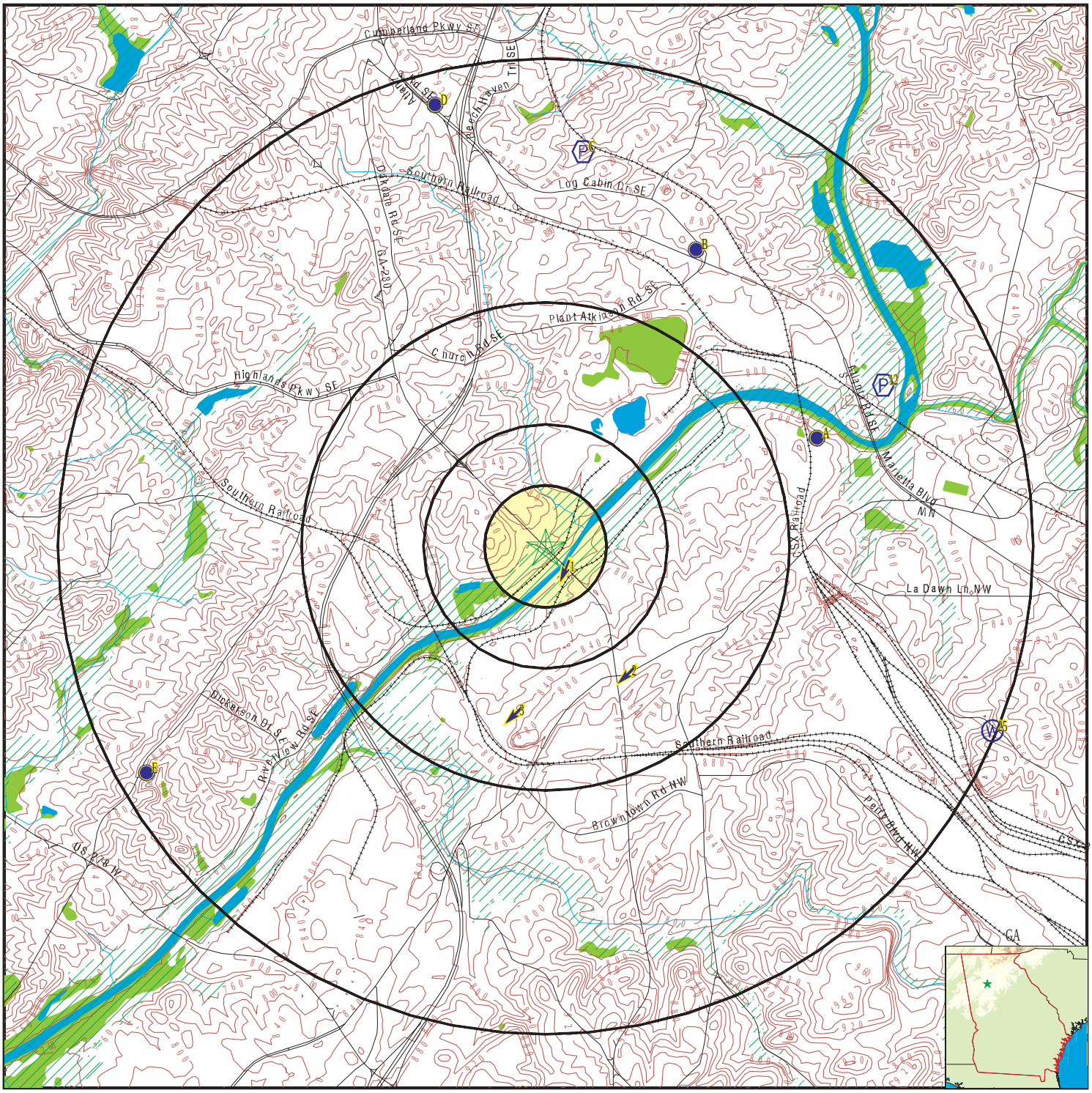
MAP ID	WELL ID	LOCATION FROM TP
12	GA1210001	1 - 2 Miles ENE
C13	GA1210038	1 - 2 Miles North
C14	GA1210000	1 - 2 Miles North
C15	GA1210006	1 - 2 Miles North
C16	GA1210037	1 - 2 Miles North
C17	GA1210002	1 - 2 Miles North
C18	GA1210039	1 - 2 Miles North
C19	GA1210007	1 - 2 Miles North
C20	GA1210005	1 - 2 Miles North

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A5	0000004656	1 - 2 Miles ENE
A6	0000004659	1 - 2 Miles ENE
A8	0000004658	1 - 2 Miles ENE
B11	0000002231	1 - 2 Miles NNE
D21	0000002233	1 - 2 Miles NNW
E24	0000002229	1 - 2 Miles WSW
25	0000004654	1 - 2 Miles ESE

PHYSICAL SETTING SOURCE MAP - 7536473.3s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Wildlife Areas

SITE NAME:	Plant McDonough	CLIENT:	WSP USA Environment & Infrastructure Inc.
ADDRESS:	5551 South Cobb Drive SE Atlanta GA 30339	CONTACT:	Tanya Kinnard
LAT/LONG:	33.818566 / 84.481499	INQUIRY #:	7536473.3s
		DATE:	January 08, 2024 4:33 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **SE** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0-601138 SSW 18.82 19.04 Not Reported 07/1991	**AQUIFLOW**	**18783**
2 **SSE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0-600936 SW 19 30 Not Reported 06/1995	**AQUIFLOW**	**18791**
3 **South** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9000676 SW 3.71 23.84 Not Reported 7/1994	**AQUIFLOW**	**23156**

A4
ENE
1 - 2 Miles
Higher

FED USGS **USGS40000265087**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE27	Type:	Well
Description:	SONOCO PRODUCTS	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19660401
Well Depth:	500	Well Depth Units:	ft
Well Hole Depth:	500	Well Hole Depth Units:	ft

A5
ENE
1 - 2 Miles
Higher

GA WELLS **0000004656**

County code:	121	Well num:	10EE27
Remarks:	SONOCO PRODUCTS	Lat:	334926
Lon:	0842745	Latlon datum:	NAD27
Alt:	900.00	Alt datum:	NGVD29
Depth:	500	Depth to casing:	23.00
Casing dia:	Not Reported	Casing matl:	S
Depth to top:	23.00	Depth to bot:	500.00
Opening type:	X	Constr date:	196604
Discharge:	32.00	Prim use:	C
Aquifer code:	Not Reported	Edr id:	0000004656

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A6
ENE
1 - 2 Miles
Lower

GA WELLS **0000004659**

County code:	121	Well num:	10EE26
Remarks:	SONOCO PRODUCTS	Lat:	334933
Lon:	0842745	Latlon datum:	NAD27
Alt:	900.00	Alt datum:	NGVD29
Depth:	500	Depth to casing:	23.00
Casing dia:	8.00	Casing matl:	S
Depth to top:	23.00	Depth to bot:	500.00
Opening type:	X	Constr date:	196603
Discharge:	30.00	Prim use:	C
Aquifer code:	Not Reported	Edr id:	0000004659

A7
ENE
1 - 2 Miles
Lower

FED USGS **USGS40000265094**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE26	Type:	Well
Description:	SONOCO PRODUCTS	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19660301
Well Depth:	500	Well Depth Units:	ft
Well Hole Depth:	500	Well Hole Depth Units:	ft

A8
ENE
1 - 2 Miles
Higher

GA WELLS **0000004658**

County code:	121	Well num:	10EE25
Remarks:	SONOCO PRODUCTS	Lat:	334930
Lon:	0842742	Latlon datum:	NAD27
Alt:	900.00	Alt datum:	NGVD29
Depth:	400	Depth to casing:	33.00
Casing dia:	10.00	Casing matl:	S
Depth to top:	33.00	Depth to bot:	400.00
Opening type:	X	Constr date:	195801
Discharge:	144.00	Prim use:	C
Aquifer code:	Not Reported	Edr id:	0000004658

A9
ENE
1 - 2 Miles
Higher

FED USGS **USGS40000265091**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE25	Type:	Well
Description:	SONOCO PRODUCTS	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19580101
Well Depth:	400	Well Depth Units:	ft
Well Hole Depth:	400	Well Hole Depth Units:	ft

B10
NNE
1 - 2 Miles
Higher

FED USGS **USGS40000265121**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE02	Type:	Well
Description:	W.C. HALL	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation Type:	Crystalline Rocks	Aquifer Type:	Confined multiple aquifer
Construction Date:	1932	Well Depth:	79
Well Depth Units:	ft	Well Hole Depth:	79
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	49	Level reading date:	1992-06-16
Feet below surface:	29.34	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1991-10-31	Feet below surface:	29.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1991-05-23	Feet below surface:	30.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1990-10-29	Feet below surface:	31.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1990-05-30	Feet below surface:	29.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1989-10-27	Feet below surface:	32.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-11-28	Feet below surface:	34.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-06-29	Feet below surface:	33.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-10-26	Feet below surface:	32.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-11-26	Feet below surface:	32.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-07-28	Feet below surface:	32.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-31	Feet below surface:	34.34
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1984-05-31	Feet below surface:	26.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-11-01	Feet below surface:	30.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-05-31	Feet below surface:	29.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-10-26	Feet below surface:	32.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-25	Feet below surface:	31.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-10-22	Feet below surface:	32.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-05-21	Feet below surface:	31.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-11-13	Feet below surface:	30.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-05-29	Feet below surface:	27.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-10-25	Feet below surface:	30.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-05-23	Feet below surface:	31.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-12-07	Feet below surface:	32.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-10-18	Feet below surface:	31.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-05-25	Feet below surface:	29.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-04-21	Feet below surface:	30.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-03-31	Feet below surface:	30.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-03-01	Feet below surface:	30.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-01-30	Feet below surface:	31.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-12-28	Feet below surface:	31.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-12-01	Feet below surface:	31.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-10-27	Feet below surface:	31.33
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1977-09-30	Feet below surface:	31.11
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-08-25	Feet below surface:	30.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-07-27	Feet below surface:	30.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-06-28	Feet below surface:	29.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-05-26	Feet below surface:	29.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-05-02	Feet below surface:	29.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-03-28	Feet below surface:	30.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-02-23	Feet below surface:	30.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-01-26	Feet below surface:	30.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-12-21	Feet below surface:	32.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-10-14	Feet below surface:	29.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-06-03	Feet below surface:	26.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-11-14	Feet below surface:	28.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-10-18	Feet below surface:	29.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-05-15	Feet below surface:	26.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-03-24	Feet below surface:	34
Feet to sea level:	Not Reported	Note:	Not Reported

B11
NNE
1 - 2 Miles
Higher

GA WELLS **0000002231**

County code:	067	Well num:	10EE02
Remarks:	W.C. HALL	Lat:	335010
Lon:	0842815	Latlon datum:	NAD27
Alt:	858.00	Alt datum:	NGVD29
Depth:	79	Depth to casing:	40
Casing dia:	6	Casing matl:	Not Reported
Depth to top:	40	Depth to bot:	85
Opening type:	X	Constr date:	1932

Discharge:	Not Reported	Prim use:	U
Aquifer code:	320CRSL	Edr id:	0000002231

12
ENE
1 - 2 Miles
Lower

FRDS PWS GA1210001

Epa region:	04	State:	GA
Pwsid:	GA1210001	Pwsname:	ATLANTA
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13089
Status:	Active	Retpopsrvd:	650000
Pwssvcconn:	240780	Psource longname:	Surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	PARKER, RICHARD	Contactorgname:	PARKER, RICHARD
Contactphone:	404-235-2058	Contactaddress1:	651 14TH STREET, NW
Contactaddress2:	Not Reported	Contactcity:	ATLANTA
Contactstate:	GA	Contactzip:	30318
Pwsactivitycode:	A		

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	rapid mix	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	ph adjustment, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	coagulation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	flocculation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	sedimentation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	filtration, rapid sand	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	corrosion control
Trtprocess:	ph adjustment, post	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	rapid mix	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	ph adjustment, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	coagulation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	flocculation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	sedimentation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	filtration, rapid sand	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	corrosion control
Trtprocess:	ph adjustment, post	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		

PWS ID:	GA1210001	PWS name:	ATLANTA
Address:	2528 CHATTAHOOCHEE CIR., NW		
Care of:	ATLANTA WATER DEPARTMENT	City:	ATLANTA
State:	GA	Zip:	30318
Owner:	ATLANTA	Source code:	Surface water
Population:	649836		

PWS ID:	GA1210001	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported

PWS zip:	Not Reported	PWS name:	ATLANTA
PWS type code:	C	Retail population served:	650000
Contact:	HEBBERD, CHRISTOPHER	Contact address:	651 14TH STREET
Contact address:	ATLANTA	Contact city:	GA
Contact state:	30	Contact zip:	404-602-44
Contact telephone:	Not Reported		
County:	FULTON	Source:	Surface water
Treatment Objective:	CORROSION CONTROL	Process:	PH ADJUSTMENT, POST
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	DISINFECTION	Process:	GASEOUS CHLORINATION, POST
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	DISINFECTION	Process:	GASEOUS CHLORINATION, PRE
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	COAGULATION
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	FILTRATION, RAPID SAND
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	FLOCCULATION
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	RAPID MIX
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	SEDIMENTATION
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	PH ADJUSTMENT, PRE
Population:	650000		
PWS ID:	GA1210001	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00649836	System name:	ATLANTA
System address:	ATLANTA WATER BUREAU	System address:	2541 CHATTAHOOCHEE CIRCLE, NW
System city:	ATLANTA	System state:	GA
System zip:	30318		
Population served:	over 100,000 Persons	Treatment:	Treated
Latitude:	334941	Longitude:	0842727
State:	GA	Latitude degrees:	33
Latitude minutes:	49	Latitude seconds:	41.0000
Longitude degrees:	84	Longitude minutes:	27
Longitude seconds:	27.0000		
Violation id:	10097	Orig code:	S
State:	GA	Violation Year:	1997
Contamination code:	5000	Contamination Name:	Lead and Copper Rule

Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/1997
Cmp edt:	Not Reported		

Violation id:	10502	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	0300	Contamination Name:	IESWTR
Violation code:	38		
Violation name:	Monitoring, Turbidity (Enhanced SWTR)		
Rule code:	122	Rule name:	LT1 ESWTR
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	01/01/2002
Cmp edt:	01/31/2002		

Violation id:	11303	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2000
Cmp edt:	Not Reported		

Violation id:	11406	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2005
Cmp edt:	Not Reported		

Violation id:	11607	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	11909	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		

Violation id:	12511	Orig code:	S
State:	GA	Violation Year:	2010
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2010
Cmp edt:	Not Reported		

Violation id:	12616	Orig code:	S

State:	GA	Violation Year:	2013
Contamination code:	2950	Contamination Name:	TTHM
Violation code:	02	Violation name:	MCL, Average
Rule code:	220	Rule name:	St2 DBP
Violation measur:	0.081	Unit of measure:	MG/L
State mcl:	0.08	Cmp bdt:	04/01/2013
Cmp edt:	06/30/2013		

Violation id:	12617	Orig code:	S
State:	GA	Violation Year:	2014
Contamination code:	2950	Contamination Name:	TTHM
Violation code:	02	Violation name:	MCL, Average
Rule code:	220	Rule name:	St2 DBP
Violation measur:	0.082	Unit of measure:	MG/L
State mcl:	0.08	Cmp bdt:	01/01/2014
Cmp edt:	03/31/2014		

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	02/28/2002
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/09/2002
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	02/28/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	05/06/2003
Enforcement Detail:	St BCA signed	Enforcement Category:	Formal

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/09/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11303	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/03/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11406	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/24/2006
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	11406	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/24/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11406	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/15/2006
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	11607	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	07/12/2007
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	11607	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	07/09/2007
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	07/07/2009
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	12511	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	10/05/2011
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	12616	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	05/23/2013
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	12616	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	05/23/2013
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	2/28/2002 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	2/28/2002 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	5/6/2003 0:00:00	Enforcement action:	State BCA Signed
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	7/9/2002 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	7/9/2002 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11303
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2000 0:00:00	Compliance end date:	9/3/2001 0:00:00
Enforcement date:	9/3/2001 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11406
Contaminant:	7000	Violation type:	71

Compliance start date:	7/1/2006 0:00:00	Compliance end date:	7/24/2006 0:00:00
Enforcement date:	7/24/2006 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11406
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2006 0:00:00	Compliance end date:	7/24/2006 0:00:00
Enforcement date:	7/24/2006 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11406
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2006 0:00:00	Compliance end date:	7/24/2006 0:00:00
Enforcement date:	8/15/2006 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11607
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	7/9/2007 0:00:00
Enforcement date:	7/12/2007 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11607
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	7/9/2007 0:00:00
Enforcement date:	7/9/2007 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

C13
North
1 - 2 Miles
Higher

FRDS PWS **GA1210038**

Epa region:	04	State:	GA
Pwsid:	GA1210038		
Pwsname:	ATLANTA-FULTON CO WATER RES COMMISSION		
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	0
Pwssvcconn:	2	Psource longname:	Surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	CREWS, KATHY	Contactorgname:	CREWS, KATHY
Contactphone:	678-942-2791	Contactaddress1:	9750 SPRUILL RD.
Contactaddress2:	Not Reported	Contactcity:	ALPHARETTA
Contactstate:	GA	Contactzip:	30022
Pwsactivitycode:	A		

Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	gaseous chlorination, post
Factypecode:	TP		

Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	corrosion control	Trtprocess:	ph adjustment, post

Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: particulate removal Trtprocess: filtration, rapid sand
Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: disinfection Trtprocess: gaseous chlorination, pre
Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: particulate removal Trtprocess: ph adjustment, pre
Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: particulate removal Trtprocess: rapid mix
Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: particulate removal Trtprocess: coagulation
Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: particulate removal Trtprocess: flocculation
Factypecode: TP

Pwsid: GA1210038 Facid: 1034
Facname: ATLANTA-FULTON CO WATER PLANT
Factype: Treatment_plant Facactivitycode: A
Trtobjective: particulate removal Trtprocess: sedimentation
Factypecode: TP

PWS ID: GA1210038 PWS name: ATLANTA-FULTON WATER RES COMM
Address: 9750 SPRUILL ROAD Care of: FULTON CO. WATER RESOURCES CM
City: ALPHARETTA State: GA
Zip: 30022 Owner: ATLANTA-FULTON WATER RES COMM
Source code: Surface water Population: 25

PWS ID: GA1210038 PWS type: Not Reported
PWS name: Not Reported PWS address: Not Reported
PWS city: Not Reported PWS state: Not Reported
PWS zip: Not Reported County: FULTON
Source: Surface water Treatment Objective: DISINFECTION
Process: GASEOUS CHLORINATION, POST
Population: 0

PWS ID: GA1210038 Activity status: Active
Date system activated: Not Reported Date system deactivated: Not Reported
Retail population: 00000025 System name: ATLANTA-FULTON WATER RES COMM
System address: ATLANTA-FULTON WATER RES COMM

System address:	9750 SPRUILL ROAD	System city:	ALPHARETTA
System state:	GA	System zip:	30201
Population served:	Under 101 Persons	Treatment:	Treated
Latitude:	340431	Longitude:	0841739
Latitude:	335031	Longitude:	0842844
State:	GA	Latitude degrees:	33
Latitude minutes:	50	Latitude seconds:	31.0000
Longitude degrees:	84	Longitude minutes:	28
Longitude seconds:	44.0000		

C14
North
1 - 2 Miles
Higher

FRDS PWS GA1210000

Epa region:	04	State:	GA
Pwsid:	GA1210000	Pwsname:	ALPHARETTA
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Closed	Retpopsrvd:	11700
Pwssvcconn:	3392	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	CHATHAM, EARL	Contactorgname:	Not Reported
Contactphone:	678-297-6200	Contactaddress1:	1790 HEMBREE ROAD
Contactaddress2:	Not Reported	Contactcity:	ALPHARETTA
Contactstate:	GA	Contactzip:	30004
Pwsactivitycode:	I		
PWS ID:	GA1210000	PWS name:	ALPHARETTA
Address:	1790 HEMBREE ROAD	Care of:	CITY OF ALPHARETTA
City:	ALPHARETTA	State:	GA
Zip:	30004	Owner:	ALPHARETTA
Source code:	Purchases surface water	Population:	8060
PWS ID:	GA1210000	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA1210000
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00006539
System name:	ALPHARETTA	System address:	CITY OF ALPHARETTA
System address:	TWO SOUTH MAIN STREET	System city:	ALPHARETTA
System state:	GA	System zip:	30201
Population served:	5,001 - 10,000 Persons	Treatment:	Treated
Latitude:	335031	Longitude:	0842844
Violation id:	10098	Orig code:	S
State:	GA	Violation Year:	1995
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/1995
Cmp edt:	Not Reported		

Violation id:	20303	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	24	Violation name:	Monitoring, Routine Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	04/01/2003
Cmp edt:	04/30/2003		

Violation id:	20404	Orig code:	S
State:	GA	Violation Year:	1998
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/1998
Cmp edt:	Not Reported		

Violation id:	20505	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2004
Cmp edt:	10/31/2004		

Violation id:	20605	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	11/01/2004
Cmp edt:	11/30/2004		

Violation id:	20705	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2004
Cmp edt:	Not Reported		

Violation id:	20805	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2005
Cmp edt:	Not Reported		

Violation ID:	20303	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	05/29/2003
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	20303	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	05/29/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	20404	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	09/25/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20404	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	06/28/2004
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20404	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	02/03/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20505	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/03/2004
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20505	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/25/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20505	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/03/2004
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20605	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/07/2004
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20605	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/07/2004
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20605	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/25/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/27/2005
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/27/2005
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	05/26/2005
Enforcement Detail:	St Other	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	05/05/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/24/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005

Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

C15
North
1 - 2 Miles
Higher

FRDS PWS GA1210006

Epa region:	04	State:	GA
Pwsid:	GA1210006	Pwsname:	HAPEVILLE
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	5385
Pwssvcconn:	2071	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	MARTIN, C C	Contactorgname:	MARTIN, C C
Contactphone:	404-669-2100	Contactaddress1:	POB 82311
Contactaddress2:	Not Reported	Contactcity:	HAPEVILLE
Contactstate:	GA	Contactzip:	30354-2311
Pwsactivitycode:	A		

PWS ID:	GA1210006	PWS name:	HAPEVILLE
Address:	3560 PERKINS STREET	Care of:	CITY OF HAPEVILLE
City:	HAPEVILLE	State:	GA
Zip:	30354	Owner:	HAPEVILLE
Source code:	Purchases surface water	Population:	5385

PWS ID:	GA1210006	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	HAPEVILLE
PWS type code:	C	Retail population served:	5385
Contact:	MARTIN, C C	Contact address:	POB 82311
Contact address:	HAPEVILLE	Contact city:	GA
Contact state:	30	Contact zip:	404-669-21
Contact telephone:	Not Reported		

PWS ID:	GA1210006	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00005483	System name:	HAPEVILLE
System address:	CITY OF HAPEVILLE	System address:	POB 82311
System city:	HAPEVILLE	System state:	GA
System zip:	303542311		

Population served:	5,001 - 10,000 Persons	Treatment:	Treated

Latitude:	335031	Longitude:	0842844

Violation id:	10101	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2000
Cmp edt:	Not Reported		

Violation id:	10402	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR

Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		

Violation id:	10603	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		

Violation id:	10704	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2003
Cmp edt:	Not Reported		

Violation id:	10805	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		

Violation id:	10907	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	11008	Orig code:	S
State:	GA	Violation Year:	2007
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2007
Cmp edt:	Not Reported		

Violation id:	11209	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	05/01/2009
Cmp edt:	05/31/2009		

Violation id:	11612	Orig code:	S
State:	GA	Violation Year:	2011
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)

Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	11/01/2011
Cmp edt:	11/30/2011		

Violation id:	11613	Orig code:	S
State:	GA	Violation Year:	2012
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2012
Cmp edt:	Not Reported		

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/02/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	08/31/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10402	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/18/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10402	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/02/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/11/2003
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	10603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/18/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/07/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/01/2005
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/09/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10907	Orig Code:	S

Enforcemnt FY: 2007
Enforcement Detail: St Compliance achieved
Enforcement Action: 09/11/2007
Enforcement Category: Resolving

Violation ID: 10907
Enforcemnt FY: 2007
Enforcement Detail: State CCR Follow-up Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 09/01/2007

Violation ID: 11008
Enforcemnt FY: 2008
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 07/22/2008
Enforcement Category: Resolving

Violation ID: 11008
Enforcemnt FY: 2008
Enforcement Detail: State CCR Follow-up Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 08/12/2008

Violation ID: 11209
Enforcemnt FY: 2009
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 06/03/2009

Violation ID: 11209
Enforcemnt FY: 2009
Enforcement Detail: St Public Notif received
Orig Code: S
Enforcement Action: 07/02/2009
Enforcement Category: Informal

Violation ID: 11209
Enforcemnt FY: 2009
Enforcement Detail: St Public Notif requested
Orig Code: S
Enforcement Action: 06/03/2009
Enforcement Category: Informal

Violation ID: 11612
Enforcemnt FY: 2012
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 01/30/2012

Violation ID: 11612
Enforcemnt FY: 2012
Enforcement Detail: St Public Notif requested
Orig Code: S
Enforcement Action: 01/30/2012
Enforcement Category: Informal

Violation ID: 11612
Enforcemnt FY: 2012
Enforcement Detail: St Public Notif received
Orig Code: S
Enforcement Action: 02/08/2012
Enforcement Category: Informal

Violation ID: 11613
Enforcemnt FY: 2012
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 07/11/2012
Enforcement Category: Resolving

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 7/2/2001 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10101
Violation type: 71
Compliance end date: 8/31/2001 0:00:00
Enforcement action: State Intentional no-action

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 8/31/2001 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10101
Violation type: 71
Compliance end date: 8/31/2001 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
Population served: 5385

PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2002 0:00:00
Enforcement date: 7/18/2002 0:00:00
Violation measurement: Not Reported
Violation ID: 10402
Violation type: 71
Compliance end date: 7/18/2002 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2002 0:00:00
Enforcement date: 7/2/2002 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10402
Violation type: 71
Compliance end date: 7/18/2002 0:00:00
Enforcement action: State Violation/Reminder Notice

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2003 0:00:00
Enforcement date: 8/11/2003 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10603
Violation type: 71
Compliance end date: 8/18/2003 0:00:00
Enforcement action: SII

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2003 0:00:00
Enforcement date: 8/18/2003 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10603
Violation type: 71
Compliance end date: 8/18/2003 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2004 0:00:00
Enforcement date: 7/1/2004 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10704
Violation type: 71
Compliance end date: 7/7/2004 0:00:00
Enforcement action: State Intentional no-action

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2004 0:00:00
Enforcement date: 7/7/2004 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10704
Violation type: 71
Compliance end date: 7/7/2004 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2005 0:00:00
Enforcement date: 7/1/2005 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10805
Violation type: 71
Compliance end date: 8/9/2005 0:00:00
Enforcement action: State Intentional no-action

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2005 0:00:00
Enforcement date: 8/1/2005 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10805
Violation type: 71
Compliance end date: 8/9/2005 0:00:00
Enforcement action: SII

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2005 0:00:00
Enforcement date: 8/9/2005 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10805
Violation type: 71
Compliance end date: 8/9/2005 0:00:00
Enforcement action: State Compliance Achieved

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	10907
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/11/2007 0:00:00
Enforcement date:	9/1/2007 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	10907
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/11/2007 0:00:00
Enforcement date:	9/11/2007 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	11008
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	7/22/2008 0:00:00
Enforcement date:	7/22/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	11008
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	7/22/2008 0:00:00
Enforcement date:	8/12/2008 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

C16
North
1 - 2 Miles
Higher

FRDS PWS GA1210037

Epa region:	04	State:	GA
Pwsid:	GA1210037	Pwsname:	PROVIDENCE PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Closed	Retpopsrvd:	400
Pwssvcconn:	1	Psource longname:	Groundwater
Pwstype:	TNCWS	Owner:	Local_Govt
Contact:	CULBRETH, JOHN	Contactorgname:	CULBRETH, JOHN
Contactphone:	404-730-6200	Contactaddress1:	141 PRIOR ST., SW SUITE 8054
Contactaddress2:	Not Reported	Contactcity:	ATLANTA
Contactstate:	GA	Contactzip:	30303
Pwsactivitycode:	I		

Pwsid:	GA1210037	Facid:	1033
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

PWS ID:	GA1210037	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA1210037
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000400
System name:	PROVIDENCE PARK	System address:	PROVIDENCE PARK
System address:	13440 PROVIDENCE ROAD	System city:	ALPHARETTA
System state:	GA	System zip:	30201

Population served:	101 - 500 Persons	Treatment:	Treated
Latitude:	334456	Longitude:	0842317
Latitude:	335031	Longitude:	0842844

Violation id:	20203	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2003
Cmp edt:	03/31/2003		

Violation id:	20306	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2005
Cmp edt:	12/31/2005		

Violation id:	20407	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2006
Cmp edt:	12/31/2006		

Violation ID:	20203	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	04/16/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	20203	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	04/16/2003
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/21/2006
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/21/2006
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/15/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	06/08/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal

Violation ID:	20407	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	01/19/2007
Enforcement Detail:	St Violation/Reminder Notice		

Enforcement Category:	Informal		
Violation ID:	20407	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	01/19/2007
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

---

C17
North
1 - 2 Miles
Higher

FRDS PWS GA1210002

Epa region:	04	State:	GA
Pwsid:	GA1210002	Pwsname:	COLLEGE PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	20382
Pwssvcconn:	2620	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	LEE, PHIL	Contactorgname:	LEE, PHIL
Contactphone:	404-669-3757	Contactaddress1:	1886 W HARVARD AVE.
Contactaddress2:	Not Reported	Contactcity:	COLLEGE PARK
Contactstate:	GA	Contactzip:	30337
Pwsactivitycode:	A		

PWS ID:	GA1210002	PWS name:	COLLEGE PARK
Address:	1886 WEST HARVARD AVE.	Care of:	CITY OF COLLEGE PARK
City:	COLLEGE PARK	State:	GA
Zip:	30337	Owner:	COLLEGE PARK
Source code:	Purchases surface water	Population:	20645

PWS ID:	GA1210002	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	COLLEGE PARK
PWS type code:	C	Retail population served:	20382
Contact:	HOWARD, JR., JESSIE	Contact address:	POB 87137
Contact address:	COLLEGE PARK	Contact city:	GA
Contact state:	30	Contact zip:	404-669-37
Contact telephone:	Not Reported		

PWS ID:	GA1210002	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00020457	System name:	COLLEGE PARK
System address:	CITY OF COLLEGE PARK	System address:	1886 WEST HARVARD AVE.
System city:	COLLEGE PARK	System state:	GA
System zip:	30337		

Population served:	10,001 - 50,000 Persons	Treatment:	Treated
Latitude:	335031	Longitude:	0842844

Violation id:	10301	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		

Violation id:	11407	Orig code:	S

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

State: GA
Contamination code: 5000
Violation code: 52
Rule code: 350
Violation measur: Not Reported
State mcl: Not Reported
Cmp edt: Not Reported
Violation Year: 2006
Contamination Name: Lead and Copper Rule
Violation name: Follow-up Or Routine LCR Tap M/R
Rule name: LCR
Unit of measure: Not Reported
Cmp bdt: 10/01/2006

Violation ID: 10301
Enforcemnt FY: 2001
Enforcement Detail: St Intentional no-action
Orig Code: S
Enforcement Action: 07/02/2001
Enforcement Category: Resolving

Violation ID: 10301
Enforcemnt FY: 2001
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 08/10/2001
Enforcement Category: Resolving

Violation ID: 11407
Enforcemnt FY: 2007
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 03/02/2007

Violation ID: 11407
Enforcemnt FY: 2010
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 09/14/2010
Enforcement Category: Resolving

Violation ID: 11407
Enforcemnt FY: 2007
Enforcement Detail: St Public Notif requested
Orig Code: S
Enforcement Action: 03/02/2007
Enforcement Category: Informal

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 7/2/2001 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 10301
Violation type: 71
Compliance end date: 8/10/2001 0:00:00
Enforcement action: State Intentional no-action

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 8/10/2001 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 10301
Violation type: 71
Compliance end date: 8/10/2001 0:00:00
Enforcement action: State Compliance Achieved

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: LEAD & COPPER RULE
Compliance start date: 10/1/2006 0:00:00
Enforcement date: 3/2/2007 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 11407
Violation type: Follow-up and Routine Tap Sampling
Compliance end date: 12/31/2025 0:00:00
Enforcement action: State Violation/Reminder Notice

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: LEAD & COPPER RULE
Compliance start date: 10/1/2006 0:00:00
Enforcement date: 3/2/2007 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 11407
Violation type: Follow-up and Routine Tap Sampling
Compliance end date: 12/31/2025 0:00:00
Enforcement action: State Public Notif Requested

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C18
North
1 - 2 Miles
Higher | **FRDS PWS** | **GA1210039**

Epa region:	04	State:	GA
Pwsid:	GA1210039	Pwsname:	CHAMPIONS CLUB OF ATLANTA
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Closed	Retpopsrvd:	255
Pwssvcconn:	2	Psource longname:	Groundwater
Pwstype:	NTNCWS	Owner:	Private
Contact:	MELNIK, STEVE	Contactorgname:	Not Reported
Contactphone:	904-356-1000	Contactaddress1:	111 RIVERSIDE AVE., SUITE 330
Contactaddress2:	Not Reported	Contactcity:	JACKSONVILLE
Contactstate:	FL	Contactzip:	33202
Pwsactivitycode:	I		

Pwsid:	GA1210039	Facid:	1035
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

PWS ID:	GA1210039	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA1210039
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000025
System name:	CHAMPIONS CLUB-HOPEWELL DOWNS		
System address:	CHAMPIONS CLUB-HOPEWELL DOWNS		
System address:	15135 HOPEWELL ROAD	System city:	ALPHARETTA
System state:	GA	System zip:	30201

Population served:	101 - 500 Persons	Treatment:	Treated

Latitude:	340431	Longitude:	0841739

Latitude:	335031	Longitude:	0842844

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200001	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	010192	Violation end date:	033192
Violation period (months):	003	Violation awareness date:	Not Reported
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200002	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	040192	Violation end date:	063092
Violation period (months):	003	Violation awareness date:	Not Reported
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported

Analysis method:	Not Reported	Analysis result:	Not Reported

C19
North
1 - 2 Miles
Higher

FRDS PWS GA1210007

Epa region:	04	State:	GA
Pwsid:	GA1210007	Pwsname:	MOUNTAIN PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	798
Pwssvcconn:	307	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	SCHMIDT, BILL	Contactorgname:	SCHMIDT, BILL
Contactphone:	770-993-4231	Contactaddress1:	118 LAKE SHORE DRIVE
Contactaddress2:	Not Reported	Contactcity:	MOUNTAIN PARK
Contactstate:	GA	Contactzip:	30075
Pwsactivitycode:	A		

PWS ID:	GA1210007	PWS name:	MOUNTAIN PARK
Address:	100 MOUNTAIN PARK ROAD	Care of:	CITY OF MOUNTAIN PARK
City:	ROSWELL	State:	GA
Zip:	30075	Owner:	MOUNTAIN PARK
Source code:	Purchases surface water	Population:	679

PWS ID:	GA1210007	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	MOUNTAIN PARK
PWS type code:	C	Retail population served:	798
Contact:	SCHMIDT, BILL	Contact address:	118 LAKE SHORE DRIVE
Contact address:	MOUNTAIN PARK	Contact city:	GA
Contact state:	30	Contact zip:	770-993-42
Contact telephone:	Not Reported		

PWS ID:	GA1210007	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000679	System name:	MOUNTAIN PARK
System address:	CITY OF MOUNTAIN PARK	System address:	100 MOUNTAIN PARK ROAD
System city:	ROSWELL	System state:	GA
System zip:	30075		

Population served:	501 - 1,000 Persons	Treatment:	Treated

Latitude:	335031	Longitude:	0842844

Violation id:	1005	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		

Violation id:	1107	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR

Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	1408	Orig code:	S
State:	GA	Violation Year:	2007
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2007
Cmp edt:	Not Reported		

Violation id:	1613	Orig code:	S
State:	GA	Violation Year:	2012
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2012
Cmp edt:	Not Reported		

Violation id:	1614	Orig code:	S
State:	GA	Violation Year:	2013
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2013
Cmp edt:	Not Reported		

Violation id:	201	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2000
Cmp edt:	Not Reported		

Violation id:	302	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		

Violation id:	603	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		

Violation id:	804	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report

Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2003
Cmp edt:	Not Reported		

Violation id:	905	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	26	Violation name:	Monitoring, Repeat Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	06/01/2005
Cmp edt:	06/30/2005		

Violation ID:	1005	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/29/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1005	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/01/2005
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1107	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	09/01/2007
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1107	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	10/05/2007
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1107	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	09/10/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1408	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	09/10/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1408	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/12/2008
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1613	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	08/27/2012
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1613	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	10/18/2012
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1614	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	07/02/2013
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1614	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	08/27/2013

Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/02/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/07/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	302	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/23/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	302	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	08/08/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/19/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/11/2003
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	804	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	09/08/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	804	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	08/20/2004
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	905	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/21/2005
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	905	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/21/2005
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1005
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	8/29/2005 0:00:00
Enforcement date:	8/1/2005 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		
PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1005
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	8/29/2005 0:00:00
Enforcement date:	8/29/2005 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1107

Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	10/5/2007 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1107
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	9/1/2007 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1107
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	9/10/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1408
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	8/12/2008 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1408
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	9/10/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	201
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2001 0:00:00	Compliance end date:	9/7/2001 0:00:00
Enforcement date:	7/2/2001 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	201
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2001 0:00:00	Compliance end date:	9/7/2001 0:00:00
Enforcement date:	9/7/2001 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	302
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2002 0:00:00	Compliance end date:	8/8/2002 0:00:00
Enforcement date:	7/23/2002 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	302
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2002 0:00:00	Compliance end date:	8/8/2002 0:00:00
Enforcement date:	8/8/2002 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798

PWS type code:	C	Violation ID:	603
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2003 0:00:00	Compliance end date:	8/19/2003 0:00:00
Enforcement date:	8/11/2003 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	603
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2003 0:00:00	Compliance end date:	8/19/2003 0:00:00
Enforcement date:	8/19/2003 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	804
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	9/8/2004 0:00:00
Enforcement date:	8/20/2004 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	804
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	9/8/2004 0:00:00
Enforcement date:	9/8/2004 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	905
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Repeat Minor (TCR)
Compliance start date:	6/1/2005 0:00:00	Compliance end date:	6/30/2005 0:00:00
Enforcement date:	7/21/2005 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	905
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Repeat Minor (TCR)
Compliance start date:	6/1/2005 0:00:00	Compliance end date:	6/30/2005 0:00:00
Enforcement date:	7/21/2005 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		

C20
North
1 - 2 Miles
Higher

FRDS PWS GA1210005

Epa region:	04	State:	GA
Pwsid:	GA1210005	Pwsname:	NORTH FULTON COUNTY
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	172533
Pwssvcconn:	70291	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	PERSON, PATRICK	Contactorgname:	PERSON, PATRICK
Contactphone:	404-612-9429	Contactaddress1:	1030 MARIETTA HWY
Contactaddress2:	Not Reported	Contactcity:	ROSWELL
Contactstate:	GA	Contactzip:	30075
Pwsactivitycode:	A		

PWS ID:	GA1210005	PWS name:	NORTH FULTON COUNTY
Address:	141 PRYOR ST. SW SUITE 6001		

Care of:	DEPT. OF PUBLIC WORKS	City:	ATLANTA
State:	GA	Zip:	30303
Owner:	NORTH FULTON COUNTY	Source code:	Purchases surface water
Population:	106600		
PWS ID:	GA1210005	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	NORTH FULTON COUNTY
PWS type code:	C	Retail population served:	172533
Contact:	BAH, MARIE	Contact address:	1030 MARIETTA HWY.
Contact address:	ROSWELL	Contact city:	GA
Contact state:	30	Contact zip:	404-612-02
Contact telephone:	Not Reported		
PWS ID:	GA1210005	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00060000	System name:	NORTH FULTON COUNTY
System address:	NORTH FULTON WATER SYSTEM	System address:	1030 MARIETTA HIGHWAY
System city:	ROSWELL	System state:	GA
System zip:	300754732		
Population served:	50,001 - 75,000 Persons	Treatment:	Treated
Latitude:	335031	Longitude:	0842844
Latitude:	335031	Longitude:	0842844
Latitude:	335031	Longitude:	0842844
Latitude:	335031	Longitude:	0842844
Violation id:	10102	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		
Violation id:	10304	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2002
Cmp edt:	Not Reported		
Violation id:	10404	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		
Violation id:	10606	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule

Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	10808	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		

Violation ID:	10102	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/18/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10102	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/23/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10304	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	09/22/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10304	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	02/03/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10404	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/02/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10404	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10606	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/21/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10606	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/21/2006
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10808	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/14/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10808	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/12/2008
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

PWS name:	NORTH FULTON COUNTY	Population served:	172533
PWS type code:	C	Violation ID:	10102
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2002 0:00:00	Compliance end date:	7/18/2002 0:00:00

Enforcement date: 7/18/2002 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10102
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2002 0:00:00
Compliance end date: 7/18/2002 0:00:00
Enforcement date: 7/23/2002 0:00:00
Enforcement action: State Violation/Reminder Notice
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10304
Contaminant: LEAD & COPPER RULE
Violation type: Follow-up and Routine Tap Sampling
Compliance start date: 10/1/2002 0:00:00
Compliance end date: 9/22/2003 0:00:00
Enforcement date: 2/3/2003 0:00:00
Enforcement action: State Violation/Reminder Notice
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10304
Contaminant: LEAD & COPPER RULE
Violation type: Follow-up and Routine Tap Sampling
Compliance start date: 10/1/2002 0:00:00
Compliance end date: 9/22/2003 0:00:00
Enforcement date: 9/22/2003 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10404
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2004 0:00:00
Compliance end date: 7/2/2004 0:00:00
Enforcement date: 7/1/2004 0:00:00
Enforcement action: State Intentional no-action
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10404
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2004 0:00:00
Compliance end date: 7/2/2004 0:00:00
Enforcement date: 7/2/2004 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10606
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2006 0:00:00
Compliance end date: 7/21/2006 0:00:00
Enforcement date: 7/21/2006 0:00:00
Enforcement action: State Intentional no-action
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10606
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2006 0:00:00
Compliance end date: 7/21/2006 0:00:00
Enforcement date: 7/21/2006 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10808
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2008 0:00:00
Compliance end date: 8/14/2008 0:00:00
Enforcement date: 8/12/2008 0:00:00
Enforcement action: SII
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10808
Contaminant: 7000
Violation type: 71

Compliance start date:	7/1/2008 0:00:00	Compliance end date:	8/14/2008 0:00:00
Enforcement date:	8/14/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

D21
NNW
1 - 2 Miles
Higher

GA WELLS **0000002233**

County code:	067	Well num:	10EE39
Remarks:	BP GAS STN S ATLANTA ROAD	Lat:	335041
Lon:	0842922	Latlon datum:	NAD27
Alt:	930	Alt datum:	NGVD29
Depth:	39	Depth to casing:	29
Casing dia:	2	Casing matl:	P
Depth to top:	29	Depth to bot:	39
Opening type:	P	Constr date:	19900724
Discharge:	Not Reported	Prim use:	U
Aquifer code:	110SPRL	Edr id:	0000002233

D22
NNW
1 - 2 Miles
Higher

FED USGS **USGS40000265168**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE39	Type:	Well
Description:	BP GAS STN S ATLANTA ROAD	HUC:	03130001
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation Type:	Saprolite	Aquifer Type:	Unconfined single aquifer
Construction Date:	19900724	Well Depth:	39
Well Depth Units:	ft	Well Hole Depth:	39.5
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1995-06-27
Feet below surface:	29.62	Feet to sea level:	Not Reported
Note:	Not Reported		

E23
WSW
1 - 2 Miles
Higher

FED USGS **USGS40000265030**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	09EE06	Type:	Well
Description:	CLAUDE W. McAteer	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation Type:	Saprolite	Aquifer Type:	Unconfined single aquifer
Construction Date:	1940	Well Depth:	38
Well Depth Units:	ft	Well Hole Depth:	38
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1995-06-01

Feet below surface:	28.95	Feet to sea level:	Not Reported
Note:	Not Reported		

E24
WSW
1 - 2 Miles
Higher

GA WELLS **0000002229**

County code:	067	Well num:	09EE06
Remarks:	CLAUDE W. McAteer	Lat:	334818
Lon:	0843036	Latlon datum:	NAD27
Alt:	880	Alt datum:	NGVD29
Depth:	38	Depth to casing:	Not Reported
Casing dia:	30	Casing matl:	B
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	1940
Discharge:	Not Reported	Prim use:	H
Aquifer code:	110SPRL	Edr id:	0000002229

25
ESE
1 - 2 Miles
Higher

GA WELLS **0000004654**

County code:	121	Well num:	10EE36
Remarks:	TREMONT TMPL BPTST CH SPG	Lat:	334827
Lon:	0842659	Latlon datum:	NAD27
Alt:	925	Alt datum:	NGVD29
Depth:	Not Reported	Depth to casing:	Not Reported
Casing dia:	Not Reported	Casing matl:	Not Reported
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	5	Prim use:	U
Aquifer code:	320CRSL	Edr id:	0000004654

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for COBB County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 30080

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.067 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.300 pCi/L	67%	33%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Georgia GIS Clearinghouse
Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

A listing of Private Water Well locations
Georgia Department of Public Health
Telephone: (404) 657-2700
A listing of Private Water Well locations

Georgia Public Supply Wells
Source: Georgia Department of Community Affairs
Telephone: 404-894-0127

USGS Georgia Water Wells
Source: USGS, Georgia District Office
Telephone: 770-903-9100

DNR Managed Lands
Source: Department of Natural Resources
Telephone: 706-557-3032
This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

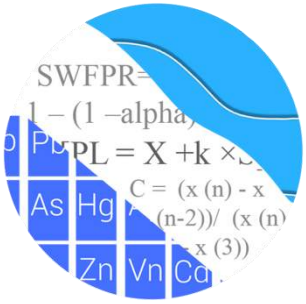
STREET AND ADDRESS INFORMATION

APPENDIX F

Statistical Analyses

GROUNDWATER STATS CONSULTING

February 28, 2024



Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant McDonough Ash Pond (AP-1)
September 2023 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2023 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 (CCR) 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 assessment 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, DGWC-69, and DGWC-121
- **Assessment wells:** B-62, B-100, B-105D, and B-112D

Note that downgradient well DGWC-121 was installed in March 2022 and was first sampled in June 2022, for all constituents except combined radium 226 + 228 which was first sampled in September 2022. Data from this well are plotted on the time series graphs and box plots. Per request of Georgia Power Company, both Appendix III and Appendix IV constituents among downgradient wells will be evaluated using interwell prediction limits and confidence intervals, respectively, when a minimum of 8 samples are available.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager 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 assessment well/constituent pairs with 100% non-detects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. 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, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after screening for any new outliers. In 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 – September 2023

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2023 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2023 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. Exceedances were noted for the following well/constituent pairs:

- Boron: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, and DGWC-68A
- Calcium: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, and DGWC-68A
- Chloride: DGWC-40 and DGWC-67

- pH: DGWC-40 (lower limit)
- Sulfate: DGWC-37, DGWC-38, DGWC-39, DGWC-40, and DGWC-67
- TDS: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, and DGWC-68A

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells. Similar patterns that are present in both upgradient and downgradient wells may be an indication of 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:

- Boron: DGWC-67
- Calcium: DGWC-67 and DGWC-68A
- Chloride: DGWA-71 (upgradient) and DGWC-67

Decreasing trends:

- Boron: DGWA-53 (upgradient), DGWC-39, and DGWC-40
- Calcium: DGWA-53 (upgradient)
- Chloride: DGWA-53 (upgradient) and DGWC-40
- Sulfate: DGWA-71 (upgradient), DGWC-38, DGWC-39, and DGWC-40
- TDS: DGWA-53 (upgradient) and DGWC-39

Statistical Analysis of Appendix IV Parameters – September 2023

For Appendix IV parameters, confidence intervals for each downgradient well/constituent were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient and assessment 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 additional 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 2023 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 226 + 228. 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).

The Sanitas software was used to calculate the tolerance limits and the confidence intervals. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence

intervals were used for Appendix IV parameters. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. Nonparametric confidence intervals were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

Due to limited sample size, the lower confidence limit resulted in a negative number for combined radium 226 + 228 at well B-112D. Therefore, a non-parametric confidence interval, which is bound by high and low reported measurements within a given well, was constructed for this particular case 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.

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 at the 95% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Although the trend tests for Assessment monitoring pairs were previously evaluated using 99% confidence, the 95% confidence level more rapidly identifies statistically significant trends. Additionally, the 95% confidence is recommended in cases with limited sample sizes and, particularly, for new assessment wells. Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient wells, it is an indication of variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:

- Arsenic: DGWC-69
- Cobalt: DGWA-71 (upgradient)

Decreasing trends:

- Cobalt: DGWA-53 (upgradient)
- Molybdenum: DGWC-68A

Note that while the trend test identified a statistically significant increasing trend for cobalt in upgradient well DGWA-71, the slope is displayed as zero which represents the median slopes of all the possible pairwise slopes. The zero median slopes result from the large number of non-detects in the record, and the positive test statistics result from a few trace values being recorded in the earlier part of the record.

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,

Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 11/16/2023 4:50 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Antimony (mg/L)
DGWC-38, DGWC-39

Arsenic (mg/L)
B-100

Beryllium (mg/L)
B-105D, B-112D, DGWC-39, DGWC-67

Cadmium (mg/L)
B-105D, B-112D, B-62, DGWC-39

Chromium (mg/L)
DGWC-39

Lead (mg/L)
B-62

Lithium (mg/L)
DGWC-39

Mercury (mg/L)
B-112D, B-62

Molybdenum (mg/L)
B-62, DGWC-37, DGWC-40

Selenium (mg/L)
B-105D, B-112D, B-62, DGWC-37, DGWC-39, DGWC-69

Thallium (mg/L)
B-100, B-105D, B-112D, B-62, DGWC-37, DGWC-67, DGWC-69

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:17 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-37	0.13	n/a	9/6/2023	1.7	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-38	0.13	n/a	9/7/2023	2.8	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-39	0.13	n/a	9/7/2023	2.7	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-40	0.13	n/a	9/7/2023	0.73	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-67	0.13	n/a	9/7/2023	3.9	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-68A	0.13	n/a	9/7/2023	1.8	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-37	40.3	n/a	9/6/2023	59.1	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-38	40.3	n/a	9/7/2023	86.5	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-39	40.3	n/a	9/7/2023	81.2	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-40	40.3	n/a	9/7/2023	41	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-67	40.3	n/a	9/7/2023	43.3	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-68A	40.3	n/a	9/7/2023	53.6	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-40	8.2	n/a	9/7/2023	13.6	Yes	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-67	8.2	n/a	9/7/2023	9.2	Yes	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-40	6.69	5.43	9/7/2023	4.67	Yes	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-37	49	n/a	9/6/2023	83.4	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-38	49	n/a	9/7/2023	212	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-39	49	n/a	9/7/2023	124	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-40	49	n/a	9/7/2023	177	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-67	49	n/a	9/7/2023	106	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	238.1	n/a	9/6/2023	324	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	238.1	n/a	9/7/2023	526	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	238.1	n/a	9/7/2023	421	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	238.1	n/a	9/7/2023	359	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	238.1	n/a	9/7/2023	337	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	238.1	n/a	9/7/2023	253	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:17 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**DGWC-37**	**0.13**	**n/a**	**9/6/2023**	**1.7**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-38**	**0.13**	**n/a**	**9/7/2023**	**2.8**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-39**	**0.13**	**n/a**	**9/7/2023**	**2.7**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-40**	**0.13**	**n/a**	**9/7/2023**	**0.73**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-67**	**0.13**	**n/a**	**9/7/2023**	**3.9**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-68A**	**0.13**	**n/a**	**9/7/2023**	**1.8**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	DGWC-69	0.13	n/a	9/7/2023	0.052	No	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	**DGWC-37**	**40.3**	**n/a**	**9/6/2023**	**59.1**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-38**	**40.3**	**n/a**	**9/7/2023**	**86.5**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-39**	**40.3**	**n/a**	**9/7/2023**	**81.2**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-40**	**40.3**	**n/a**	**9/7/2023**	**41**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-67**	**40.3**	**n/a**	**9/7/2023**	**43.3**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-68A**	**40.3**	**n/a**	**9/7/2023**	**53.6**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	DGWC-69	40.3	n/a	9/7/2023	8.1	No	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-37	8.2	n/a	9/6/2023	5.4	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-38	8.2	n/a	9/7/2023	8.2	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-39	8.2	n/a	9/7/2023	7.2	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	**DGWC-40**	**8.2**	**n/a**	**9/7/2023**	**13.6**	**Yes**	**55**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**DGWC-67**	**8.2**	**n/a**	**9/7/2023**	**9.2**	**Yes**	**55**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	DGWC-68A	8.2	n/a	9/7/2023	3.9	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-69	8.2	n/a	9/7/2023	5.1	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-37	0.42	n/a	9/6/2023	0.053J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-38	0.42	n/a	9/7/2023	0.072J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-39	0.42	n/a	9/7/2023	0.092J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-40	0.42	n/a	9/7/2023	0.14	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-67	0.42	n/a	9/7/2023	0.1ND	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-68A	0.42	n/a	9/7/2023	0.096J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-69	0.42	n/a	9/7/2023	0.063J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-37	6.69	5.43	9/6/2023	6.26	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-38	6.69	5.43	9/7/2023	6.07	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-39	6.69	5.43	9/7/2023	6.55	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	**DGWC-40**	**6.69**	**5.43**	**9/7/2023**	**4.67**	**Yes**	**62**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0009874**	**NP Inter (normality) 1 of 2**
pH, Field (SU)	DGWC-67	6.69	5.43	9/7/2023	6.21	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-68A	6.69	5.43	9/7/2023	6.6	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-69	6.69	5.43	9/7/2023	6.16	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**DGWC-37**	**49**	**n/a**	**9/6/2023**	**83.4**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-38**	**49**	**n/a**	**9/7/2023**	**212**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-39**	**49**	**n/a**	**9/7/2023**	**124**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-40**	**49**	**n/a**	**9/7/2023**	**177**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-67**	**49**	**n/a**	**9/7/2023**	**106**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	DGWC-68A	49	n/a	9/7/2023	34.2	No	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-69	49	n/a	9/7/2023	6.9	No	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	**DGWC-37**	**238.1**	**n/a**	**9/6/2023**	**324**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-38**	**238.1**	**n/a**	**9/7/2023**	**526**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**238.1**	**n/a**	**9/7/2023**	**421**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-40**	**238.1**	**n/a**	**9/7/2023**	**359**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-67**	**238.1**	**n/a**	**9/7/2023**	**337**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-68A**	**238.1**	**n/a**	**9/7/2023**	**253**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	238.1	n/a	9/7/2023	106	No	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2

Appendix III Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003815**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-39**	**-0.1188**	**-83**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.02836**	**-82**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.1043**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.489**	**-105**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-67**	**0.8732**	**70**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-68A**	**1.409**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1444**	**-106**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-71 (bg)**	**0.6112**	**69**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7275**	**-92**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.5939**	**131**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.7648**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-38**	**-8.286**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-20.53**	**-108**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.746**	**-85**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-19.82**	**-110**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-17.23**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003815**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWA-70A (bg)	0	12	68	No	18	50	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	0.0006045	25	63	No	17	23.53	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-37	-0.03141	-33	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-38	-0.05069	-59	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**DGWC-39**	**-0.1188**	**-83**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.02836**	**-82**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.1043**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWC-68A	-0.02929	-32	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.489**	**-105**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	DGWA-70A (bg)	0.04315	15	68	No	18	5.556	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-0.2966	-37	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-37	0.9165	43	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-38	1.333	53	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-39	-0.5609	-14	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-40	0.1995	15	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWC-67**	**0.8732**	**70**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-68A**	**1.409**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1444**	**-106**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	DGWA-70A (bg)	-0.03406	-39	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**DGWA-71 (bg)**	**0.6112**	**69**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7275**	**-92**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.5939**	**131**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, Field (SU)	DGWA-53 (bg)	0.02783	39	87	No	21	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02199	-46	-81	No	20	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.004559	10	87	No	21	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02096	-56	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-53 (bg)	-0.3271	-19	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	0	-25	-68	No	18	50	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.7648**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-37	-1.952	-51	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWC-38**	**-8.286**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-20.53**	**-108**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.746**	**-85**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-67	0	-5	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-19.82**	**-110**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	0	0	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-1.946	-37	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	1.283	10	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	1.133	7	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-17.23**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-3.231	-27	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	0.3303	1	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	-4.867	-56	-68	No	18	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:29 PM

Constituent	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.0045	n/a	n/a	n/a	56	82.14	n/a	n/a	0.05656	NP Inter(NDs)
Arsenic (mg/L)	0.0054	n/a	n/a	n/a	56	75	n/a	n/a	0.05656	NP Inter(NDs)
Barium (mg/L)	0.19	n/a	n/a	n/a	56	0	n/a	n/a	0.05656	NP Inter(normality)
Beryllium (mg/L)	0.0009	n/a	n/a	n/a	57	54.39	n/a	n/a	0.05373	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	56	92.86	n/a	n/a	0.05656	NP Inter(NDs)
Chromium (mg/L)	0.005	n/a	n/a	n/a	55	69.09	n/a	n/a	0.05954	NP Inter(NDs)
Cobalt (mg/L)	0.0322	n/a	n/a	n/a	56	42.86	n/a	n/a	0.05656	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	4.866	n/a	n/a	n/a	58	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.42	n/a	n/a	n/a	60	48.33	n/a	n/a	0.04607	NP Inter(normality)
Lead (mg/L)	0.001	n/a	n/a	n/a	56	83.93	n/a	n/a	0.05656	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	56	35.71	n/a	n/a	0.05656	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	56	85.71	n/a	n/a	0.05656	NP Inter(NDs)
Molybdenum (mg/L)	0.0409	n/a	n/a	n/a	56	64.29	n/a	n/a	0.05656	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	56	100	n/a	n/a	0.05656	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	56	94.64	n/a	n/a	0.05656	NP Inter(NDs)

PLANT MCDONOUGH ASH POND AP-1 GWPS TABLE				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.0045	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		4.87	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 Data: McDonough AP Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**DGWC-69**	**0.03524**	**0.01402**	**0.01**	**Yes**	**21**	**0**	**None**	**ln(x)**	**0.01**	**Param.**
Cobalt (mg/L)	**DGWC-40**	**0.04415**	**0.03748**	**0.032**	**Yes**	**19**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**DGWC-68A**	**0.2185**	**0.1943**	**0.1**	**Yes**	**19**	**0**	**None**	**ln(x)**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant McDonough Data: McDonough AP Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.003	0.0013	0.006	No	8	75	None	No	0.004	NP (NDs)
Antimony (mg/L)	B-105D	0.0082	0.00069	0.006	No	7	57.14	None	No	0.008	NP (NDs)
Antimony (mg/L)	B-112D	0.003	0.00041	0.006	No	6	83.33	None	No	0.0155	NP (NDs)
Antimony (mg/L)	B-62	0.003	0.003	0.006	No	11	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-37	0.003	0.0014	0.006	No	18	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	18	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.0039	0.0023	0.006	No	18	77.78	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	18	88.89	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	19	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	B-105D	0.0051	0.0025	0.01	No	7	57.14	None	No	0.008	NP (NDs)
Arsenic (mg/L)	B-112D	0.005	0.00078	0.01	No	6	66.67	None	No	0.0155	NP (NDs)
Arsenic (mg/L)	B-62	0.005	0.005	0.01	No	11	90.91	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.00075	0.01	No	19	57.89	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.003	0.01	No	19	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0033	0.01	No	19	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	**DGWC-69**	**0.03524**	**0.01402**	**0.01**	**Yes**	**21**	**0**	**None**	**ln(x)**	**0.01**	**Param.**
Barium (mg/L)	B-100	0.098	0.015	2	No	8	0	None	No	0.004	NP (normality)
Barium (mg/L)	B-105D	0.04061	0.03196	2	No	7	0	None	No	0.01	Param.
Barium (mg/L)	B-112D	0.026	0.0026	2	No	6	0	None	No	0.0155	NP (normality)
Barium (mg/L)	B-62	0.02504	0.01841	2	No	11	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1054	0.08679	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.03322	0.03113	2	No	19	0	None	x^5	0.01	Param.
Barium (mg/L)	DGWC-39	0.09697	0.08608	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.018	0.0163	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1087	0.09352	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.098	0.086	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-69	0.09388	0.06299	2	No	20	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0005753	0.0003347	0.004	No	8	12.5	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0025	0.00009	0.004	No	12	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.00007	0.004	No	19	57.89	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	19	94.74	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.0033	0.002843	0.004	No	19	5.263	None	x^3	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	19	89.47	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000063	0.004	No	20	60	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00025	0.005	No	8	12.5	None	No	0.004	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.0002	0.005	No	19	73.68	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	19	21.05	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008391	0.0007101	0.005	No	19	10.53	None	x^2	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00021	0.005	No	19	73.68	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.0002339	0.0001464	0.005	No	19	47.37	Kaplan-Meier	x^(1/3)	0.01	Param.
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	20	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.005	0.00057	0.1	No	8	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	B-105D	0.005	0.0012	0.1	No	7	85.71	None	No	0.008	NP (NDs)
Chromium (mg/L)	B-112D	0.005	0.00085	0.1	No	6	66.67	None	No	0.0155	NP (NDs)
Chromium (mg/L)	B-62	0.005	0.005	0.1	No	11	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	19	89.47	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	19	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.0007	0.1	No	19	47.37	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.0014	0.1	No	19	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0013	0.1	No	20	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.07002	0.01754	0.032	No	10	10	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-105D	0.009078	0.00257	0.032	No	7	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-112D	0.005	0.0004	0.032	No	6	50	None	No	0.0155	NP (normality)
Cobalt (mg/L)	B-62	0.005	0.00031	0.032	No	12	83.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	19	84.21	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	19	10.53	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.006636	0.005785	0.032	No	19	10.53	None	No	0.01	Param.
Cobalt (mg/L)	**DGWC-40**	**0.04415**	**0.03748**	**0.032**	**Yes**	**19**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	DGWC-67	0.0041	0.0012	0.032	No	19	10.53	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	19	84.21	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0028	0.032	No	20	70	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	B-100	1.134	0.3305	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-105D	5.526	0.832	5	No	6	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-112D	1.76	0.241	5	No	5	0	None	No	0.031	NP (selected)

Confidence Intervals - All Results

Plant McDonough Data: McDonough AP Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-62	1.992	1.426	5	No	10	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.069	0.5663	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	0.9592	0.3387	5	No	18	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.245	0.6391	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.473	0.6808	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.9342	0.4769	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.336	0.6252	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.765	1.158	5	No	19	0	None	No	0.01	Param.
Fluoride (mg/L)	B-100	0.1	0.052	4	No	8	75	None	No	0.004	NP (NDs)
Fluoride (mg/L)	B-105D	0.32	0.058	4	No	7	0	None	No	0.008	NP (normality)
Fluoride (mg/L)	B-112D	0.3415	0.2518	4	No	6	0	None	No	0.01	Param.
Fluoride (mg/L)	B-62	0.23	0.099	4	No	10	0	None	No	0.011	NP (normality)
Fluoride (mg/L)	DGWC-37	0.089	0.057	4	No	20	5	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-38	0.1456	0.07595	4	No	20	10	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-39	0.15	0.086	4	No	20	5	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-40	0.258	0.132	4	No	20	5	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-67	0.1	0.068	4	No	20	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-68A	0.15	0.082	4	No	20	5	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-69	0.155	0.0876	4	No	21	4.762	None	sqrt(x)	0.01	Param.
Lead (mg/L)	B-100	0.001	0.000088	0.015	No	8	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	B-105D	0.001	0.000052	0.015	No	7	85.71	None	No	0.008	NP (NDs)
Lead (mg/L)	B-112D	0.001	0.00014	0.015	No	6	83.33	None	No	0.0155	NP (NDs)
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.00014	0.015	No	19	73.68	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.000081	0.015	No	19	57.89	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-67	0.001	0.00025	0.015	No	19	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.0001	0.015	No	20	65	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.015	0.0013	0.04	No	8	12.5	None	No	0.004	NP (normality)
Lithium (mg/L)	B-105D	0.015	0.013	0.04	No	7	0	None	No	0.008	NP (normality)
Lithium (mg/L)	B-112D	0.004555	0.003679	0.04	No	6	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.0094	0.0078	0.04	No	11	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-37	0.0029	0.0019	0.04	No	19	21.05	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0034	0.0028	0.04	No	19	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.0027	0.0022	0.04	No	19	10.53	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.005	0.0044	0.04	No	19	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	19	89.47	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0023	0.04	No	20	5	None	No	0.01	NP (normality)
Mercury (mg/L)	B-100	0.0002	0.00011	0.002	No	7	85.71	None	No	0.008	NP (NDs)
Mercury (mg/L)	B-105D	0.0002	0.000087	0.002	No	6	66.67	None	No	0.0155	NP (NDs)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	18	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	18	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	18	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	18	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	18	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	18	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	19	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	B-100	0.19	0.01	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	B-105D	0.01	0.0011	0.1	No	7	85.71	None	No	0.008	NP (NDs)
Molybdenum (mg/L)	B-112D	0.03608	0.02559	0.1	No	6	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-38	0.01	0.001	0.1	No	19	36.84	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-39	0.01	0.0016	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-67	0.01	0.0013	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	**DGWC-68A**	**0.2185**	**0.1943**	**0.1**	**Yes**	**19**	**0**	**None**	**ln(x)**	**0.01**	**Param.**
Molybdenum (mg/L)	DGWC-69	0.011	0.0056	0.1	No	20	5	None	No	0.01	NP (normality)
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	8	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	19	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003057	0.001861	0.05	No	19	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.00014	0.002	No	19	57.89	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-39	0.001	0.0001	0.002	No	19	73.68	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.00007	0.002	No	19	73.68	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	19	94.74	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/21/2023, 4:51 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	**DGWC-69**	**0.002458**	**67**	**66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.003507**	**-107**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**55**	**53**	**Yes**	**18**	**72.22**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	**DGWC-68A**	**-0.005078**	**-63**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Appendix IV Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/21/2023, 4:51 PM

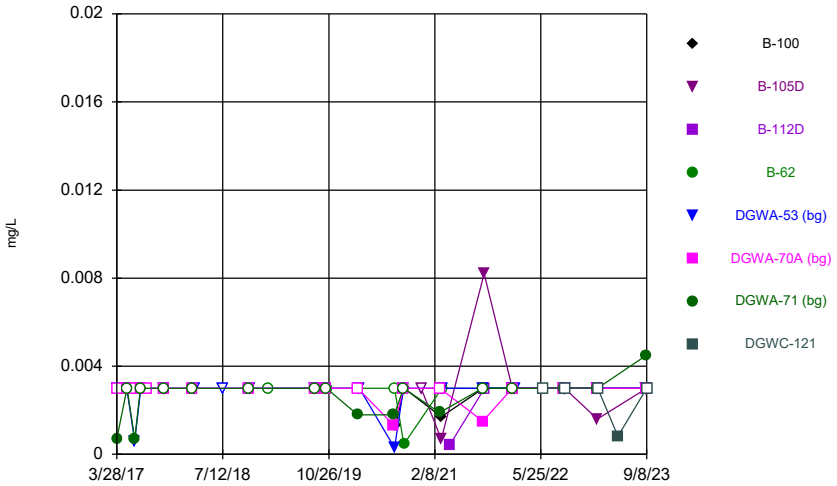
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	6	58	No	19	57.89	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-25	-58	No	19	84.21	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	26	53	No	18	83.33	n/a	n/a	0.05	NP
Arsenic (mg/L)	**DGWC-69**	**0.002458**	**67**	**66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.003507**	**-107**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWA-70A (bg)	0	45	58	No	19	57.89	n/a	n/a	0.05	NP
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**55**	**53**	**Yes**	**18**	**72.22**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWC-40	0.00052	15	58	No	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.001775	-56	-58	No	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	17	53	No	18	94.44	n/a	n/a	0.05	NP
Molybdenum (mg/L)	**DGWC-68A**	**-0.005078**	**-63**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Table of Contents

FIGURE A.

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

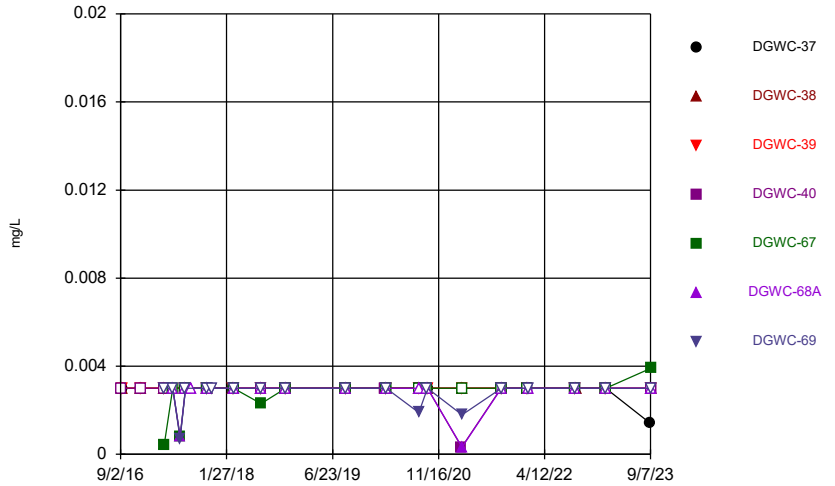
Time Series



Constituent: Antimony Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

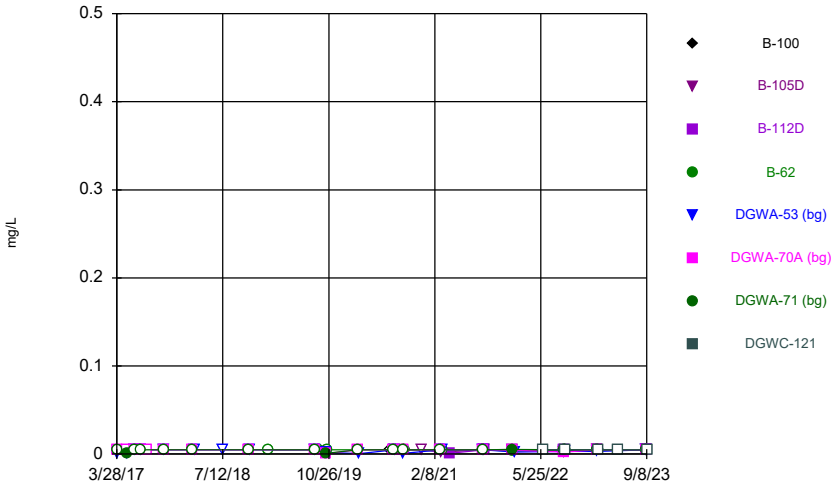
Time Series



Constituent: Antimony Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

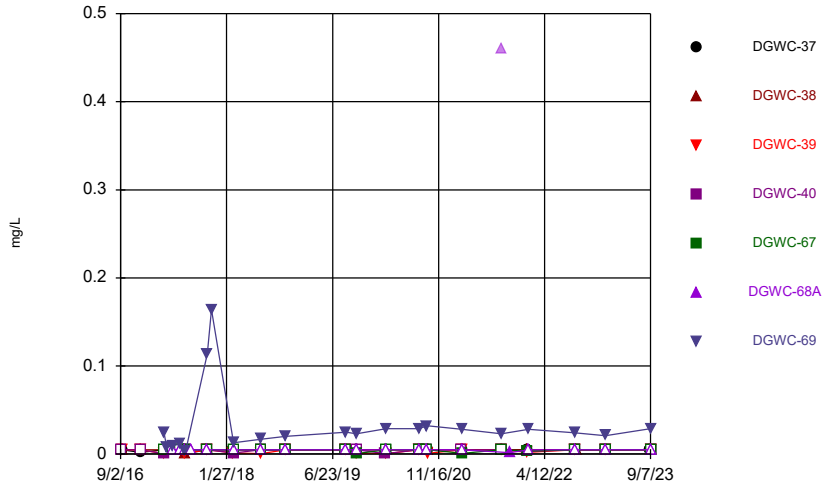
Time Series



Constituent: Arsenic Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

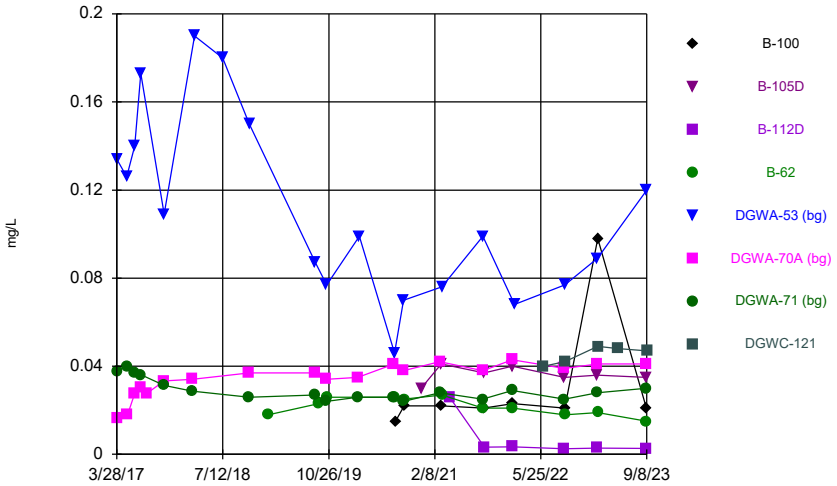
Time Series



Constituent: Arsenic Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

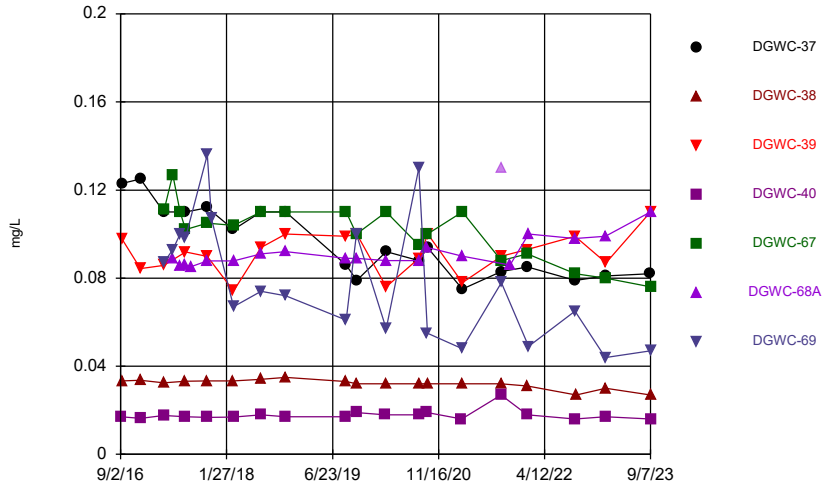
Time Series



Constituent: Barium Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

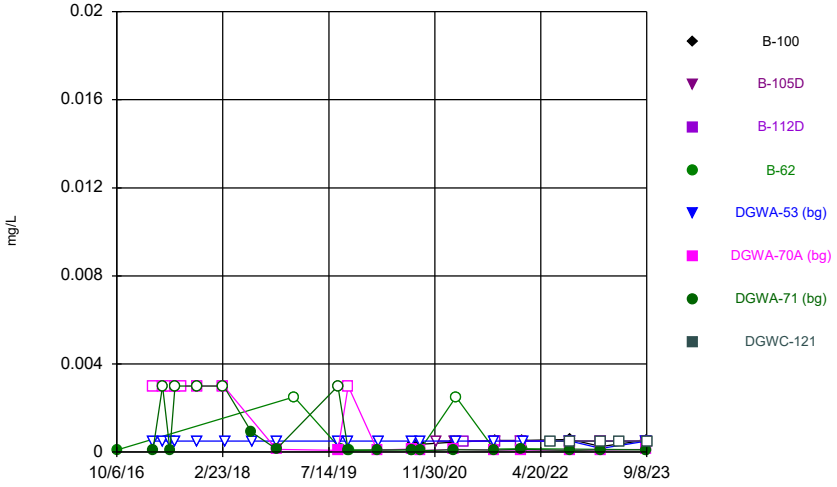
Time Series



Constituent: Barium Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

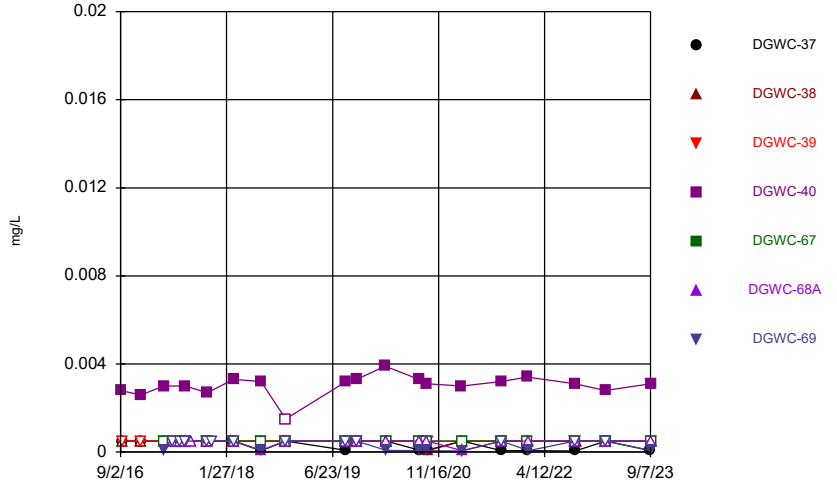
Time Series



Constituent: Beryllium Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

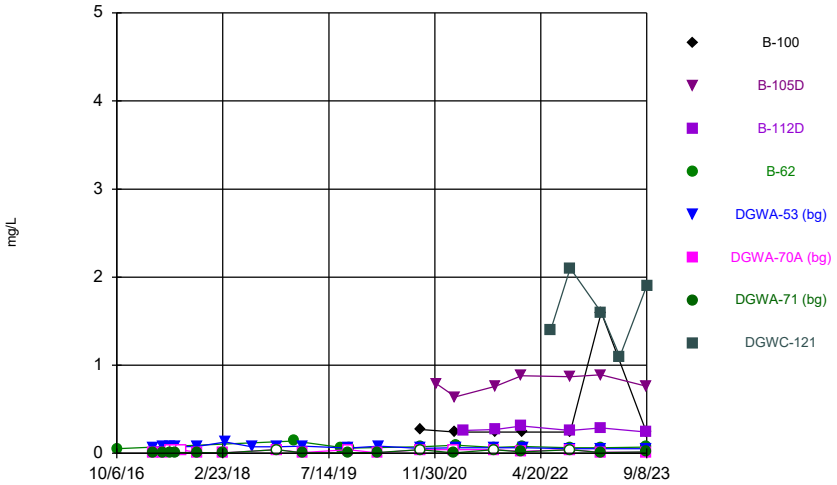
Time Series



Constituent: Beryllium Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

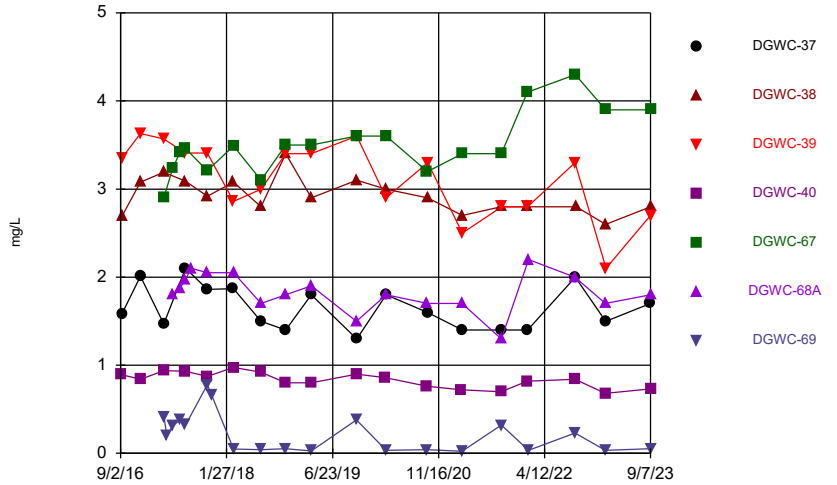
Time Series



Constituent: Boron Analysis Run 11/16/2023 4:08 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

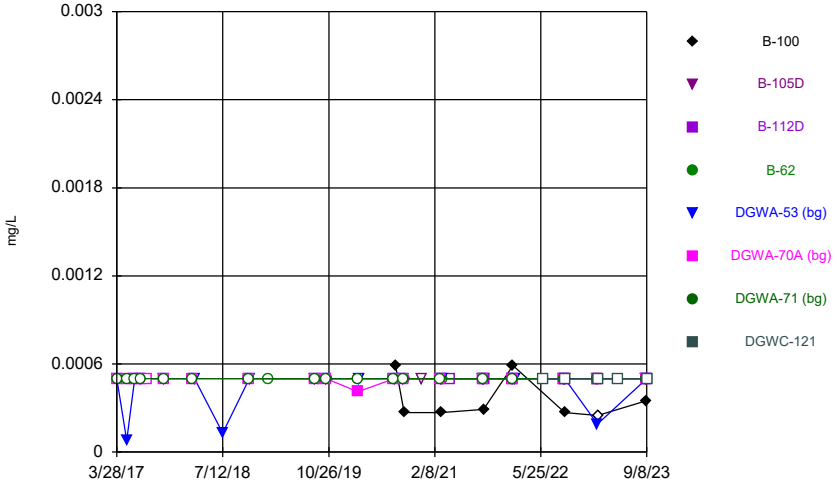
Time Series



Constituent: Boron Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

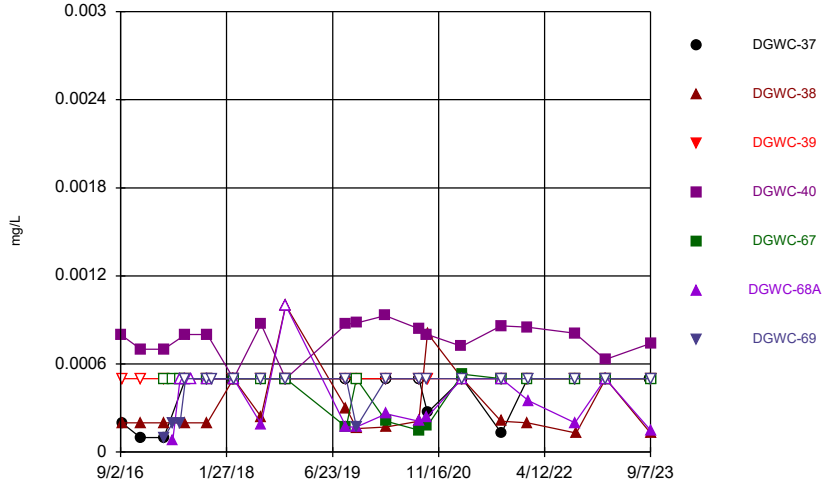
Time Series



Constituent: Cadmium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

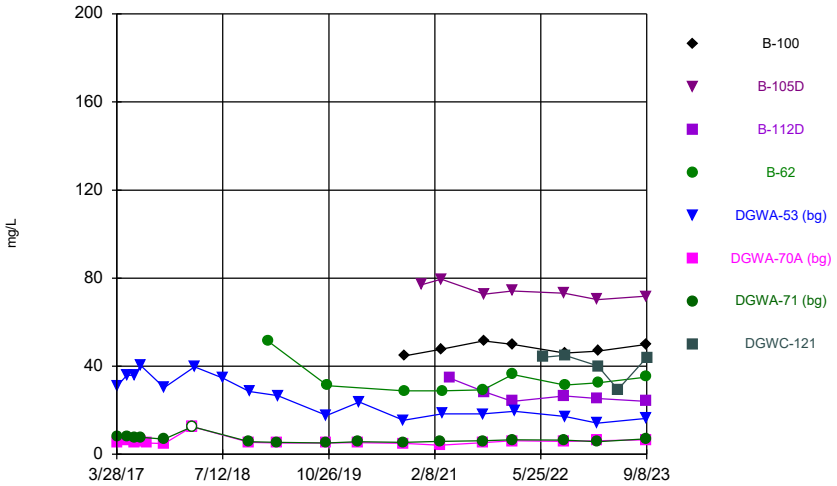
Time Series



Constituent: Cadmium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

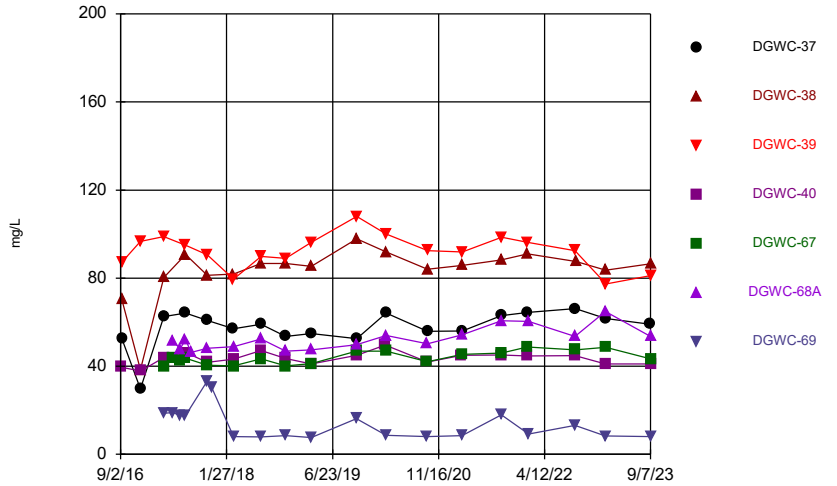
Time Series



Constituent: Calcium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

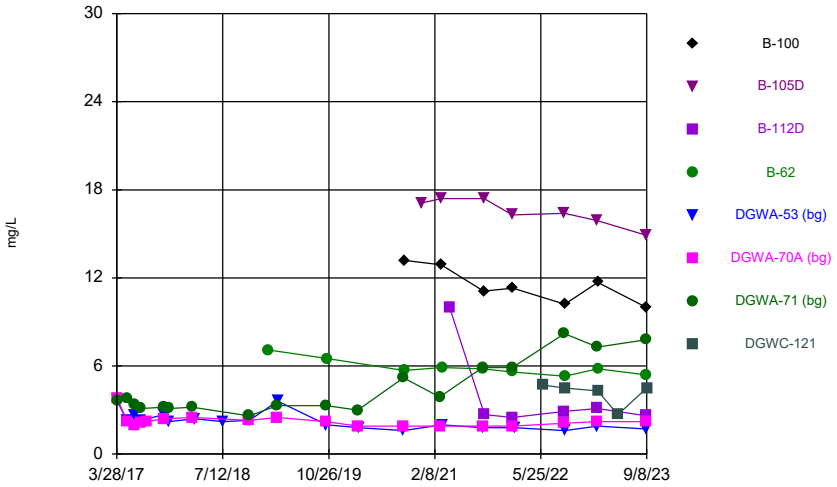
Time Series



Constituent: Calcium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

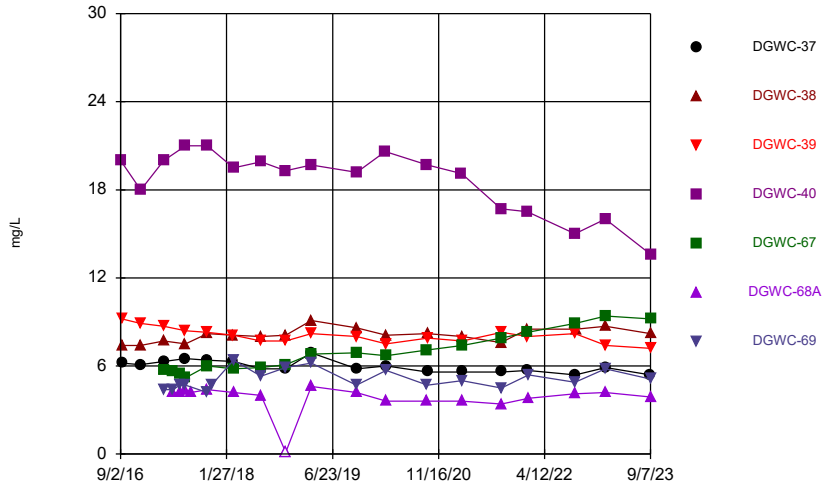
Time Series



Constituent: Chloride Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

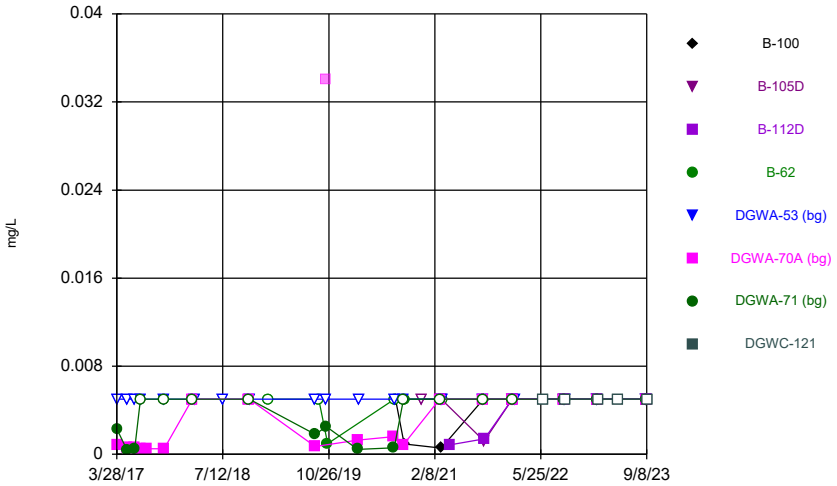
Time Series



Constituent: Chloride Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

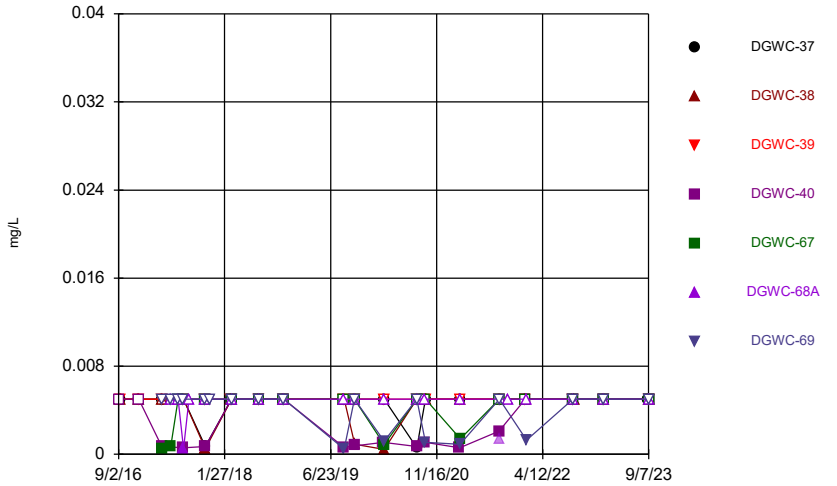
Time Series



Constituent: Chromium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

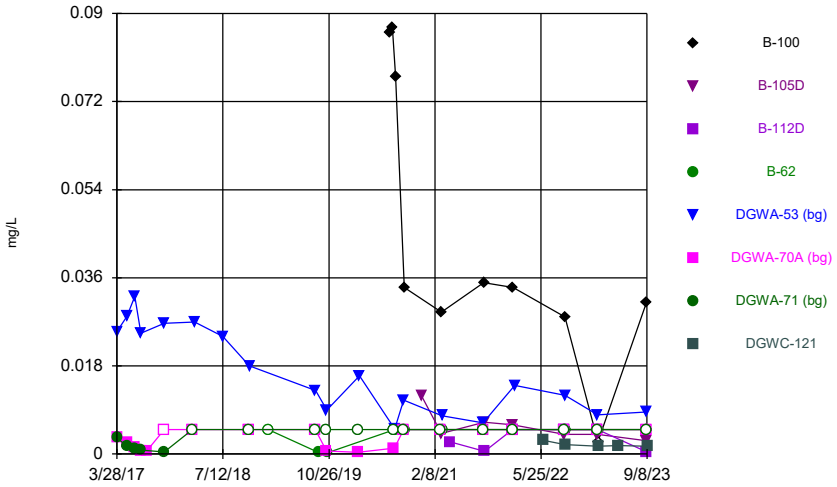
Time Series



Constituent: Chromium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

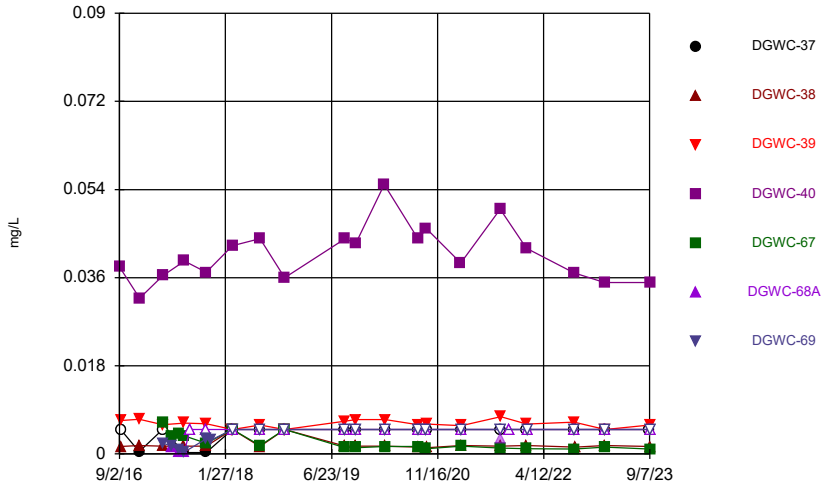
Time Series



Constituent: Cobalt Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

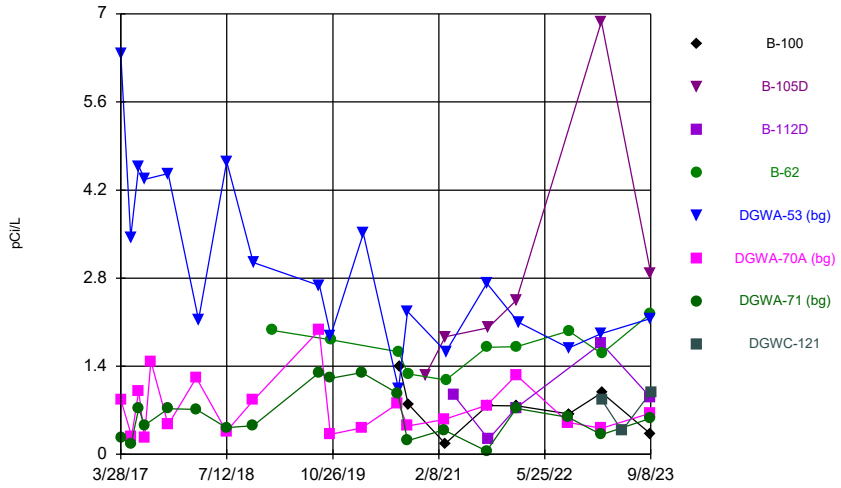
Time Series



Constituent: Cobalt Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

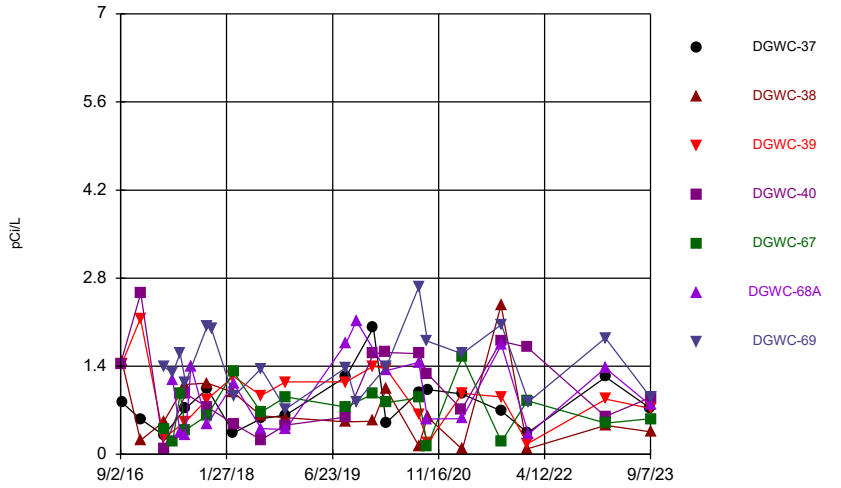


Constituent: Combined Radium 226 + 228 Analysis Run 11/16/2023 4:09 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



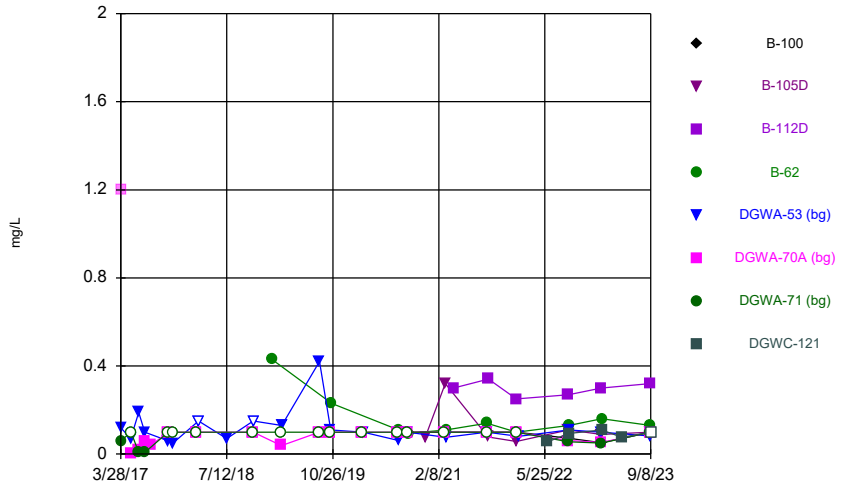
Constituent: Combined Radium 226 + 228 Analysis Run 11/16/2023 4:09 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



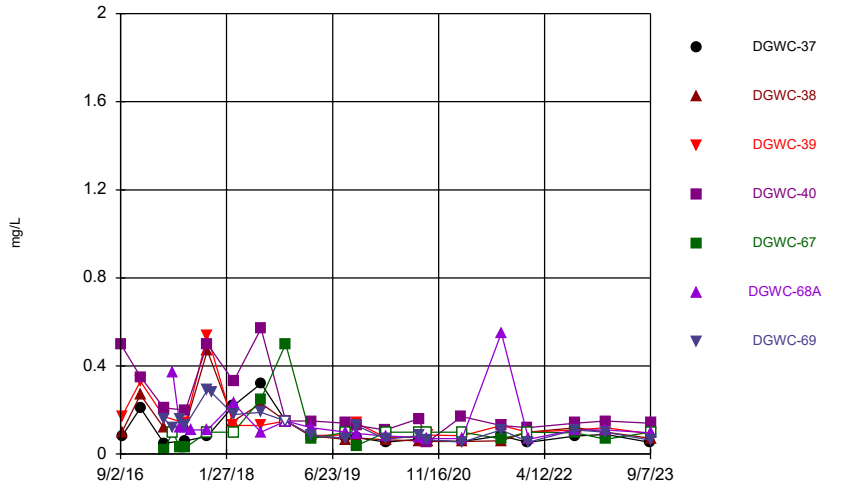
Constituent: Fluoride Analysis Run 11/16/2023 4:09 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

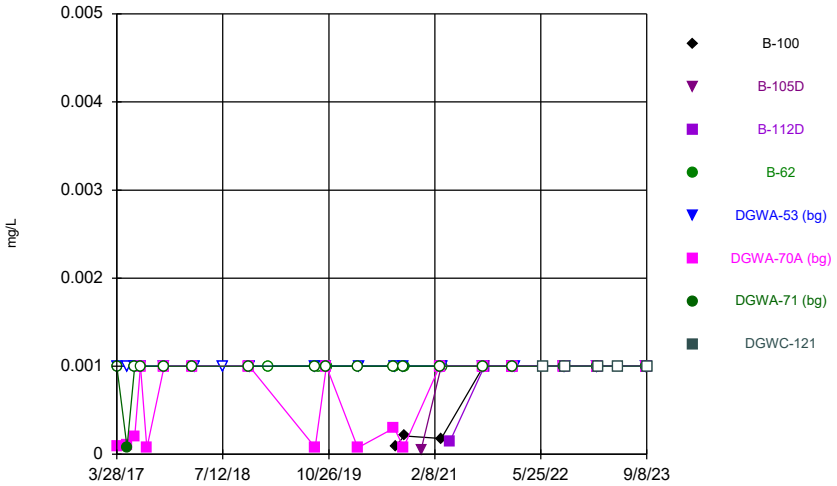


Constituent: Fluoride Analysis Run 11/16/2023 4:09 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

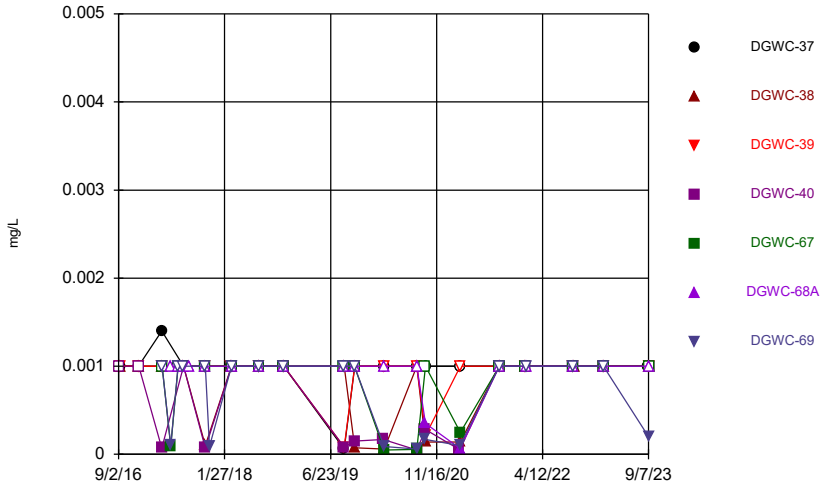
Time Series



Constituent: Lead Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

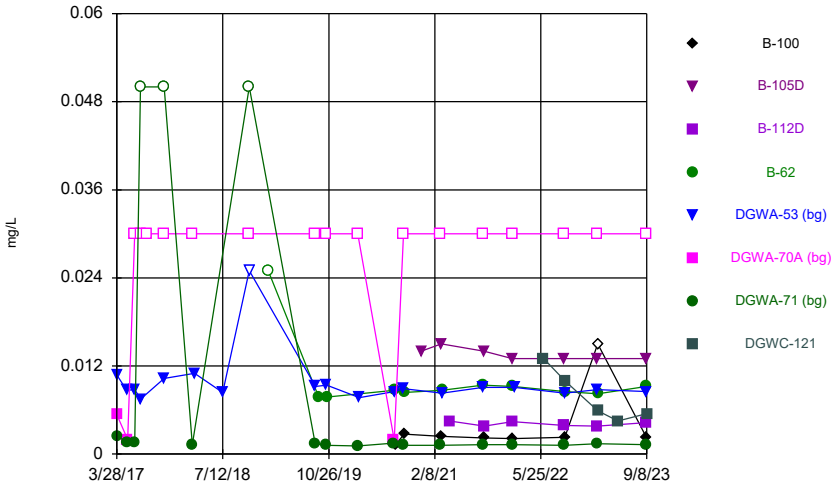
Time Series



Constituent: Lead Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

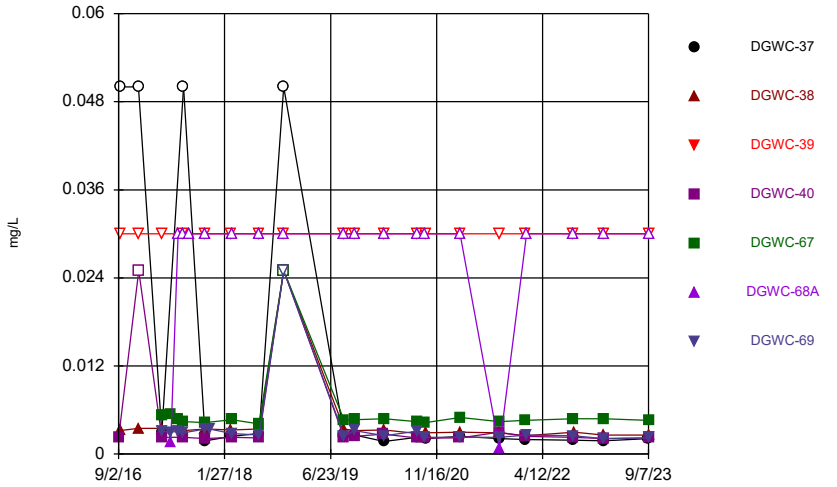
Time Series



Constituent: Lithium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

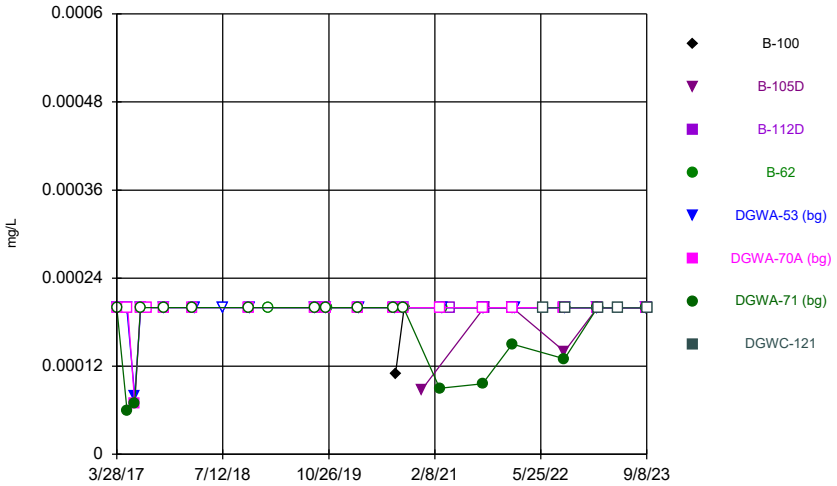
Time Series



Constituent: Lithium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

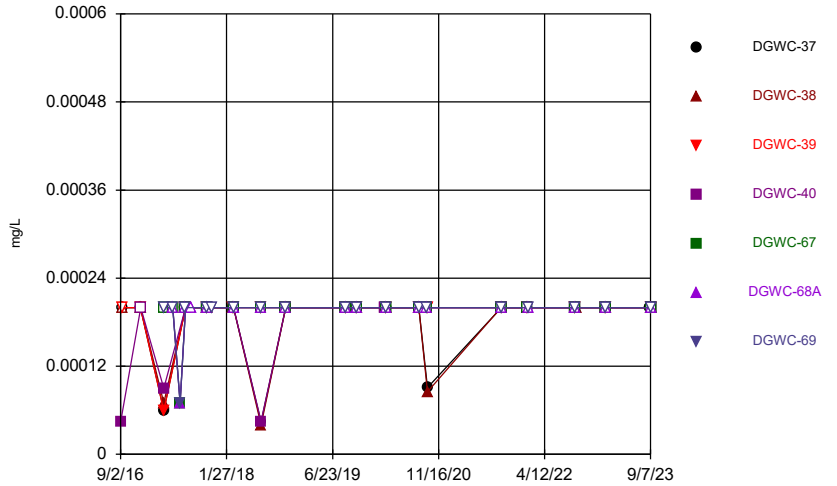
Time Series



Constituent: Mercury Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

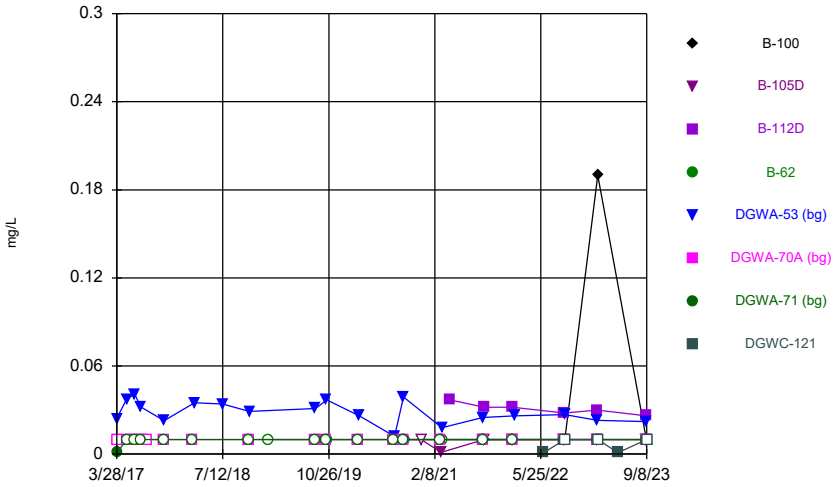
Time Series



Constituent: Mercury Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

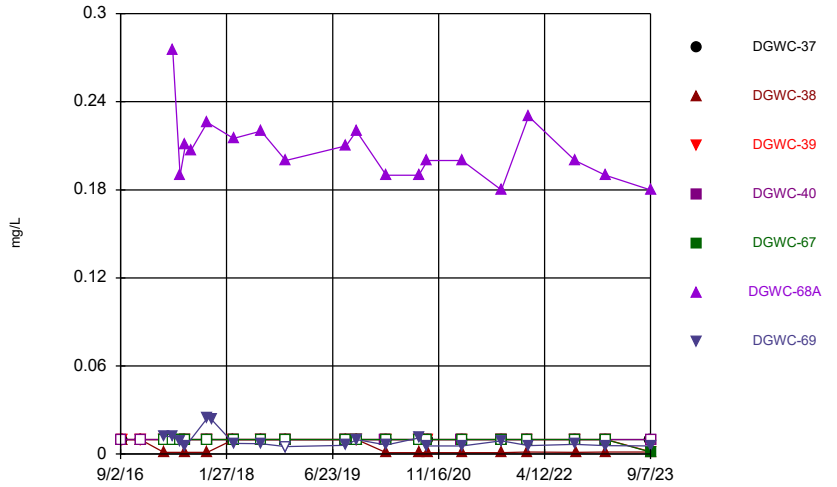
Time Series



Constituent: Molybdenum Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

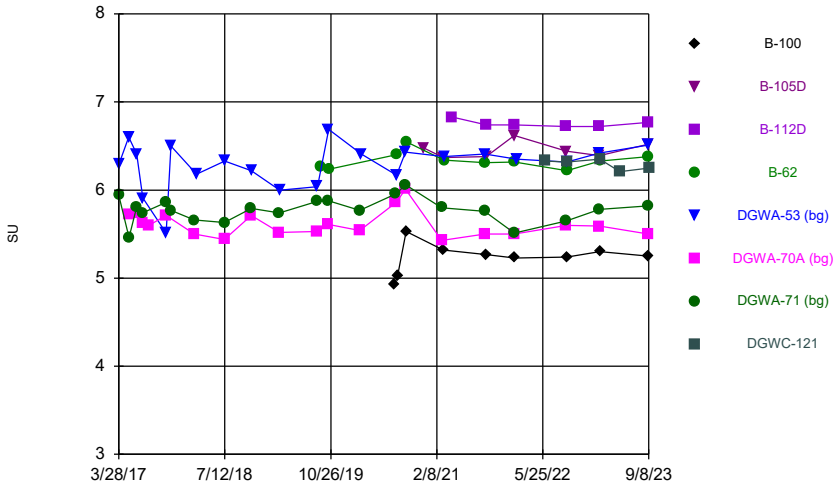
Time Series



Constituent: Molybdenum Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

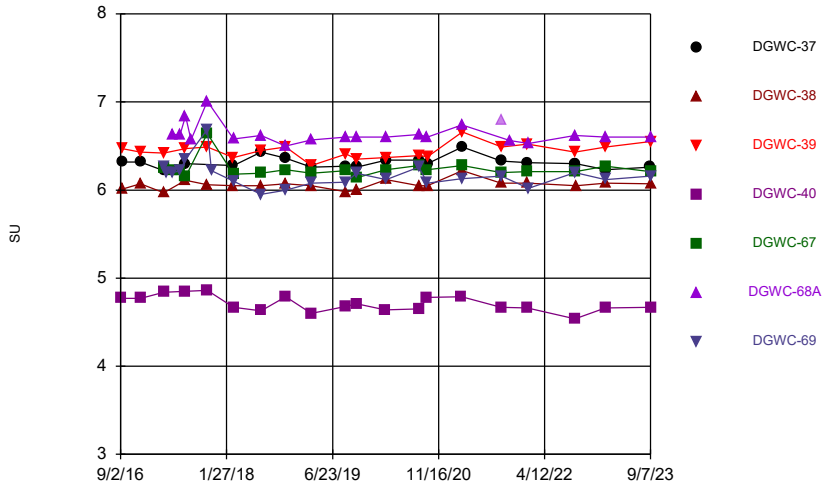
Time Series



Constituent: pH, Field Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

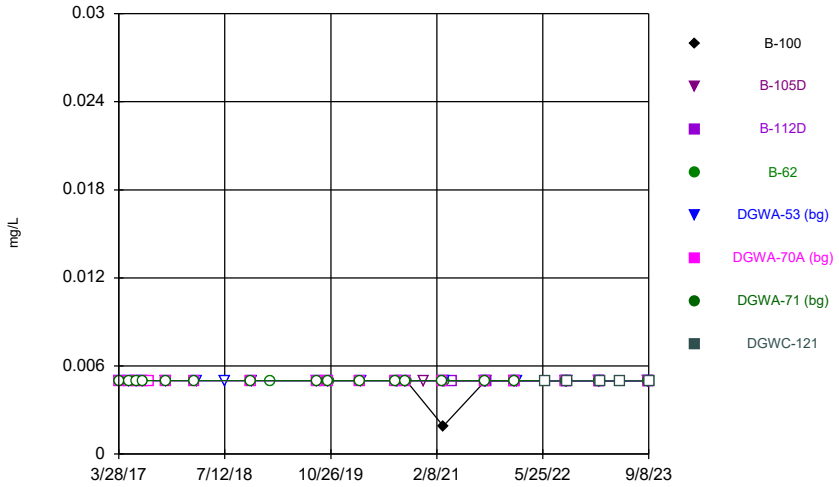
Time Series



Constituent: pH, Field Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

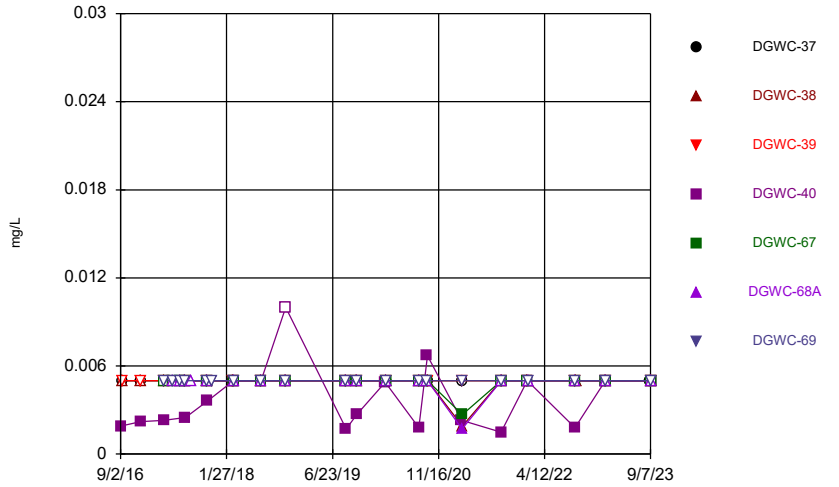
Time Series



Constituent: Selenium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

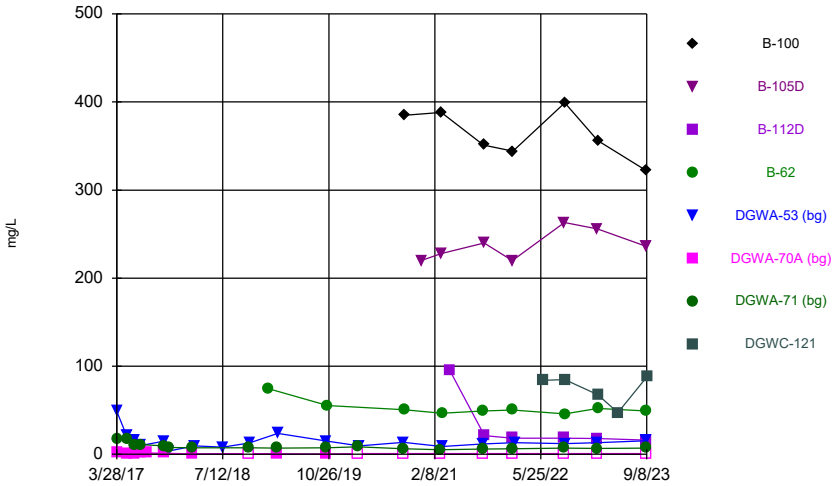
Time Series



Constituent: Selenium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

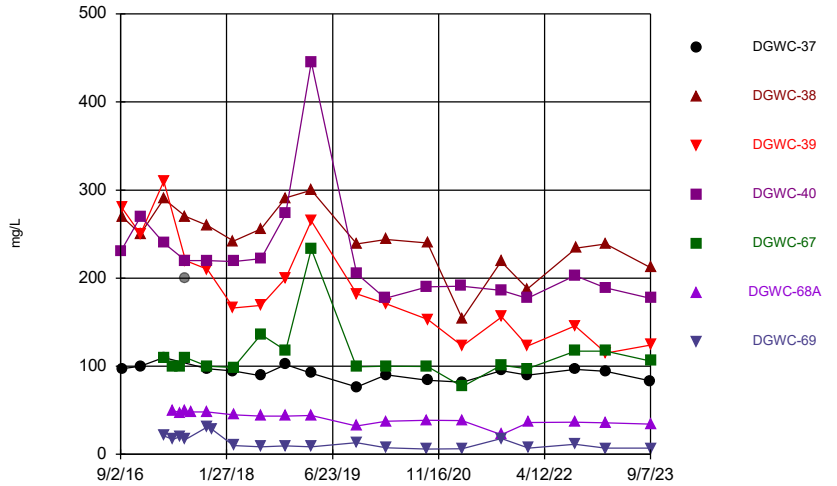
Time Series



Constituent: Sulfate Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

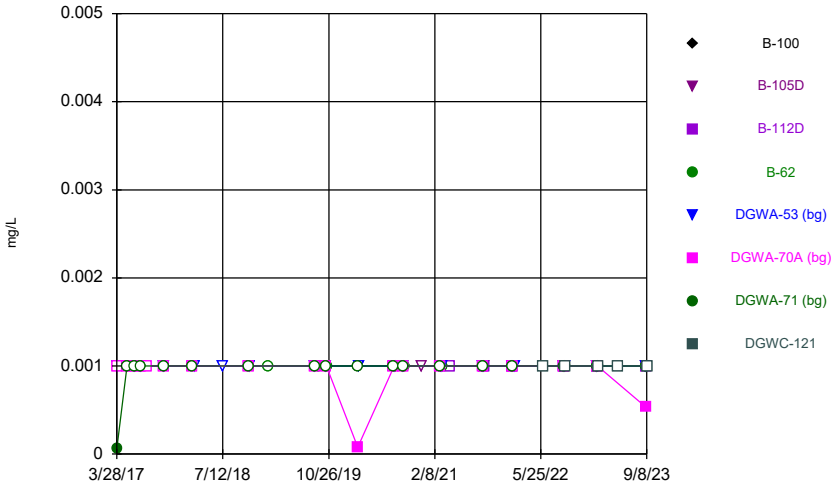
Time Series



Constituent: Sulfate Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

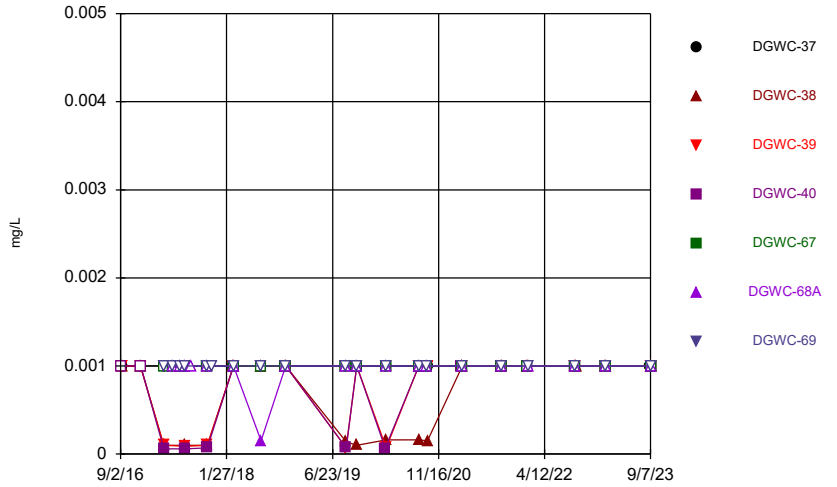
Time Series



Constituent: Thallium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

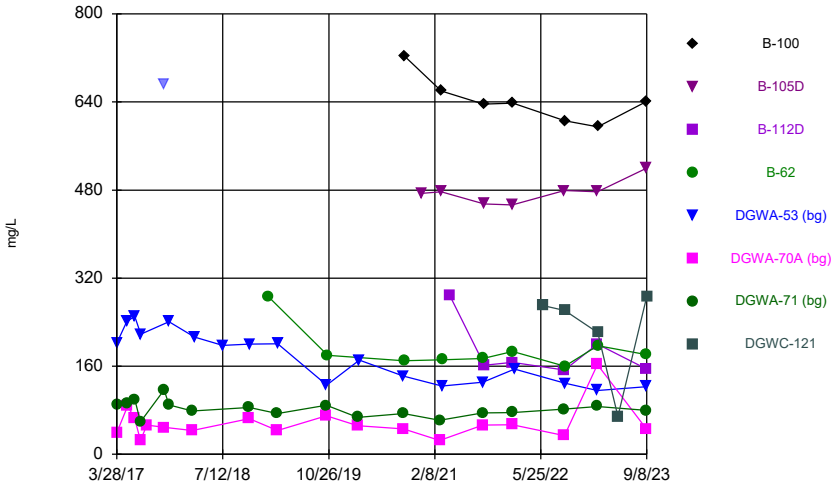
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 11/16/2023 4:09 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series

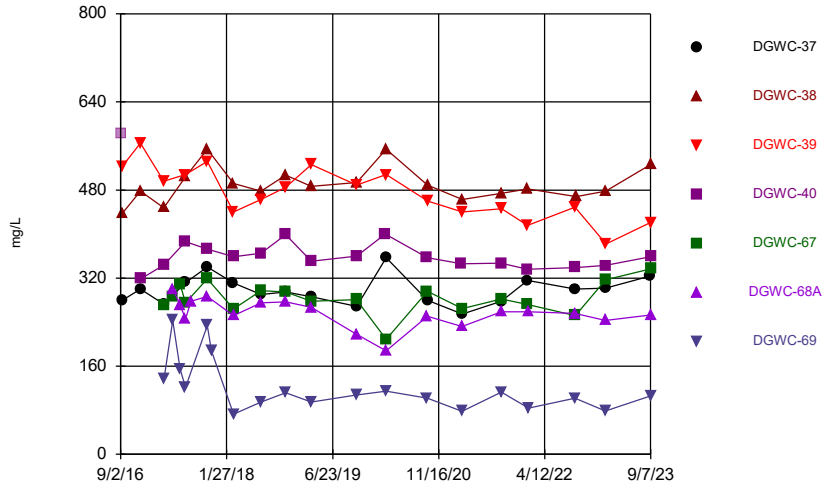


Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:09 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:09 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.003	<0.003	0.0007 (J)	
5/11/2017					<0.003			
5/12/2017							<0.003	
5/15/2017						<0.003		
6/15/2017					0.0006 (J)	<0.003		
6/16/2017							0.0007 (J)	
7/11/2017						<0.003	<0.003	
7/12/2017					<0.003			
8/8/2017						<0.003		
10/24/2017					<0.003	<0.003	<0.003	
2/27/2018						<0.003	<0.003	
3/8/2018					<0.003			
7/12/2018					<0.003			
11/6/2018						<0.003	<0.003	
11/7/2018					<0.003			
1/30/2019				<0.003				
8/27/2019						<0.003	<0.003	
8/28/2019					<0.003			
9/11/2019				<0.003				
10/15/2019						<0.003	<0.003	
10/16/2019					<0.003			
10/21/2019				<0.003				
3/2/2020						<0.003	0.0018 (J)	
3/9/2020					<0.003			
8/11/2020						0.0013 (J)	0.0018 (J)	
8/13/2020				<0.003	0.0003 (J)			
8/17/2020	0.0013 (J)							
9/22/2020					<0.003	<0.003	<0.003	
9/24/2020				0.00046 (J)				
9/25/2020	<0.003							
12/9/2020		<0.003						
3/1/2021						<0.003	0.0019 (J)	
3/8/2021	0.0017 (J)	0.00069 (J)						
3/12/2021				<0.003	<0.003			
4/15/2021			0.00041 (J)					
9/8/2021							<0.003	
9/9/2021				<0.003	<0.003	0.0015 (J)		
9/13/2021	<0.003							
9/15/2021		0.0082						
9/16/2021			<0.003					
1/18/2022						<0.003	<0.003	
1/19/2022		<0.003	<0.003					
1/20/2022				<0.003				
1/21/2022	<0.003							
1/28/2022					<0.003			
6/6/2022								<0.003
9/7/2022		<0.003	<0.003			<0.003	<0.003	
9/8/2022	<0.003			<0.003	<0.003			<0.003
1/31/2023						<0.003	<0.003	
2/1/2023		0.0016 (J)	<0.003		<0.003			
2/2/2023	<0.003			<0.003				<0.003
5/2/2023								0.00082 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.003					<0.003	0.0045	
9/7/2023		<0.003	<0.003	<0.003	<0.003			
9/8/2023								<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	<0.003	<0.003	<0.003	<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	<0.003	<0.003	<0.003
8/8/2017						<0.003	
10/26/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/15/2017							<0.003
3/1/2018	<0.003	<0.003	<0.003				
3/2/2018				<0.003	<0.003	<0.003	<0.003
7/12/2018	<0.003	<0.003	<0.003	<0.003			
7/13/2018					0.0023 (J)	<0.003	<0.003
11/8/2018	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/28/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/4/2020				<0.003			
3/9/2020	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
8/13/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0019 (J)
9/23/2020				<0.003	<0.003	<0.003	<0.003
9/24/2020	<0.003	<0.003					
9/25/2020			<0.003				
3/8/2021				0.00033 (J)			
3/10/2021						0.00032 (J)	0.0018 (J)
3/11/2021	<0.003	<0.003	<0.003		<0.003		
9/14/2021				<0.003			
9/15/2021		<0.003					
9/16/2021	<0.003				<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	<0.003					
1/25/2022						<0.003	<0.003
9/7/2022			<0.003	<0.003		<0.003	<0.003
9/8/2022	<0.003				<0.003		
9/12/2022		<0.003					
2/1/2023				<0.003		<0.003	<0.003
2/2/2023	<0.003	<0.003			<0.003		
2/3/2023			<0.003				
9/6/2023	0.0014 (J)						
9/7/2023		<0.003	<0.003	<0.003	0.0039	<0.003	<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.0005 (J)	<0.005	<0.005	
5/11/2017					0.0005 (J)			
5/12/2017							0.0004 (J)	
5/15/2017						<0.005		
6/15/2017					<0.005	<0.005		
6/16/2017							<0.005	
7/11/2017						<0.005	<0.005	
7/12/2017					<0.005			
8/8/2017						<0.005		
10/24/2017					<0.005	<0.005	<0.005	
2/27/2018						<0.005	<0.005	
3/8/2018					<0.005			
7/12/2018					<0.005			
11/6/2018						<0.005	<0.005	
11/7/2018					<0.005 (J)			
1/30/2019				<0.005				
8/27/2019						<0.005	<0.005	
8/28/2019					<0.005			
9/11/2019				<0.005				
10/15/2019						0.00052 (J)	0.00071 (J)	
10/16/2019					0.0018 (J)			
10/21/2019				<0.005				
3/2/2020						<0.005	<0.005	
3/9/2020					0.00068 (J)			
7/23/2020	<0.005							
8/11/2020						<0.005	<0.005	
8/13/2020				<0.005	<0.005			
8/17/2020	<0.005							
9/22/2020					0.00093 (J)	<0.005	<0.005	
9/24/2020				<0.005				
9/25/2020	<0.005							
12/9/2020		<0.005						
3/1/2021						<0.005	<0.005	
3/8/2021	<0.005	0.0025 (J)						
3/12/2021				<0.005	<0.005			
4/15/2021			0.00078 (J)					
9/8/2021							<0.005	
9/9/2021				<0.005	<0.005	<0.005		
9/13/2021	<0.005							
9/15/2021		<0.005						
9/16/2021			<0.005					
1/18/2022						0.0046 (J)	0.0054	
1/19/2022		0.0051	0.005					
1/20/2022				0.0033 (J)				
1/21/2022	<0.005							
1/28/2022					0.0024 (J)			
6/6/2022								<0.005
9/7/2022		0.0026 (J)	<0.005			0.0024 (J)	<0.005	
9/8/2022	<0.005			<0.005	0.0029 (J)			<0.005
1/31/2023						<0.005	<0.005	
2/1/2023		<0.005	<0.005		0.0029 (J)			
2/2/2023	<0.005			<0.005				<0.005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								<0.005
9/6/2023	<0.005					<0.005	<0.005	
9/7/2023		<0.005	<0.005	<0.005	<0.005			
9/8/2023								<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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		0.0239
4/12/2017							0.0077
5/12/2017					<0.005	<0.005	0.0097
6/16/2017					<0.005	<0.005	0.0113
7/13/2017	<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005	<0.005	0.0029 (J)
8/8/2017						<0.005	
10/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.114
11/15/2017							0.164
3/1/2018	<0.005	<0.005	0.0011 (J)				
3/2/2018				0.0011 (J)	<0.005	<0.005	0.0127
7/12/2018	<0.005	<0.005	0.00057 (J)	<0.005			
7/13/2018					<0.005	<0.005	0.017
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (J)	0.02
8/28/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.025
10/16/2019						<0.005	0.023
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	0.029
8/13/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.029
9/23/2020				<0.005	<0.005	<0.005	0.032
9/24/2020	<0.005	<0.005					
9/25/2020			0.00087 (J)				
3/8/2021				<0.005			
3/10/2021						<0.005	0.028
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)	0.023
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	0.028
9/7/2022			<0.005	<0.005		<0.005	0.024
9/8/2022	<0.005				<0.005		
9/12/2022		<0.005					
2/1/2023				<0.005		<0.005	0.021
2/2/2023	<0.005	<0.005			<0.005		
2/3/2023			<0.005				
9/6/2023	<0.005						
9/7/2023		<0.005	<0.005	<0.005	<0.005	<0.005	0.029

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Barium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.134	0.0166	0.0378	
5/11/2017					0.126			
5/12/2017							0.04	
5/15/2017						0.0181		
6/15/2017					0.14	0.0277		
6/16/2017							0.0369	
7/11/2017						0.0306	0.0362	
7/12/2017					0.173			
8/8/2017						0.0277		
10/24/2017					0.109	0.0333	0.0313	
2/27/2018						0.0341	0.0287	
3/8/2018					0.19			
7/12/2018					0.18			
11/6/2018						0.037	0.026	
11/7/2018					0.15			
1/30/2019				0.018				
8/27/2019						0.037	0.027	
8/28/2019					0.087			
9/11/2019				0.023				
10/15/2019						0.034	0.024	
10/16/2019					0.077			
10/21/2019				0.026				
3/2/2020						0.035	0.026	
3/9/2020					0.099			
8/11/2020						0.041	0.026	
8/13/2020				0.026	0.046			
8/17/2020	0.015							
9/22/2020					0.07	0.038	0.024	
9/24/2020				0.025				
9/25/2020	0.022							
12/9/2020		0.03						
3/1/2021						0.042	0.028	
3/8/2021	0.022	0.041						
3/12/2021				0.027	0.076			
4/15/2021			0.026					
9/8/2021							0.025	
9/9/2021				0.021	0.099	0.038		
9/13/2021	0.021							
9/15/2021		0.037						
9/16/2021			0.0032 (J)					
1/18/2022						0.043	0.029	
1/19/2022		0.04	0.0034 (J)					
1/20/2022				0.021				
1/21/2022	0.023							
1/28/2022					0.068			
6/6/2022								0.04
9/7/2022		0.035	0.0026 (J)			0.039	0.025	
9/8/2022	0.021			0.018	0.077			0.042
1/31/2023						0.041	0.028	
2/1/2023		0.036	0.0028 (J)		0.089			
2/2/2023	0.098			0.019				0.049
5/2/2023								0.048

Time Series

Constituent: Barium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	0.021					0.041	0.03	
9/7/2023		0.035	0.0027 (J)	0.015	0.12			
9/8/2023								0.047

Time Series

Constituent: Barium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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		0.0872
5/12/2017					0.127	0.089	0.0929
6/16/2017					0.11	0.0855	0.1
7/13/2017	0.11	0.0332	0.0919	0.017	0.102	0.0859	0.0985
8/8/2017						0.0852	
10/26/2017	0.112	0.0333	0.0899	0.0168	0.105	0.0878	0.136
11/15/2017							0.107
3/1/2018	0.102	0.0333	0.0742				
3/2/2018				0.0169	0.104	0.0878	0.0671
7/12/2018	0.11	0.034	0.094	0.018			
7/13/2018					0.11	0.091	0.074
11/8/2018	0.11	0.035	0.1	0.017	0.11	0.092	0.072
8/28/2019	0.086	0.033	0.099	0.017	0.11	0.089	0.061
10/16/2019						0.089	0.1
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	0.057
8/13/2020	0.088	0.032	0.089	0.018	0.095	0.088	0.13
9/23/2020				0.019	0.1	0.094	0.055
9/24/2020	0.094	0.032					
9/25/2020			0.1				
3/8/2021				0.016			
3/10/2021						0.09	0.048
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)	0.078
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	0.049
9/7/2022			0.099	0.016		0.098	0.065
9/8/2022	0.079				0.082		
9/12/2022		0.027					
2/1/2023				0.017		0.099	0.044
2/2/2023	0.081	0.03			0.08		
2/3/2023			0.087				
9/6/2023	0.082						
9/7/2023		0.027	0.11	0.016	0.076	0.11	0.047

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
10/6/2016				9E-05 (J)				
3/28/2017					<0.0005	<0.003	9E-05 (J)	
5/11/2017					<0.0005			
5/12/2017							<0.003	
5/15/2017						<0.003		
6/15/2017					<0.0005	<0.003		
6/16/2017							0.0001 (J)	
7/11/2017						<0.003	<0.003	
7/12/2017					<0.0005			
8/8/2017						<0.003		
10/24/2017					<0.0005	<0.003	<0.003	
2/27/2018						<0.003	<0.003	
3/8/2018					<0.0005			
7/10/2018							0.0009 (J)	
7/12/2018					<0.0005			
11/6/2018						0.00012 (J)	0.00013 (J)	
11/7/2018					<0.0005			
1/30/2019				<0.0025				
8/27/2019						7.9E-05 (J)	<0.003	
8/28/2019					<0.0005			
9/11/2019				0.00012 (J)				
10/15/2019						<0.003	8.8E-05 (J)	
10/16/2019					<0.0005			
10/21/2019				7.8E-05 (J)				
3/2/2020						9.6E-05 (J)	0.0001 (J)	
3/9/2020					<0.0005			
8/11/2020						0.00013 (J)	0.00011 (J)	
8/13/2020				0.00011 (J)	<0.0005			
8/17/2020	0.0004 (J)							
9/22/2020					<0.0005	6.8E-05 (J)	6.9E-05 (J)	
9/24/2020				0.00013 (J)				
9/25/2020	0.00035 (J)							
12/9/2020		<0.0005						
3/1/2021						0.00012 (J)	0.00011 (J)	
3/8/2021	0.00046 (J)	<0.0005						
3/12/2021				<0.0025	<0.0005			
4/15/2021			<0.0005					
9/8/2021							9.1E-05 (J)	
9/9/2021				0.00014 (J)	<0.0005	8.9E-05 (J)		
9/13/2021	0.00053							
9/15/2021		<0.0005						
9/16/2021			<0.0005					
1/18/2022						9.2E-05 (J)	0.00012 (J)	
1/19/2022		<0.0005	<0.0005					
1/20/2022				0.00015 (J)				
1/21/2022	0.00053							
1/28/2022					<0.0005			
6/6/2022								<0.0005
9/7/2022		<0.0005	<0.0005			8.4E-05 (J)	7.5E-05 (J)	
9/8/2022	0.00058			0.00013 (J)	<0.0005			<0.0005
1/31/2023						9.4E-05 (J)	0.00011 (J)	
2/1/2023		<0.0005	<0.0005		0.00016 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
2/2/2023	<0.0005			0.00012 (J)				<0.0005
5/2/2023								<0.0005
9/6/2023	0.00054					0.00012 (J)	0.00011 (J)	
9/7/2023		<0.0005	<0.0005	0.00011 (J)	<0.0005			
9/8/2023								<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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)			
3/30/2017	<0.0005	<0.0005	<0.0005	0.003			
3/31/2017					<0.0005		7E-05 (J)
5/12/2017					<0.0005	<0.0005	<0.0005
6/16/2017					<0.0005	<0.0005	<0.0005
7/13/2017	<0.0005	<0.0005	<0.0005	0.003 (J)	<0.0005	<0.0005	<0.0005
8/8/2017						<0.0005	
10/26/2017	<0.0005	<0.0005	<0.0005	0.0027 (J)	<0.0005	<0.0005	<0.0005
11/15/2017							<0.0005
3/1/2018	<0.0005	<0.0005	<0.0005				
3/2/2018				0.0033	<0.0005	<0.0005	<0.0005
7/12/2018	7E-05 (J)	<0.0005	<0.0005	0.0032			
7/13/2018					<0.0005	8.4E-05 (J)	5.8E-05 (J)
11/8/2018	<0.0005	<0.0005	<0.0005	<0.003 (J)	<0.0005	<0.0005	<0.0005
8/28/2019	8.6E-05 (J)	<0.0005	<0.0005	0.0032	<0.0005	<0.0005	<0.0005
10/16/2019						<0.0005	<0.0005
10/17/2019					<0.0005		
10/18/2019	<0.0005	<0.0005	<0.0005	0.0033			
3/4/2020				0.0039			
3/9/2020	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	7.5E-05 (J)
8/13/2020	0.0001 (J)	<0.0005	<0.0005	0.0033	<0.0005	<0.0005	6.3E-05 (J)
9/23/2020				0.0031	<0.0005	<0.0005	6.1E-05 (J)
9/24/2020	8.8E-05 (J)	5.8E-05 (J)					
9/25/2020			<0.0005				
3/8/2021				0.003			
3/10/2021						6.1E-05 (J)	5E-05 (J)
3/11/2021	<0.0005	<0.0005	<0.0005		<0.0005		
9/14/2021				0.0032			
9/15/2021		<0.0005					
9/16/2021	5.9E-05 (J)				<0.0005	<0.0005	<0.0005
9/17/2021			<0.0005				
1/19/2022				0.0034	<0.0005		
1/20/2022			<0.0005				
1/21/2022	5.9E-05 (J)	<0.0005					
1/25/2022						<0.0005	5.9E-05 (J)
9/7/2022			<0.0005	0.0031		<0.0005	<0.0005
9/8/2022	5.7E-05 (J)				<0.0005		
9/12/2022		<0.0005					
2/1/2023				0.0028		<0.0005	<0.0005
2/2/2023	<0.0005	<0.0005			<0.0005		
2/3/2023			<0.0005				
9/6/2023	5.8E-05 (J)						
9/7/2023		<0.0005	<0.0005	0.0031	<0.0005	<0.0005	7.8E-05 (J)

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Boron (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
10/6/2016				0.053 (J)				
3/28/2017					0.0612	0.0067 (J)	0.0097 (J)	
5/11/2017					0.0805			
5/12/2017							0.0082 (J)	
5/15/2017						0.0073 (J)		
6/15/2017					0.0725	<0.04		
6/16/2017							0.0085 (J)	
7/11/2017						<0.04	0.0077 (J)	
7/12/2017					0.0735			
8/8/2017						<0.04		
10/24/2017					0.077	0.0082 (J)	0.0083 (J)	
2/27/2018						0.0062 (J)	0.0069 (J)	
3/8/2018					0.13 (J)			
7/12/2018					0.076			
11/6/2018						<0.04 (J)	<0.04 (J)	
11/7/2018					0.073			
1/30/2019				0.14				
3/12/2019						0.0073 (J)	0.0068 (J)	
3/13/2019					0.08			
9/11/2019				0.068				
10/15/2019						<0.04	0.0054 (J)	
10/16/2019					0.059			
10/21/2019				0.058				
3/2/2020						0.0055 (J)	0.01 (J)	
3/9/2020					0.08 (J)			
9/22/2020					0.056 (J)	<0.04	<0.04	
9/24/2020				0.074 (J)				
9/25/2020	0.27							
12/9/2020		0.79						
3/1/2021						<0.04	0.0054 (J)	
3/8/2021	0.24	0.64						
3/12/2021				0.092 (J)	0.064			
4/15/2021			0.26					
9/8/2021							<0.04	
9/9/2021				0.068	0.065	<0.04		
9/13/2021	0.24							
9/15/2021		0.76						
9/16/2021			0.27					
1/18/2022						0.024 (J)	0.015 (J)	
1/19/2022		0.88	0.31					
1/20/2022				0.077				
1/21/2022	0.24							
1/28/2022					0.062			
6/6/2022								1.4
9/7/2022		0.87	0.26			<0.04	<0.04	
9/8/2022	0.24			0.064	0.054			2.1
1/31/2023						0.011 (J)	0.0097 (J)	
2/1/2023		0.89	0.29		0.051			
2/2/2023	1.6			0.064				1.6
5/2/2023								1.1
9/6/2023	0.24					0.012 (J)	0.015 (J)	
9/7/2023		0.76	0.24	0.071	0.052			

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Boron (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/8/2023								1.9

Time Series

Constituent: Boron (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	1.47	3.19	3.57	0.937			
3/31/2017					2.91		0.407
4/12/2017							0.207
5/12/2017					3.24	1.8	0.311
6/16/2017					3.42	1.88	0.381
7/13/2017	2.1	3.09	3.41	0.933	3.46	1.97	0.323
8/8/2017						2.1	
10/26/2017	1.86	2.92	3.41	0.873	3.21	2.05	0.779
11/15/2017							0.667
3/1/2018	1.87	3.08	2.86				
3/2/2018				0.974	3.49	2.05	0.0478
7/12/2018	1.5	2.8	3	0.92			
7/13/2018					3.1	1.7	0.043
11/8/2018	1.4	3.4	3.4	0.8	3.5	1.8	0.054
3/13/2019	1.8	2.9	3.4	0.8	3.5	1.9	0.028 (J)
10/16/2019						1.5	0.38
10/17/2019					3.6		
10/18/2019	1.3	3.1	3.6	0.9			
3/4/2020				0.86			
3/9/2020	1.8	3	2.9		3.6	1.8	0.035 (J)
9/23/2020				0.76	3.2	1.7	0.041 (J)
9/24/2020	1.6	2.9					
9/25/2020			3.3				
3/8/2021				0.72			
3/10/2021						1.7	0.024 (J)
3/11/2021	1.4	2.7	2.5		3.4		
9/14/2021				0.7			
9/15/2021		2.8					
9/16/2021	1.4				3.4	1.3	0.32
9/17/2021			2.8				
1/19/2022				0.82	4.1		
1/20/2022			2.8				
1/21/2022	1.4	2.8					
1/25/2022						2.2	0.035 (J)
9/7/2022			3.3	0.84		2	0.23
9/8/2022	2				4.3		
9/12/2022		2.8					
2/1/2023				0.68		1.7	0.035 (J)
2/2/2023	1.5	2.6			3.9		
2/3/2023			2.1				
9/6/2023	1.7						
9/7/2023		2.8	2.7	0.73	3.9	1.8	0.052

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.0005	<0.0005	<0.0005	
5/11/2017					8E-05 (J)			
5/12/2017							<0.0005	
5/15/2017						<0.0005		
6/15/2017					<0.0005	<0.0005		
6/16/2017							<0.0005	
7/11/2017						<0.0005	<0.0005	
7/12/2017					<0.0005			
8/8/2017						<0.0005		
10/24/2017					<0.0005	<0.0005	<0.0005	
2/27/2018						<0.0005	<0.0005	
3/8/2018					<0.0005			
7/12/2018					0.00013 (J)			
11/6/2018						<0.0005	<0.0005	
11/7/2018					<0.0005			
1/30/2019				<0.0005				
8/27/2019						<0.0005	<0.0005	
8/28/2019					<0.0005			
9/11/2019				<0.0005				
10/15/2019						<0.0005	<0.0005	
10/16/2019					<0.0005			
10/21/2019				<0.0005				
3/2/2020						0.00041 (J)	<0.0005	
3/9/2020					<0.0005			
8/11/2020						<0.0005	<0.0005	
8/13/2020				<0.0005	<0.0005			
8/17/2020	0.00059 (J)							
9/22/2020					<0.0005	<0.0005	<0.0005	
9/24/2020				<0.0005				
9/25/2020	0.00027 (J)							
12/9/2020		<0.0005						
3/1/2021						<0.0005	<0.0005	
3/8/2021	0.00027 (J)	<0.0005						
3/12/2021				<0.0005	<0.0005			
4/15/2021			<0.0005					
9/8/2021							<0.0005	
9/9/2021				<0.0005	<0.0005	<0.0005		
9/13/2021	0.00029 (J)							
9/15/2021		<0.0005						
9/16/2021			<0.0005					
1/18/2022						<0.0005	<0.0005	
1/19/2022		<0.0005	<0.0005					
1/20/2022				<0.0005				
1/21/2022	0.00059							
1/28/2022					<0.0005			
6/6/2022								<0.0005
9/7/2022		<0.0005	<0.0005			<0.0005	<0.0005	
9/8/2022	0.00027 (J)			<0.0005	<0.0005			<0.0005
1/31/2023						<0.0005	<0.0005	
2/1/2023		<0.0005	<0.0005		0.00019 (J)			
2/2/2023	<0.0005			<0.0005				<0.0005
5/2/2023								<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	0.00035 (J)					<0.0005	<0.0005	
9/7/2023		<0.0005	<0.0005	<0.0005	<0.0005			
9/8/2023								<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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)			
3/30/2017	0.0001 (J)	0.0002 (J)	<0.0005	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)	<0.0005	0.0008 (J)	<0.0005	<0.0005	<0.0005
8/8/2017						<0.0005	
10/26/2017	<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005	<0.0005	<0.0005
11/15/2017							<0.0005
3/1/2018	<0.0005	<0.0005	<0.0005				
3/2/2018				<0.001	<0.0005	<0.0005	<0.0005
7/12/2018	<0.0005	0.00024 (J)	<0.0005	0.00087 (J)			
7/13/2018					<0.0005	0.00019 (J)	<0.0005
11/8/2018	<0.0005	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/28/2019	<0.0005	0.0003 (J)	<0.0005	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)	<0.0005	0.00088 (J)			
3/4/2020				0.00093 (J)			
3/9/2020	<0.0005	0.00017 (J)	<0.0005		0.00021 (J)	0.00026 (J)	<0.0005
8/13/2020	<0.0005	0.00021 (J)	<0.0005	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)					
9/25/2020			<0.0005				
3/8/2021				0.00072			
3/10/2021						<0.0005	<0.0005
3/11/2021	<0.0005	<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
9/17/2021			<0.0005				
1/19/2022				0.00085	<0.0005		
1/20/2022			<0.0005				
1/21/2022	<0.0005	0.0002 (J)					
1/25/2022						0.00035 (J)	<0.0005
9/7/2022			<0.0005	0.00081		0.0002 (J)	<0.0005
9/8/2022	<0.0005				<0.0005		
9/12/2022		0.00013 (J)					
2/1/2023				0.00063		<0.0005	<0.0005
2/2/2023	<0.0005	<0.0005			<0.0005		
2/3/2023			<0.0005				
9/6/2023	<0.0005						
9/7/2023		0.00013 (J)	<0.0005	0.00074	<0.0005	0.00015 (J)	<0.0005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					30.8	5.14	8.31	
5/11/2017					35.8			
5/12/2017							8.04	
5/15/2017						6.5		
6/15/2017					36	5.38		
6/16/2017							7.66	
7/11/2017						5.96	7.71	
7/12/2017					40.3			
8/8/2017						5.2		
10/24/2017					30.3	4.93	6.86	
2/27/2018						<25	<25	
3/8/2018					39.8			
7/12/2018					34.7			
11/6/2018						5.5	5.7	
11/7/2018					28.6			
1/30/2019				51.4				
3/12/2019						5.1	5.5	
3/13/2019					26.7			
10/15/2019						5.1	5.1	
10/16/2019					17.7			
10/21/2019				31.2				
3/2/2020						5.3	5.8	
3/9/2020					23.7			
9/22/2020					15.5	5	5.4	
9/24/2020				28.8				
9/25/2020	44.7							
12/9/2020		76.9						
3/1/2021						4.1	5.9	
3/8/2021	47.7	79.6						
3/12/2021				28.8	18.4			
4/15/2021			34.6					
9/8/2021							6.1	
9/9/2021				29.2	18.3	5.3		
9/13/2021	51.5							
9/15/2021		72.7						
9/16/2021			28.4					
1/18/2022						6.1	6.6	
1/19/2022		74.2	24.1					
1/20/2022				36.3				
1/21/2022	49.9							
1/28/2022					19.5			
6/6/2022								44.1
9/7/2022		73.2	26.5			5.9	6.4	
9/8/2022	46			31.4	17.2			45
1/31/2023						6.2	5.7	
2/1/2023		70.2	25.3		14.1			
2/2/2023	46.9			32.4				40.1
5/2/2023								29.4
9/6/2023	49.9					6.6	7	
9/7/2023		71.8	24	35.1	16.3			
9/8/2023								43.9

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	62.6	80.3	98.9	43.9			
3/31/2017					39.9		18.6 (J)
5/12/2017					43.6	51.7	18.9 (J)
6/16/2017					42.5	47.9	17.7
7/13/2017	64.1	90.8	95	46.2	43.7	52.3	17.6
8/8/2017						46.3	
10/26/2017	60.8	81.3	90.6	41.8	40.4	48.2	33.3
11/15/2017							30.6
3/1/2018	57	81.8	79.6				
3/2/2018				43.2	40.1	48.9	8.09
7/12/2018	59.1	86.7	89.8	47.1			
7/13/2018					43.3	52.4	7.9
11/8/2018	53.6	86.6	89	43.5	40.1	46.8	8.5
3/13/2019	54.8	85.3	96.3	41	41.2	47.5	7.6
10/16/2019						49.7	16.2
10/17/2019					46.9		
10/18/2019	52.5	97.8	108	44.9			
3/4/2020				49.6			
3/9/2020	64.2	91.9	100		46.9	54	8.6
9/23/2020				41.9	42	50.2	8
9/24/2020	55.9	84.1					
9/25/2020			92.5				
3/8/2021				44.9			
3/10/2021						54.2	8.5
3/11/2021	56	85.8	91.9		45.4		
9/14/2021				45.1			
9/15/2021		88.3					
9/16/2021	63				46	60.6	18
9/17/2021			98.6				
1/19/2022				44.7	48.8		
1/20/2022			96.2				
1/21/2022	64.4	91					
1/25/2022						60.4	9.2
9/7/2022			92.5	44.8		53.5	13.1
9/8/2022	66.2				47.4		
9/12/2022		87.6					
2/1/2023				41.1		64.8	8.3
2/2/2023	61.7	83.6			48.6		
2/3/2023			77.4				
9/6/2023	59.1						
9/7/2023		86.5	81.2	41	43.3	53.6	8.1

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					3.7	3.8	3.6	
5/11/2017					2.3			
5/12/2017							3.8	
5/15/2017						2.2		
6/15/2017					2.6	2		
6/16/2017							3.4	
7/11/2017						2.1	3.1	
7/12/2017					2.3			
8/8/2017						2.2		
10/24/2017					2.7	2.4	3.2	
11/15/2017					2.2		3.1	
2/27/2018						2.5	3.2	
3/8/2018					2.4			
7/12/2018					2.2			
11/6/2018						2.3	2.6	
11/7/2018					2.3			
1/30/2019				7.1				
3/12/2019						2.5	3.3	
3/13/2019					3.6			
10/15/2019						2.2	3.3	
10/16/2019					2			
10/21/2019				6.5				
3/2/2020						1.9	3	
3/9/2020					1.8			
9/22/2020					1.6	1.9	5.2	
9/24/2020				5.7				
9/25/2020	13.2							
12/9/2020		17.1						
3/1/2021						1.9	3.9	
3/8/2021	12.9	17.4						
3/12/2021				5.9	2			
4/15/2021			10					
9/8/2021							5.9	
9/9/2021				5.8	1.8	1.9		
9/13/2021	11.1							
9/15/2021		17.4						
9/16/2021			2.7					
1/18/2022						1.9	5.9	
1/19/2022		16.3	2.5					
1/20/2022				5.6				
1/21/2022	11.3							
1/28/2022					1.8			
6/6/2022								4.7
9/7/2022		16.4	2.9			2.1	8.2	
9/8/2022	10.2			5.3	1.6			4.5
1/31/2023						2.2	7.3	
2/1/2023		15.9	3.1		1.9			
2/2/2023	11.7			5.8				4.3
5/2/2023								2.7
9/6/2023	10					2.2	7.8	
9/7/2023		14.9	2.6	5.4	1.7			
9/8/2023								4.5

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	6.3	7.7	8.7	20			
3/31/2017					5.7		4.4
5/12/2017					5.6	4.2	4.4
6/16/2017					5.5	4.2	4.7
7/13/2017	6.5	7.5	8.4	21	5.2	4.4	4.7
8/8/2017						4.2	
10/26/2017	6.4	8.2	8.3	21	6	4.4	4.2
11/15/2017							4.7
3/1/2018	6.3	8.1	8.1				
3/2/2018				19.5	5.8	4.2	6.4
7/12/2018	5.8	8	7.7	19.9			
7/13/2018					5.9	4	5.3
11/8/2018	5.8	8.1	7.7	19.3	6.1	<0.25	5.9
3/13/2019	6.9	9.1	8.2	19.7	6.8	4.6	6.2
10/16/2019						4.2	4.7
10/17/2019					6.9		
10/18/2019	5.8	8.6	8	19.2			
3/4/2020				20.6			
3/9/2020	6	8.1	7.5		6.7	3.6	5.7
9/23/2020				19.7	7.1	3.6	4.7
9/24/2020	5.6	8.2					
9/25/2020			7.9				
3/8/2021				19.1			
3/10/2021						3.6	5
3/11/2021	5.6	8	7.7		7.4		
9/14/2021				16.7			
9/15/2021		7.6					
9/16/2021	5.6				7.9	3.4	4.5
9/17/2021			8.3				
1/19/2022				16.5	8.3		
1/20/2022			8				
1/21/2022	5.7	8.5					
1/25/2022						3.8	5.4
9/7/2022			8.2	15		4.1	4.9
9/8/2022	5.4				8.9		
9/12/2022		8.5					
2/1/2023				16		4.2	5.8
2/2/2023	5.9	8.7			9.4		
2/3/2023			7.4				
9/6/2023	5.4						
9/7/2023		8.2	7.2	13.6	9.2	3.9	5.1

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.005	0.0008 (J)	0.0023 (J)	
5/11/2017					<0.005			
5/12/2017							0.0004 (J)	
5/15/2017						0.0006 (J)		
6/15/2017					<0.005	0.0006 (J)		
6/16/2017							0.0005 (J)	
7/11/2017						0.0005 (J)	<0.005	
7/12/2017					<0.005			
8/8/2017						0.0005 (J)		
10/24/2017					<0.005	0.0005 (J)	<0.005	
2/27/2018						<0.005	<0.005	
3/8/2018					<0.005			
7/12/2018					<0.005			
11/6/2018						<0.005	<0.005	
11/7/2018					<0.005			
1/30/2019				<0.005				
8/27/2019						0.00071 (J)	0.0018 (J)	
8/28/2019					<0.005			
9/11/2019				<0.005				
10/15/2019						0.034 (O)	0.0025 (J)	
10/16/2019					<0.005			
10/21/2019				0.00098 (J)				
3/2/2020						0.0013 (J)	0.00045 (J)	
3/9/2020					<0.005			
8/11/2020						0.0016 (J)	0.0006 (J)	
8/13/2020				<0.005	<0.005			
8/17/2020	<0.005							
9/22/2020					<0.005	0.00089 (J)	<0.005	
9/24/2020				<0.005				
9/25/2020	0.00094 (J)							
12/9/2020		<0.005						
3/1/2021						<0.005	<0.005	
3/8/2021	0.00057 (J)	<0.005						
3/12/2021				<0.005	<0.005			
4/15/2021			0.00085 (J)					
9/8/2021							<0.005	
9/9/2021				<0.005	<0.005	<0.005		
9/13/2021	<0.005							
9/15/2021		0.0012 (J)						
9/16/2021			0.0014 (J)					
1/18/2022						<0.005	<0.005	
1/19/2022		<0.005	<0.005					
1/20/2022				<0.005				
1/21/2022	<0.005							
1/28/2022					<0.005			
6/6/2022								<0.005
9/7/2022		<0.005	<0.005			<0.005	<0.005	
9/8/2022	<0.005			<0.005	<0.005			<0.005
1/31/2023						<0.005	<0.005	
2/1/2023		<0.005	<0.005		<0.005			
2/2/2023	<0.005			<0.005				<0.005
5/2/2023								<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.005					<0.005	<0.005	
9/7/2023		<0.005	<0.005	<0.005	<0.005			
9/8/2023								<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	<0.005	<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	<0.005	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017						<0.005	
10/26/2017	0.0007 (J)	0.0005 (J)	<0.005	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017							<0.005
3/1/2018	<0.005	<0.005	<0.005				
3/2/2018				<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<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	<0.005
8/28/2019	<0.005	<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)	<0.005	0.00078 (J)			
3/4/2020				0.0011 (J)			
3/9/2020	<0.005	0.00044 (J)	<0.005		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00058 (J)	<0.005	<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					
9/25/2020			<0.005				
3/8/2021				0.0006 (J)			
3/10/2021						<0.005	0.0009 (J)
3/11/2021	<0.005	<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 (Jo)	<0.005
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	<0.005					
1/25/2022						<0.005	0.0013 (J)
9/7/2022			<0.005	<0.005		<0.005	<0.005
9/8/2022	<0.005				<0.005		
9/12/2022		<0.005					
2/1/2023				<0.005		<0.005	<0.005
2/2/2023	<0.005	<0.005			<0.005		
2/3/2023			<0.005				
9/6/2023	<0.005						
9/7/2023		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.025	0.0034 (J)	0.0033 (J)	
5/11/2017					0.0281			
5/12/2017							0.0016 (J)	
5/15/2017						0.0024 (J)		
6/15/2017					0.0322	0.0014 (J)		
6/16/2017							0.0011 (J)	
7/11/2017						0.0007 (J)	0.0008 (J)	
7/12/2017					0.0247			
8/8/2017						0.0007 (J)		
10/24/2017					0.0267	<0.005	0.0004 (J)	
2/27/2018						<0.005	<0.005	
3/8/2018					0.027			
7/12/2018					0.024			
11/6/2018						<0.005	<0.005	
11/7/2018					0.018			
1/30/2019				<0.005				
8/27/2019						<0.005	<0.005	
8/28/2019					0.013			
9/11/2019				0.0003 (J)				
10/15/2019						0.00064 (J)	<0.005	
10/16/2019					0.009			
10/21/2019				0.00031 (J)				
3/2/2020						0.00037 (J)	<0.005	
3/9/2020					0.016			
7/23/2020	0.086							
8/3/2020	0.087							
8/11/2020						0.0012 (J)	<0.005	
8/13/2020				<0.005	0.0051			
8/17/2020	0.077							
9/22/2020					0.011	<0.005	<0.005	
9/24/2020				<0.005				
9/25/2020	0.034							
12/9/2020		0.012						
3/1/2021						<0.005	<0.005	
3/8/2021	0.029	0.0042 (J)						
3/12/2021				<0.005	0.0078			
4/15/2021			0.0025 (J)					
9/8/2021							<0.005	
9/9/2021				<0.005	0.0064	<0.005		
9/13/2021	0.035							
9/15/2021		0.0065						
9/16/2021			0.00054 (J)					
1/18/2022						<0.005	<0.005	
1/19/2022		0.006	<0.005					
1/20/2022				<0.005				
1/21/2022	0.034							
1/28/2022					0.014			
6/6/2022								0.0028 (J)
9/7/2022		0.004 (J)	<0.005			<0.005	<0.005	
9/8/2022	0.028			<0.005	0.012			0.0019 (J)
9/9/2022				<0.005				
1/31/2023						<0.005	<0.005	

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
2/1/2023		0.004 (J)	<0.005		0.008			
2/2/2023	<0.005			<0.005				0.0016 (J)
5/2/2023								0.0017 (J)
9/6/2023	0.031					<0.005	<0.005	
9/7/2023		0.0027 (J)	0.0004 (J)	<0.005	0.0086			
9/8/2023								0.0016 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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)		0.0022 (J)
5/12/2017					0.0037 (J)	0.0015 (J)	0.0016 (J)
6/16/2017					0.0041 (J)	0.0003 (J)	0.0009 (J)
7/13/2017	0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)	0.0004 (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	0.0031 (J)
11/15/2017							0.0028 (J)
3/1/2018	<0.005	<0.01	<0.01				
3/2/2018				0.0425	<0.01	<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	<0.005
11/8/2018	<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)	<0.005	<0.005
8/28/2019	<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)	<0.005	<0.005
10/16/2019						<0.005	<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	<0.005
8/13/2020	<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)	<0.005	<0.005
9/23/2020				0.046	0.0011 (J)	<0.005	<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	<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 (Jo)	<0.005
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	<0.005
9/7/2022			0.0065	0.037		<0.005	<0.005
9/8/2022	<0.005				0.001 (J)		
9/12/2022		0.0014 (J)					
2/1/2023				0.035		<0.005	<0.005
2/2/2023	<0.005	0.0017 (J)			0.0014 (J)		
2/3/2023			0.005				
9/6/2023	<0.005						
9/7/2023		0.0015 (J)	0.0059	0.035	0.001 (J)	<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					6.36	0.866 (U)	0.257 (U)	
5/11/2017					3.45			
5/12/2017							0.165 (U)	
5/15/2017						0.288 (U)		
6/15/2017					4.58	1.01 (U)		
6/16/2017							0.732 (U)	
7/11/2017						0.254 (U)	0.461 (U)	
7/12/2017					4.37			
8/8/2017						1.48		
10/24/2017					4.46	0.472 (U)	0.724 (U)	
2/27/2018						1.22	0.714 (U)	
3/8/2018					2.14			
7/10/2018						0.362 (U)	0.426 (U)	
7/12/2018					4.65			
11/6/2018						0.859 (U)	0.455 (U)	
11/7/2018					3.05			
1/30/2019				1.97 (U)				
8/27/2019						1.97	1.3 (U)	
8/28/2019					2.68			
10/15/2019						0.319 (U)	1.21 (U)	
10/16/2019					1.89			
10/21/2019				1.82				
3/2/2020						0.419 (U)	1.3	
3/9/2020					3.51			
8/11/2020						0.812 (U)	0.965 (U)	
8/13/2020				1.63	1.04			
8/17/2020	1.4 (U)							
9/22/2020					2.27	0.45 (U)	0.216 (U)	
9/24/2020				1.28 (U)				
9/25/2020	0.799 (U)							
12/9/2020		1.25 (U)						
3/1/2021						0.552 (U)	0.389 (U)	
3/8/2021	0.168 (U)	1.87						
3/12/2021				1.18 (U)	1.63			
4/15/2021			0.945 (U)					
9/8/2021							0.051 (U)	
9/9/2021				1.7	2.72	0.779 (U)		
9/13/2021	0.774 (U)							
9/15/2021		2.01						
9/16/2021			0.241 (U)					
1/18/2022						1.26	0.729 (U)	
1/19/2022		2.45	0.738 (U)					
1/20/2022				1.71				
1/21/2022	0.769 (U)							
1/28/2022					2.1			
9/7/2022						0.504 (U)	0.588 (U)	
9/8/2022	0.643 (U)				1.69			
9/9/2022				1.96				
1/31/2023						0.416 (U)	0.314 (U)	
2/1/2023		6.88	1.76		1.92			
2/2/2023	0.981			1.6				0.868 (U)
5/2/2023								0.374 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	0.326 (U)					0.651 (U)	0.572 (U)	
9/7/2023		2.88	0.902	2.24	2.16			
9/8/2023								0.986 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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)		1.39
5/12/2017					0.206 (U)	1.18	1.29
6/16/2017					0.966 (U)	0.332 (U)	1.61
7/13/2017	0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)	0.304 (U)	1.14
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)	2.04
11/15/2017							1.99
3/1/2018	0.344 (U)	0.985 (U)	1.24				
3/2/2018				0.485 (U)	1.31	1.13	0.918 (U)
7/12/2018	0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)			
7/13/2018					0.667 (U)	0.407 (U)	1.36 (U)
11/8/2018	0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)	0.393 (U)	0.719 (U)
8/28/2019	1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)	1.77	1.38
10/16/2019						2.12	0.826 (U)
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	1.39
8/13/2020	0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)	1.46	2.66
9/23/2020				1.28 (U)	0.131 (U)	0.563 (U)	1.8
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)	1.6
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	2.06
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)	0.834 (U)
2/1/2023				0.603 (U)		1.37	1.85
2/2/2023	1.23	0.462 (U)			0.498 (U)		
2/3/2023			0.878 (U)				
9/6/2023	0.732 (U)						
9/7/2023		0.358 (U)	0.728 (U)	0.902 (U)	0.565 (U)	0.782 (U)	0.91

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.12 (J)	1.2 (O)	0.06 (J)	
5/11/2017					0.07 (J)			
5/12/2017							<0.1	
5/15/2017						0.005 (J)		
6/15/2017					0.19 (J)	0.02 (J)		
6/16/2017							0.008 (J)	
7/11/2017						0.06 (J)	0.007 (J)	
7/12/2017					0.1 (J)			
8/8/2017						0.04 (J)		
10/24/2017					0.06 (J)	<0.1	<0.1	
11/15/2017					0.05 (J)		<0.1	
2/27/2018						<0.1	<0.1	
3/8/2018					<0.3			
7/12/2018					0.071 (J)			
11/6/2018						<0.1	<0.1	
11/7/2018					<0.3			
1/30/2019				0.43				
3/12/2019						0.039 (J)	<0.1	
3/13/2019					0.13 (J)			
8/27/2019						<0.1	<0.1	
8/28/2019					0.42			
10/15/2019						<0.1	<0.1	
10/16/2019					0.11 (J)			
10/21/2019				0.23 (J)				
3/2/2020						<0.1	<0.1	
3/9/2020					0.1 (J)			
8/11/2020						<0.1	<0.1	
8/13/2020				0.11	0.062 (J)			
8/17/2020	<0.1							
9/22/2020					0.099 (J)	<0.1	<0.1	
9/24/2020				0.093 (J)				
9/25/2020	<0.1							
12/9/2020		0.075 (J)						
3/1/2021						<0.1	<0.1	
3/8/2021	<0.1	0.32						
3/12/2021				0.11	0.076 (J)			
4/15/2021			0.3					
9/8/2021							<0.1	
9/9/2021				0.14	0.099 (J)	<0.1		
9/13/2021	<0.1							
9/15/2021		0.078 (J)						
9/16/2021			0.34					
1/18/2022						<0.1	<0.1	
1/19/2022		0.058 (J)	0.25					
1/20/2022				0.099 (J)				
1/21/2022	<0.1							
1/28/2022					0.08 (J)			
6/6/2022								0.056 (J)
9/7/2022		0.11	0.27			0.061 (J)	0.056 (J)	
9/8/2022	0.072 (J)			0.13	0.11			0.093 (J)
1/31/2023						0.053 (J)	0.05 (J)	
2/1/2023		0.089 (J)	0.3		0.1			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
2/2/2023	0.052 (J)			0.16				0.11
5/2/2023								0.076 (J)
9/6/2023	<0.1					<0.1	<0.1	
9/7/2023		0.1	0.32	0.13	0.082 (J)			
9/8/2023								<0.1

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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)		0.16 (J)
5/12/2017					<0.1	0.37	0.12 (J)
6/16/2017					0.03 (J)	0.12 (J)	0.16 (J)
7/13/2017	0.06 (J)	0.13 (J)	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)	0.13 (J)
8/8/2017						0.11 (J)	
10/26/2017	0.08 (J)	0.47	0.54	0.5	<0.1	0.11 (J)	0.29 (J)
11/15/2017							0.28 (J)
3/1/2018	0.22	<0.3	0.13				
3/2/2018				0.33	<0.1	0.23	0.18
7/12/2018	0.32	0.23 (J)	0.13 (J)	0.57			
7/13/2018					0.25 (J)	0.099 (J)	0.19 (J)
11/8/2018	<0.3	<0.3	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)	<0.3 (J)
3/13/2019	0.08 (J)	0.084 (J)	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)	0.086 (J)
8/28/2019	0.074 (J)	0.066 (J)	0.086 (J)	0.14	<0.1	0.1	0.07 (J)
10/16/2019						0.093 (J)	0.13 (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)	0.068 (J)
8/13/2020	0.068 (J)	0.06 (J)	0.076 (J)	0.16	<0.1	0.076 (J)	0.084 (J)
9/23/2020				0.054 (J)	<0.1	0.07 (J)	0.064 (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)	0.055 (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	0.11
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)	0.054 (J)
9/7/2022			0.11	0.14		0.11	0.11
9/8/2022	0.082 (J)				0.096 (J)		
9/12/2022		0.12					
2/1/2023				0.15		0.11	0.1
2/2/2023	0.089 (J)	0.1			0.068 (J)		
2/3/2023			0.12				
9/6/2023	0.053 (J)						
9/7/2023		0.072 (J)	0.092 (J)	0.14	<0.1	0.096 (J)	0.063 (J)

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Lead (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.001	9E-05 (J)	<0.001	
5/11/2017					<0.001			
5/12/2017							8E-05 (J)	
5/15/2017						0.0001 (J)		
6/15/2017					<0.001	0.0002 (J)		
6/16/2017							<0.001	
7/11/2017						<0.001	<0.001	
7/12/2017					<0.001			
8/8/2017						7E-05 (J)		
10/24/2017					<0.001	<0.001	<0.001	
2/27/2018						<0.001	<0.001	
3/8/2018					<0.001			
7/12/2018					<0.001			
11/6/2018						<0.001	<0.001	
11/7/2018					<0.001			
1/30/2019				<0.001				
8/27/2019						7.8E-05 (J)	<0.001	
8/28/2019					<0.001			
9/11/2019				<0.001				
10/15/2019						<0.001	<0.001	
10/16/2019					<0.001			
10/21/2019				<0.001				
3/2/2020						7.4E-05 (J)	<0.001	
3/9/2020					<0.001			
8/11/2020						0.0003 (J)	<0.001	
8/13/2020				<0.001	<0.001			
8/17/2020	8.8E-05 (J)							
9/22/2020					<0.001	7.8E-05 (J)	<0.001	
9/24/2020				<0.001				
9/25/2020	0.00021 (J)							
12/9/2020		5.2E-05 (J)						
3/1/2021						<0.001	<0.001	
3/8/2021	0.00018 (J)	<0.001						
3/12/2021				<0.001	<0.001			
4/15/2021			0.00014 (J)					
9/8/2021							<0.001	
9/9/2021				<0.001	<0.001	<0.001		
9/13/2021	<0.001							
9/15/2021		<0.001						
9/16/2021			<0.001					
1/18/2022						<0.001	<0.001	
1/19/2022		<0.001	<0.001					
1/20/2022				<0.001				
1/21/2022	<0.001							
1/28/2022					<0.001			
6/6/2022								<0.001
9/7/2022		<0.001	<0.001			<0.001	<0.001	
9/8/2022	<0.001			<0.001	<0.001			<0.001
1/31/2023						<0.001	<0.001	
2/1/2023		<0.001	<0.001		<0.001			
2/2/2023	<0.001			<0.001				<0.001
5/2/2023								<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.001					<0.001	<0.001	
9/7/2023		<0.001	<0.001	<0.001	<0.001			
9/8/2023								<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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		<0.001
5/12/2017					9E-05 (J)	<0.001	0.0001 (J)
6/16/2017					<0.001	<0.001	<0.001
7/13/2017	<0.001	<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	<0.001
11/15/2017							9E-05 (J)
3/1/2018	<0.001	<0.001	<0.001				
3/2/2018				<0.001	<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001			
7/13/2018					<0.001	<0.001	<0.001
11/8/2018	<0.001	<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	<0.001
10/16/2019						<0.001	<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	9E-05 (J)
8/13/2020	<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)	<0.001	5.9E-05 (J)
9/23/2020				0.00028 (J)	<0.001	0.00035 (J)	0.00017 (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)	0.0001 (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	<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	<0.001
9/7/2022			<0.001	<0.001		<0.001	<0.001
9/8/2022	<0.001				<0.001		
9/12/2022		<0.001					
2/1/2023				<0.001		<0.001	<0.001
2/2/2023	<0.001	<0.001			<0.001		
2/3/2023			<0.001				
9/6/2023	<0.001						
9/7/2023		<0.001	<0.001	<0.001	<0.001	<0.001	0.0002 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.0108 (J)	0.0054 (J)	0.0025 (J)	
5/11/2017					0.0087 (J)			
5/12/2017							0.0016 (J)	
5/15/2017						0.002 (J)		
6/15/2017					0.0088 (J)	<0.03		
6/16/2017							0.0016 (J)	
7/11/2017						<0.03	<0.05	
7/12/2017					0.0075 (J)			
8/8/2017						<0.03		
10/24/2017					0.0103 (J)	<0.03	<0.05	
2/27/2018						<0.03	0.0013 (J)	
3/8/2018					0.011 (J)			
7/12/2018					0.0084 (J)			
11/6/2018						<0.03	<0.05	
11/7/2018					<0.05			
1/30/2019				<0.05				
8/27/2019						<0.03	0.0014 (J)	
8/28/2019					0.0092 (J)			
9/11/2019				0.0078 (J)				
10/15/2019						<0.03	0.0012 (J)	
10/16/2019					0.0094 (J)			
10/21/2019				0.0078 (J)				
3/2/2020						<0.03	0.0011 (J)	
3/9/2020					0.0077 (J)			
8/11/2020						0.0019 (J)	0.0015 (J)	
8/13/2020				0.0087 (J)	0.0085 (J)			
8/17/2020	0.0013 (J)							
9/22/2020					0.0089 (J)	<0.03	0.0012 (J)	
9/24/2020				0.0084 (J)				
9/25/2020	0.0027 (J)							
12/9/2020		0.014 (J)						
3/1/2021						<0.03	0.0012 (J)	
3/8/2021	0.0024 (J)	0.015 (J)						
3/12/2021				0.0087 (J)	0.0083 (J)			
4/15/2021			0.0045 (J)					
9/8/2021							0.0013 (J)	
9/9/2021				0.0094 (J)	0.0091 (J)	<0.03		
9/13/2021	0.0022 (J)							
9/15/2021		0.014 (J)						
9/16/2021			0.0038 (J)					
1/18/2022						<0.03	0.0013 (J)	
1/19/2022		0.013 (J)	0.0044 (J)					
1/20/2022				0.0092 (J)				
1/21/2022	0.0021 (J)							
1/28/2022					0.0091 (J)			
6/6/2022								0.013 (J)
9/7/2022		0.013 (J)	0.0039 (J)			<0.03	0.0012 (J)	
9/8/2022	0.0023 (J)			0.0085 (J)	0.0083 (J)			0.01 (J)
1/31/2023						<0.03	0.0014 (J)	
2/1/2023		0.013 (J)	0.0038 (J)		0.0088 (J)			
2/2/2023	<0.03			0.0082 (J)				0.0059 (J)
5/2/2023								0.0045 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	0.0023 (J)					<0.03	0.0013 (J)	
9/7/2023		0.013 (J)	0.0043 (J)	0.0092 (J)	0.0085 (J)			
9/8/2023								0.0055 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0022 (J)			
9/8/2016	<0.05	0.0032 (J)	<0.03				
12/7/2016	<0.05	0.0035 (J)	<0.03				
12/8/2016				<0.05			
3/30/2017	0.0029 (J)	0.0035 (J)	<0.03	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	<0.05	0.0032 (J)	<0.03	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)	<0.03	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)	<0.03				
3/2/2018				0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0028 (J)	0.0034 (J)	<0.03	0.0022 (J)			
7/13/2018					0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.05	<0.05	<0.03	<0.05	<0.05	<0.03	<0.05
8/28/2019	0.0025 (J)	0.0034 (J)	<0.03	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)	<0.03	0.0024 (J)			
3/4/2020				0.0027 (J)			
3/9/2020	0.0017 (J)	0.0033 (J)	<0.03		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	0.0023 (J)	0.0028 (J)	<0.03	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)					
9/25/2020			<0.03				
3/8/2021				0.0022 (J)			
3/10/2021						<0.03	0.0023 (J)
3/11/2021	0.0024 (J)	0.003 (J)	<0.03		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)
9/17/2021			<0.03				
1/19/2022				0.0024 (J)	0.0046 (J)		
1/20/2022			<0.03				
1/21/2022	0.002 (J)	0.0025 (J)					
1/25/2022						<0.03	0.0026 (J)
9/7/2022			<0.03	0.0023 (J)		<0.03	0.0025 (J)
9/8/2022	0.0019 (J)				0.0048 (J)		
9/12/2022		0.003 (J)					
2/1/2023				0.0021 (J)		<0.03	0.0021 (J)
2/2/2023	0.0018 (J)	0.0026 (J)			0.0048 (J)		
2/3/2023			<0.03				
9/6/2023	0.0021 (J)						
9/7/2023		0.0026 (J)	<0.03	0.0022 (J)	0.0046 (J)	<0.03	0.0022 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.0002	<0.0002	<0.0002	
5/11/2017					<0.0002			
5/12/2017							6E-05 (J)	
5/15/2017						<0.0002		
6/15/2017					8E-05 (J)	7E-05 (J)		
6/16/2017							7E-05 (J)	
7/11/2017						<0.0002	<0.0002	
7/12/2017					<0.0002			
8/8/2017						<0.0002		
10/24/2017					<0.0002	<0.0002	<0.0002	
2/27/2018						<0.0002	<0.0002	
3/8/2018					<0.0002			
7/12/2018					<0.0002			
11/6/2018						<0.0002	<0.0002	
11/7/2018					<0.0002			
1/30/2019				<0.0002				
8/27/2019						<0.0002	<0.0002	
8/28/2019					<0.0002			
9/11/2019				<0.0002				
10/15/2019						<0.0002	<0.0002	
10/16/2019					<0.0002			
10/21/2019				<0.0002				
3/2/2020						<0.0002	<0.0002	
3/9/2020					<0.0002			
8/11/2020						<0.0002	<0.0002	
8/13/2020				<0.0002	<0.0002			
8/17/2020	0.00011 (J)							
9/22/2020					<0.0002	<0.0002	<0.0002	
9/24/2020				<0.0002				
9/25/2020	<0.0002							
12/9/2020		8.7E-05 (J)						
3/1/2021						<0.0002	9E-05 (J)	
3/12/2021				<0.0002	<0.0002			
4/15/2021			<0.0002					
9/8/2021							9.6E-05 (J)	
9/9/2021				<0.0002	<0.0002	<0.0002		
9/13/2021	<0.0002							
9/15/2021		<0.0002						
9/16/2021			<0.0002					
1/18/2022						<0.0002	0.00015 (J)	
1/19/2022		<0.0002	<0.0002					
1/20/2022				<0.0002				
1/21/2022	<0.0002							
1/28/2022					<0.0002			
6/6/2022								<0.0002
9/7/2022		0.00014 (J)	<0.0002			<0.0002	0.00013 (J)	
9/8/2022	<0.0002			<0.0002	<0.0002			<0.0002
1/31/2023						<0.0002	<0.0002	
2/1/2023		<0.0002	<0.0002		<0.0002			
2/2/2023	<0.0002			<0.0002				<0.0002
5/2/2023								<0.0002
9/6/2023	<0.0002					<0.0002	<0.0002	

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/7/2023		<0.0002	<0.0002	<0.0002	<0.0002			
9/8/2023								<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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		<0.0002
5/12/2017					<0.0002	<0.0002	<0.0002
6/16/2017					7E-05 (J)	7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<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	<0.0002
11/15/2017							<0.0002
3/1/2018	<0.0002	<0.0002	<0.0002				
3/2/2018				<0.0002	<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	<0.0002
11/8/2018	<0.0002	<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	<0.0002
10/16/2019						<0.0002	<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	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/23/2020				<0.0002	<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	<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	<0.0002
9/7/2022			<0.0002	<0.0002		<0.0002	<0.0002
9/8/2022	<0.0002				<0.0002		
9/12/2022		<0.0002					
2/1/2023				<0.0002		<0.0002	<0.0002
2/2/2023	<0.0002	<0.0002			<0.0002		
2/3/2023			<0.0002				
9/6/2023	<0.0002						
9/7/2023		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.0242	<0.01	0.0009 (J)	
5/11/2017					0.0375			
5/12/2017							<0.01	
5/15/2017						<0.01		
6/15/2017					0.0409	<0.01		
6/16/2017							<0.01	
7/11/2017						<0.01	<0.01	
7/12/2017					0.0321			
8/8/2017						<0.01		
10/24/2017					0.0227	<0.01	<0.01	
2/27/2018						<0.01	<0.01	
3/8/2018					0.035			
7/12/2018					0.034			
11/6/2018						<0.01	<0.01	
11/7/2018					0.029			
1/30/2019				<0.01				
8/27/2019						<0.01	<0.01	
8/28/2019					0.031			
9/11/2019				<0.01				
10/15/2019						<0.01	<0.01	
10/16/2019					0.037			
10/21/2019				<0.01				
3/2/2020						<0.01	<0.01	
3/9/2020					0.026			
8/11/2020						<0.01	<0.01	
8/13/2020				<0.01	0.012			
8/17/2020	<0.01							
9/22/2020					0.039	<0.01	<0.01	
9/24/2020				<0.01				
9/25/2020	<0.01							
12/9/2020		<0.01						
3/1/2021						<0.01	<0.01	
3/8/2021	<0.01	0.0011 (J)						
3/12/2021				<0.01	0.018			
4/15/2021			0.037					
9/8/2021							<0.01	
9/9/2021				<0.01	0.025	<0.01		
9/13/2021	<0.01							
9/15/2021		<0.01						
9/16/2021			0.032					
1/18/2022						<0.01	<0.01	
1/19/2022		<0.01	0.032					
1/20/2022				<0.01				
1/21/2022	<0.01							
1/28/2022					0.026			
6/6/2022								0.00093 (J)
9/7/2022		<0.01	0.028			<0.01	<0.01	
9/8/2022	<0.01			<0.01	0.027			<0.01
1/31/2023						<0.01	<0.01	
2/1/2023		<0.01	0.03		0.023			
2/2/2023	0.19			<0.01				<0.01
5/2/2023								0.00089 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.01					<0.01	<0.01	
9/7/2023		<0.01	0.026	<0.01	0.022			
9/8/2023								<0.01

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	<0.01	0.0011 (J)	<0.01	<0.01			
3/31/2017					<0.01		0.0124
5/12/2017					<0.01	0.275	0.0117
6/16/2017					<0.01	0.19	0.0087 (J)
7/13/2017	<0.01	0.0012 (J)	<0.01	<0.01	<0.01	0.211	0.0053 (J)
8/8/2017						0.207	
10/26/2017	<0.01	0.0011 (J)	<0.01	<0.01	<0.01	0.226	0.0244
11/15/2017							0.0237
3/1/2018	<0.01	<0.01	<0.01				
3/2/2018				<0.01	<0.01	0.215	0.0072 (J)
7/12/2018	<0.01	<0.01	<0.01	<0.01			
7/13/2018					<0.01	0.22	0.007 (J)
11/8/2018	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.01 (J)
8/28/2019	<0.01	<0.01	<0.01	<0.01	<0.01	0.21	0.0059 (J)
10/16/2019						0.22	0.01
10/17/2019					<0.01		
10/18/2019	<0.01	<0.01	<0.01	<0.01			
3/4/2020				<0.01			
3/9/2020	<0.01	0.001 (J)	<0.01		<0.01	0.19	0.0062 (J)
8/13/2020	<0.01	0.00098 (J)	<0.01	<0.01	<0.01	0.19	0.011
9/23/2020				<0.01	<0.01	0.2	0.0056 (J)
9/24/2020	<0.01	0.001 (J)					
9/25/2020			<0.01				
3/8/2021				<0.01			
3/10/2021						0.2	0.0056 (J)
3/11/2021	<0.01	0.00092 (J)	<0.01		<0.01		
9/14/2021				<0.01			
9/15/2021		0.00099 (J)					
9/16/2021	<0.01				<0.01	0.18	0.009 (J)
9/17/2021			<0.01				
1/19/2022				<0.01	<0.01		
1/20/2022			<0.01				
1/21/2022	<0.01	0.0013 (J)					
1/25/2022						0.23	0.0057 (J)
9/7/2022			<0.01	<0.01		0.2	0.0067 (J)
9/8/2022	<0.01				<0.01		
9/12/2022		0.0012 (J)					
2/1/2023				<0.01		0.19	0.0058 (J)
2/2/2023	<0.01	0.0015 (J)			<0.01		
2/3/2023			<0.01				
9/6/2023	<0.01						
9/7/2023		0.0013 (J)	0.0016 (J)	<0.01	0.0013 (J)	0.18	0.0056 (J)

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: pH, Field (SU) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					6.29		5.94	
5/11/2017					6.6			
5/12/2017							5.46	
5/15/2017						5.72		
6/15/2017					6.41	5.74		
6/16/2017							5.81	
7/11/2017						5.62	5.74	
7/12/2017					5.91			
8/8/2017						5.6		
10/24/2017					5.51	5.71	5.86	
11/15/2017					6.5		5.77	
2/27/2018						5.5	5.66	
3/8/2018					6.18			
7/10/2018						5.44	5.63	
7/12/2018					6.33			
11/6/2018						5.71	5.79	
11/7/2018					6.22			
3/12/2019						5.52	5.74	
3/13/2019					6			
8/27/2019						5.53	5.87	
8/28/2019					6.04			
9/11/2019				6.27				
10/15/2019						5.61	5.88	
10/16/2019					6.69			
10/21/2019				6.24				
3/2/2020						5.54	5.77	
3/9/2020					6.41			
8/3/2020	4.93							
8/11/2020						5.86	5.96	
8/13/2020				6.4	6.17			
8/17/2020	5.02							
9/22/2020					6.43	6.01	6.06	
9/24/2020				6.55				
9/25/2020	5.53							
12/9/2020		6.48						
3/1/2021						5.43	5.8	
3/8/2021	5.32	6.37						
3/12/2021				6.34	6.38			
4/15/2021			6.83					
9/8/2021							5.76	
9/9/2021				6.31	6.41	5.5		
9/13/2021	5.27							
9/15/2021		6.38						
9/16/2021			6.74					
1/18/2022						5.5	5.51	
1/19/2022		6.62	6.74					
1/20/2022				6.32				
1/21/2022	5.23							
1/28/2022					6.35			
6/6/2022								6.33
9/7/2022		6.44	6.72			5.6	5.65	
9/8/2022	5.24			6.22	6.32			6.32

Time Series

Constituent: pH, Field (SU) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/9/2022				6.22 (D)				
1/31/2023						5.59	5.78	
2/1/2023		6.39	6.72		6.42			
2/2/2023	5.3			6.33				6.35
5/2/2023								6.21
9/6/2023	5.25				6.51	5.5	5.82	
9/7/2023		6.52	6.77	6.38				
9/8/2023								6.25

Time Series

Constituent: pH, Field (SU) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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			
3/30/2017	6.22	5.97	6.42	4.84			
3/31/2017					6.25		6.26
4/12/2017							6.19
5/12/2017					6.23	6.63	6.2
6/16/2017					6.22	6.63	6.22
7/13/2017	6.3	6.11	6.47	4.85	6.15	6.84	6.35
8/8/2017						6.57	
10/26/2017		6.06	6.49	4.86	6.64	7.01	6.69
11/15/2017							6.22
3/1/2018	6.28	6.05	6.37				
3/2/2018				4.67	6.18	6.58	6.1
7/12/2018	6.43	6.05	6.45	4.63			
7/13/2018					6.19	6.62	5.95
11/8/2018	6.36	6.07	6.49	4.79	6.23	6.5	6
3/13/2019	6.26	6.05	6.28	4.6	6.19	6.57	6.08
8/28/2019	6.27	5.98	6.41	4.68	6.22	6.6	6.09
10/16/2019						6.6	6.19
10/17/2019					6.14		
10/18/2019	6.26	6	6.35	4.71			
3/4/2020				4.64			
3/9/2020	6.34	6.12	6.37		6.23	6.6	6.12
8/13/2020	6.34	6.05	6.39	4.65	6.28	6.63	6.26
9/23/2020				4.78	6.23	6.6	6.08
9/24/2020	6.3	6.05					
9/25/2020			6.38				
3/8/2021				4.79			
3/10/2021						6.74	6.13
3/11/2021	6.49	6.22	6.66		6.28		
9/14/2021				4.67			
9/15/2021		6.08					
9/16/2021	6.33				6.2	6.79 (o)	6.16
9/17/2021			6.49				
10/27/2021						6.56	
1/19/2022				4.66	6.21		
1/20/2022			6.52				
1/21/2022	6.31	6.08					
1/25/2022						6.53	6.02
9/7/2022			6.43	4.54		6.62	6.2
9/8/2022	6.3				6.21		
9/9/2022	6.3						
9/12/2022		6.05					
2/1/2023				4.66		6.6	6.12
2/2/2023	6.23	6.08			6.27		
2/3/2023			6.49				
9/6/2023	6.26						
9/7/2023		6.07	6.55	4.67	6.21	6.6	6.16

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.005	<0.005	<0.005	
5/11/2017					<0.005			
5/12/2017							<0.005	
5/15/2017						<0.005		
6/15/2017					<0.005	<0.005		
6/16/2017							<0.005	
7/11/2017						<0.005	<0.005	
7/12/2017					<0.005			
8/8/2017						<0.005		
10/24/2017					<0.005	<0.005	<0.005	
2/27/2018						<0.005	<0.005	
3/8/2018					<0.005			
7/12/2018					<0.005			
11/6/2018						<0.005	<0.005	
11/7/2018					<0.005			
1/30/2019				<0.005				
8/27/2019						<0.005	<0.005	
8/28/2019					<0.005			
9/11/2019				<0.005				
10/15/2019						<0.005	<0.005	
10/16/2019					<0.005			
10/21/2019				<0.005				
3/2/2020						<0.005	<0.005	
3/9/2020					<0.005			
8/11/2020						<0.005	<0.005	
8/13/2020				<0.005	<0.005			
8/17/2020	<0.005							
9/22/2020					<0.005	<0.005	<0.005	
9/24/2020				<0.005				
9/25/2020	<0.005							
12/9/2020		<0.005						
3/1/2021						<0.005	<0.005	
3/8/2021	0.0019 (J)	<0.005						
3/12/2021				<0.005	<0.005			
4/15/2021			<0.005					
9/8/2021							<0.005	
9/9/2021				<0.005	<0.005	<0.005		
9/13/2021	<0.005							
9/15/2021		<0.005						
9/16/2021			<0.005					
1/18/2022						<0.005	<0.005	
1/19/2022		<0.005	<0.005					
1/20/2022				<0.005				
1/21/2022	<0.005							
1/28/2022					<0.005			
6/6/2022								<0.005
9/7/2022		<0.005	<0.005			<0.005	<0.005	
9/8/2022	<0.005			<0.005	<0.005			<0.005
1/31/2023						<0.005	<0.005	
2/1/2023		<0.005	<0.005		<0.005			
2/2/2023	<0.005			<0.005				<0.005
5/2/2023								<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.005					<0.005	<0.005	
9/7/2023		<0.005	<0.005	<0.005	<0.005			
9/8/2023								<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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)			
3/30/2017	<0.005	<0.005	<0.005	0.0023 (J)			
3/31/2017					<0.005		<0.005
5/12/2017					<0.005	<0.005	<0.005
6/16/2017					<0.005	<0.005	<0.005
7/13/2017	<0.005	<0.005	<0.005	0.0025 (J)	<0.005	<0.005	<0.005
8/8/2017						<0.005	
10/26/2017	<0.005	<0.005	<0.005	0.0036 (J)	<0.005	<0.005	<0.005
11/15/2017							<0.005
3/1/2018	<0.005	<0.005	<0.005				
3/2/2018				<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<0.005	<0.005	<0.005			
7/13/2018					<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.01 (J)	<0.005	<0.005	<0.005
8/28/2019	<0.005	<0.005	<0.005	0.0017 (J)	<0.005	<0.005	<0.005
10/16/2019						<0.005	<0.005
10/17/2019					<0.005		
10/18/2019	<0.005	<0.005	<0.005	0.0027 (J)			
3/4/2020				0.0049 (J)			
3/9/2020	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
8/13/2020	<0.005	<0.005	<0.005	0.0018 (J)	<0.005	<0.005	<0.005
9/23/2020				0.0067 (J)	<0.005	<0.005	<0.005
9/24/2020	<0.005	<0.005					
9/25/2020			<0.005				
3/8/2021				0.0023 (J)			
3/10/2021						0.0017 (J)	<0.005
3/11/2021	<0.005	0.0019 (J)	<0.005		0.0027 (J)		
9/14/2021				0.0015 (J)			
9/15/2021		<0.005					
9/16/2021	<0.005				<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	<0.005					
1/25/2022						<0.005	<0.005
9/7/2022			<0.005	0.0018 (J)		<0.005	<0.005
9/8/2022	<0.005				<0.005		
9/12/2022		<0.005					
2/1/2023				<0.005		<0.005	<0.005
2/2/2023	<0.005	<0.005			<0.005		
2/3/2023			<0.005				
9/6/2023	<0.005						
9/7/2023		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					49	2.7	17	
5/11/2017					21			
5/12/2017							17	
5/15/2017						1		
6/15/2017					16	0.86 (J)		
6/16/2017							11	
7/11/2017						1.4	11	
7/12/2017					10			
8/8/2017						1.5		
10/24/2017					15	1.4	9.6	
11/15/2017					3.8		7.8	
2/27/2018						0.54 (J)	7.4	
3/8/2018					9.7			
7/12/2018					8			
11/6/2018						<1 (J)	7.3	
11/7/2018					12.8			
1/30/2019				74.7				
3/12/2019						0.35 (J)	7	
3/13/2019					23.7			
10/15/2019						0.16 (J)	7.4	
10/16/2019					15.1			
10/21/2019				55.3				
3/2/2020						<1	8.5	
3/9/2020					9.5			
9/22/2020					13.5	<1	6.5	
9/24/2020				50.6				
9/25/2020	385							
12/9/2020		220						
3/1/2021						<1	5.2	
3/8/2021	388	228						
3/12/2021				46.5	8.8			
4/15/2021			95.6					
9/8/2021							6.1	
9/9/2021				49.2	11.9	<1		
9/13/2021	351							
9/15/2021		240						
9/16/2021			21.2					
1/18/2022						<1	6.3	
1/19/2022		220	18.4					
1/20/2022				50.3				
1/21/2022	344							
1/28/2022					13.1			
6/6/2022								83.9
9/7/2022		263	18.2			<1	7	
9/8/2022	399			45.8	12			84.8
1/31/2023						<1	6.8	
2/1/2023		256	17.9		13.3			
2/2/2023	356			52.1				67.6
5/2/2023								47.3
9/6/2023	322					<1	7.2	
9/7/2023		236	16.3	49.3	15.4			
9/8/2023								87.8

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				230			
9/8/2016	97	270	280				
12/7/2016	100	250	250				
12/8/2016				270			
3/30/2017	110	290	310	240			
3/31/2017					110		21
5/12/2017					100	50	17
6/16/2017					100	47	20
7/13/2017	200 (O)	270	220	220	110	49	17
8/8/2017						48	
10/26/2017	97	260	210	220	100	48	31
11/15/2017							29
3/1/2018	94.6	242	166				
3/2/2018				219	98.5	44.7	10.1
7/12/2018	89.2	256	169	222			
7/13/2018					136	43.3	8.6
11/8/2018	102	291	200	273	118	43.5	9.7
3/13/2019	92.2	300	265	445	233	44.1	8.4
10/16/2019						32.1	13.3
10/17/2019					99.4		
10/18/2019	76.4	239	182	205			
3/4/2020				177			
3/9/2020	90.3	244	171		100	37.4	7.6
9/23/2020				190	99.8	38.7	5.9
9/24/2020	84.1	240					
9/25/2020			153				
3/8/2021				191			
3/10/2021						38.4	6.4
3/11/2021	81.9	154	123		76.7		
9/14/2021				186			
9/15/2021		219					
9/16/2021	95				101	22.3	17.9
9/17/2021			156				
1/19/2022				177	97.2		
1/20/2022			123				
1/21/2022	89.8	188					
1/25/2022						36.3	7.1
9/7/2022			146	203		36.5	11.6
9/8/2022	96.6				117		
9/12/2022		234					
2/1/2023				189		35.6	6.9
2/2/2023	94.3	239			117		
2/3/2023			115				
9/6/2023	83.4						
9/7/2023		212	124	177	106	34.2	6.9

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.001	<0.001	6E-05 (J)	
5/11/2017					<0.001			
5/12/2017							<0.001	
5/15/2017						<0.001		
6/15/2017					<0.001	<0.001		
6/16/2017							<0.001	
7/11/2017						<0.001	<0.001	
7/12/2017					<0.001			
8/8/2017						<0.001		
10/24/2017					<0.001	<0.001	<0.001	
2/27/2018						<0.001	<0.001	
3/8/2018					<0.001			
7/12/2018					<0.001			
11/6/2018						<0.001	<0.001	
11/7/2018					<0.001			
1/30/2019				<0.001				
8/27/2019						<0.001	<0.001	
8/28/2019					<0.001			
9/11/2019				<0.001				
10/15/2019						<0.001	<0.001	
10/16/2019					<0.001			
10/21/2019				<0.001				
3/2/2020						7.8E-05 (J)	<0.001	
3/9/2020					<0.001			
8/11/2020						<0.001	<0.001	
8/13/2020				<0.001	<0.001			
8/17/2020	<0.001							
9/22/2020					<0.001	<0.001	<0.001	
9/24/2020				<0.001				
9/25/2020	<0.001							
12/9/2020		<0.001						
3/1/2021						<0.001	<0.001	
3/8/2021	<0.001	<0.001						
3/12/2021				<0.001	<0.001			
4/15/2021			<0.001					
9/8/2021							<0.001	
9/9/2021				<0.001	<0.001	<0.001		
9/13/2021	<0.001							
9/15/2021		<0.001						
9/16/2021			<0.001					
1/18/2022						<0.001	<0.001	
1/19/2022		<0.001	<0.001					
1/20/2022				<0.001				
1/21/2022	<0.001							
1/28/2022					<0.001			
6/6/2022								<0.001
9/7/2022		<0.001	<0.001			<0.001	<0.001	
9/8/2022	<0.001			<0.001	<0.001			<0.001
1/31/2023						<0.001	<0.001	
2/1/2023		<0.001	<0.001		<0.001			
2/2/2023	<0.001			<0.001				<0.001
5/2/2023								<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.001					0.00053 (J)	<0.001	
9/7/2023		<0.001	<0.001	<0.001	<0.001			
9/8/2023								<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
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	<0.001	0.0001 (J)	0.0001 (J)	6E-05 (J)			
3/31/2017					<0.001		<0.001
5/12/2017					<0.001	<0.001	<0.001
6/16/2017					<0.001	<0.001	<0.001
7/13/2017	<0.001	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001	<0.001	<0.001
8/8/2017						<0.001	
10/26/2017	<0.001	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001	<0.001	<0.001
11/15/2017							<0.001
3/1/2018	<0.001	<0.001	<0.001				
3/2/2018				<0.001	<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001			
7/13/2018					<0.001	0.00015 (J)	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/28/2019	<0.001	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001	<0.001	<0.001
10/16/2019						<0.001	<0.001
10/17/2019					<0.001		
10/18/2019	<0.001	0.0001 (J)	<0.001	<0.001			
3/4/2020				6.8E-05 (J)			
3/9/2020	<0.001	0.00016 (J)	7.1E-05 (J)		<0.001	<0.001	<0.001
8/13/2020	<0.001	0.00016 (J)	<0.001	<0.001	<0.001	<0.001	<0.001
9/23/2020				<0.001	<0.001	<0.001	<0.001
9/24/2020	<0.001	0.00015 (J)					
9/25/2020			<0.001				
3/8/2021				<0.001			
3/10/2021						<0.001	<0.001
3/11/2021	<0.001	<0.001	<0.001		<0.001		
9/14/2021				<0.001			
9/15/2021		<0.001					
9/16/2021	<0.001				<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	<0.001
9/7/2022			<0.001	<0.001		<0.001	<0.001
9/8/2022	<0.001				<0.001		
9/12/2022		<0.001					
2/1/2023				<0.001		<0.001	<0.001
2/2/2023	<0.001	<0.001			<0.001		
2/3/2023			<0.001				
9/6/2023	<0.001						
9/7/2023		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					202	39	90	
5/11/2017					241			
5/12/2017							92	
5/15/2017						88		
6/15/2017					251	65		
6/16/2017							100	
7/11/2017						25	59	
7/12/2017					218			
8/8/2017						53		
10/24/2017					671 (O)	49	117	
11/15/2017					241		90	
2/27/2018						43	79	
3/8/2018					213			
7/12/2018					198			
11/6/2018						65	85	
11/7/2018					200			
1/30/2019				287				
3/12/2019						43	74	
3/13/2019					201			
10/15/2019						70	89	
10/16/2019					126			
10/21/2019				180				
3/2/2020						52	67	
3/9/2020					171			
9/22/2020					142	46	74	
9/24/2020				170				
9/25/2020	724							
12/9/2020		474						
3/1/2021						25	62	
3/8/2021	660	477						
3/12/2021				172	124			
4/15/2021			289					
9/8/2021							75	
9/9/2021				174	131	53		
9/13/2021	636							
9/15/2021		455						
9/16/2021			162					
1/18/2022						54	76	
1/19/2022		453	167					
1/20/2022				187				
1/21/2022	638							
1/28/2022					155			
6/6/2022								270
9/7/2022		479	153			34	82	
9/8/2022	606			160	129			261
1/31/2023						163	87	
2/1/2023		477	200		116			
2/2/2023	595			197				221
5/2/2023								69
9/6/2023	641					46	80	
9/7/2023		520	155	181	123			
9/8/2023								286

Time Series

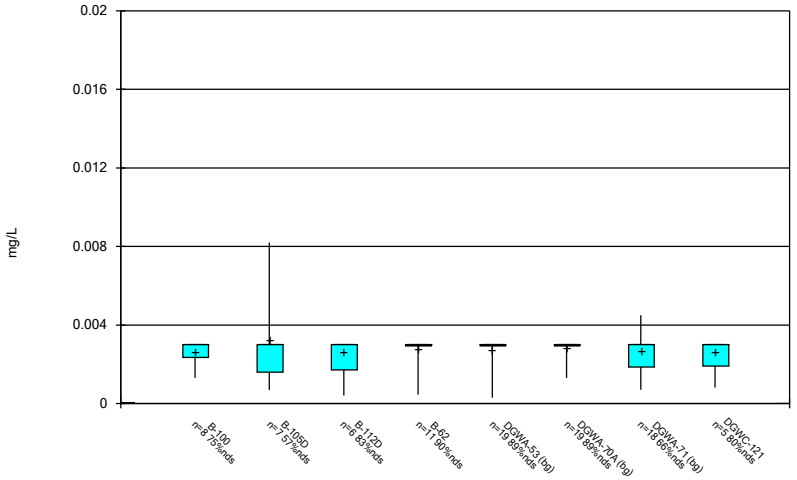
Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/16/2023 4:10 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				583 (O)			
9/8/2016	279	437	522				
12/7/2016	300	478	565				
12/8/2016				319			
3/30/2017	273	448	496	344			
3/31/2017					270		138
5/12/2017					287	300	243
6/16/2017					309	271	155
7/13/2017	312	504	508	386	275	246	122
8/8/2017						278	
10/26/2017	340	554	532	373	319	287	234
11/15/2017							188
3/1/2018	311	492	440				
3/2/2018				359	264	252	73
7/12/2018	290	478	463	365			
7/13/2018					297	275	95
11/8/2018	295	507	485	399	295	277	112
3/13/2019	286	487	526	351	278	267	95
10/16/2019						218	108
10/17/2019					281		
10/18/2019	269	494	489	360			
3/4/2020				400			
3/9/2020	357	554	508		209	188	115
9/23/2020				357	296	251	102
9/24/2020	280	489					
9/25/2020			460				
3/8/2021				346			
3/10/2021						232	78
3/11/2021	255	463	440		265		
9/14/2021				347			
9/15/2021		474					
9/16/2021	278				282	259	113
9/17/2021			446				
1/19/2022				336	272		
1/20/2022			416				
1/21/2022	316	482					
1/25/2022						259	84
9/7/2022			449	339		256	102
9/8/2022	300				252		
9/12/2022		468					
2/1/2023				343		243	79
2/2/2023	302	478			317		
2/3/2023			382				
9/6/2023	324						
9/7/2023		526	421	359	337	253	106

FIGURE B.

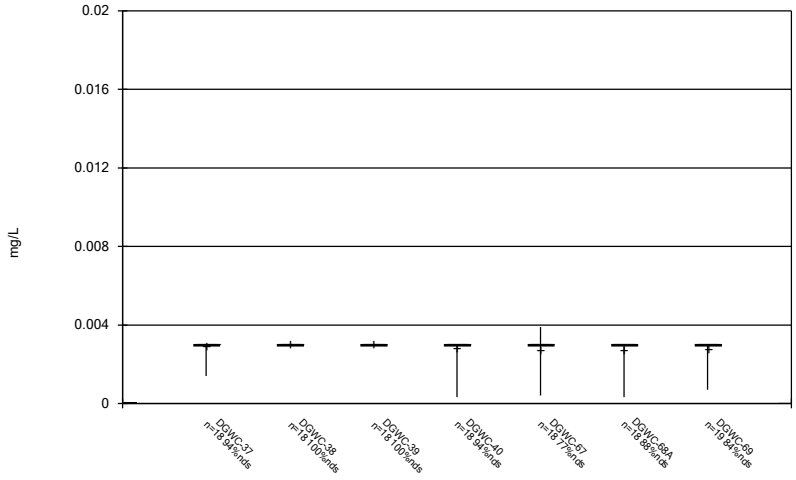
Box & Whiskers Plot



Constituent: Antimony Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

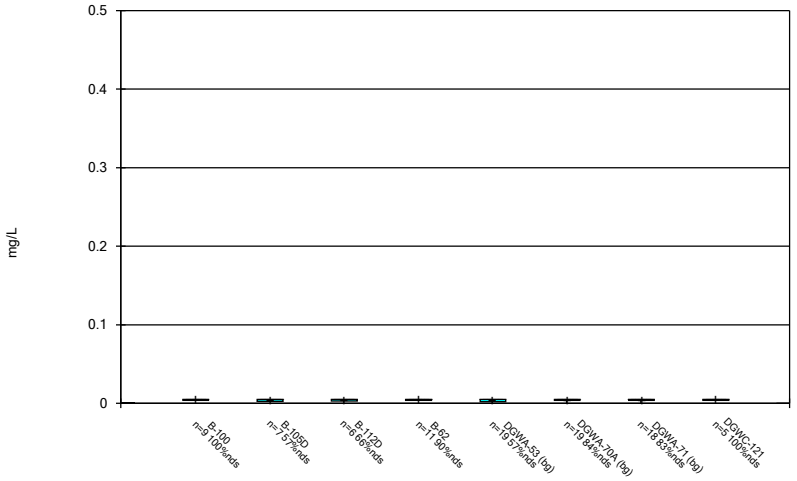
Box & Whiskers Plot



Constituent: Antimony Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

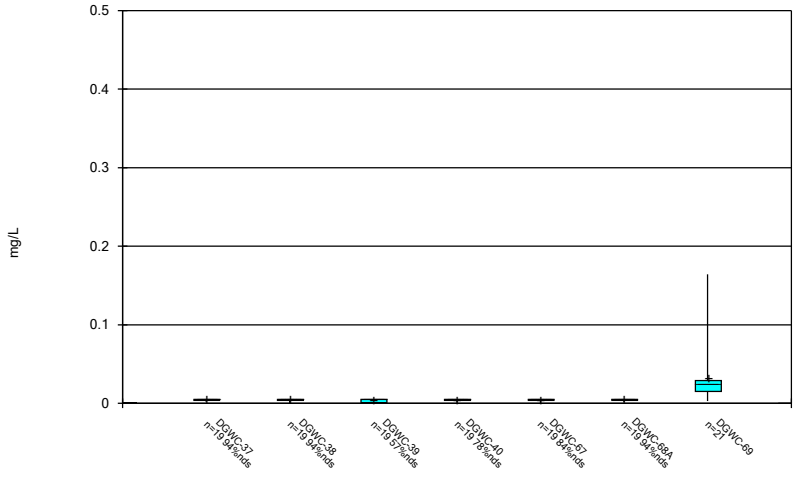
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

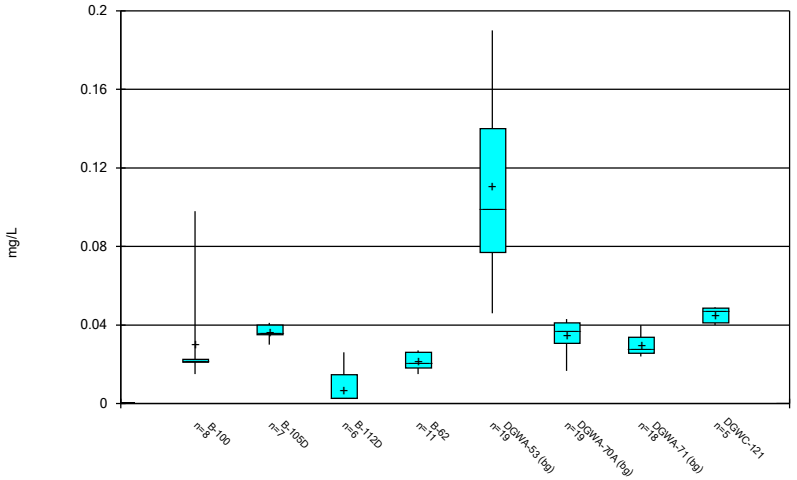
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Arsenic Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

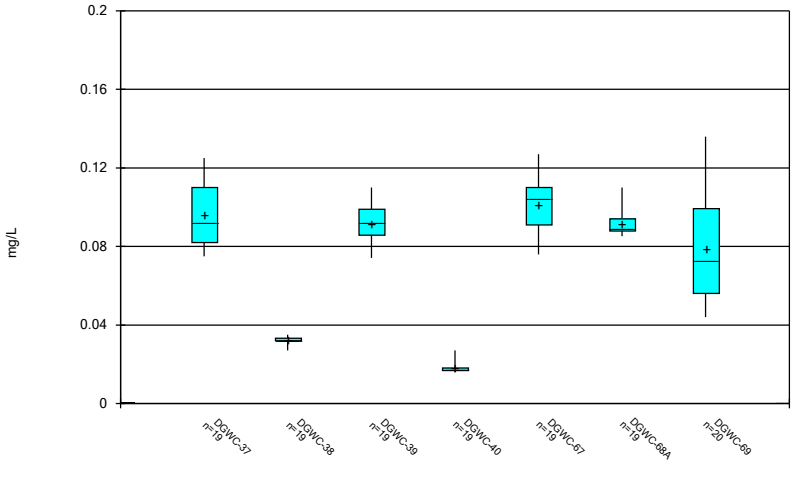
Box & Whiskers Plot



Constituent: Barium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

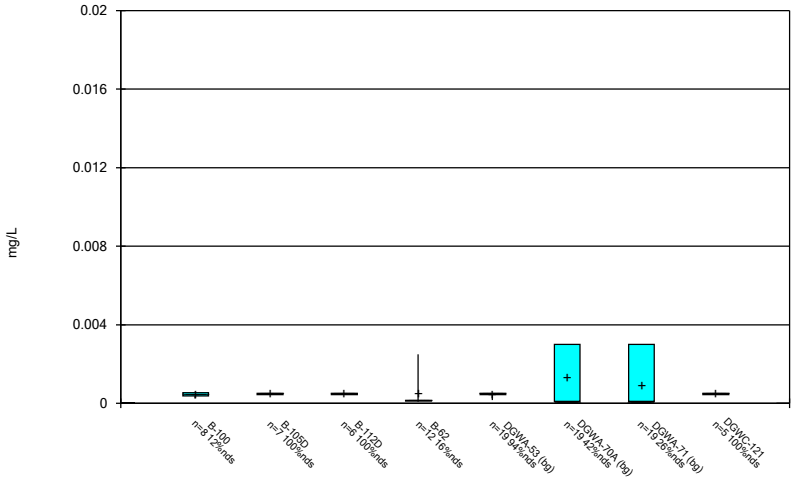
Box & Whiskers Plot



Constituent: Barium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

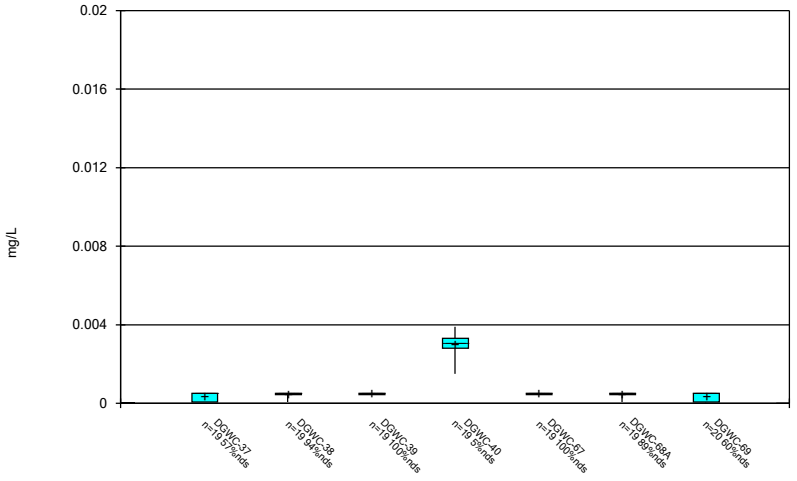
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

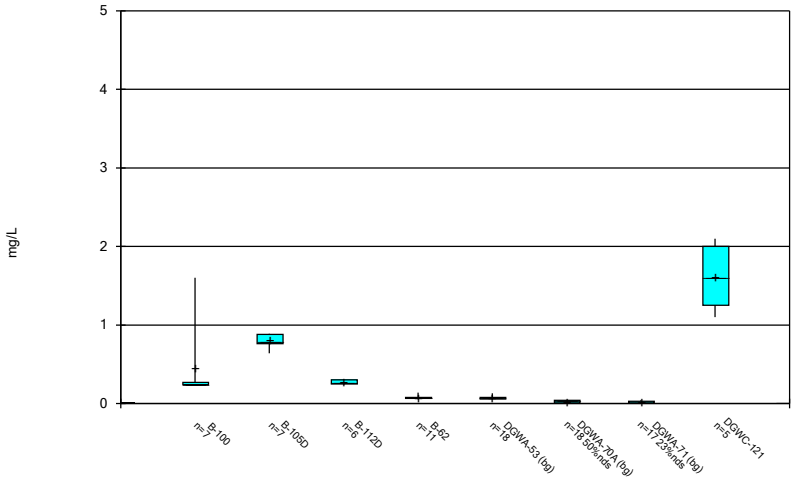
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

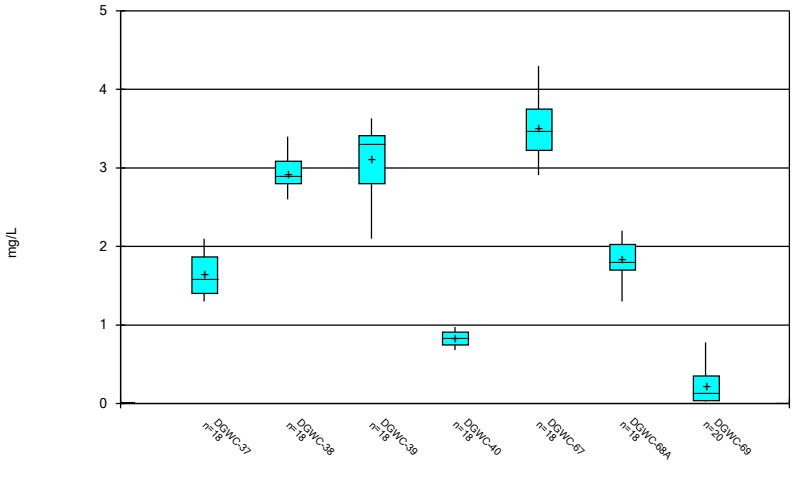
Box & Whiskers Plot



Constituent: Boron Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

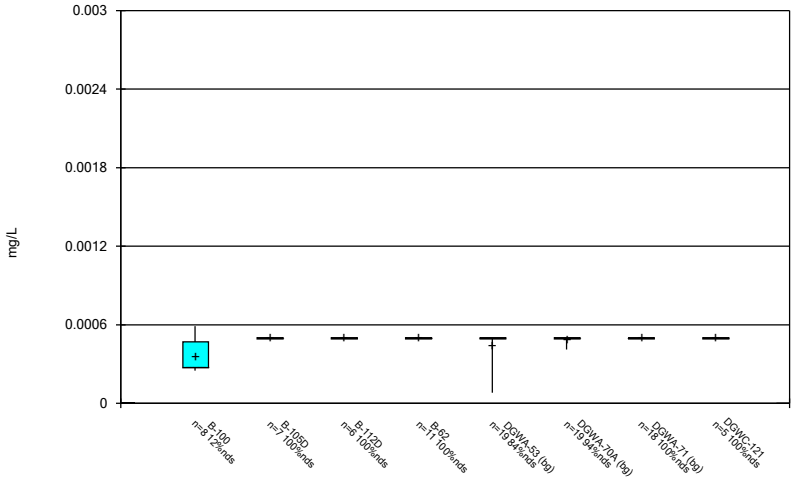
Box & Whiskers Plot



Constituent: Boron Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

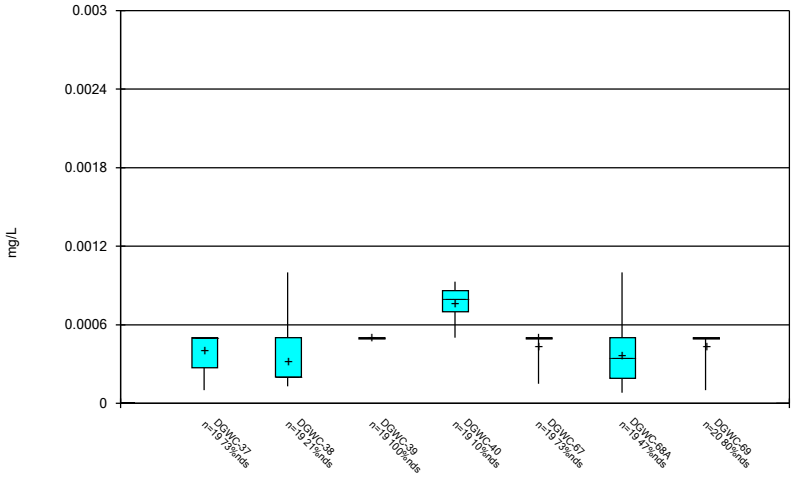
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

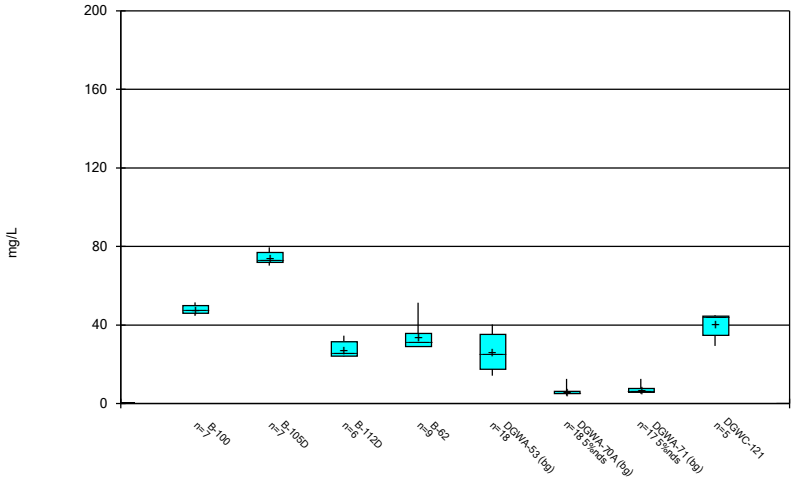
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cadmium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

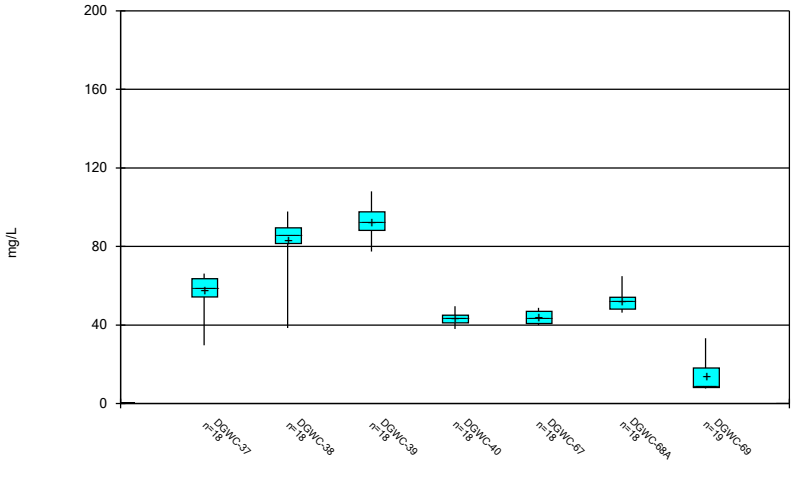
Box & Whiskers Plot



Constituent: Calcium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

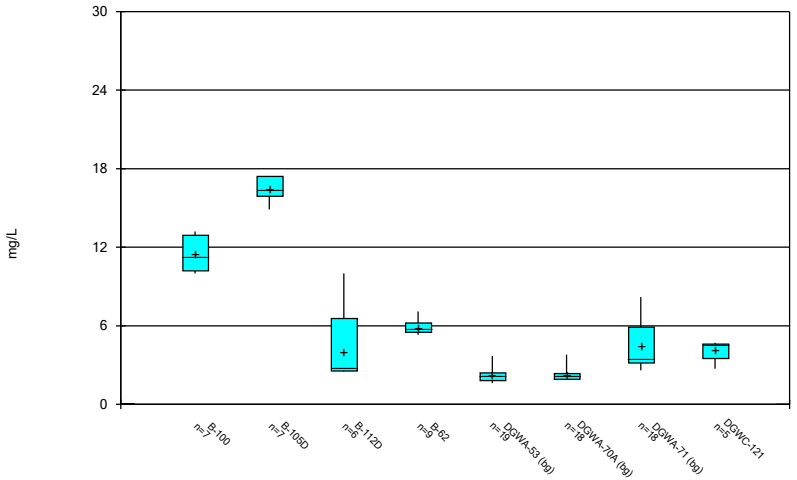
Box & Whiskers Plot



Constituent: Calcium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

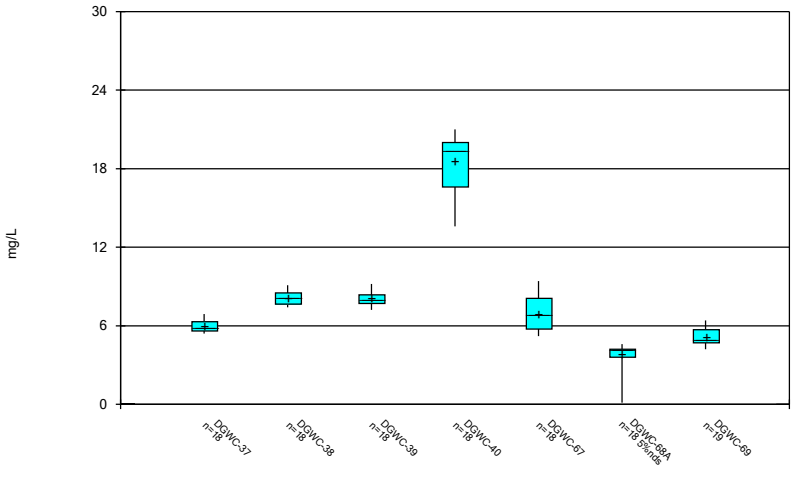
Box & Whiskers Plot



Constituent: Chloride Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

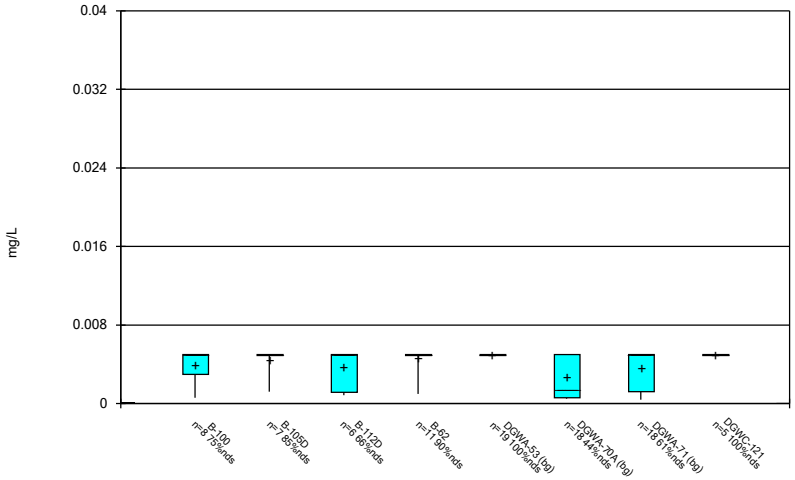
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Chloride Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

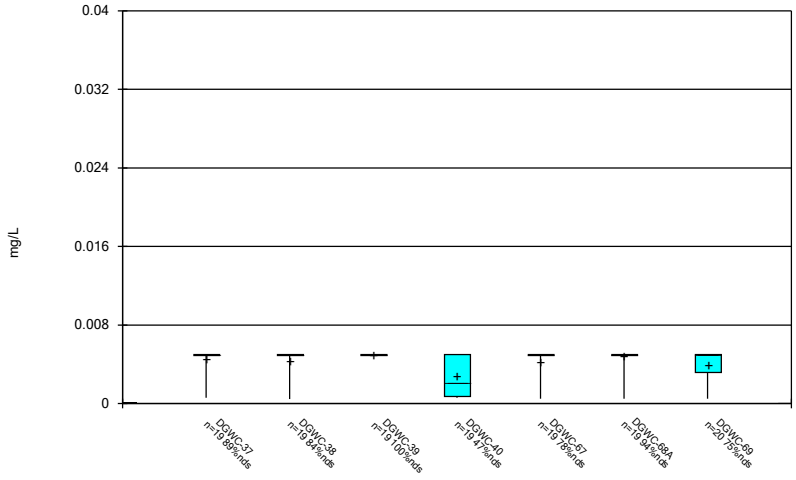
Box & Whiskers Plot



Constituent: Chromium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

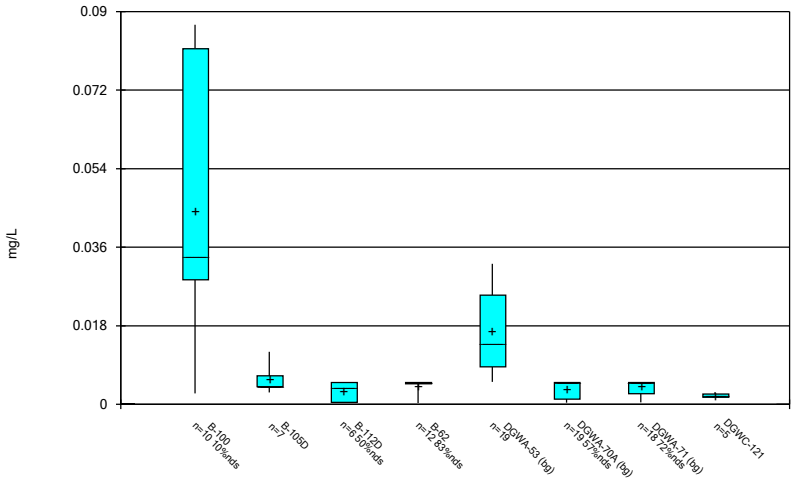
Box & Whiskers Plot



Constituent: Chromium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

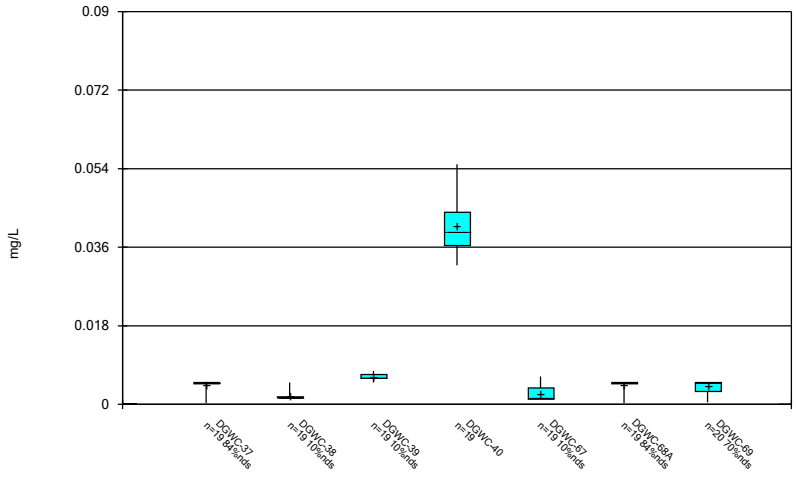
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

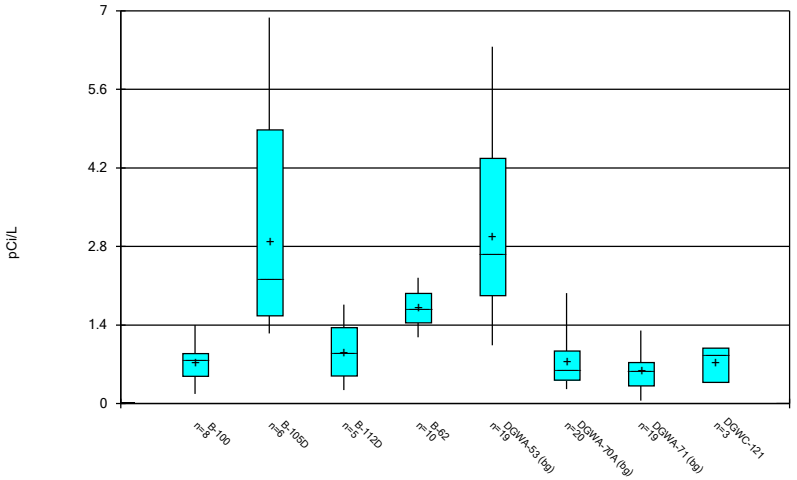
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cobalt Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

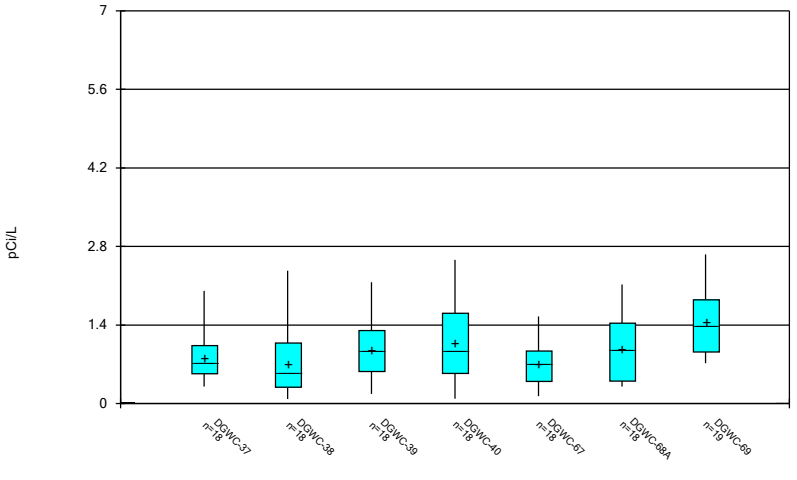
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

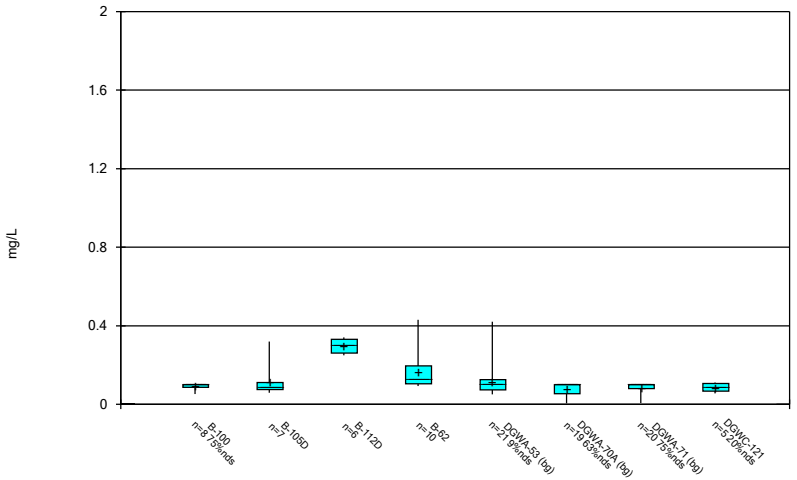
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

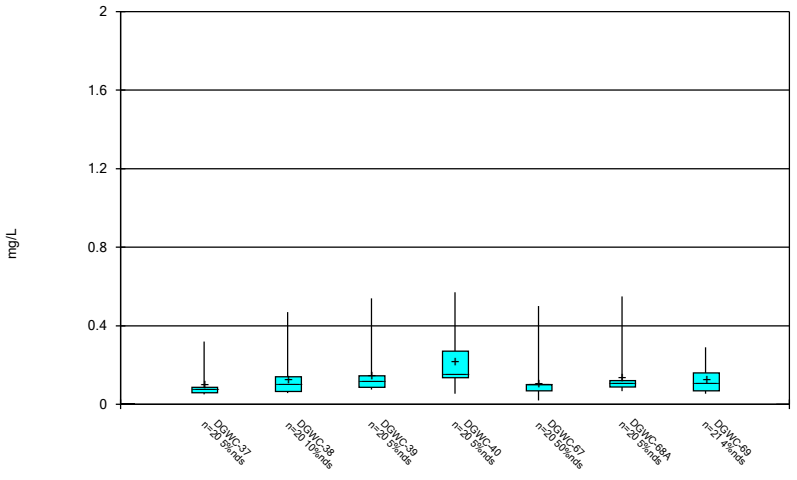
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

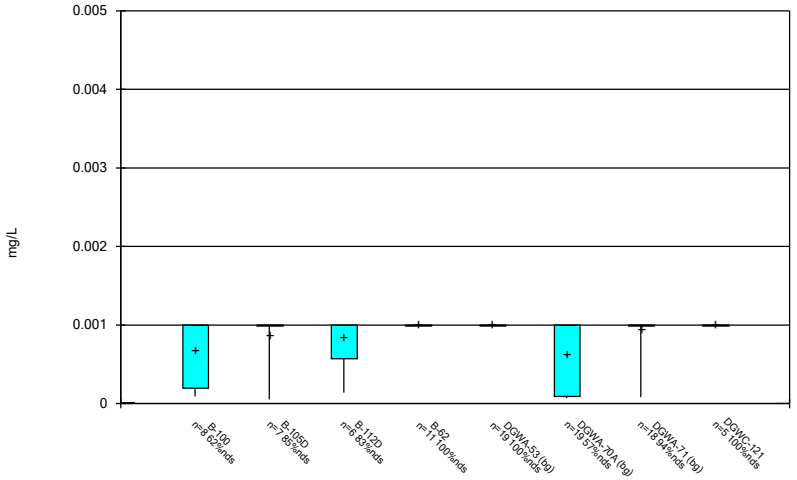
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

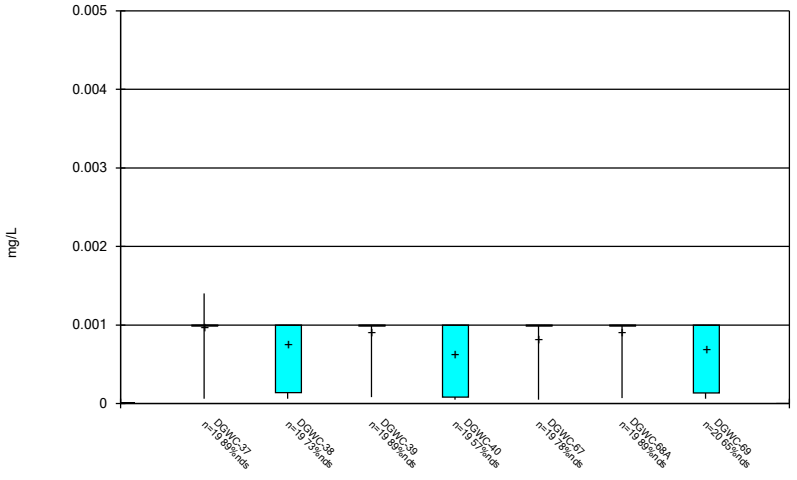
Box & Whiskers Plot



Constituent: Lead Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

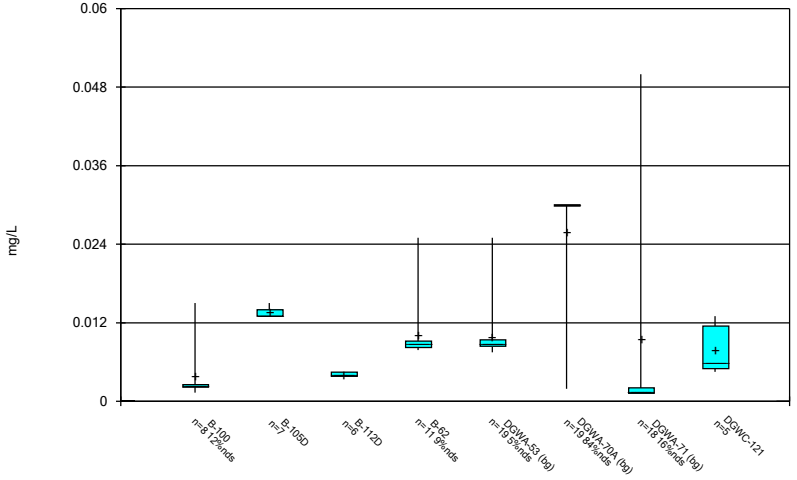
Box & Whiskers Plot



Constituent: Lead Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

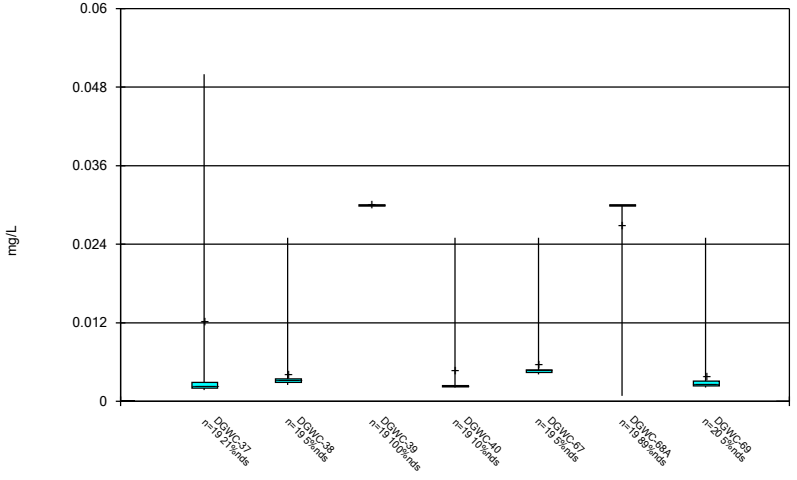
Box & Whiskers Plot



Constituent: Lithium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

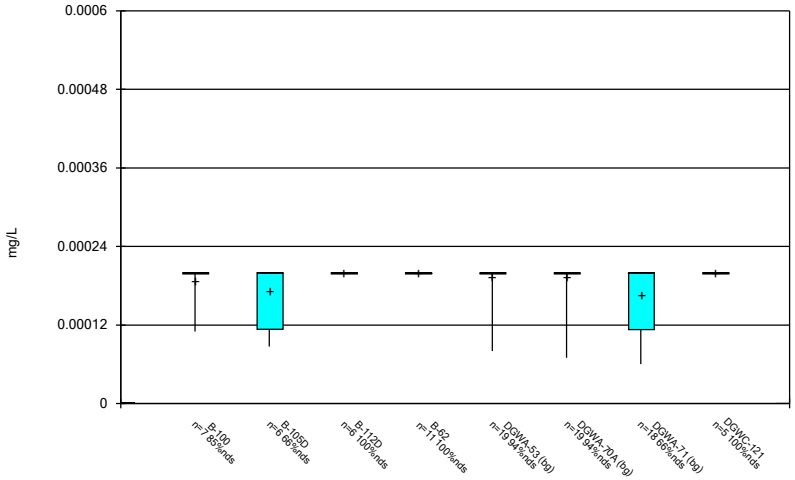
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Lithium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

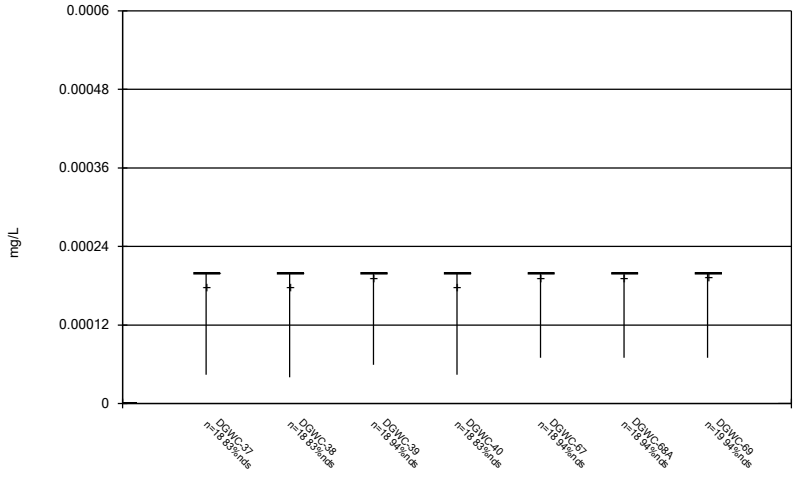
Box & Whiskers Plot



Constituent: Mercury Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

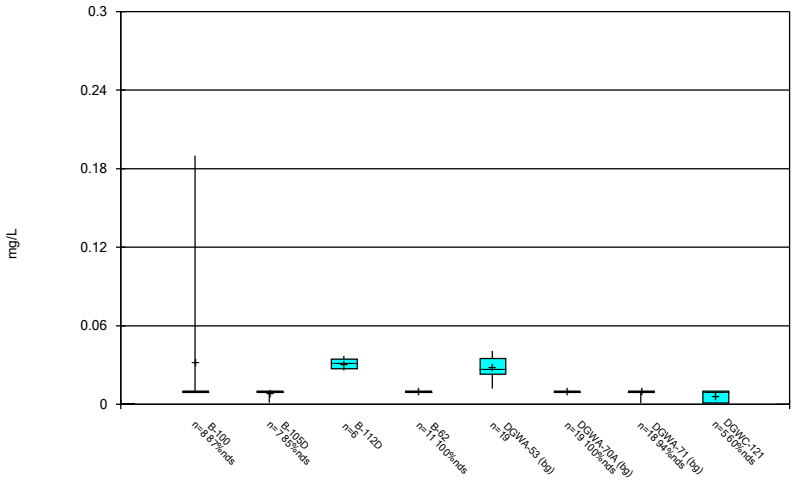
Box & Whiskers Plot



Constituent: Mercury Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

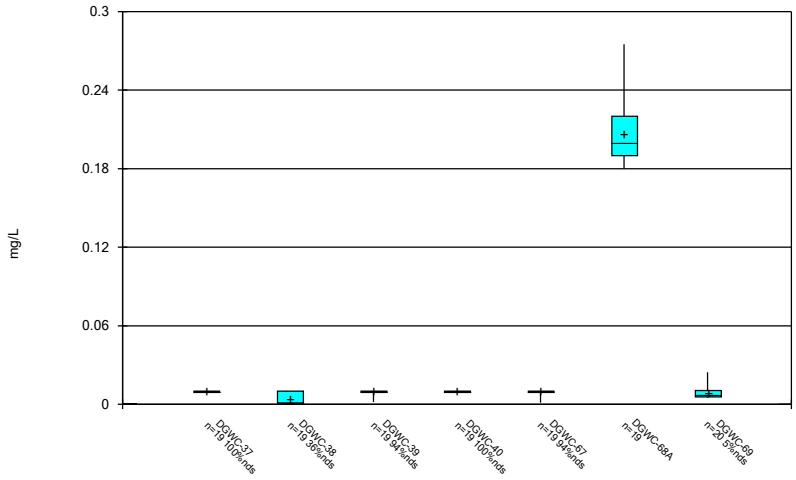
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

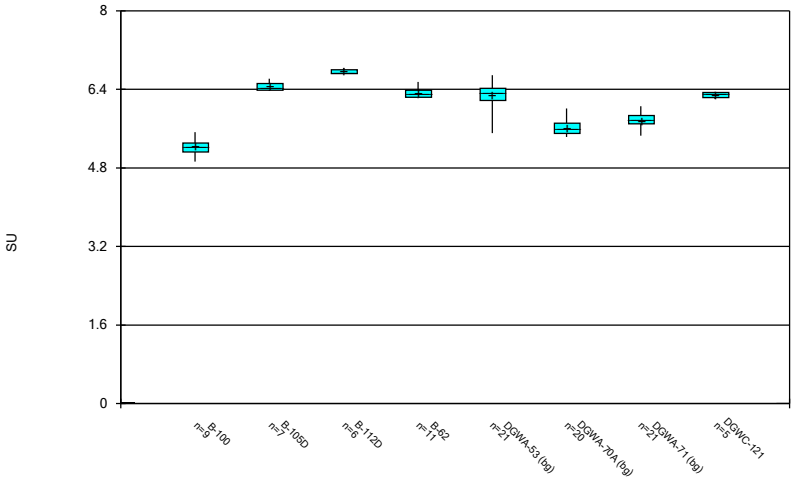
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

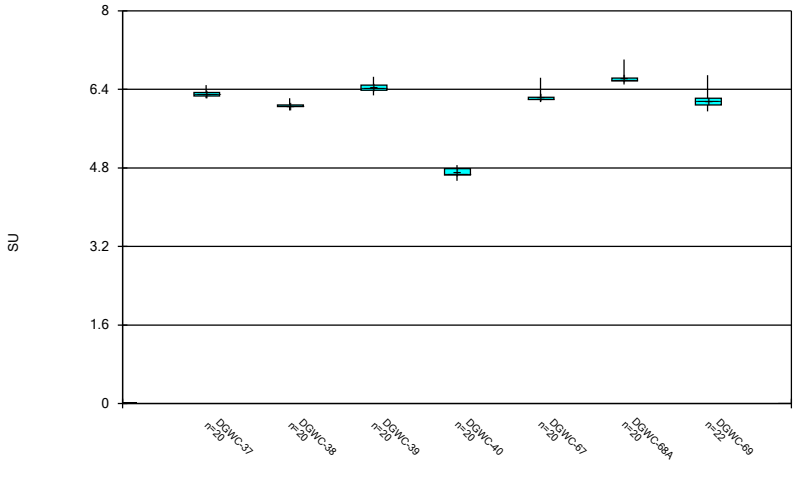
Box & Whiskers Plot



Constituent: pH, Field Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

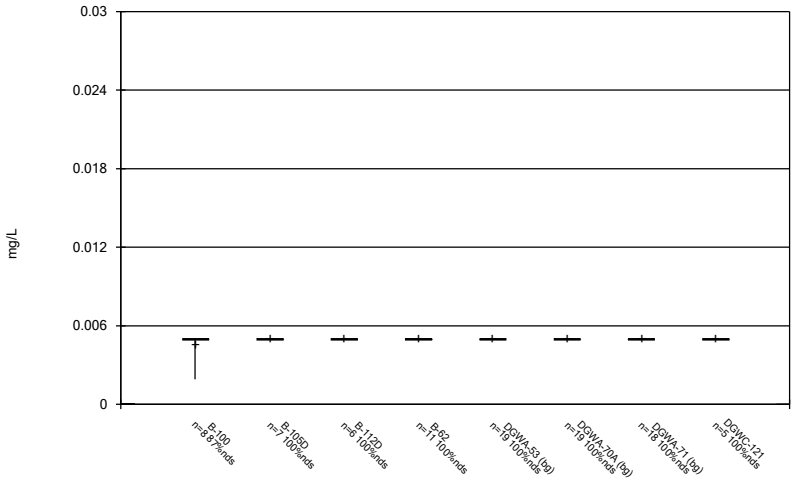
Box & Whiskers Plot



Constituent: pH, Field Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

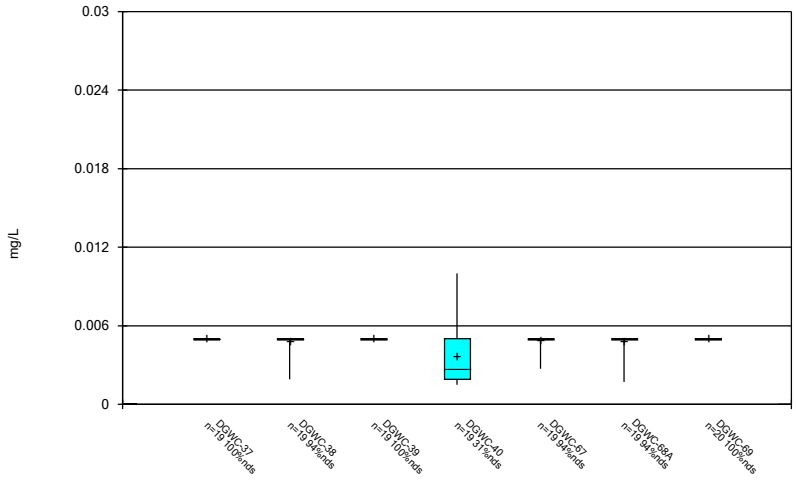
Box & Whiskers Plot



Constituent: Selenium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

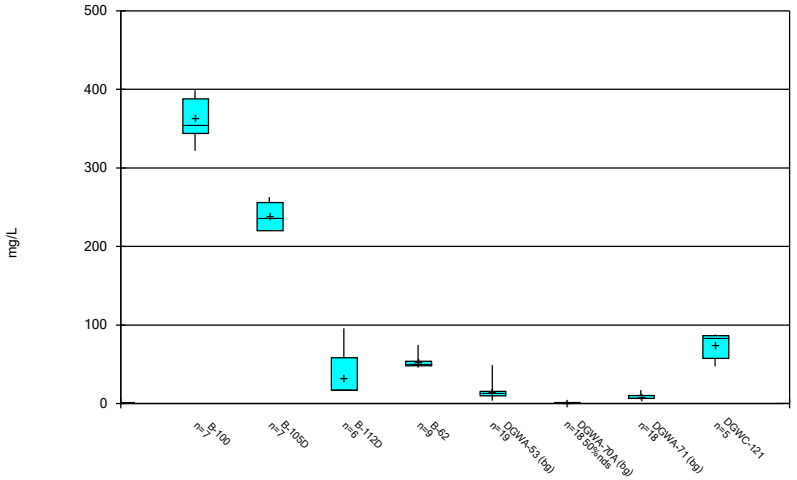
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Selenium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

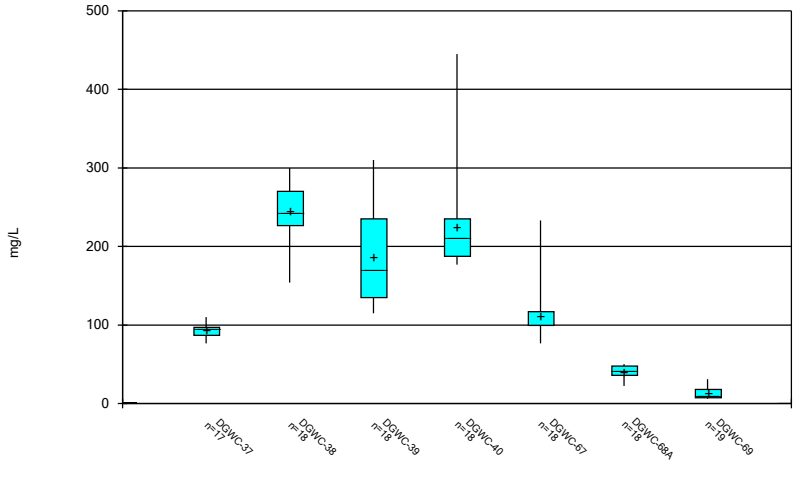
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

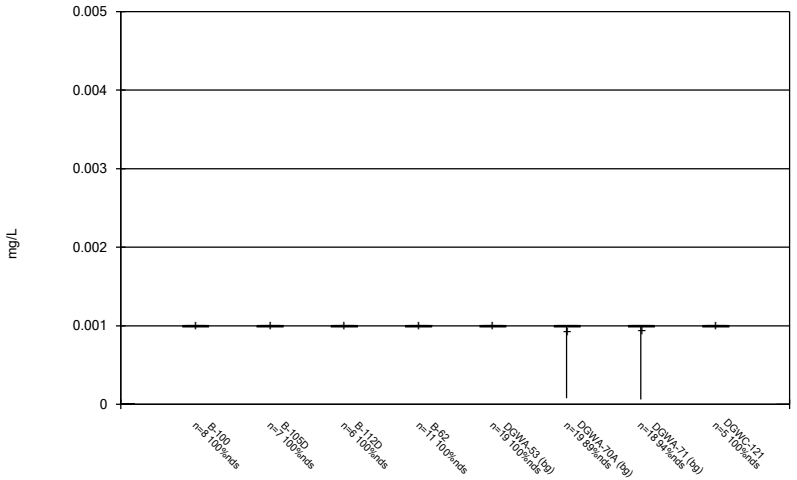
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

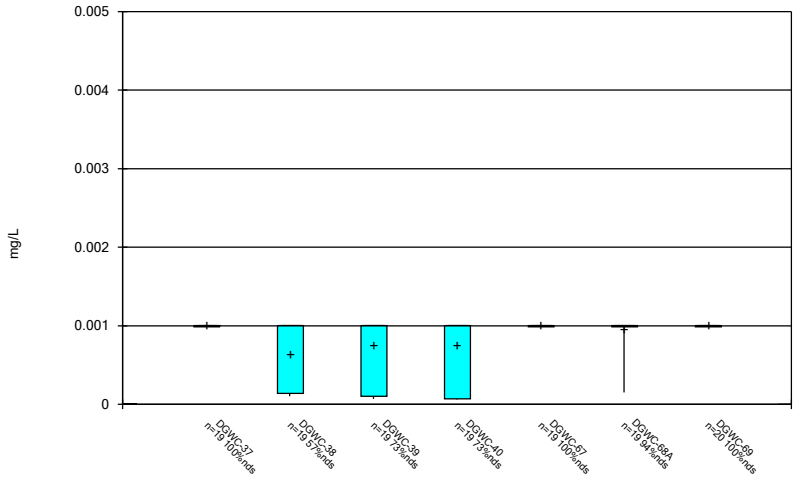
Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

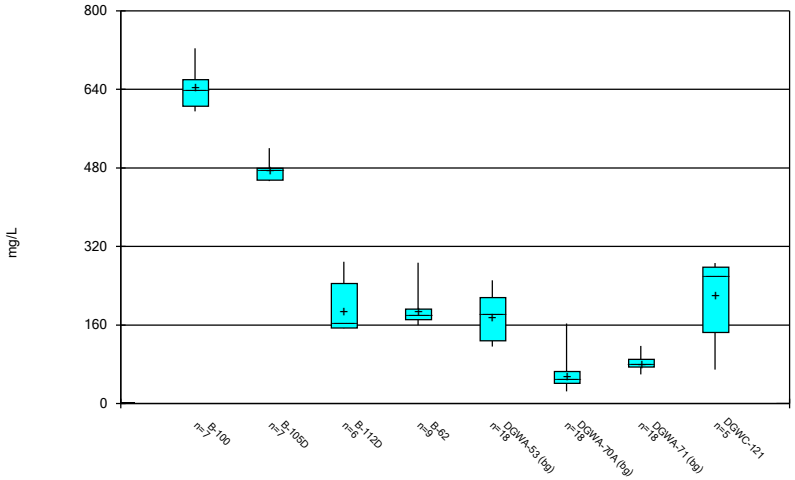
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/16/2023 4:11 PM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot

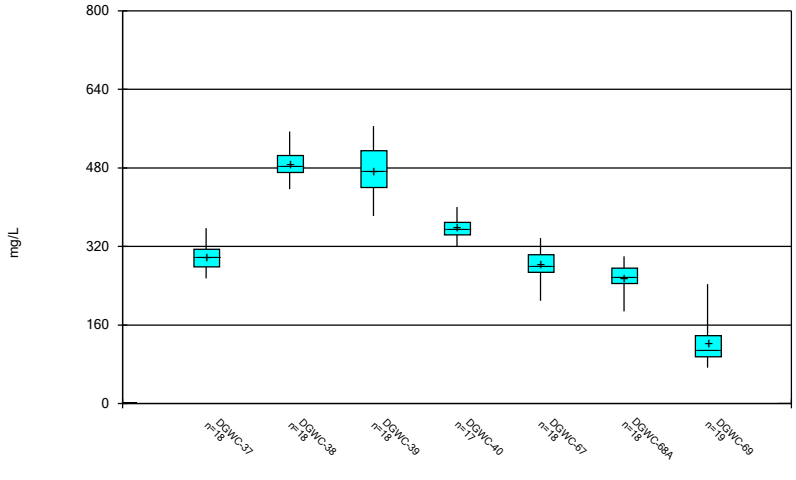


Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:11 PM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:11 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 11/16/2023, 4:12 PM

	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 (mg/L)	DGWC-68A pH, Field (SU)	DGWC-37 Sulfate (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 (Jo)	0.0032 (Jo)	6.79 (o)				

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:17 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-37	0.13	n/a	9/6/2023	1.7	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-38	0.13	n/a	9/7/2023	2.8	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-39	0.13	n/a	9/7/2023	2.7	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-40	0.13	n/a	9/7/2023	0.73	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-67	0.13	n/a	9/7/2023	3.9	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-68A	0.13	n/a	9/7/2023	1.8	Yes	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-37	40.3	n/a	9/6/2023	59.1	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-38	40.3	n/a	9/7/2023	86.5	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-39	40.3	n/a	9/7/2023	81.2	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-40	40.3	n/a	9/7/2023	41	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-67	40.3	n/a	9/7/2023	43.3	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-68A	40.3	n/a	9/7/2023	53.6	Yes	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-40	8.2	n/a	9/7/2023	13.6	Yes	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-67	8.2	n/a	9/7/2023	9.2	Yes	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-40	6.69	5.43	9/7/2023	4.67	Yes	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-37	49	n/a	9/6/2023	83.4	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-38	49	n/a	9/7/2023	212	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-39	49	n/a	9/7/2023	124	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-40	49	n/a	9/7/2023	177	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-67	49	n/a	9/7/2023	106	Yes	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	238.1	n/a	9/6/2023	324	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	238.1	n/a	9/7/2023	526	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	238.1	n/a	9/7/2023	421	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	238.1	n/a	9/7/2023	359	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	238.1	n/a	9/7/2023	337	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	238.1	n/a	9/7/2023	253	Yes	54	9.841	2.893	0	None	sqrt(x)	0.001075	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

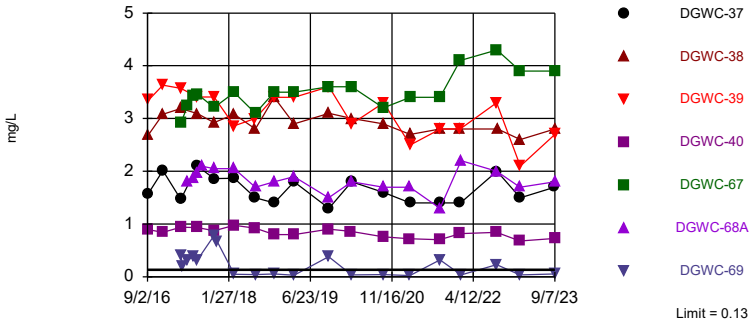
Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:17 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**DGWC-37**	**0.13**	**n/a**	**9/6/2023**	**1.7**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-38**	**0.13**	**n/a**	**9/7/2023**	**2.8**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-39**	**0.13**	**n/a**	**9/7/2023**	**2.7**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-40**	**0.13**	**n/a**	**9/7/2023**	**0.73**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-67**	**0.13**	**n/a**	**9/7/2023**	**3.9**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-68A**	**0.13**	**n/a**	**9/7/2023**	**1.8**	**Yes**	**53**	**n/a**	**n/a**	**24.53**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	DGWC-69	0.13	n/a	9/7/2023	0.052	No	53	n/a	n/a	24.53	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Calcium (mg/L)	**DGWC-37**	**40.3**	**n/a**	**9/6/2023**	**59.1**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-38**	**40.3**	**n/a**	**9/7/2023**	**86.5**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-39**	**40.3**	**n/a**	**9/7/2023**	**81.2**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-40**	**40.3**	**n/a**	**9/7/2023**	**41**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-67**	**40.3**	**n/a**	**9/7/2023**	**43.3**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-68A**	**40.3**	**n/a**	**9/7/2023**	**53.6**	**Yes**	**53**	**n/a**	**n/a**	**3.774**	**n/a**	**n/a**	**0.0006724**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	DGWC-69	40.3	n/a	9/7/2023	8.1	No	53	n/a	n/a	3.774	n/a	n/a	0.0006724	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-37	8.2	n/a	9/6/2023	5.4	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-38	8.2	n/a	9/7/2023	8.2	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-39	8.2	n/a	9/7/2023	7.2	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	**DGWC-40**	**8.2**	**n/a**	**9/7/2023**	**13.6**	**Yes**	**55**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**DGWC-67**	**8.2**	**n/a**	**9/7/2023**	**9.2**	**Yes**	**55**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	DGWC-68A	8.2	n/a	9/7/2023	3.9	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-69	8.2	n/a	9/7/2023	5.1	No	55	n/a	n/a	0	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-37	0.42	n/a	9/6/2023	0.053J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-38	0.42	n/a	9/7/2023	0.072J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-39	0.42	n/a	9/7/2023	0.092J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-40	0.42	n/a	9/7/2023	0.14	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-67	0.42	n/a	9/7/2023	0.1ND	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-68A	0.42	n/a	9/7/2023	0.096J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-69	0.42	n/a	9/7/2023	0.063J	No	60	n/a	n/a	48.33	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-37	6.69	5.43	9/6/2023	6.26	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-38	6.69	5.43	9/7/2023	6.07	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-39	6.69	5.43	9/7/2023	6.55	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	**DGWC-40**	**6.69**	**5.43**	**9/7/2023**	**4.67**	**Yes**	**62**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0009874**	**NP Inter (normality) 1 of 2**
pH, Field (SU)	DGWC-67	6.69	5.43	9/7/2023	6.21	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-68A	6.69	5.43	9/7/2023	6.6	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-69	6.69	5.43	9/7/2023	6.16	No	62	n/a	n/a	0	n/a	n/a	0.0009874	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**DGWC-37**	**49**	**n/a**	**9/6/2023**	**83.4**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-38**	**49**	**n/a**	**9/7/2023**	**212**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-39**	**49**	**n/a**	**9/7/2023**	**124**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-40**	**49**	**n/a**	**9/7/2023**	**177**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-67**	**49**	**n/a**	**9/7/2023**	**106**	**Yes**	**55**	**n/a**	**n/a**	**16.36**	**n/a**	**n/a**	**0.0006289**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	DGWC-68A	49	n/a	9/7/2023	34.2	No	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-69	49	n/a	9/7/2023	6.9	No	55	n/a	n/a	16.36	n/a	n/a	0.0006289	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	**DGWC-37**	**238.1**	**n/a**	**9/6/2023**	**324**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-38**	**238.1**	**n/a**	**9/7/2023**	**526**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**238.1**	**n/a**	**9/7/2023**	**421**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-40**	**238.1**	**n/a**	**9/7/2023**	**359**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-67**	**238.1**	**n/a**	**9/7/2023**	**337**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-68A**	**238.1**	**n/a**	**9/7/2023**	**253**	**Yes**	**54**	**9.841**	**2.893**	**0**	**None**	**sqrt(x)**	**0.001075**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	238.1	n/a	9/7/2023	106	No	54	9.841	2.893	0	None	sqrt(x)	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 Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 53 background values. 24.53% NDs. Annual per-constituent alpha = 0.009372. Individual comparison alpha = 0.0006724 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 11/16/2023 4:15 PM View: AP 1 Appendix III

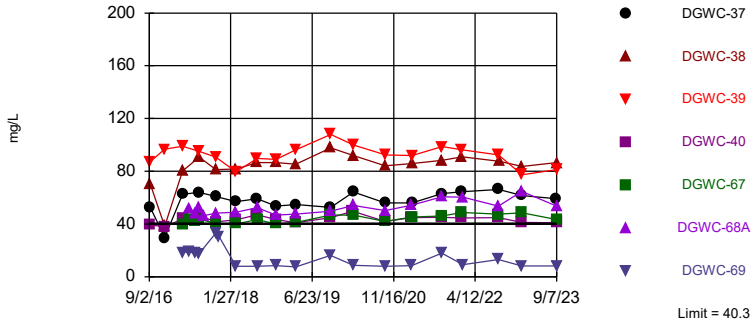
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

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 Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 53 background values. 3.774% NDs. Annual per-constituent alpha = 0.009372. Individual comparison alpha = 0.0006724 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 11/16/2023 4:15 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

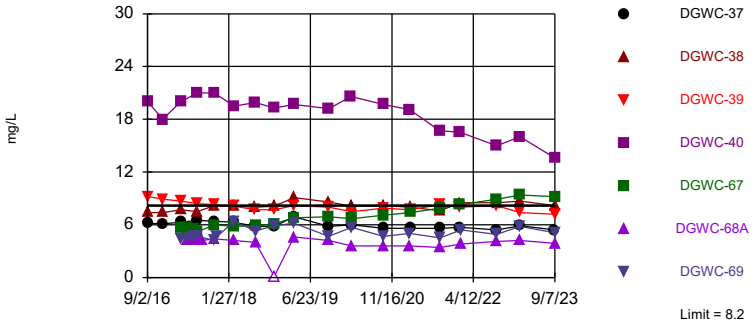
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Exceeds Limit: DGWC-40, DGWC-67

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 55 background values. Annual per-constituent alpha = 0.008769. Individual comparison alpha = 0.0006289 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 11/16/2023 4:15 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

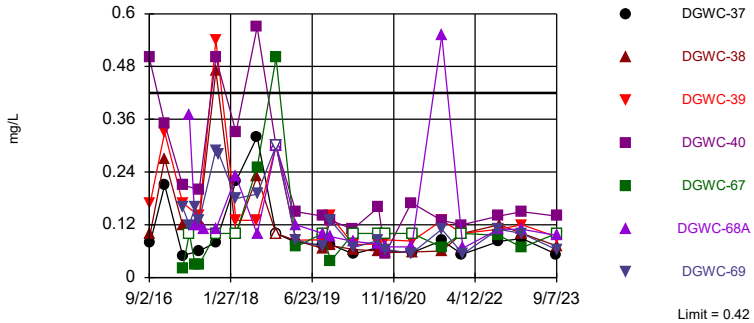
Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 48.33% NDs. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

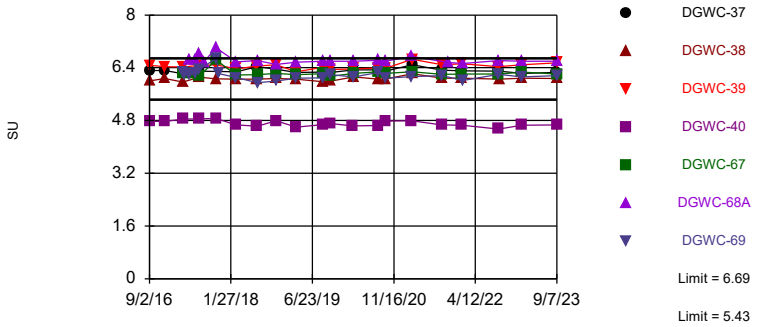
Constituent: Fluoride Analysis Run 11/16/2023 4:15 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limits: DGWC-40

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 62 background values. Annual per-constituent alpha = 0.01378. Individual comparison alpha = 0.0009874 (1 of 2). Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 11/16/2023 4:15 PM View: AP 1 Appendix III

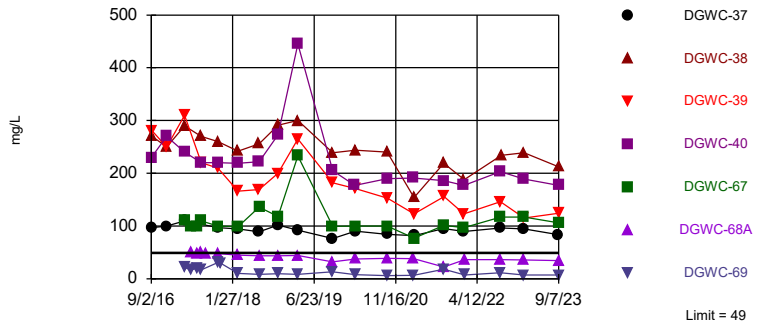
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: DGWC-37, 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 Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 55 background values. 16.36% NDs. Annual per-constituent alpha = 0.008769. Individual comparison alpha = 0.0006289 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 11/16/2023 4:15 PM View: AP 1 Appendix III

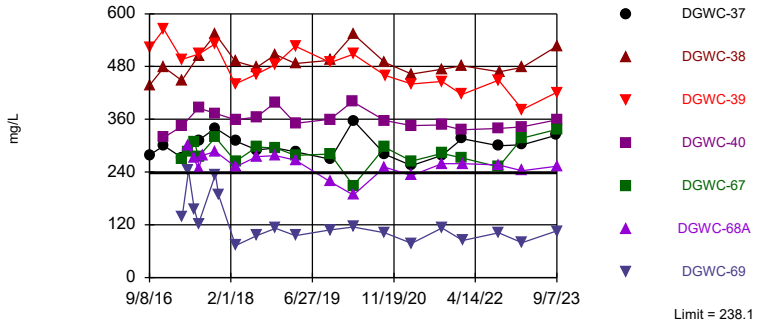
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

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=9.841, Std. Dev.=2.893, n=54. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9587, critical = 0.939. Kappa = 1.933 (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 11/16/2023 4:15 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/16/2023 4:17 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

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/16/2023 4:17 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		
9/7/2022	0.84	3.3			<0.04	<0.04			0.23
9/8/2022				2			0.054	4.3	
9/12/2022			2.8						
1/31/2023					0.0097 (J)	0.011 (J)			
2/1/2023	0.68						0.051		0.035 (J)
2/2/2023			2.6	1.5				3.9	
2/3/2023		2.1							
9/6/2023				1.7	0.015 (J)	0.012 (J)			
9/7/2023	0.73	2.7	2.8				0.052	3.9	0.052

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/16/2023 4:17 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 (mg/L) Analysis Run 11/16/2023 4:17 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	
9/7/2022	2
9/8/2022	
9/12/2022	
1/31/2023	
2/1/2023	1.7
2/2/2023	
2/3/2023	
9/6/2023	
9/7/2023	1.8

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/16/2023 4:17 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							

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/16/2023 4:17 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		
9/7/2022	44.8	92.5			6.4	5.9			13.1
9/8/2022				66.2			17.2	47.4	
9/12/2022			87.6						
1/31/2023					5.7	6.2			
2/1/2023	41.1						14.1		8.3
2/2/2023			83.6	61.7				48.6	
2/3/2023		77.4							
9/6/2023				59.1	7	6.6			
9/7/2023	41	81.2	86.5				16.3	43.3	8.1

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/16/2023 4:17 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 (mg/L) Analysis Run 11/16/2023 4:17 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	
9/7/2022	53.5
9/8/2022	
9/12/2022	
1/31/2023	
2/1/2023	64.8
2/2/2023	
2/3/2023	
9/6/2023	
9/7/2023	53.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/16/2023 4:17 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	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								4.4	5.7
5/11/2017							2.3		
5/12/2017					3.8			4.4	5.6
5/15/2017						2.2			
6/15/2017						2	2.6		
6/16/2017					3.4			4.7	5.5
7/11/2017					3.1	2.1			
7/12/2017							2.3		
7/13/2017	21	8.4	7.5	6.5				4.7	5.2
8/8/2017						2.2			
10/24/2017					3.2	2.4	2.7		
10/26/2017	21	8.3	8.2	6.4				4.2	6
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							6.4	5.8
3/8/2018							2.4		
7/12/2018	19.9	7.7	8	5.8			2.2		
7/13/2018								5.3	5.9
11/6/2018					2.6	2.3			
11/7/2018							2.3		
11/8/2018	19.3	7.7	8.1	5.8				5.9	6.1
3/12/2019					3.3	2.5			
3/13/2019	19.7	8.2	9.1	6.9			3.6	6.2	6.8
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	5.7	6.7
9/22/2020					5.2	1.9	1.6		
9/23/2020	19.7							4.7	7.1
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				4.5	7.9
9/17/2021		8.3							

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/16/2023 4:17 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
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		
9/7/2022	15	8.2			8.2	2.1		4.9	
9/8/2022				5.4			1.6		8.9
9/12/2022			8.5						
1/31/2023					7.3	2.2			
2/1/2023	16						1.9	5.8	
2/2/2023			8.7	5.9					9.4
2/3/2023		7.4							
9/6/2023				5.4	7.8	2.2			
9/7/2023	13.6	7.2	8.2				1.7	5.1	9.2

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/16/2023 4:17 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 (mg/L) Analysis Run 11/16/2023 4:17 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	
9/7/2022	4.1
9/8/2022	
9/12/2022	
1/31/2023	
2/1/2023	4.2
2/2/2023	
2/3/2023	
9/6/2023	
9/7/2023	3.9

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:17 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)			

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:17 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)			
9/7/2022	0.14	0.11			0.056 (J)			0.11	0.11
9/8/2022				0.082 (J)		0.11	0.096 (J)		
9/12/2022			0.12						
1/31/2023					0.05 (J)				
2/1/2023	0.15					0.1		0.1	0.11
2/2/2023			0.1	0.089 (J)			0.068 (J)		
2/3/2023		0.12							
9/6/2023				0.053 (J)	<0.1				
9/7/2023	0.14	0.092 (J)	0.072 (J)			0.082 (J)	<0.1	0.063 (J)	0.096 (J)

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:17 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

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/16/2023 4:17 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	
9/7/2022	0.061 (J)
9/8/2022	
9/12/2022	
1/31/2023	0.053 (J)
2/1/2023	
2/2/2023	
2/3/2023	
9/6/2023	<0.1
9/7/2023	

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 11/16/2023 4:17 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-53 (bg)	DGWA-71 (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					6.29	5.94			
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					5.51	5.86			
10/26/2017	4.86	6.49	6.06				6.69	6.64	7.01
11/15/2017					6.5	5.77	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					6.43	6.06			
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 11/16/2023 4:17 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67	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			6.16	6.2	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				
9/7/2022	4.54	6.43				5.65	6.2		6.62
9/8/2022				6.3	6.32			6.21	
9/9/2022				6.3					
9/12/2022			6.05						
1/31/2023						5.78			
2/1/2023	4.66				6.42		6.12		6.6
2/2/2023			6.08	6.23				6.27	
2/3/2023		6.49							
9/6/2023				6.26	6.51	5.82			
9/7/2023	4.67	6.55	6.07				6.16	6.21	6.6

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 11/16/2023 4:17 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 11/16/2023 4:17 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	
9/7/2022	5.6
9/8/2022	
9/9/2022	
9/12/2022	
1/31/2023	5.59
2/1/2023	
2/2/2023	
2/3/2023	
9/6/2023	5.5
9/7/2023	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/16/2023 4:17 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							

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/16/2023 4:17 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		
9/7/2022	203	146			7	<1			11.6
9/8/2022				96.6			12	117	
9/12/2022			234						
1/31/2023					6.8	<1			
2/1/2023	189						13.3		6.9
2/2/2023			239	94.3				117	
2/3/2023		115							
9/6/2023				83.4	7.2	<1			
9/7/2023	177	124	212				15.4	106	6.9

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/16/2023 4:17 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 (mg/L) Analysis Run 11/16/2023 4:17 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	36.3
1/28/2022	
9/7/2022	36.5
9/8/2022	
9/12/2022	
1/31/2023	
2/1/2023	35.6
2/2/2023	
2/3/2023	
9/6/2023	
9/7/2023	34.2

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/16/2023 4:17 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-69	DGWC-67
9/2/2016				583 (O)					
9/8/2016	522	437	279						
12/7/2016	565	478	300						
12/8/2016				319					
3/28/2017					90	39	202		
3/30/2017	496	448	273	344					
3/31/2017								138	270
5/11/2017							241		
5/12/2017					92			243	287
5/15/2017						88			
6/15/2017						65	251		
6/16/2017					100			155	309
7/11/2017					59	25			
7/12/2017							218		
7/13/2017	508	504	312	386				122	275
8/8/2017						53			
10/24/2017					117	49	671 (O)		
10/26/2017	532	554	340	373				234	319
11/15/2017					90		241	188	
2/27/2018					79	43			
3/1/2018	440	492	311						
3/2/2018				359				73	264
3/8/2018							213		
7/12/2018	463	478	290	365			198		
7/13/2018								95	297
11/6/2018					85	65			
11/7/2018							200		
11/8/2018	485	507	295	399				112	295
3/12/2019					74	43			
3/13/2019	526	487	286	351			201	95	278
10/15/2019					89	70			
10/16/2019							126	108	
10/17/2019									281
10/18/2019	489	494	269	360					
3/2/2020					67	52			
3/4/2020				400					
3/9/2020	508	554	357				171	115	209
9/22/2020					74	46	142		
9/23/2020				357				102	296
9/24/2020		489	280						
9/25/2020	460								
3/1/2021					62	25			
3/8/2021				346					
3/10/2021								78	
3/11/2021	440	463	255						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					113	282
9/17/2021	446								

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/16/2023 4:17 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-69	DGWC-67
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		
9/7/2022	449			339	82	34		102	
9/8/2022			300				129		252
9/12/2022		468							
1/31/2023					87	163			
2/1/2023				343			116	79	
2/2/2023		478	302						317
2/3/2023	382								
9/6/2023			324		80	46			
9/7/2023	421	526		359			123	106	337

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/16/2023 4:17 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 11/16/2023 4:17 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	259
1/28/2022	
9/7/2022	256
9/8/2022	
9/12/2022	
1/31/2023	
2/1/2023	243
2/2/2023	
2/3/2023	
9/6/2023	
9/7/2023	253

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003815**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-39**	**-0.1188**	**-83**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.02836**	**-82**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.1043**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.489**	**-105**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-67**	**0.8732**	**70**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-68A**	**1.409**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1444**	**-106**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-71 (bg)**	**0.6112**	**69**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7275**	**-92**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.5939**	**131**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.7648**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-38**	**-8.286**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-20.53**	**-108**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.746**	**-85**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-19.82**	**-110**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-17.23**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

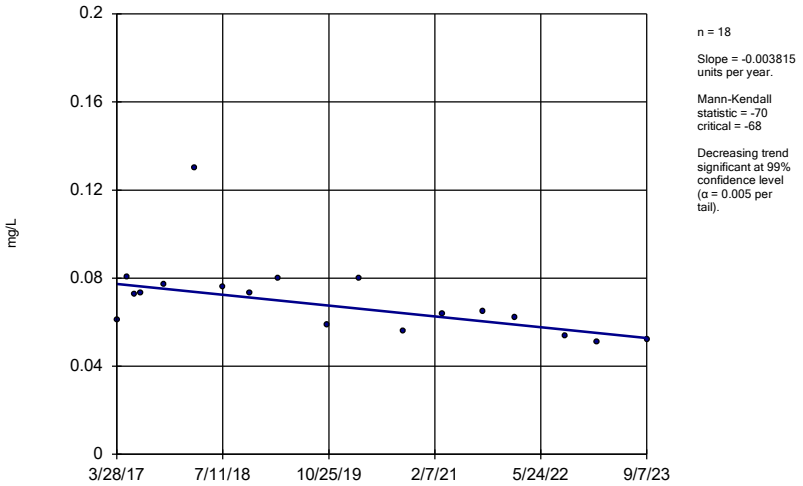
Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003815**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWA-70A (bg)	0	12	68	No	18	50	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	0.0006045	25	63	No	17	23.53	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-37	-0.03141	-33	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-38	-0.05069	-59	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**DGWC-39**	**-0.1188**	**-83**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.02836**	**-82**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.1043**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWC-68A	-0.02929	-32	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.489**	**-105**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	DGWA-70A (bg)	0.04315	15	68	No	18	5.556	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-0.2966	-37	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-37	0.9165	43	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-38	1.333	53	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-39	-0.5609	-14	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-40	0.1995	15	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWC-67**	**0.8732**	**70**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-68A**	**1.409**	**79**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1444**	**-106**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	DGWA-70A (bg)	-0.03406	-39	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**DGWA-71 (bg)**	**0.6112**	**69**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7275**	**-92**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.5939**	**131**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, Field (SU)	DGWA-53 (bg)	0.02783	39	87	No	21	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02199	-46	-81	No	20	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.004559	10	87	No	21	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02096	-56	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-53 (bg)	-0.3271	-19	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	0	-25	-68	No	18	50	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.7648**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-37	-1.952	-51	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWC-38**	**-8.286**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-20.53**	**-108**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.746**	**-85**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-67	0	-5	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-19.82**	**-110**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	0	0	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-1.946	-37	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	1.283	10	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	1.133	7	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-17.23**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-3.231	-27	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	0.3303	1	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	-4.867	-56	-68	No	18	0	n/a	n/a	0.01	NP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 18

Slope = -0.003815 units per year.

Mann-Kendall statistic = -70 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

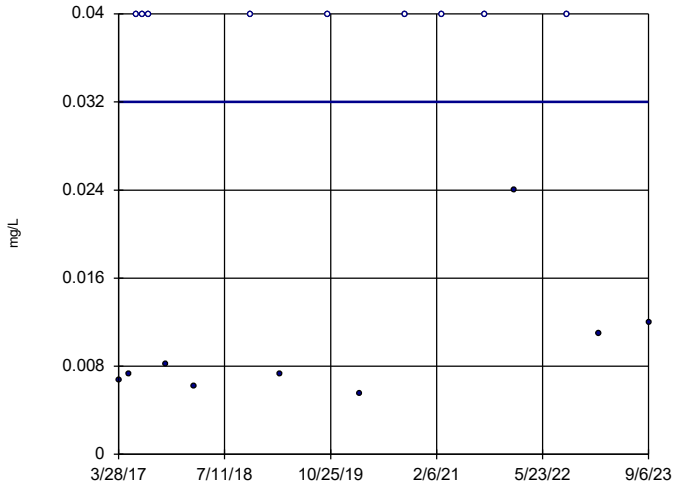
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 12 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

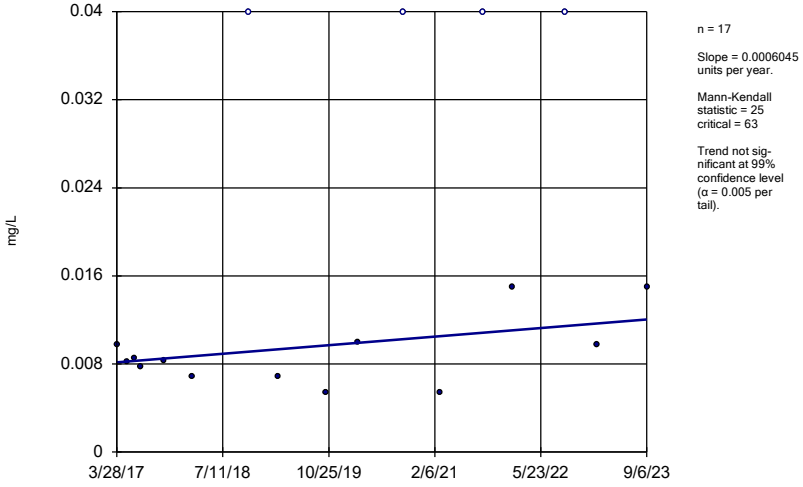
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 17

Slope = 0.0006045 units per year.

Mann-Kendall statistic = 25 critical = 63

Trend not significant at 99% confidence level (α = 0.005 per tail).

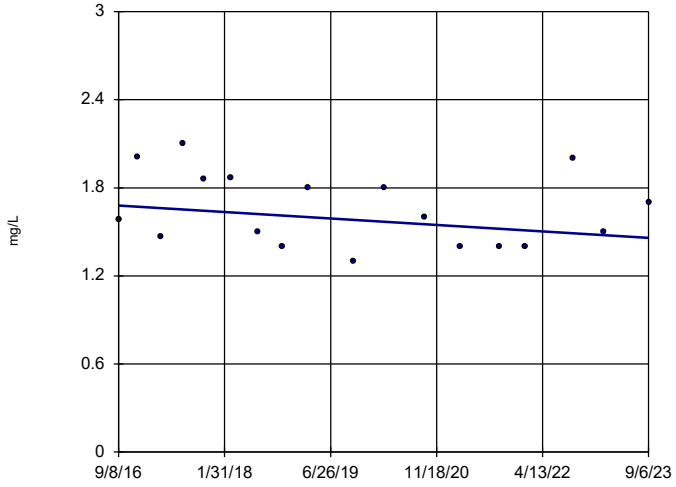
Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 18

Slope = -0.03141 units per year.

Mann-Kendall statistic = -33 critical = -68

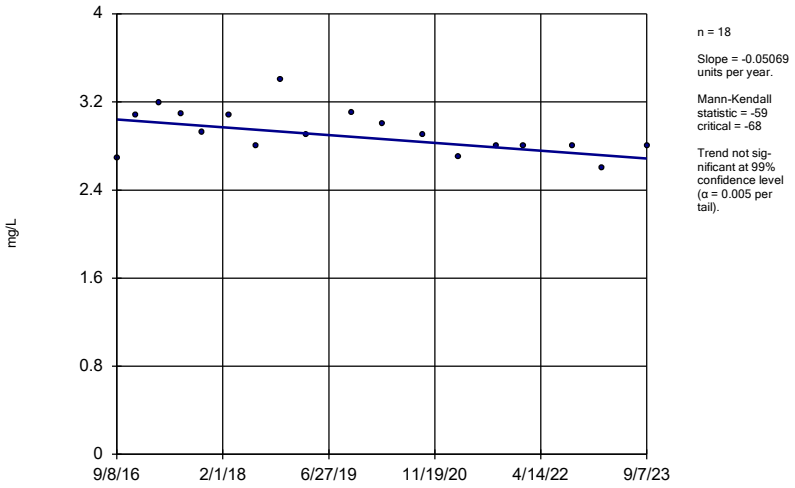
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-38



n = 18

Slope = -0.05069 units per year.

Mann-Kendall statistic = -59
critical = -68

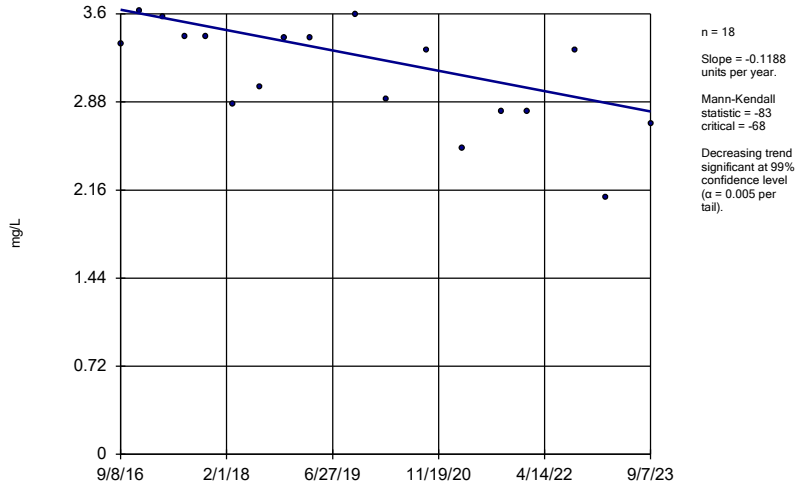
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-39



n = 18

Slope = -0.1188 units per year.

Mann-Kendall statistic = -83
critical = -68

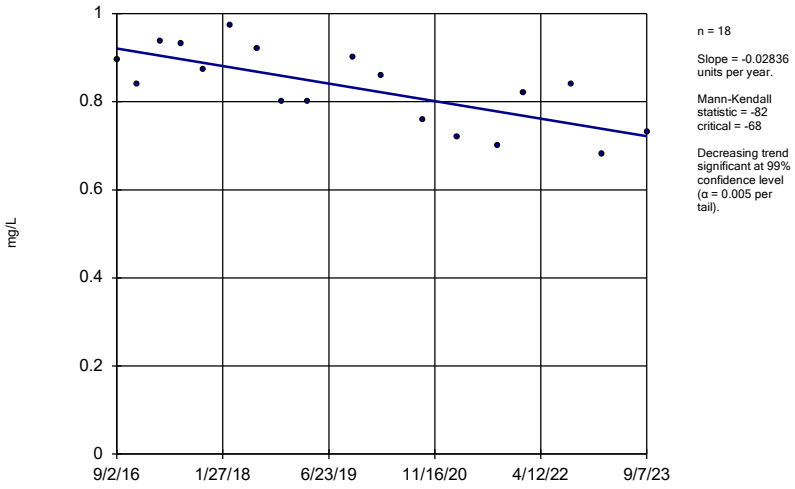
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 18

Slope = -0.02836 units per year.

Mann-Kendall statistic = -82
critical = -68

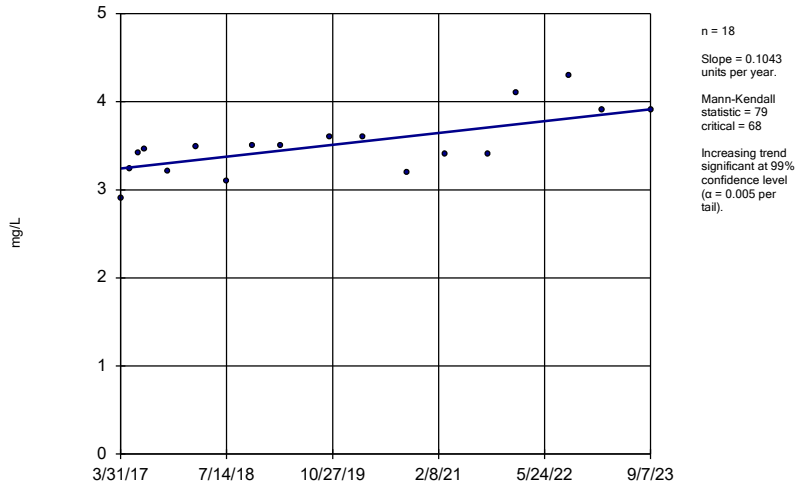
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 18

Slope = 0.1043 units per year.

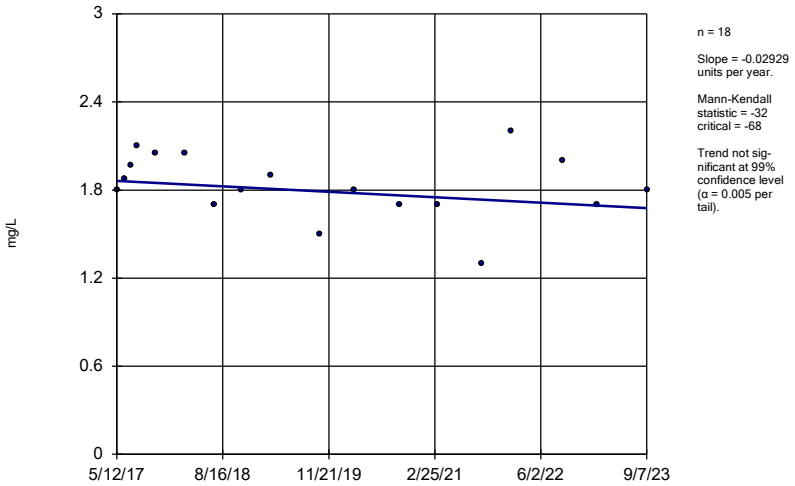
Mann-Kendall statistic = 79
critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-68A



n = 18

Slope = -0.02929 units per year.

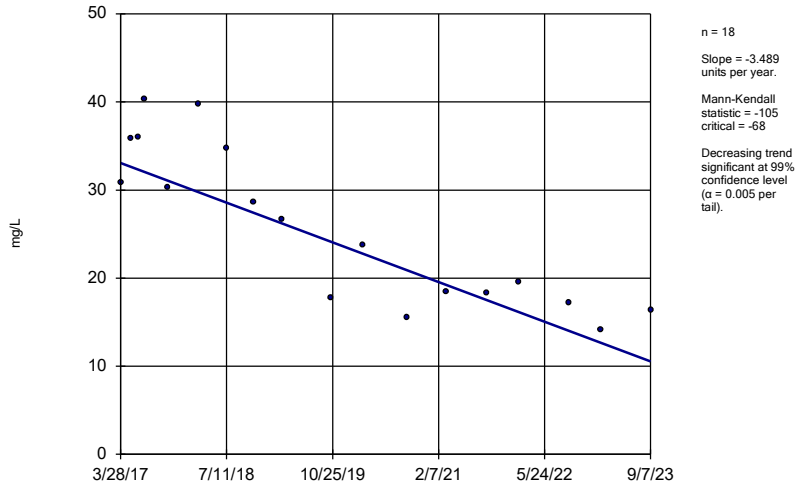
Mann-Kendall statistic = -32
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)



n = 18

Slope = -3.489 units per year.

Mann-Kendall statistic = -105
critical = -68

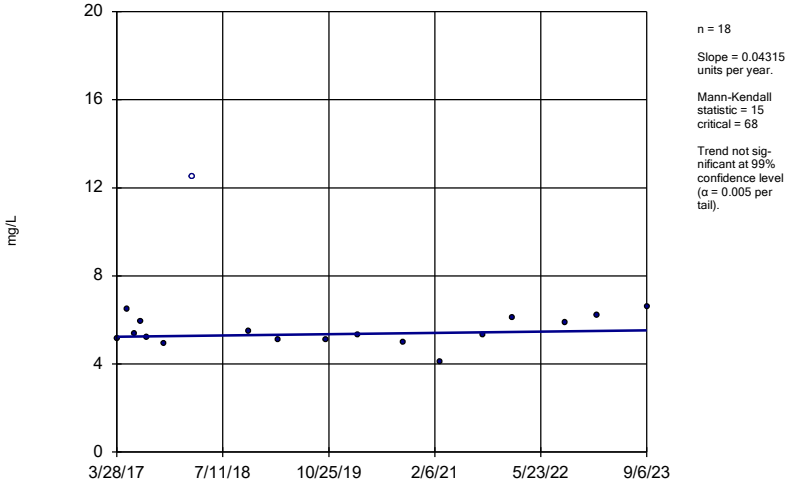
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/16/2023 4:22 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)



n = 18

Slope = 0.04315 units per year.

Mann-Kendall statistic = 15
critical = 68

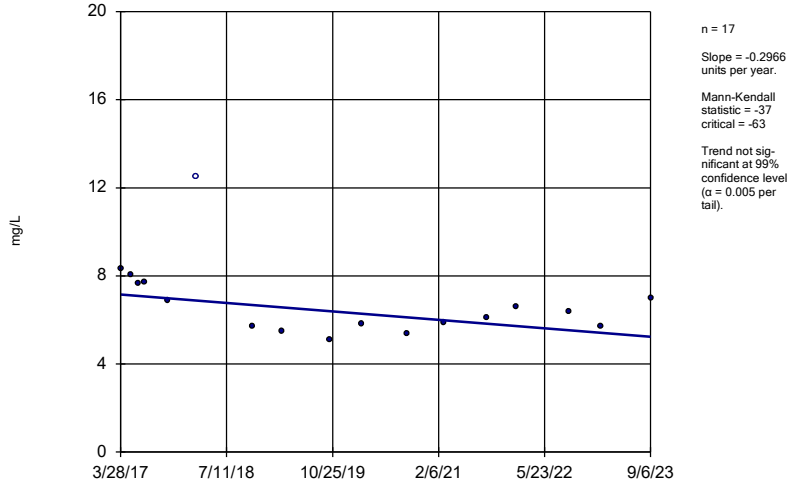
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/16/2023 4:22 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-71 (bg)



n = 17

Slope = -0.2966 units per year.

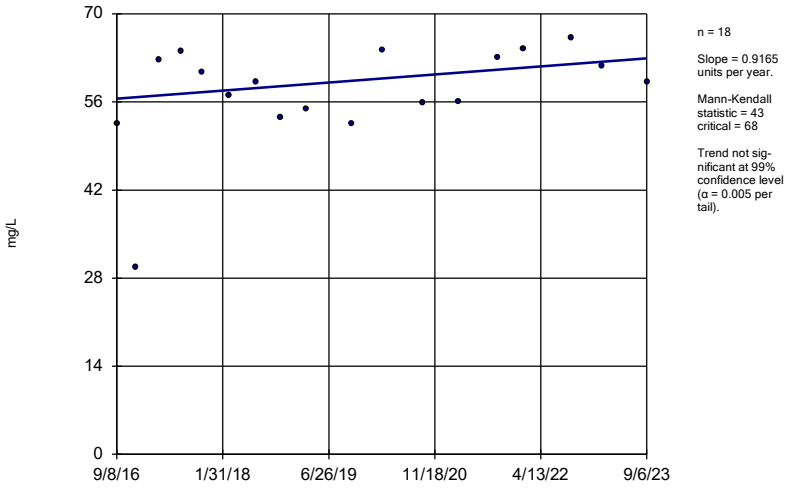
Mann-Kendall statistic = -37
critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-37



n = 18

Slope = 0.9165 units per year.

Mann-Kendall statistic = 43 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

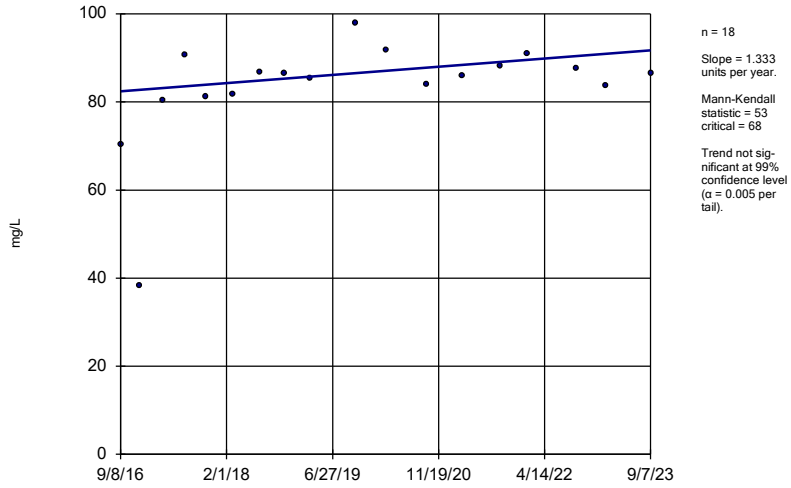
Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 18

Slope = 1.333 units per year.

Mann-Kendall statistic = 53 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

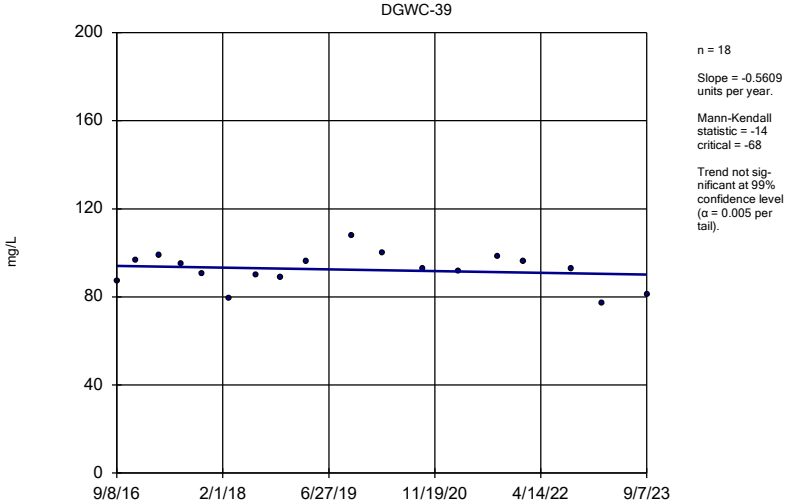
Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-39



n = 18

Slope = -0.5609 units per year.

Mann-Kendall statistic = -14 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

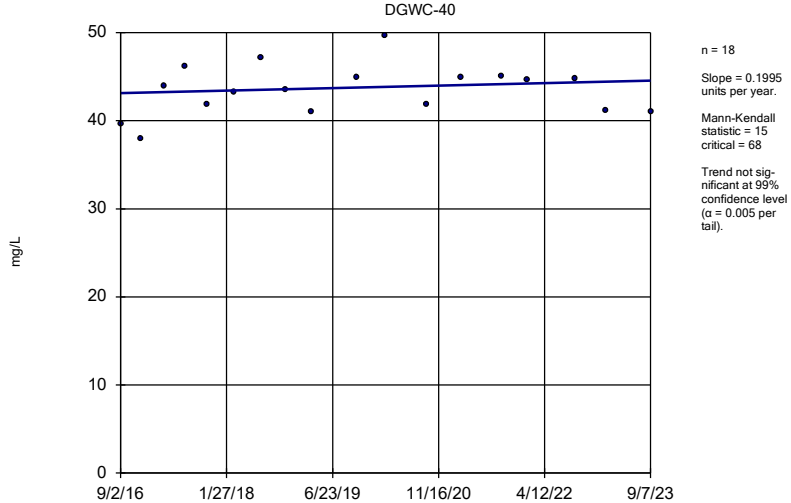
Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 18

Slope = 0.1995 units per year.

Mann-Kendall statistic = 15 critical = 68

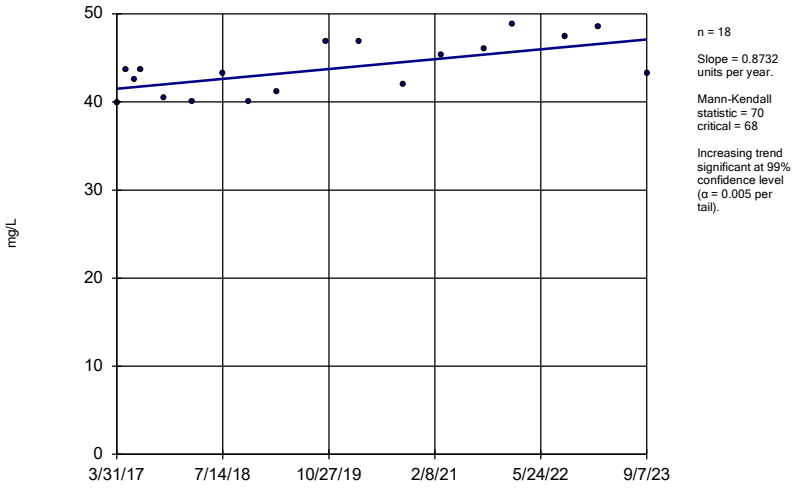
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-67



n = 18

Slope = 0.8732 units per year.

Mann-Kendall statistic = 70
critical = 68

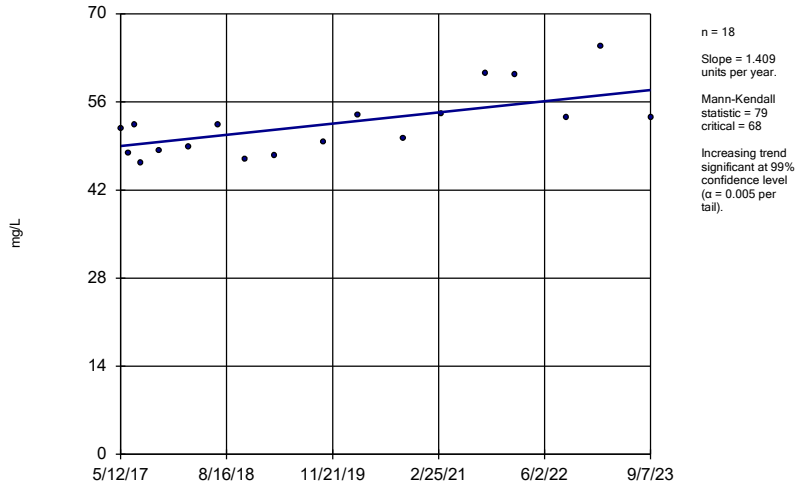
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-68A



n = 18

Slope = 1.409 units per year.

Mann-Kendall statistic = 79
critical = 68

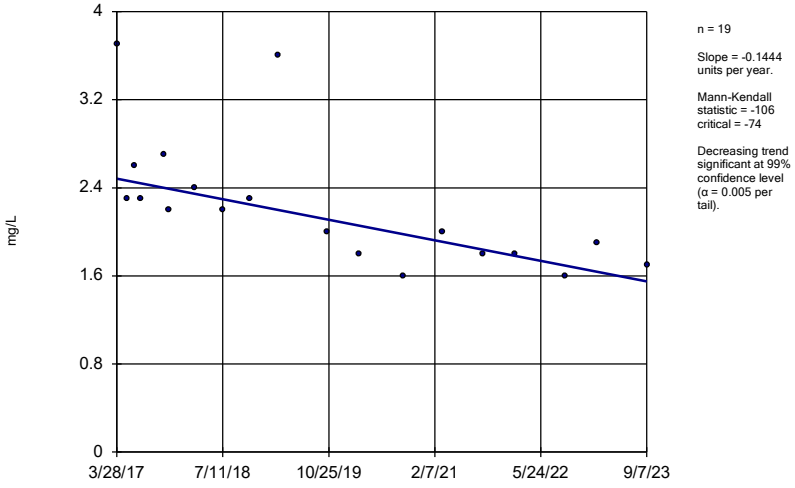
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 19

Slope = -0.1444 units per year.

Mann-Kendall statistic = -106
critical = -74

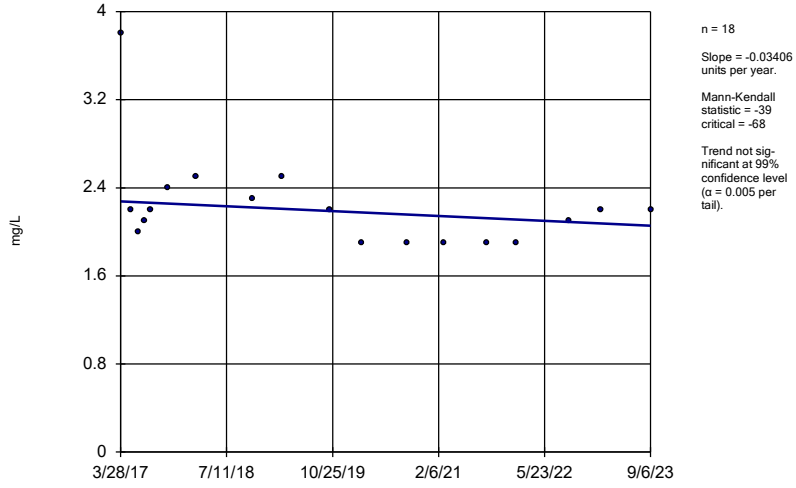
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-70A (bg)



n = 18

Slope = -0.03406 units per year.

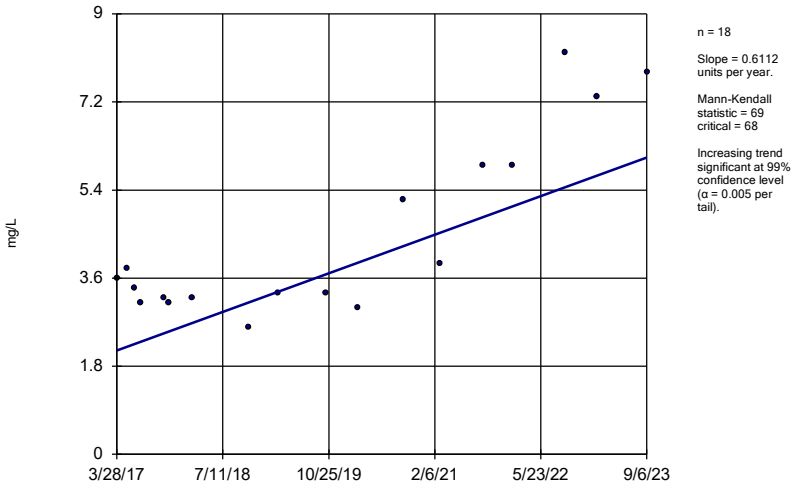
Mann-Kendall statistic = -39
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)



n = 18

Slope = 0.6112 units per year.

Mann-Kendall statistic = 69
critical = 68

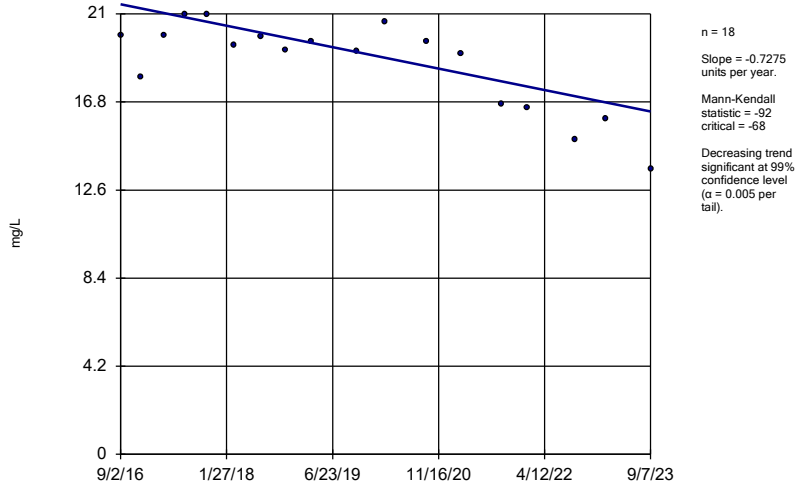
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 18

Slope = -0.7275 units per year.

Mann-Kendall statistic = -92
critical = -68

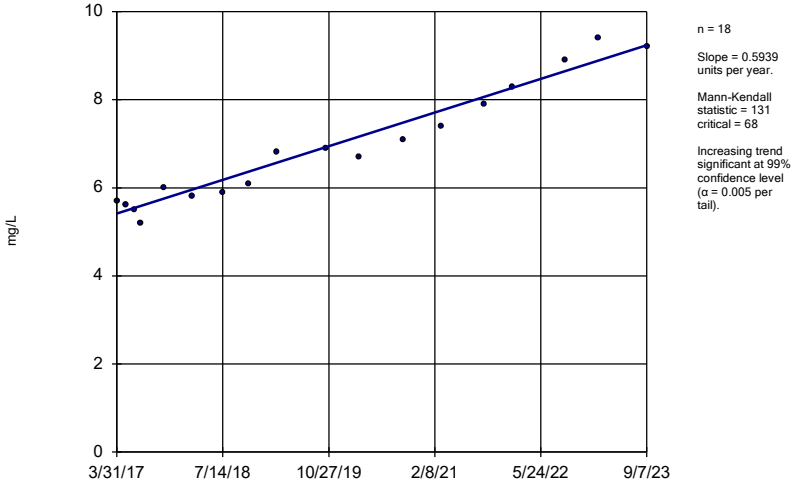
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 18

Slope = 0.5939 units per year.

Mann-Kendall statistic = 131
critical = 68

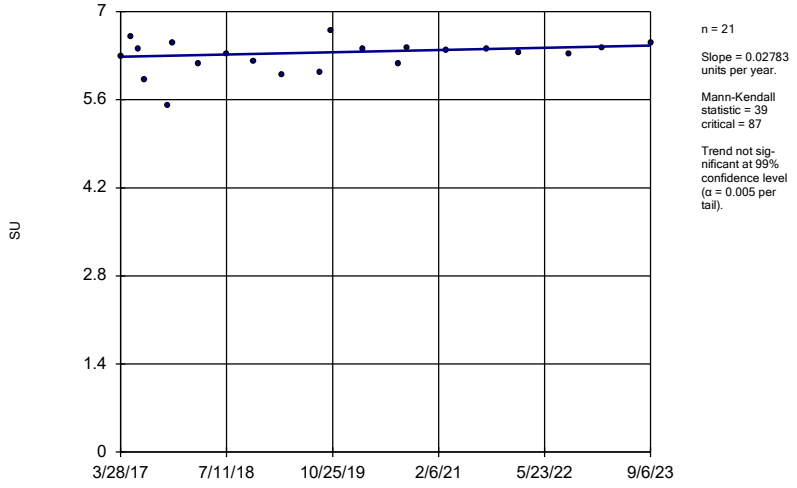
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = 0.02783 units per year.

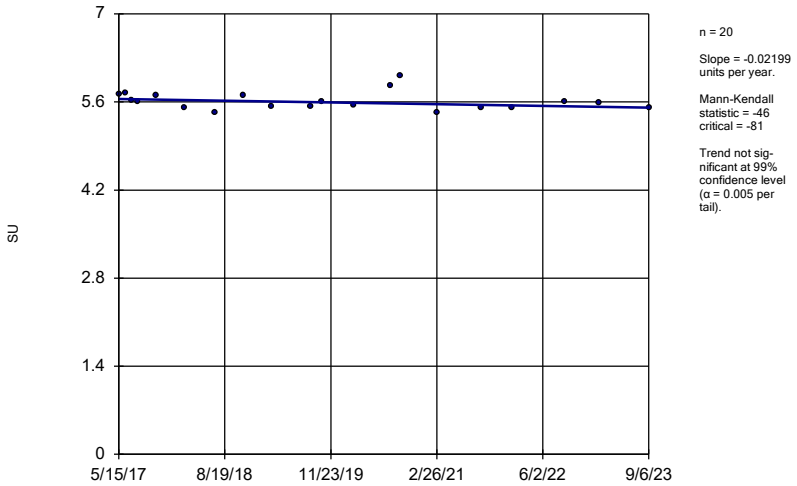
Mann-Kendall statistic = 39
critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)



n = 20

Slope = -0.02199 units per year.

Mann-Kendall statistic = -46
critical = -81

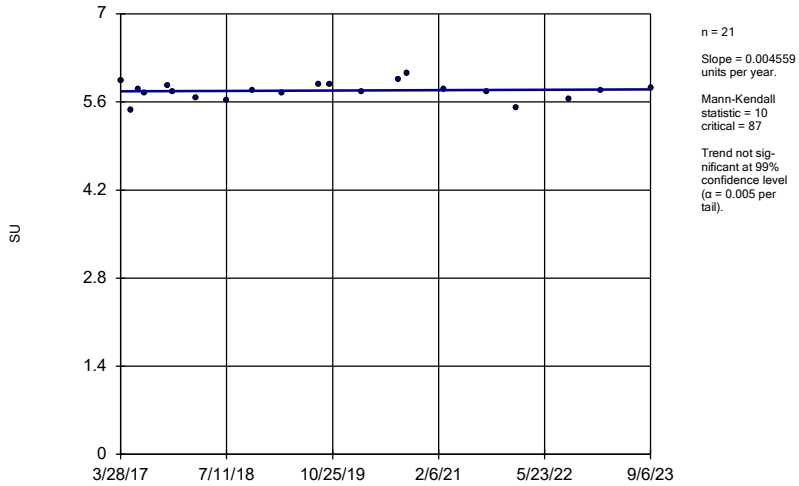
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = 0.004559 units per year.

Mann-Kendall statistic = 10
critical = 87

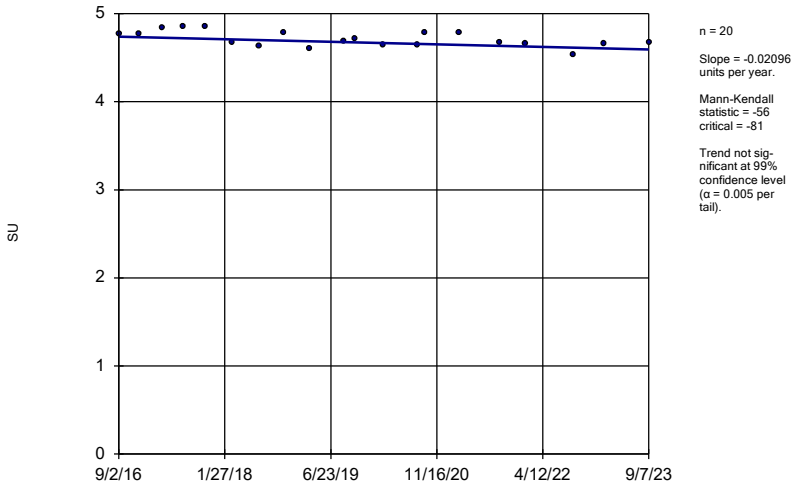
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 20

Slope = -0.02096 units per year.

Mann-Kendall statistic = -56
critical = -81

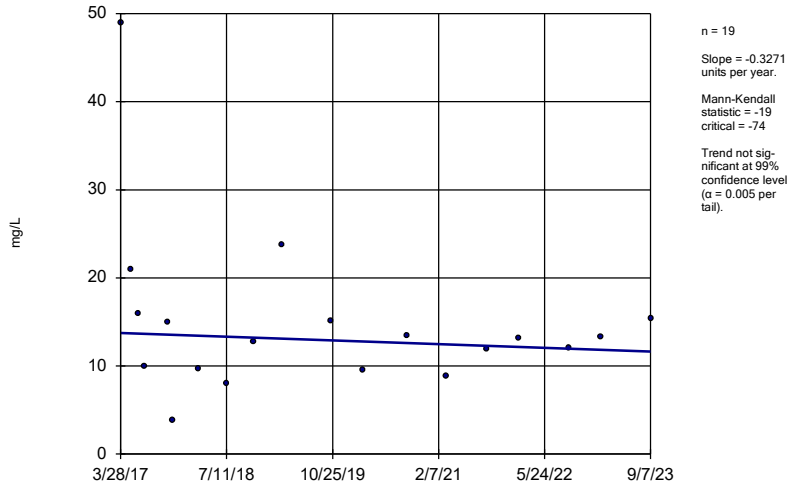
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 19

Slope = -0.3271 units per year.

Mann-Kendall statistic = -19
critical = -74

Trend not significant at 99% confidence level (α = 0.005 per tail).

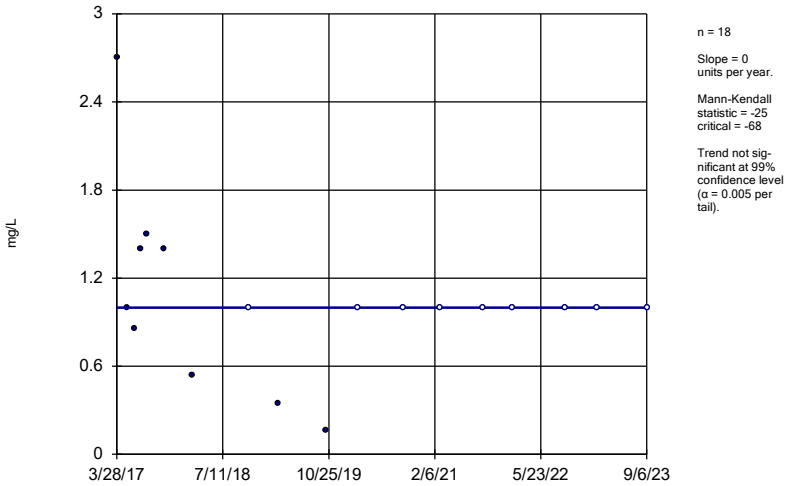
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = -25 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

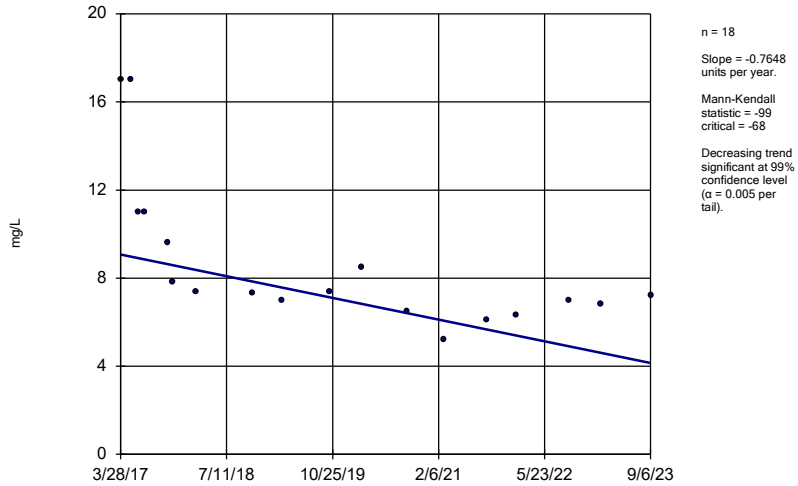
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 18

Slope = -0.7648 units per year.

Mann-Kendall statistic = -99 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

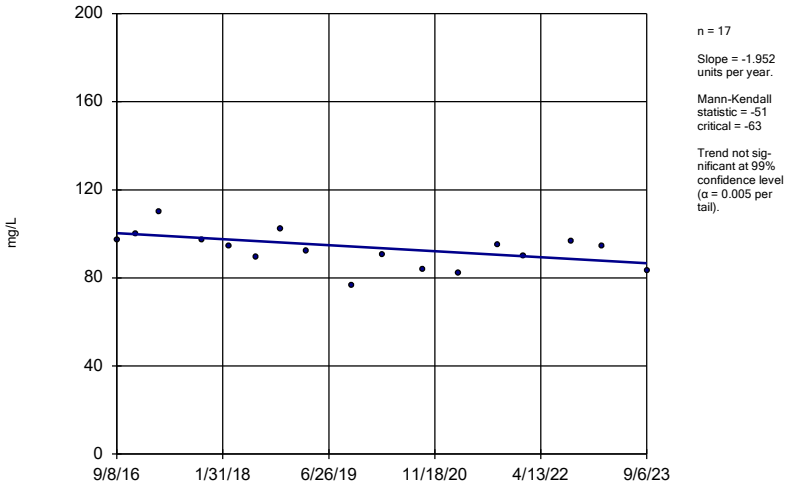
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 17

Slope = -1.952 units per year.

Mann-Kendall statistic = -51 critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

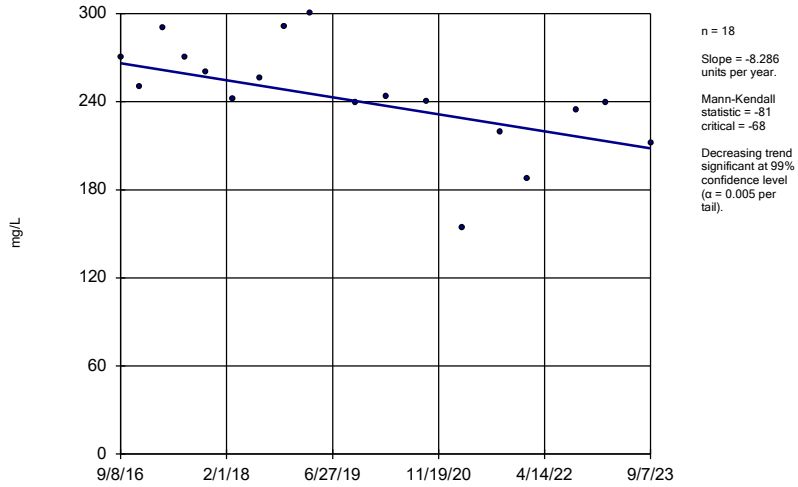
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 18

Slope = -8.286 units per year.

Mann-Kendall statistic = -81 critical = -68

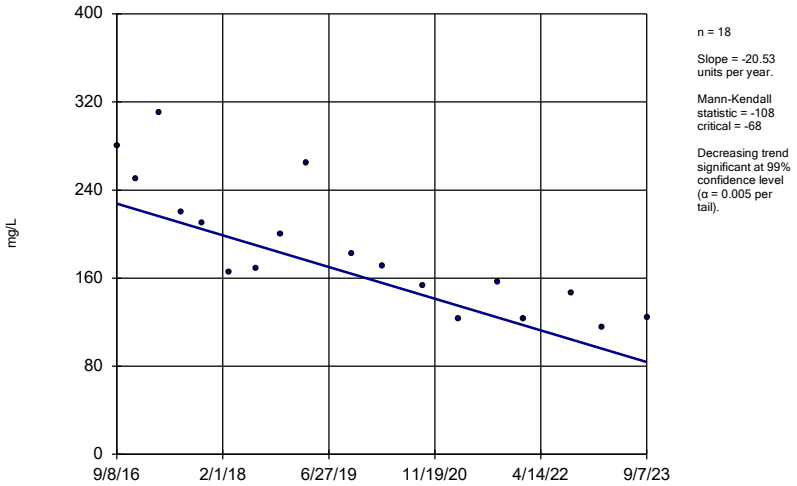
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-39



n = 18

Slope = -20.53 units per year.

Mann-Kendall statistic = -108 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

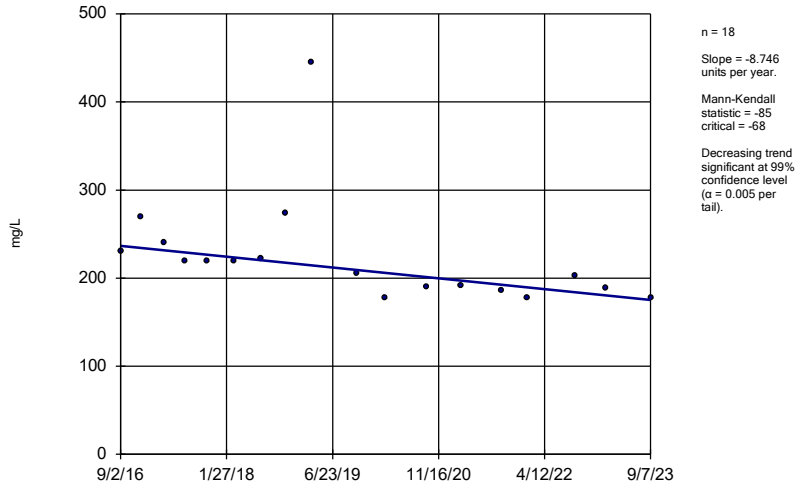
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 18

Slope = -8.746 units per year.

Mann-Kendall statistic = -85 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

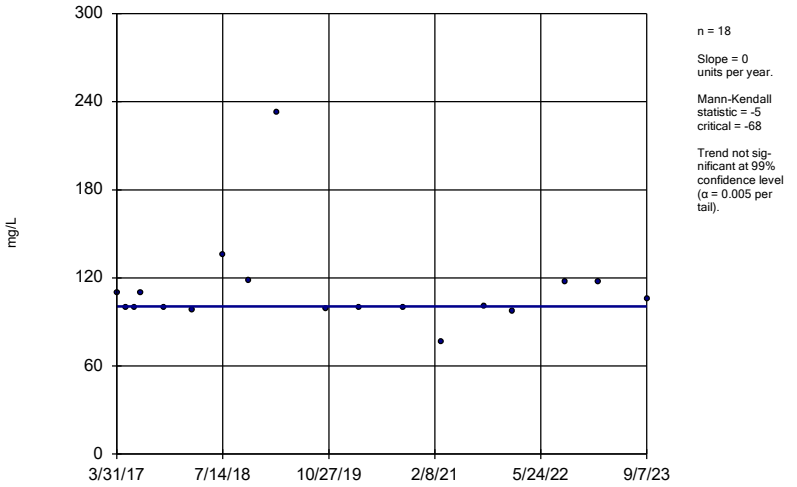
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = -5 critical = -68

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

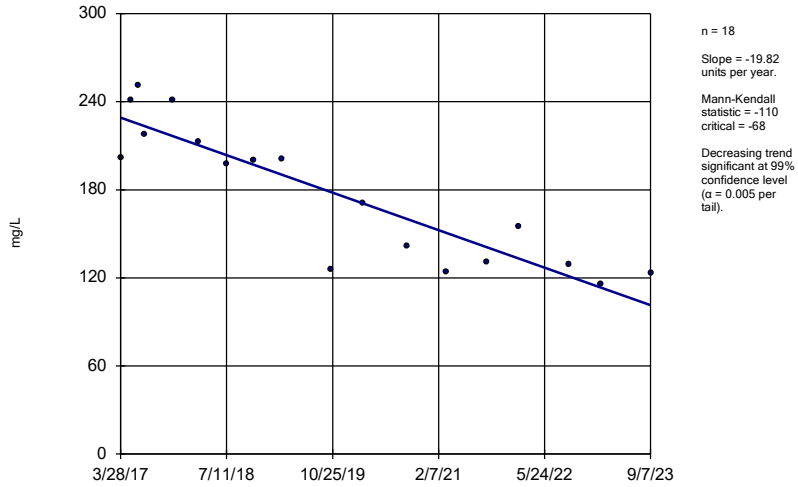
Constituent: Sulfate Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 18

Slope = -19.82 units per year.

Mann-Kendall statistic = -110 critical = -68

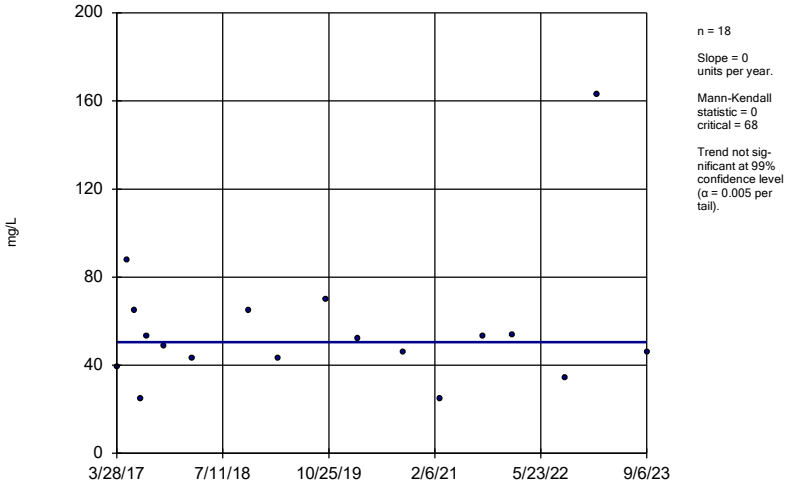
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

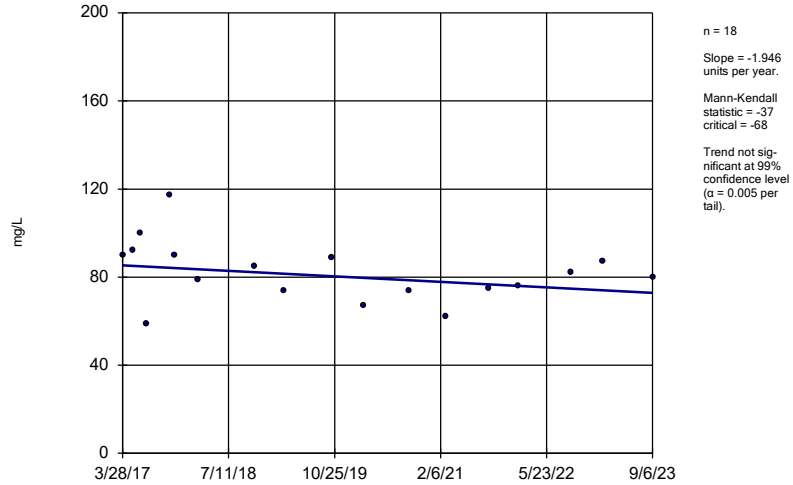
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 18

Slope = -1.946 units per year.

Mann-Kendall statistic = -37 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

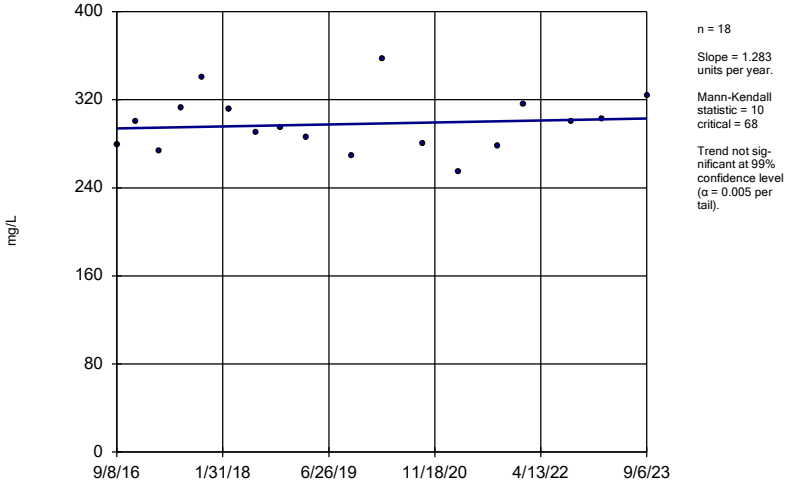
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 18

Slope = 1.283 units per year.

Mann-Kendall statistic = 10 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

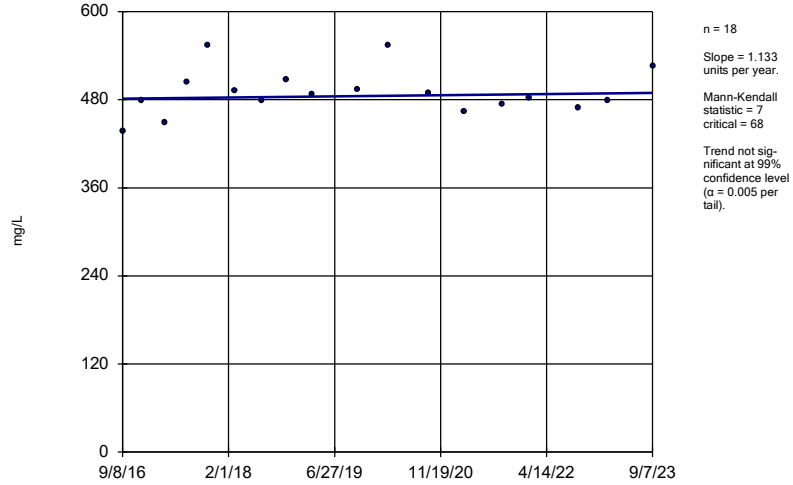
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 18

Slope = 1.133 units per year.

Mann-Kendall statistic = 7 critical = 68

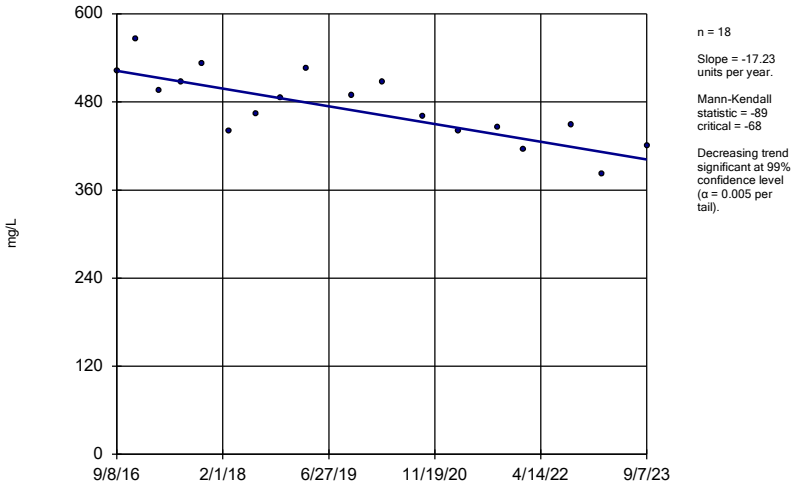
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:22 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-39



n = 18

Slope = -17.23 units per year.

Mann-Kendall statistic = -89
critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

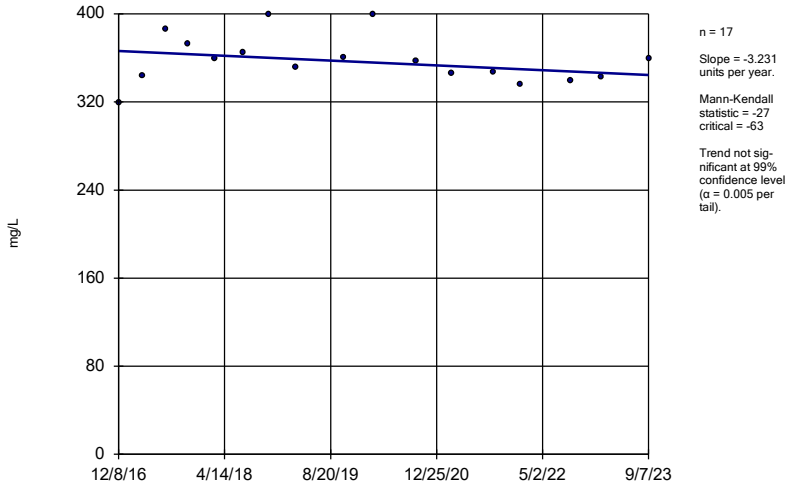
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:23 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 17

Slope = -3.231 units per year.

Mann-Kendall statistic = -27
critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

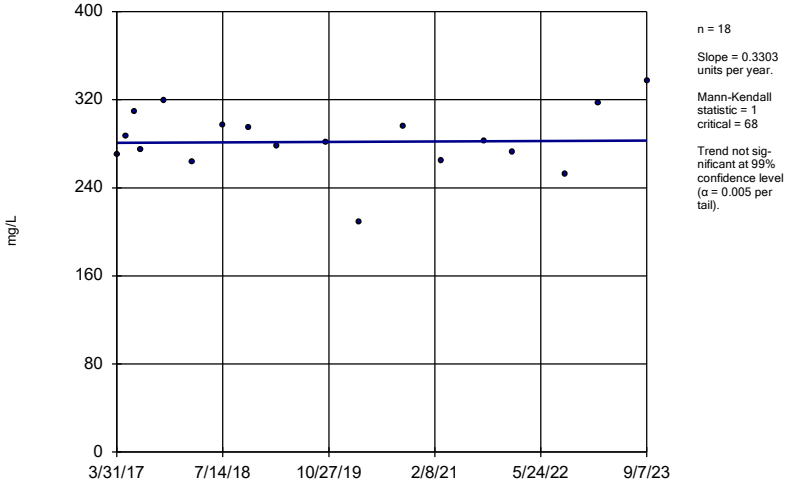
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:23 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 18

Slope = 0.3303 units per year.

Mann-Kendall statistic = 1
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

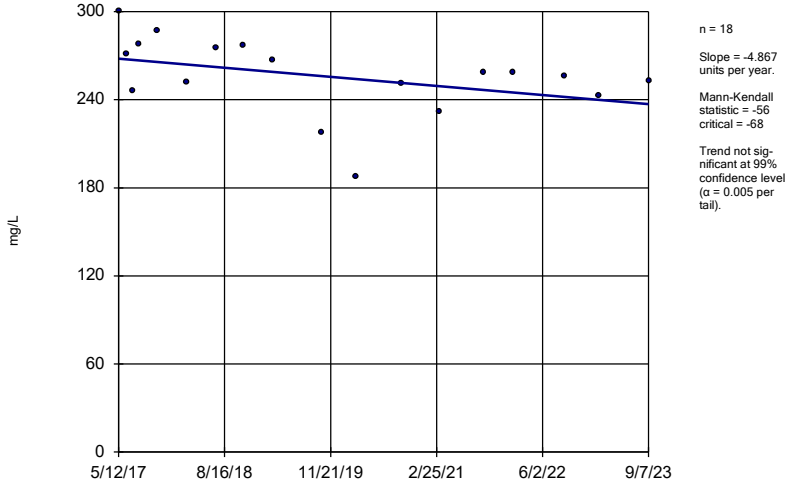
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:23 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-68A



n = 18

Slope = -4.867 units per year.

Mann-Kendall statistic = -56
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/16/2023 4:23 PM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE F.

Upper Tolerance Limit Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/16/2023, 4:29 PM

Constituent	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.0045	n/a	n/a	n/a	56	82.14	n/a	n/a	0.05656	NP Inter(NDs)
Arsenic (mg/L)	0.0054	n/a	n/a	n/a	56	75	n/a	n/a	0.05656	NP Inter(NDs)
Barium (mg/L)	0.19	n/a	n/a	n/a	56	0	n/a	n/a	0.05656	NP Inter(normality)
Beryllium (mg/L)	0.0009	n/a	n/a	n/a	57	54.39	n/a	n/a	0.05373	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	56	92.86	n/a	n/a	0.05656	NP Inter(NDs)
Chromium (mg/L)	0.005	n/a	n/a	n/a	55	69.09	n/a	n/a	0.05954	NP Inter(NDs)
Cobalt (mg/L)	0.0322	n/a	n/a	n/a	56	42.86	n/a	n/a	0.05656	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	4.866	n/a	n/a	n/a	58	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.42	n/a	n/a	n/a	60	48.33	n/a	n/a	0.04607	NP Inter(normality)
Lead (mg/L)	0.001	n/a	n/a	n/a	56	83.93	n/a	n/a	0.05656	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	56	35.71	n/a	n/a	0.05656	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	56	85.71	n/a	n/a	0.05656	NP Inter(NDs)
Molybdenum (mg/L)	0.0409	n/a	n/a	n/a	56	64.29	n/a	n/a	0.05656	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	56	100	n/a	n/a	0.05656	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	56	94.64	n/a	n/a	0.05656	NP Inter(NDs)

FIGURE G.

PLANT MCDONOUGH ASH POND AP-1 GWPS TABLE				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.0045	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		4.87	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 Data: McDonough AP Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**DGWC-69**	**0.03524**	**0.01402**	**0.01**	**Yes**	**21**	**0**	**None**	**ln(x)**	**0.01**	**Param.**
Cobalt (mg/L)	**DGWC-40**	**0.04415**	**0.03748**	**0.032**	**Yes**	**19**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**DGWC-68A**	**0.2185**	**0.1943**	**0.1**	**Yes**	**19**	**0**	**None**	**ln(x)**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant McDonough Data: McDonough AP Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.003	0.0013	0.006	No	8	75	None	No	0.004	NP (NDs)
Antimony (mg/L)	B-105D	0.0082	0.00069	0.006	No	7	57.14	None	No	0.008	NP (NDs)
Antimony (mg/L)	B-112D	0.003	0.00041	0.006	No	6	83.33	None	No	0.0155	NP (NDs)
Antimony (mg/L)	B-62	0.003	0.003	0.006	No	11	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-37	0.003	0.0014	0.006	No	18	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	18	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.0039	0.0023	0.006	No	18	77.78	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	18	88.89	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	19	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	B-105D	0.0051	0.0025	0.01	No	7	57.14	None	No	0.008	NP (NDs)
Arsenic (mg/L)	B-112D	0.005	0.00078	0.01	No	6	66.67	None	No	0.0155	NP (NDs)
Arsenic (mg/L)	B-62	0.005	0.005	0.01	No	11	90.91	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.00075	0.01	No	19	57.89	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.003	0.01	No	19	78.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0033	0.01	No	19	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	**DGWC-69**	**0.03524**	**0.01402**	**0.01**	**Yes**	**21**	**0**	**None**	**ln(x)**	**0.01**	**Param.**
Barium (mg/L)	B-100	0.098	0.015	2	No	8	0	None	No	0.004	NP (normality)
Barium (mg/L)	B-105D	0.04061	0.03196	2	No	7	0	None	No	0.01	Param.
Barium (mg/L)	B-112D	0.026	0.0026	2	No	6	0	None	No	0.0155	NP (normality)
Barium (mg/L)	B-62	0.02504	0.01841	2	No	11	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1054	0.08679	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.03322	0.03113	2	No	19	0	None	x^5	0.01	Param.
Barium (mg/L)	DGWC-39	0.09697	0.08608	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.018	0.0163	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1087	0.09352	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.098	0.086	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-69	0.09388	0.06299	2	No	20	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0005753	0.0003347	0.004	No	8	12.5	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.0025	0.00009	0.004	No	12	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.00007	0.004	No	19	57.89	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	19	94.74	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.0033	0.002843	0.004	No	19	5.263	None	x^3	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	19	89.47	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.000063	0.004	No	20	60	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00025	0.005	No	8	12.5	None	No	0.004	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.0002	0.005	No	19	73.68	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0005	0.00017	0.005	No	19	21.05	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008391	0.0007101	0.005	No	19	10.53	None	x^2	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.00053	0.00021	0.005	No	19	73.68	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.0002339	0.0001464	0.005	No	19	47.37	Kaplan-Meier	x^(1/3)	0.01	Param.
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	20	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.005	0.00057	0.1	No	8	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	B-105D	0.005	0.0012	0.1	No	7	85.71	None	No	0.008	NP (NDs)
Chromium (mg/L)	B-112D	0.005	0.00085	0.1	No	6	66.67	None	No	0.0155	NP (NDs)
Chromium (mg/L)	B-62	0.005	0.005	0.1	No	11	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	19	89.47	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	19	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.0007	0.1	No	19	47.37	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-67	0.005	0.0014	0.1	No	19	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0013	0.1	No	20	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.07002	0.01754	0.032	No	10	10	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-105D	0.009078	0.00257	0.032	No	7	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-112D	0.005	0.0004	0.032	No	6	50	None	No	0.0155	NP (normality)
Cobalt (mg/L)	B-62	0.005	0.00031	0.032	No	12	83.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.032	No	19	84.21	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.032	No	19	10.53	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.006636	0.005785	0.032	No	19	10.53	None	No	0.01	Param.
Cobalt (mg/L)	**DGWC-40**	**0.04415**	**0.03748**	**0.032**	**Yes**	**19**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	DGWC-67	0.0041	0.0012	0.032	No	19	10.53	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.032	No	19	84.21	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-69	0.005	0.0028	0.032	No	20	70	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	B-100	1.134	0.3305	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-105D	5.526	0.832	5	No	6	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-112D	1.76	0.241	5	No	5	0	None	No	0.031	NP (selected)

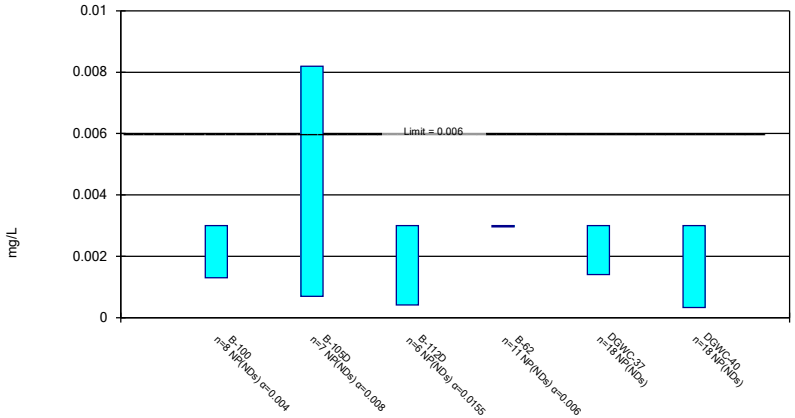
Confidence Intervals - All Results

Plant McDonough Data: McDonough AP Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	B-62	1.992	1.426	5	No	10	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.069	0.5663	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	0.9592	0.3387	5	No	18	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.245	0.6391	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.473	0.6808	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.9342	0.4769	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.336	0.6252	5	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.765	1.158	5	No	19	0	None	No	0.01	Param.
Fluoride (mg/L)	B-100	0.1	0.052	4	No	8	75	None	No	0.004	NP (NDs)
Fluoride (mg/L)	B-105D	0.32	0.058	4	No	7	0	None	No	0.008	NP (normality)
Fluoride (mg/L)	B-112D	0.3415	0.2518	4	No	6	0	None	No	0.01	Param.
Fluoride (mg/L)	B-62	0.23	0.099	4	No	10	0	None	No	0.011	NP (normality)
Fluoride (mg/L)	DGWC-37	0.089	0.057	4	No	20	5	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-38	0.1456	0.07595	4	No	20	10	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-39	0.15	0.086	4	No	20	5	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-40	0.258	0.132	4	No	20	5	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-67	0.1	0.068	4	No	20	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-68A	0.15	0.082	4	No	20	5	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-69	0.155	0.0876	4	No	21	4.762	None	sqrt(x)	0.01	Param.
Lead (mg/L)	B-100	0.001	0.000088	0.015	No	8	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	B-105D	0.001	0.000052	0.015	No	7	85.71	None	No	0.008	NP (NDs)
Lead (mg/L)	B-112D	0.001	0.00014	0.015	No	6	83.33	None	No	0.0155	NP (NDs)
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.00014	0.015	No	19	73.68	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.000081	0.015	No	19	57.89	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-67	0.001	0.00025	0.015	No	19	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.0001	0.015	No	20	65	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.015	0.0013	0.04	No	8	12.5	None	No	0.004	NP (normality)
Lithium (mg/L)	B-105D	0.015	0.013	0.04	No	7	0	None	No	0.008	NP (normality)
Lithium (mg/L)	B-112D	0.004555	0.003679	0.04	No	6	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.0094	0.0078	0.04	No	11	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-37	0.0029	0.0019	0.04	No	19	21.05	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0034	0.0028	0.04	No	19	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.0027	0.0022	0.04	No	19	10.53	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.005	0.0044	0.04	No	19	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	19	89.47	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0032	0.0023	0.04	No	20	5	None	No	0.01	NP (normality)
Mercury (mg/L)	B-100	0.0002	0.00011	0.002	No	7	85.71	None	No	0.008	NP (NDs)
Mercury (mg/L)	B-105D	0.0002	0.000087	0.002	No	6	66.67	None	No	0.0155	NP (NDs)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	18	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	18	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	18	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	18	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	18	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	18	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	19	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	B-100	0.19	0.01	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	B-105D	0.01	0.0011	0.1	No	7	85.71	None	No	0.008	NP (NDs)
Molybdenum (mg/L)	B-112D	0.03608	0.02559	0.1	No	6	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-38	0.01	0.001	0.1	No	19	36.84	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-39	0.01	0.0016	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-67	0.01	0.0013	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	**DGWC-68A**	**0.2185**	**0.1943**	**0.1**	**Yes**	**19**	**0**	**None**	**ln(x)**	**0.01**	**Param.**
Molybdenum (mg/L)	DGWC-69	0.011	0.0056	0.1	No	20	5	None	No	0.01	NP (normality)
Selenium (mg/L)	B-100	0.005	0.0019	0.05	No	8	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	19	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003057	0.001861	0.05	No	19	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-38	0.001	0.00014	0.002	No	19	57.89	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-39	0.001	0.0001	0.002	No	19	73.68	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.00007	0.002	No	19	73.68	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	19	94.74	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

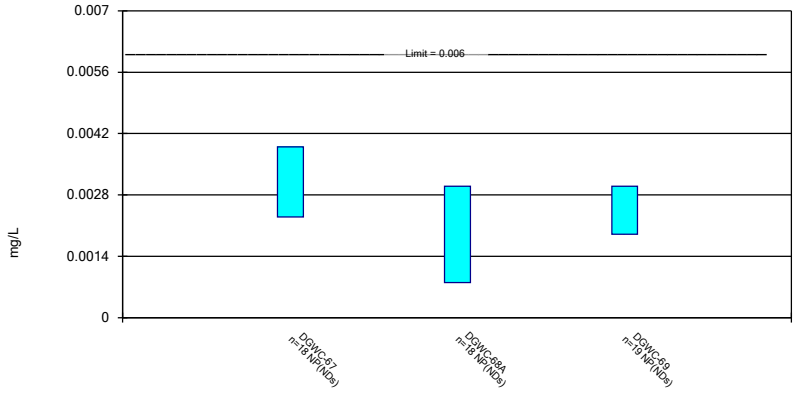


Constituent: Antimony Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

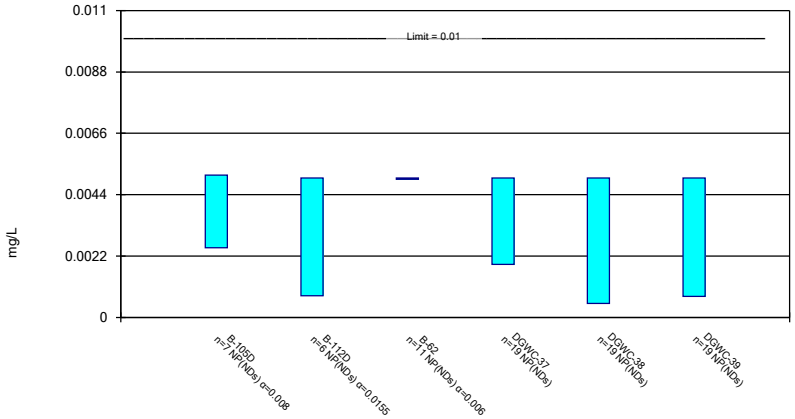


Constituent: Antimony Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

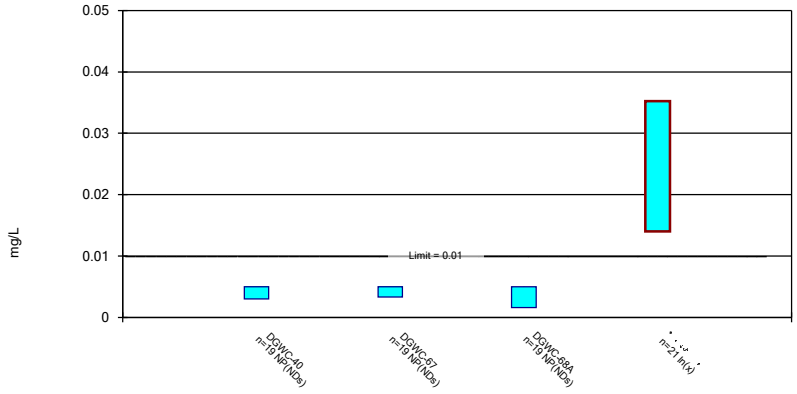


Constituent: Arsenic Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

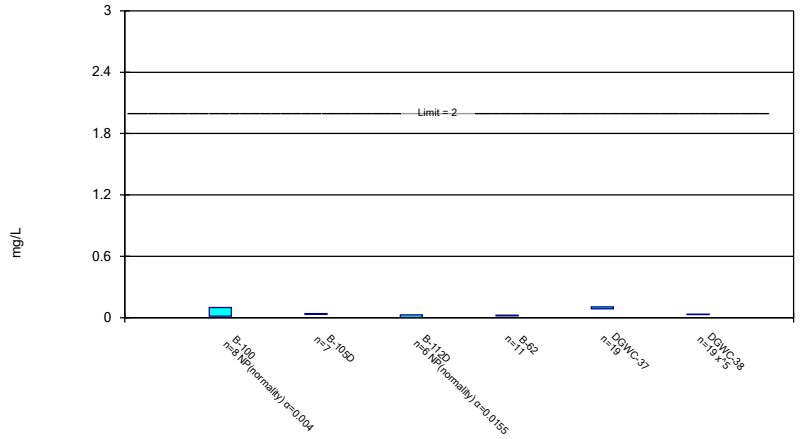
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough 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.

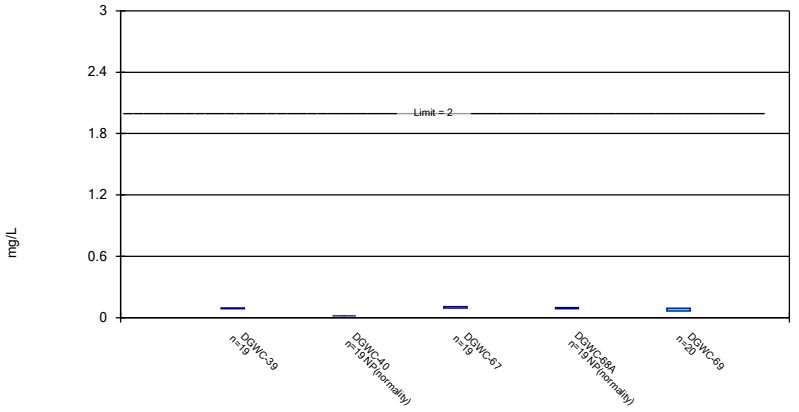


Constituent: Barium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

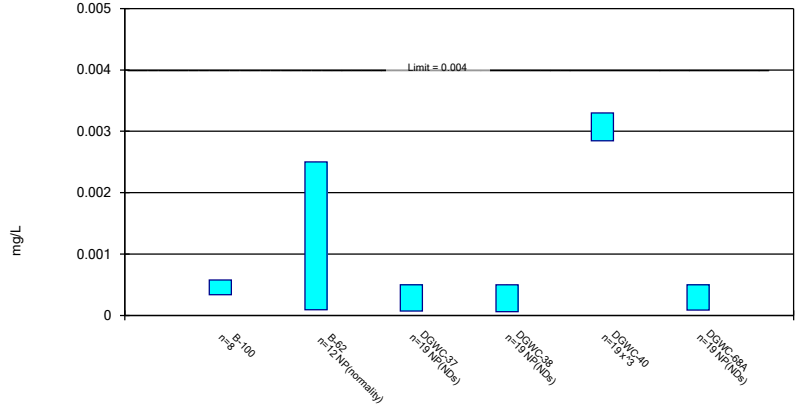


Constituent: Barium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

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.

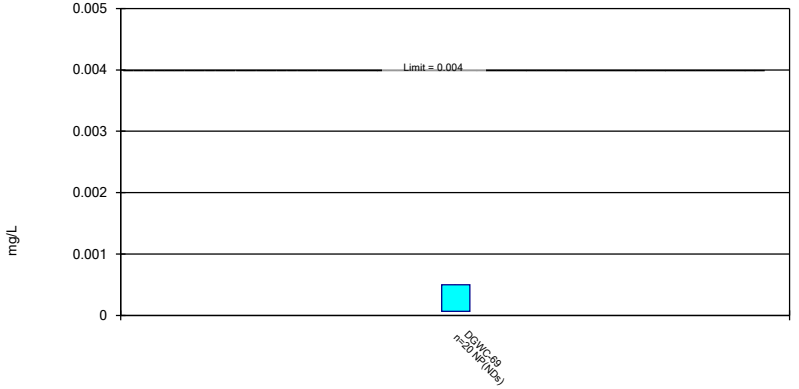


Constituent: Beryllium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

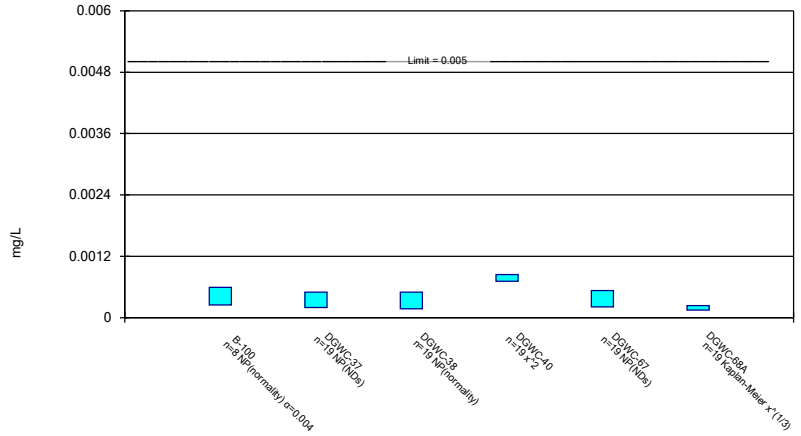
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

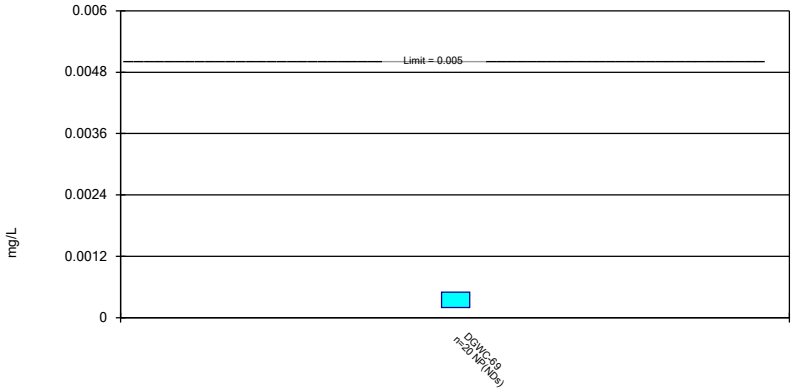
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Non-Parametric Confidence Interval

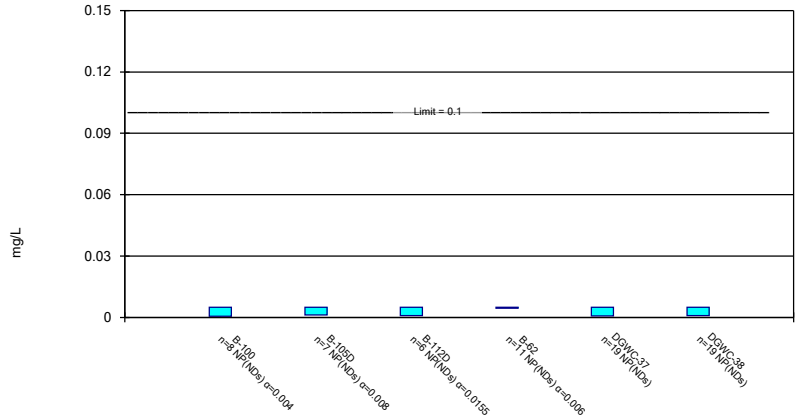
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Non-Parametric Confidence Interval

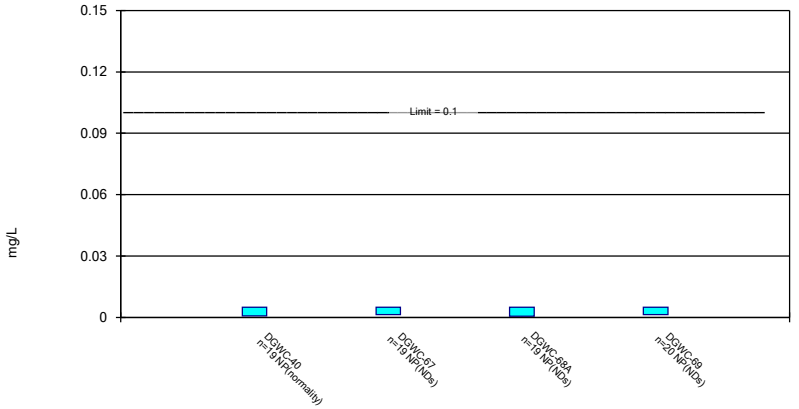
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Non-Parametric Confidence Interval

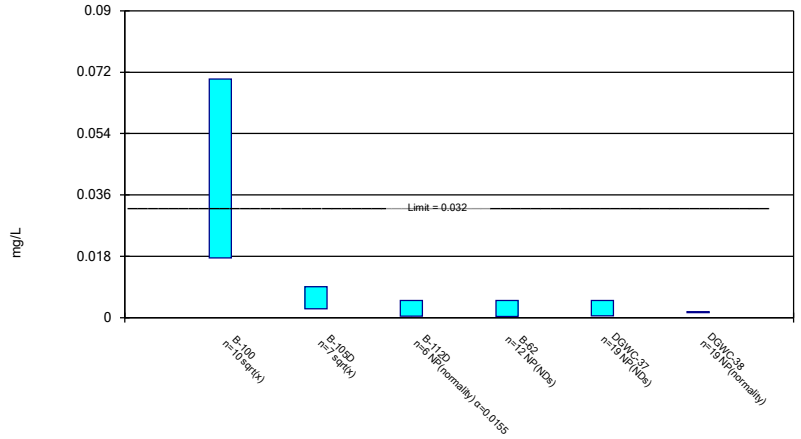
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough 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.

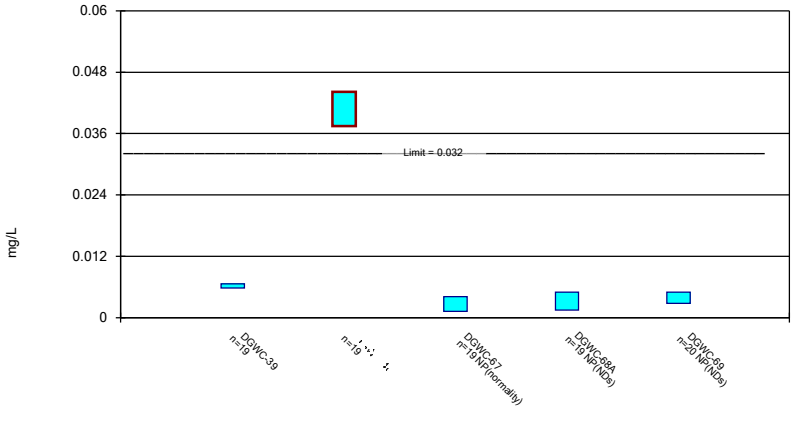


Constituent: Cobalt Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

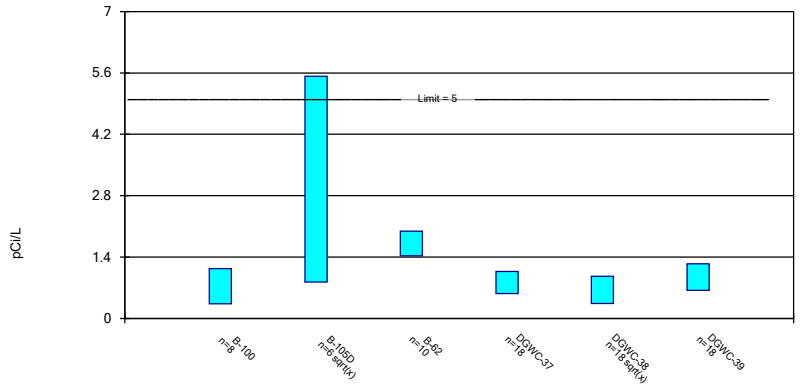


Constituent: Cobalt Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

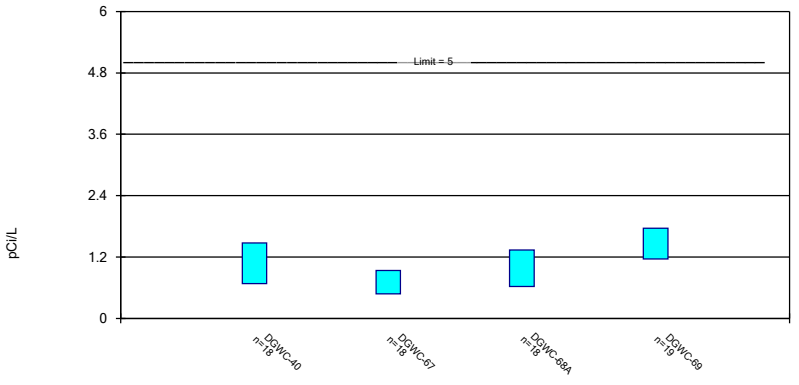


Constituent: Combined Radium 226 + 228 Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Inte
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric Confidence Interval

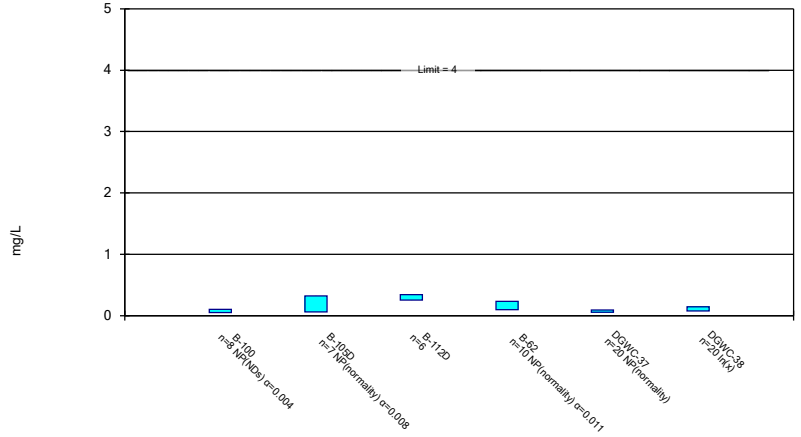
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Inte
Plant McDonough 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.

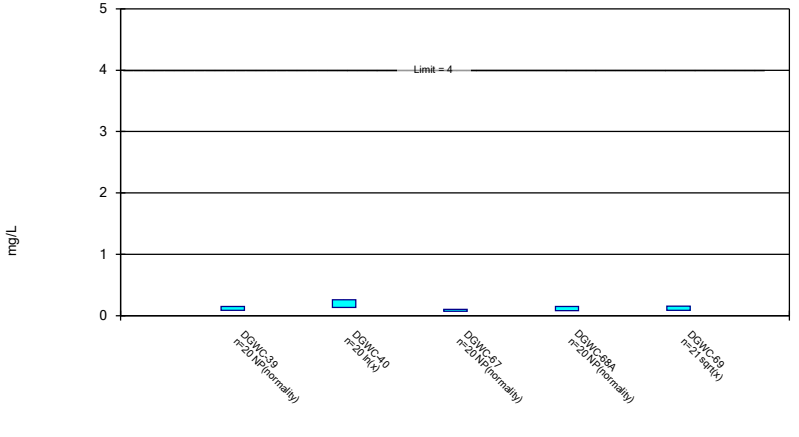


Constituent: Fluoride Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

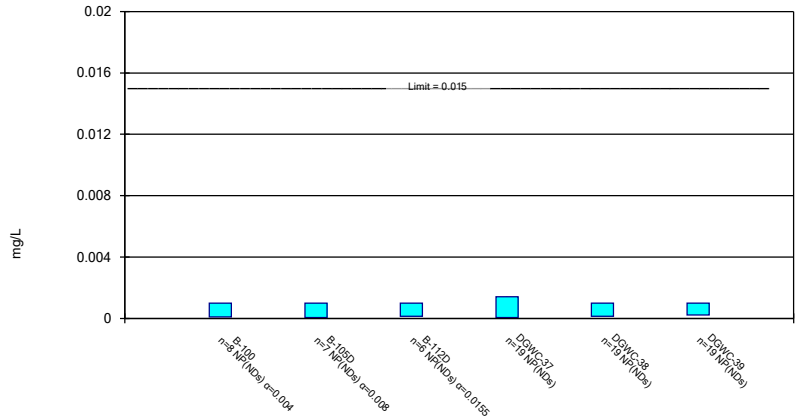


Constituent: Fluoride Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

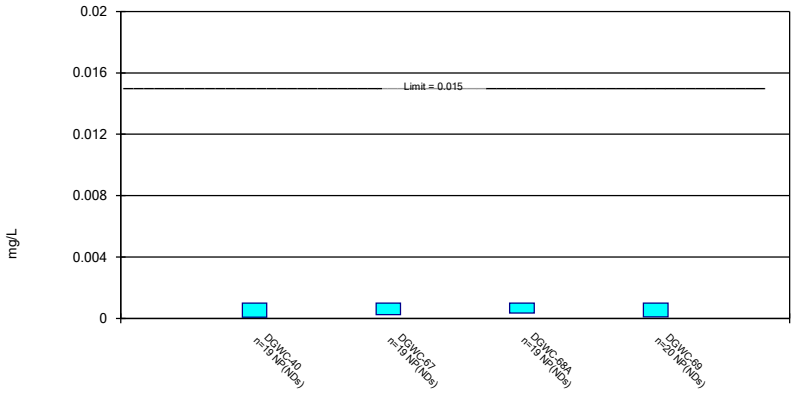


Constituent: Lead Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

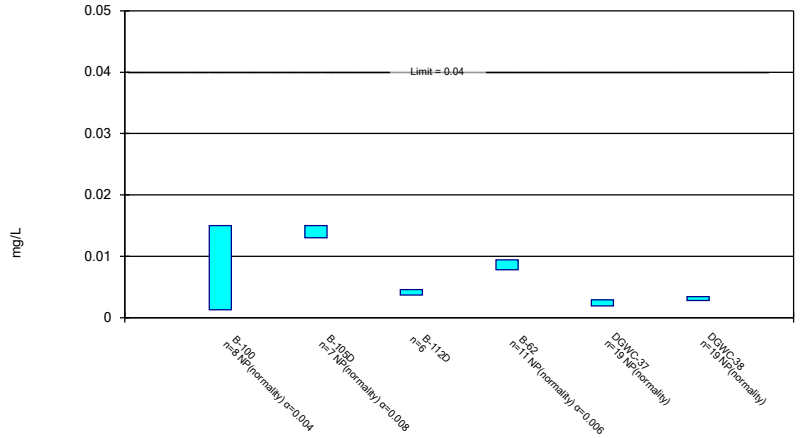
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough 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.

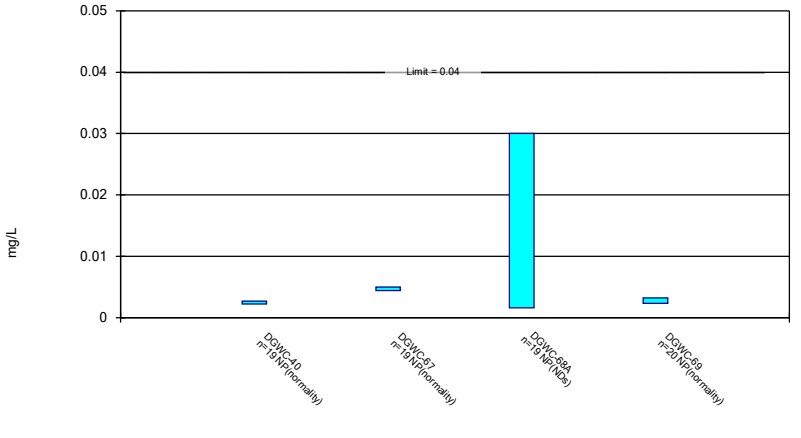


Constituent: Lithium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

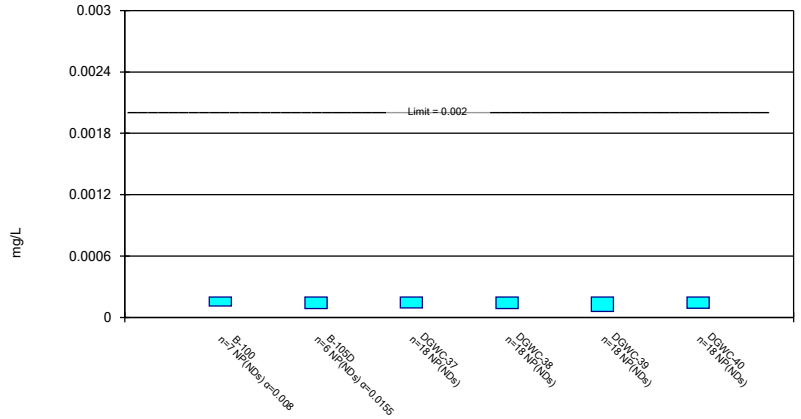


Constituent: Lithium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

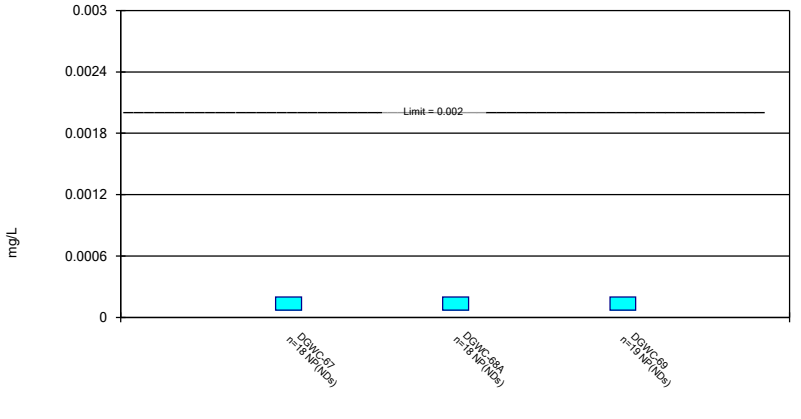


Constituent: Mercury Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

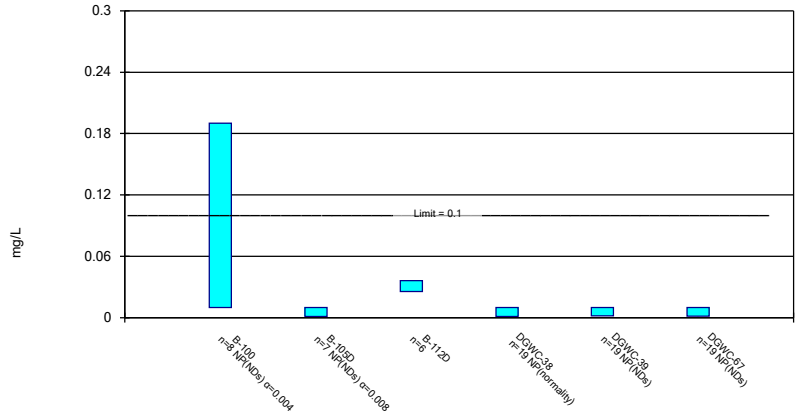


Constituent: Mercury Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

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.

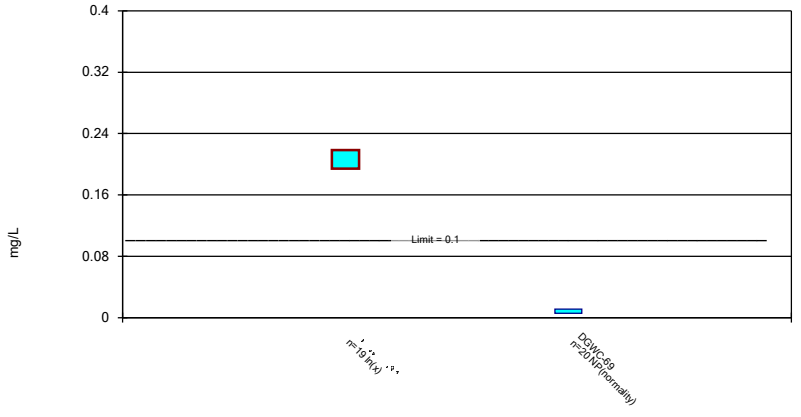


Constituent: Molybdenum Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

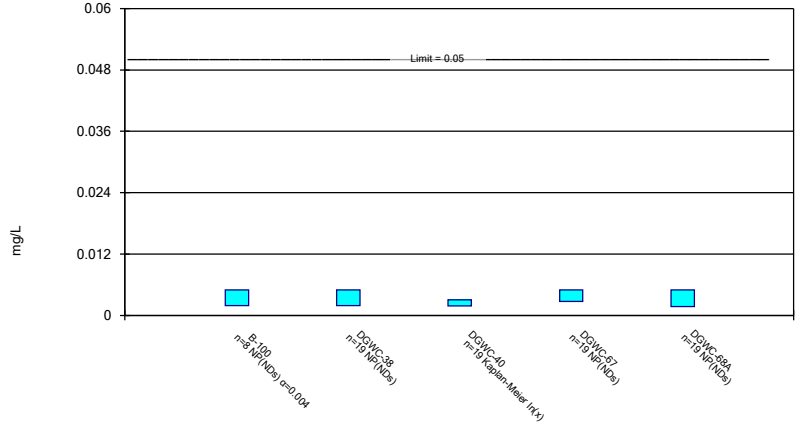


Constituent: Molybdenum Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

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.

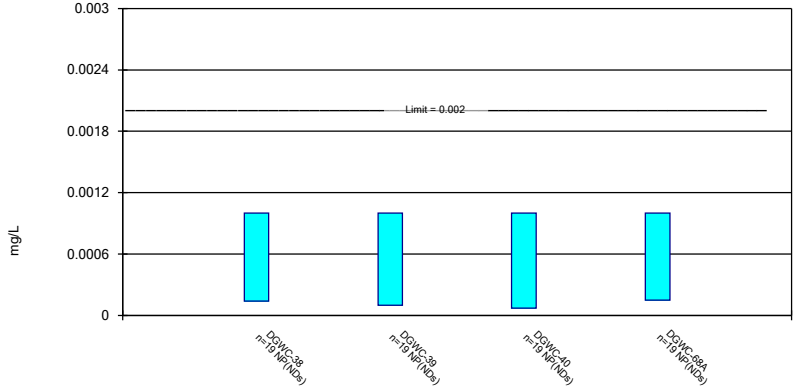


Constituent: Selenium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-40
9/2/2016						<0.003
9/8/2016					<0.003	
12/7/2016					<0.003	
12/8/2016						<0.003
3/30/2017					<0.003	<0.003
7/13/2017					<0.003	<0.003
10/26/2017					<0.003	<0.003
3/1/2018					<0.003	
3/2/2018						<0.003
7/12/2018					<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		
3/4/2020						<0.003
3/9/2020					<0.003	
8/13/2020				<0.003	<0.003	<0.003
8/17/2020	0.0013 (J)					
9/23/2020						<0.003
9/24/2020				0.00046 (J)	<0.003	
9/25/2020	<0.003					
12/9/2020		<0.003				
3/8/2021	0.0017 (J)	0.00069 (J)				0.00033 (J)
3/11/2021					<0.003	
3/12/2021				<0.003		
4/15/2021			0.00041 (J)			
9/9/2021				<0.003		
9/13/2021	<0.003					
9/14/2021						<0.003
9/15/2021		0.0082				
9/16/2021			<0.003		<0.003	
1/19/2022		<0.003	<0.003			<0.003
1/20/2022				<0.003		
1/21/2022	<0.003				<0.003	
9/7/2022		<0.003	<0.003			<0.003
9/8/2022	<0.003			<0.003	<0.003	
2/1/2023		0.0016 (J)	<0.003			<0.003
2/2/2023	<0.003			<0.003	<0.003	
9/6/2023	<0.003				0.0014 (J)	
9/7/2023		<0.003	<0.003	<0.003		<0.003
Mean	0.002625	0.003213	0.002568	0.002769	0.002911	0.002852
Std. Dev.	0.0007025	0.002381	0.001057	0.0007658	0.0003771	0.0006293
Upper Lim.	0.003	0.0082	0.003	0.003	0.003	0.003
Lower Lim.	0.0013	0.00069	0.00041	0.003	0.0014	0.00033

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-67	DGWC-68A	DGWC-69
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
8/8/2017		<0.003	
10/26/2017	<0.003	<0.003	<0.003
11/15/2017			<0.003
3/2/2018	<0.003	<0.003	<0.003
7/13/2018	0.0023 (J)	<0.003	<0.003
11/8/2018	<0.003	<0.003	<0.003
8/28/2019	<0.003	<0.003	<0.003
3/9/2020	<0.003	<0.003	<0.003
8/13/2020	<0.003	<0.003	0.0019 (J)
9/23/2020	<0.003	<0.003	<0.003
3/10/2021		0.00032 (J)	0.0018 (J)
3/11/2021	<0.003		
9/16/2021	<0.003	<0.003	<0.003
1/19/2022	<0.003		
1/25/2022		<0.003	<0.003
9/7/2022		<0.003	<0.003
9/8/2022	<0.003		
2/1/2023		<0.003	<0.003
2/2/2023	<0.003		
9/7/2023	0.0039	<0.003	<0.003
Mean	0.002744	0.002729	0.002758
Std. Dev.	0.0008305	0.0007933	0.0006158
Upper Lim.	0.0039	0.003	0.003
Lower Lim.	0.0023	0.0008	0.0019

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-105D	B-112D	B-62	DGWC-37	DGWC-38	DGWC-39
9/8/2016				<0.005	<0.005	<0.005
12/7/2016				0.0019 (J)	<0.005	<0.005
3/30/2017				<0.005	<0.005	0.0007 (J)
7/13/2017				<0.005	0.0005 (J)	0.0009 (J)
10/26/2017				<0.005	<0.005	<0.005
3/1/2018				<0.005	<0.005	0.0011 (J)
7/12/2018				<0.005	<0.005	0.00057 (J)
11/8/2018				<0.005	<0.005	<0.005
1/30/2019			<0.005			
8/28/2019				<0.005	<0.005	<0.005
9/11/2019			<0.005			
10/18/2019				<0.005	<0.005	0.00075 (J)
10/21/2019			<0.005			
3/9/2020				<0.005	<0.005	0.00039 (J)
8/13/2020			<0.005	<0.005	<0.005	<0.005
9/24/2020			<0.005	<0.005	<0.005	
9/25/2020						0.00087 (J)
12/9/2020	<0.005					
3/8/2021	0.0025 (J)					
3/11/2021				<0.005	<0.005	<0.005
3/12/2021			<0.005			
4/15/2021		0.00078 (J)				
9/9/2021			<0.005			
9/15/2021	<0.005				<0.005	
9/16/2021		<0.005		<0.005		
9/17/2021						<0.005
1/19/2022	0.0051	0.005				
1/20/2022			0.0033 (J)			0.0019 (J)
1/21/2022				<0.005	<0.005	
9/7/2022	0.0026 (J)	<0.005				<0.005
9/8/2022			<0.005	<0.005		
9/12/2022					<0.005	
2/1/2023	<0.005	<0.005				
2/2/2023			<0.005	<0.005	<0.005	
2/3/2023						<0.005
9/6/2023				<0.005		
9/7/2023	<0.005	<0.005	<0.005		<0.005	<0.005
Mean	0.004314	0.004297	0.004845	0.004837	0.004763	0.003273
Std. Dev.	0.001206	0.001723	0.0005126	0.0007112	0.001032	0.002101
Upper Lim.	0.0051	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0025	0.00078	0.005	0.0019	0.0005	0.00075

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	<0.005			
12/8/2016	<0.005			
3/30/2017	0.0006 (J)			
3/31/2017		<0.005		0.0239
4/12/2017				0.0077
5/12/2017		<0.005	<0.005	0.0097
6/16/2017		<0.005	<0.005	0.0113
7/13/2017	<0.005	<0.005	<0.005	0.0029 (J)
8/8/2017			<0.005	
10/26/2017	<0.005	<0.005	<0.005	0.114
11/15/2017				0.164
3/2/2018	0.0011 (J)	<0.005	<0.005	0.0127
7/12/2018	<0.005			
7/13/2018		<0.005	<0.005	0.017
11/8/2018	<0.005	<0.005	<0.005 (J)	0.02
8/28/2019	<0.005	<0.005	<0.005	0.025
10/16/2019			<0.005	0.023
10/17/2019		0.00042 (J)		
10/18/2019	<0.005			
3/4/2020	0.00065 (J)			
3/9/2020		<0.005	<0.005	0.029
8/13/2020	<0.005	<0.005	<0.005	0.029
9/23/2020	<0.005	<0.005	<0.005	0.032
3/8/2021	<0.005			
3/10/2021			<0.005	0.028
3/11/2021		0.0008 (J)		
9/14/2021	<0.005			
9/16/2021		<0.005	0.46 (o)	0.023
10/27/2021			0.0016 (J)	
1/19/2022	0.003 (J)	0.0033 (J)		
1/25/2022			<0.005	0.028
9/7/2022	<0.005		<0.005	0.024
9/8/2022		<0.005		
2/1/2023	<0.005		<0.005	0.021
2/2/2023		<0.005		
9/7/2023	<0.005	<0.005	<0.005	0.029
Mean	0.004229	0.004448	0.004821	0.0321
Std. Dev.	0.001602	0.001409	0.00078	0.03726
Upper Lim.	0.005	0.005	0.005	0.03524
Lower Lim.	0.003	0.0033	0.0016	0.01402

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					0.123	0.0333
12/7/2016					0.125	0.0336
3/30/2017					0.11	0.0325
7/13/2017					0.11	0.0332
10/26/2017					0.112	0.0333
3/1/2018					0.102	0.0333
7/12/2018					0.11	0.034
11/8/2018					0.11	0.035
1/30/2019				0.018		
8/28/2019					0.086	0.033
9/11/2019				0.023		
10/18/2019					0.079	0.032
10/21/2019				0.026		
3/9/2020					0.092	0.032
8/13/2020				0.026	0.088	0.032
8/17/2020	0.015					
9/24/2020				0.025	0.094	0.032
9/25/2020	0.022					
12/9/2020		0.03				
3/8/2021	0.022	0.041				
3/11/2021					0.075	0.032
3/12/2021				0.027		
4/15/2021			0.026			
9/9/2021				0.021		
9/13/2021	0.021					
9/15/2021		0.037				0.032
9/16/2021			0.0032 (J)		0.083	
1/19/2022		0.04	0.0034 (J)			
1/20/2022				0.021		
1/21/2022	0.023				0.085	0.031
9/7/2022		0.035	0.0026 (J)			
9/8/2022	0.021			0.018	0.079	
9/12/2022						0.027
2/1/2023		0.036	0.0028 (J)			
2/2/2023	0.098			0.019	0.081	0.03
9/6/2023	0.021				0.082	
9/7/2023		0.035	0.0027 (J)	0.015		0.027
Mean	0.03038	0.03629	0.006783	0.02173	0.09611	0.03201
Std. Dev.	0.02743	0.003638	0.009419	0.003977	0.01592	0.002086
Upper Lim.	0.098	0.04061	0.026	0.02504	0.1054	0.03322
Lower Lim.	0.015	0.03196	0.0026	0.01841	0.08679	0.03113

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016		0.0171			
9/8/2016	0.0978				
12/7/2016	0.0844				
12/8/2016		0.0163			
3/30/2017	0.0858	0.0177			
3/31/2017			0.111		0.0872
5/12/2017			0.127	0.089	0.0929
6/16/2017			0.11	0.0855	0.1
7/13/2017	0.0919	0.017	0.102	0.0859	0.0985
8/8/2017				0.0852	
10/26/2017	0.0899	0.0168	0.105	0.0878	0.136
11/15/2017					0.107
3/1/2018	0.0742				
3/2/2018		0.0169	0.104	0.0878	0.0671
7/12/2018	0.094	0.018			
7/13/2018			0.11	0.091	0.074
11/8/2018	0.1	0.017	0.11	0.092	0.072
8/28/2019	0.099	0.017	0.11	0.089	0.061
10/16/2019				0.089	0.1
10/17/2019			0.1		
10/18/2019	0.1	0.019			
3/4/2020		0.018			
3/9/2020	0.076		0.11	0.088	0.057
8/13/2020	0.089	0.018	0.095	0.088	0.13
9/23/2020		0.019	0.1	0.094	0.055
9/25/2020	0.1				
3/8/2021		0.016			
3/10/2021				0.09	0.048
3/11/2021	0.078		0.11		
9/14/2021		0.027			
9/16/2021			0.088	0.13 (o)	0.078
9/17/2021	0.09				
10/27/2021				0.086	
1/19/2022		0.018	0.091		
1/20/2022	0.093				
1/25/2022				0.1	0.049
9/7/2022	0.099	0.016		0.098	0.065
9/8/2022			0.082		
2/1/2023		0.017		0.099	0.044
2/2/2023			0.08		
2/3/2023	0.087				
9/7/2023	0.11	0.016	0.076	0.11	0.047
Mean	0.09153	0.01778	0.1011	0.09133	0.07844
Std. Dev.	0.009297	0.00241	0.01296	0.006366	0.0272
Upper Lim.	0.09697	0.018	0.1087	0.098	0.09388
Lower Lim.	0.08608	0.0163	0.09352	0.086	0.06299

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-62	DGWC-37	DGWC-38	DGWC-40	DGWC-68A
9/2/2016					0.0028 (J)	
9/8/2016			<0.0005	<0.0005		
10/6/2016		9E-05 (J)				
12/7/2016			<0.0005	<0.0005		
12/8/2016					0.0026 (J)	
3/30/2017			<0.0005	<0.0005	0.003	
5/12/2017						<0.0005
6/16/2017						<0.0005
7/13/2017			<0.0005	<0.0005	0.003 (J)	<0.0005
8/8/2017						<0.0005
10/26/2017			<0.0005	<0.0005	0.0027 (J)	<0.0005
3/1/2018			<0.0005	<0.0005		
3/2/2018					0.0033	<0.0005
7/12/2018			7E-05 (J)	<0.0005	0.0032	
7/13/2018						8.4E-05 (J)
11/8/2018			<0.0005	<0.0005	<0.003 (J)	<0.0005
1/30/2019		<0.0025				
8/28/2019			8.6E-05 (J)	<0.0005	0.0032	<0.0005
9/11/2019		0.00012 (J)				
10/16/2019						<0.0005
10/18/2019			<0.0005	<0.0005	0.0033	
10/21/2019		7.8E-05 (J)				
3/4/2020					0.0039	
3/9/2020			<0.0005	<0.0005		<0.0005
8/13/2020		0.00011 (J)	0.0001 (J)	<0.0005	0.0033	<0.0005
8/17/2020	0.0004 (J)					
9/23/2020					0.0031	<0.0005
9/24/2020		0.00013 (J)	8.8E-05 (J)	5.8E-05 (J)		
9/25/2020	0.00035 (J)					
3/8/2021	0.00046 (J)				0.003	
3/10/2021						6.1E-05 (J)
3/11/2021			<0.0005	<0.0005		
3/12/2021		<0.0025				
9/9/2021		0.00014 (J)				
9/13/2021	0.00053					
9/14/2021					0.0032	
9/15/2021				<0.0005		
9/16/2021			5.9E-05 (J)			<0.0005
1/19/2022					0.0034	
1/20/2022		0.00015 (J)				
1/21/2022	0.00053		5.9E-05 (J)	<0.0005		
1/25/2022						<0.0005
9/7/2022					0.0031	<0.0005
9/8/2022	0.00058	0.00013 (J)	5.7E-05 (J)			
9/12/2022				<0.0005		
2/1/2023					0.0028	<0.0005
2/2/2023	<0.0005	0.00012 (J)	<0.0005	<0.0005		
9/6/2023	0.00054		5.8E-05 (J)			
9/7/2023		0.00011 (J)		<0.0005	0.0031	<0.0005
Mean	0.000455	0.0005148	0.0003198	0.0004767	0.003026	0.000455
Std. Dev.	0.0001135	0.0009275	0.0002173	0.0001014	0.0004689	0.0001348
Upper Lim.	0.0005753	0.0025	0.0005	0.0005	0.0033	0.0005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-62	DGWC-37	DGWC-38	DGWC-40	DGWC-68A
Lower Lim.	0.0003347	9E-05	7E-05	5.8E-05	0.002843	8.4E-05

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-69
3/31/2017	7E-05 (J)
5/12/2017	<0.0005
6/16/2017	<0.0005
7/13/2017	<0.0005
10/26/2017	<0.0005
11/15/2017	<0.0005
3/2/2018	<0.0005
7/13/2018	5.8E-05 (J)
11/8/2018	<0.0005
8/28/2019	<0.0005
10/16/2019	<0.0005
3/9/2020	7.5E-05 (J)
8/13/2020	6.3E-05 (J)
9/23/2020	6.1E-05 (J)
3/10/2021	5E-05 (J)
9/16/2021	<0.0005
1/25/2022	5.9E-05 (J)
9/7/2022	<0.0005
2/1/2023	<0.0005
9/7/2023	7.8E-05 (J)
Mean	0.0003257
Std. Dev.	0.0002191
Upper Lim.	0.0005
Lower Lim.	6.3E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A
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	
5/12/2017					<0.0005	8E-05 (J)
6/16/2017					<0.0005	<0.0005
7/13/2017		<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005
8/8/2017						<0.0005
10/26/2017		<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005
3/1/2018		<0.0005	<0.0005			
3/2/2018				<0.001	<0.0005	<0.0005
7/12/2018		<0.0005	0.00024 (J)	0.00087 (J)		
7/13/2018					<0.0005	0.00019 (J)
11/8/2018		<0.0005	<0.001 (J)	<0.001 (J)	<0.0005	<0.001 (J)
8/28/2019		<0.0005	0.0003 (J)	0.00087 (J)	0.00017 (J)	0.00017 (J)
10/16/2019						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)
8/13/2020		<0.0005	0.00021 (J)	0.00084 (J)	0.00015 (J)	0.00021 (J)
8/17/2020	0.00059 (J)					
9/23/2020				0.0008 (J)	0.00018 (J)	0.00024 (J)
9/24/2020		0.00027 (J)	0.00081 (J)			
9/25/2020	0.00027 (J)					
3/8/2021	0.00027 (J)			0.00072		
3/10/2021						<0.0005
3/11/2021		<0.0005	<0.0005		0.00053	
9/13/2021	0.00029 (J)					
9/14/2021				0.00086		
9/15/2021			0.00021 (J)			
9/16/2021		0.00013 (J)			<0.0005	<0.0005
1/19/2022				0.00085	<0.0005	
1/21/2022	0.00059	<0.0005	0.0002 (J)			
1/25/2022						0.00035 (J)
9/7/2022				0.00081		0.0002 (J)
9/8/2022	0.00027 (J)	<0.0005			<0.0005	
9/12/2022			0.00013 (J)			
2/1/2023				0.00063		<0.0005
2/2/2023	<0.0005	<0.0005	<0.0005		<0.0005	
9/6/2023	0.00035 (J)	<0.0005				
9/7/2023			0.00013 (J)	0.00074	<0.0005	0.00015 (J)
Mean	0.00036	0.0004105	0.0003189	0.0007684	0.0004337	0.0003695
Std. Dev.	0.000145	0.0001577	0.0002401	0.0001204	0.0001365	0.0002187
Upper Lim.	0.00059	0.0005	0.0005	0.0008391	0.00053	0.0002339
Lower Lim.	0.00025	0.0002	0.00017	0.0007101	0.00021	0.0001464

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-69
3/31/2017	0.0001 (J)
5/12/2017	0.0002 (J)
6/16/2017	0.0002 (J)
7/13/2017	<0.0005
10/26/2017	<0.0005
11/15/2017	<0.0005
3/2/2018	<0.0005
7/13/2018	<0.0005
11/8/2018	<0.0005
8/28/2019	<0.0005
10/16/2019	0.00017 (J)
3/9/2020	<0.0005
8/13/2020	<0.0005
9/23/2020	<0.0005
3/10/2021	<0.0005
9/16/2021	<0.0005
1/25/2022	<0.0005
9/7/2022	<0.0005
2/1/2023	<0.0005
9/7/2023	<0.0005
Mean	0.0004335
Std. Dev.	0.0001377
Upper Lim.	0.0005
Lower Lim.	0.0002

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					<0.005	<0.005
12/7/2016					<0.005	<0.005
3/30/2017					<0.005	<0.005
7/13/2017					<0.005	<0.005
10/26/2017					0.0007 (J)	0.0005 (J)
3/1/2018					<0.005	<0.005
7/12/2018					<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		
10/18/2019					<0.005	0.00092 (J)
10/21/2019				0.00098 (J)		
3/9/2020					<0.005	0.00044 (J)
8/13/2020				<0.005	0.00058 (J)	<0.005
8/17/2020	<0.005					
9/24/2020				<0.005	<0.005	<0.005
9/25/2020	0.00094 (J)					
12/9/2020		<0.005				
3/8/2021	0.00057 (J)	<0.005				
3/11/2021					<0.005	<0.005
3/12/2021				<0.005		
4/15/2021			0.00085 (J)			
9/9/2021				<0.005		
9/13/2021	<0.005					
9/15/2021		0.0012 (J)				<0.005
9/16/2021			0.0014 (J)		<0.005	
1/19/2022		<0.005	<0.005			
1/20/2022				<0.005		
1/21/2022	<0.005				<0.005	<0.005
9/7/2022		<0.005	<0.005			
9/8/2022	<0.005			<0.005	<0.005	
9/12/2022						<0.005
2/1/2023		<0.005	<0.005			
2/2/2023	<0.005			<0.005	<0.005	<0.005
9/6/2023	<0.005				<0.005	
9/7/2023		<0.005	<0.005	<0.005		<0.005
Mean	0.003939	0.004457	0.003708	0.004635	0.004541	0.004308
Std. Dev.	0.001968	0.001436	0.002009	0.001212	0.001375	0.001643
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00057	0.0012	0.00085	0.005	0.0007	0.00092

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	<0.005			
12/8/2016	<0.005			
3/30/2017	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	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017			<0.005	
10/26/2017	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017				<0.005
3/2/2018	<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005			
7/13/2018		<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005
8/28/2019	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	0.00078 (J)			
3/4/2020	0.0011 (J)			
3/9/2020		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00072 (J)	<0.005	<0.005	<0.005
9/23/2020	0.0011 (J)	<0.005	<0.005	0.0011 (J)
3/8/2021	0.0006 (J)			
3/10/2021			<0.005	0.0009 (J)
3/11/2021		0.0014 (J)		
9/14/2021	0.0021 (J)			
9/16/2021		<0.005	0.0014 (Jo)	<0.005
10/27/2021			<0.005	
1/19/2022	<0.005	<0.005		
1/25/2022			<0.005	0.0013 (J)
9/7/2022	<0.005		<0.005	<0.005
9/8/2022		<0.005		
2/1/2023	<0.005		<0.005	<0.005
2/2/2023		<0.005		
9/7/2023	<0.005	<0.005	<0.005	<0.005
Mean	0.002843	0.004131	0.004763	0.003999
Std. Dev.	0.002128	0.001737	0.001032	0.001784
Upper Lim.	0.005	0.005	0.005	0.005
Lower Lim.	0.0007	0.0014	0.0005	0.0013

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					<0.005	0.0015 (J)
12/7/2016					0.0005 (J)	0.0017 (J)
3/30/2017					<0.005	0.0016 (J)
7/13/2017					0.0003 (J)	0.0016 (J)
10/26/2017					0.0003 (J)	0.0016 (J)
3/1/2018					<0.005	<0.01
7/12/2018					<0.005	0.0015 (J)
11/8/2018					<0.005	<0.01 (J)
1/30/2019				<0.005		
8/28/2019					<0.005	0.0016 (J)
9/11/2019				0.0003 (J)		
10/18/2019					<0.005	0.0016 (J)
10/21/2019				0.00031 (J)		
3/9/2020					<0.005	0.0016 (J)
7/23/2020	0.086					
8/3/2020	0.087					
8/13/2020				<0.005	<0.005	0.0014 (J)
8/17/2020	0.077					
9/24/2020				<0.005	<0.005	0.0013 (J)
9/25/2020	0.034					
12/9/2020		0.012				
3/8/2021	0.029	0.0042 (J)				
3/11/2021					<0.005	0.0017 (J)
3/12/2021				<0.005		
4/15/2021			0.0025 (J)			
9/9/2021				<0.005		
9/13/2021	0.035					
9/15/2021		0.0065				0.0016 (J)
9/16/2021			0.00054 (J)		<0.005	
1/19/2022		0.006	<0.005			
1/20/2022				<0.005		
1/21/2022	0.034				<0.005	0.0017 (J)
9/7/2022		0.004 (J)	<0.005			
9/8/2022	0.028			<0.005	<0.005	
9/9/2022				<0.005		
9/12/2022						0.0014 (J)
2/1/2023		0.004 (J)	<0.005			
2/2/2023	<0.005			<0.005	<0.005	0.0017 (J)
9/6/2023	0.031				<0.005	
9/7/2023		0.0027 (J)	0.0004 (J)	<0.005		0.0015 (J)
Mean	0.04435	0.005629	0.003073	0.004217	0.004268	0.001926
Std. Dev.	0.02859	0.003093	0.002237	0.001828	0.001736	0.001089
Upper Lim.	0.07002	0.009078	0.005	0.005	0.005	0.0017
Lower Lim.	0.01754	0.00257	0.0004	0.00031	0.0005	0.0015

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016		0.0382			
9/8/2016	0.0068 (J)				
12/7/2016	0.0071 (J)				
12/8/2016		0.0318			
3/30/2017	0.006 (J)	0.0364			
3/31/2017			0.0064 (J)		0.0022 (J)
5/12/2017			0.0037 (J)	0.0015 (J)	0.0016 (J)
6/16/2017			0.0041 (J)	0.0003 (J)	0.0009 (J)
7/13/2017	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)	0.0004 (J)
8/8/2017				<0.005	
10/26/2017	0.0062 (J)	0.0371	0.0022 (J)	<0.005	0.0031 (J)
11/15/2017					0.0028 (J)
3/1/2018	<0.01				
3/2/2018		0.0425	<0.01	<0.005	<0.005
7/12/2018	0.0059 (J)	0.044			
7/13/2018			0.0017 (J)	<0.005	<0.005
11/8/2018	<0.01 (J)	0.036	<0.01 (J)	<0.005	<0.005
8/28/2019	0.0067	0.044	0.0013 (J)	<0.005	<0.005
10/16/2019				<0.005	<0.005
10/17/2019			0.0013 (J)		
10/18/2019	0.007	0.043			
3/4/2020		0.055			
3/9/2020	0.007		0.0015 (J)	<0.005	<0.005
8/13/2020	0.006	0.044	0.0015 (J)	<0.005	<0.005
9/23/2020		0.046	0.0011 (J)	<0.005	<0.005
9/25/2020	0.0061				
3/8/2021		0.039			
3/10/2021				<0.005	<0.005
3/11/2021	0.0058		0.0016 (J)		
9/14/2021		0.05			
9/16/2021			0.0012 (J)	0.0032 (Jo)	<0.005
9/17/2021	0.0076				
10/27/2021				<0.005	
1/19/2022		0.042	0.0011 (J)		
1/20/2022	0.0061				
1/25/2022				<0.005	<0.005
9/7/2022	0.0065	0.037		<0.005	<0.005
9/8/2022			0.001 (J)		
2/1/2023		0.035		<0.005	<0.005
2/2/2023			0.0014 (J)		
2/3/2023	0.005				
9/7/2023	0.0059	0.035	0.001 (J)	<0.005	<0.005
Mean	0.006211	0.04081	0.002411	0.004332	0.00405
Std. Dev.	0.0007272	0.005696	0.001679	0.0016	0.001586
Upper Lim.	0.006636	0.04415	0.0041	0.005	0.005
Lower Lim.	0.005785	0.03748	0.0012	0.0015	0.0028

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-62	DGWC-37	DGWC-38	DGWC-39
9/8/2016				0.827 (U)	1.48	1.44
12/7/2016				0.56 (U)	0.22 (U)	2.16
3/30/2017				0.302 (U)	0.519 (U)	0.264 (U)
7/13/2017				0.731 (U)	1.11	0.517 (U)
10/26/2017				1.04 (U)	1.13 (U)	0.875 (U)
3/1/2018				0.344 (U)	0.985 (U)	1.24
7/12/2018				0.566 (U)	0.615 (U)	0.935 (U)
11/8/2018				0.623 (U)	0.58 (U)	1.15 (U)
1/30/2019			1.97 (U)			
8/28/2019				1.24 (U)	0.517 (U)	1.15 (U)
10/21/2019			1.82			
1/6/2020				2.01	0.527 (U)	1.4
3/9/2020				0.499 (U)	1.04	1.36
8/13/2020			1.63	0.99	0.132 (U)	0.626 (U)
8/17/2020	1.4 (U)					
9/24/2020			1.28 (U)	1.03 (U)	0.593 (U)	
9/25/2020	0.799 (U)					0.181 (U)
12/9/2020		1.25 (U)				
3/8/2021	0.168 (U)	1.87				
3/11/2021				0.956 (U)	0.0784 (U)	0.969 (U)
3/12/2021			1.18 (U)			
9/9/2021			1.7			
9/13/2021	0.774 (U)					
9/15/2021		2.01			2.37	
9/16/2021				0.691 (U)		
9/17/2021						0.911 (U)
1/19/2022		2.45				
1/20/2022			1.71			0.172 (U)
1/21/2022	0.769 (U)			0.343 (U)	0.0873 (U)	
9/8/2022	0.643 (U)					
9/9/2022			1.96			
2/1/2023		6.88				
2/2/2023	0.981		1.6	1.23	0.462 (U)	
2/3/2023						0.878 (U)
9/6/2023	0.326 (U)			0.732 (U)		
9/7/2023		2.88	2.24		0.358 (U)	0.728 (U)
Mean	0.7325	2.89	1.709	0.8174	0.7113	0.942
Std. Dev.	0.3792	2.031	0.3175	0.4151	0.572	0.5006
Upper Lim.	1.134	5.526	1.992	1.069	0.9592	1.245
Lower Lim.	0.3305	0.832	1.426	0.5663	0.3387	0.6391

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	1.44			
12/8/2016	2.56			
3/30/2017	0.0844 (U)			
3/31/2017		0.404 (U)		1.39
5/12/2017		0.206 (U)	1.18	1.29
6/16/2017		0.966 (U)	0.332 (U)	1.61
7/13/2017	0.963 (U)	0.387 (U)	0.304 (U)	1.14
8/8/2017			1.4	
10/26/2017	0.748 (U)	0.619 (U)	0.477 (U)	2.04
11/15/2017				1.99
3/2/2018	0.485 (U)	1.31	1.13	0.918 (U)
7/12/2018	0.231 (U)			
7/13/2018		0.667 (U)	0.407 (U)	1.36 (U)
11/8/2018	0.465 (U)	0.911 (U)	0.393 (U)	0.719 (U)
8/28/2019	0.592 (U)	0.751 (U)	1.77	1.38
10/16/2019			2.12	0.826 (U)
1/6/2020	1.6	0.965 (U)		
3/4/2020	1.62			
3/9/2020		0.819 (U)	1.33	1.39
8/13/2020	1.6	0.897 (U)	1.46	2.66
9/23/2020	1.28 (U)	0.131 (U)	0.563 (U)	1.8
3/8/2021	0.714 (U)			
3/10/2021			0.568 (U)	1.6
3/11/2021		1.55		
9/14/2021	1.8			
9/16/2021		0.201 (U)	1.74	2.06
1/19/2022	1.7	0.853 (U)		
1/25/2022			0.323 (U)	0.834 (U)
2/1/2023	0.603 (U)		1.37	1.85
2/2/2023		0.498 (U)		
9/7/2023	0.902 (U)	0.565 (U)	0.782 (U)	0.91
Mean	1.077	0.7056	0.9805	1.461
Std. Dev.	0.6551	0.3779	0.5872	0.5177
Upper Lim.	1.473	0.9342	1.336	1.765
Lower Lim.	0.6808	0.4769	0.6252	1.158

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					0.08 (J)	0.1 (J)
12/7/2016					0.21 (J)	0.27 (J)
3/30/2017					0.05 (J)	0.12 (J)
7/13/2017					0.06 (J)	0.13 (J)
10/26/2017					0.08 (J)	0.47
3/1/2018					0.22	<0.3
7/12/2018					0.32	0.23 (J)
11/8/2018					<0.3	<0.3
1/30/2019				0.43		
3/13/2019					0.08 (J)	0.084 (J)
8/28/2019					0.074 (J)	0.066 (J)
10/18/2019					0.075 (J)	0.073 (J)
10/21/2019				0.23 (J)		
3/9/2020					0.054 (J)	0.064 (J)
8/13/2020				0.11	0.068 (J)	0.06 (J)
8/17/2020	<0.1					
9/24/2020				0.093 (J)	0.061 (J)	0.057 (J)
9/25/2020	<0.1					
12/9/2020		0.075 (J)				
3/8/2021	<0.1	0.32				
3/11/2021					0.057 (J)	0.058 (J)
3/12/2021				0.11		
4/15/2021			0.3			
9/9/2021				0.14		
9/13/2021	<0.1					
9/15/2021		0.078 (J)				0.06 (J)
9/16/2021			0.34		0.084 (J)	
1/19/2022		0.058 (J)	0.25			
1/20/2022				0.099 (J)		
1/21/2022	<0.1				0.053 (J)	0.1
9/7/2022		0.11	0.27			
9/8/2022	0.072 (J)			0.13	0.082 (J)	
9/12/2022						0.12
2/1/2023		0.089 (J)	0.3			
2/2/2023	0.052 (J)			0.16	0.089 (J)	0.1
9/6/2023	<0.1				0.053 (J)	
9/7/2023		0.1	0.32	0.13		0.072 (J)
Mean	0.0905	0.1186	0.2967	0.1632	0.1	0.1267
Std. Dev.	0.01838	0.09044	0.03266	0.1017	0.07094	0.09899
Upper Lim.	0.1	0.32	0.3415	0.23	0.089	0.1456
Lower Lim.	0.052	0.058	0.2518	0.099	0.057	0.07595

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016		0.5			
9/8/2016	0.17 (J)				
12/7/2016	0.33				
12/8/2016		0.35			
3/30/2017	0.17 (J)	0.21 (J)			
3/31/2017			0.02 (J)		0.16 (J)
5/12/2017			<0.1	0.37	0.12 (J)
6/16/2017			0.03 (J)	0.12 (J)	0.16 (J)
7/13/2017	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)	0.13 (J)
8/8/2017				0.11 (J)	
10/26/2017	0.54	0.5	<0.1	0.11 (J)	0.29 (J)
11/15/2017					0.28 (J)
3/1/2018	0.13				
3/2/2018		0.33	<0.1	0.23	0.18
7/12/2018	0.13 (J)	0.57			
7/13/2018			0.25 (J)	0.099 (J)	0.19 (J)
11/8/2018	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)	<0.3 (J)
3/13/2019	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)	0.086 (J)
8/28/2019	0.086 (J)	0.14	<0.1	0.1	0.07 (J)
10/16/2019				0.093 (J)	0.13 (J)
10/17/2019			0.038 (J)		
10/18/2019	0.14 (J)	0.13 (J)			
3/4/2020		0.11 (J)			
3/9/2020	0.075 (J)		<0.1	0.082 (J)	0.068 (J)
8/13/2020	0.076 (J)	0.16	<0.1	0.076 (J)	0.084 (J)
9/23/2020		0.054 (J)	<0.1	0.07 (J)	0.064 (J)
9/25/2020	0.086 (J)				
3/8/2021		0.17			
3/10/2021				0.07 (J)	0.055 (J)
3/11/2021	0.083 (J)		<0.1		
9/14/2021		0.13			
9/16/2021			0.069 (J)	0.55	0.11
9/17/2021	0.13				
1/19/2022		0.12	<0.1		
1/20/2022	0.1				
1/25/2022				0.067 (J)	0.054 (J)
9/7/2022	0.11	0.14		0.11	0.11
9/8/2022			0.096 (J)		
2/1/2023		0.15		0.11	0.1
2/2/2023			0.068 (J)		
2/3/2023	0.12				
9/7/2023	0.092 (J)	0.14	<0.1	0.096 (J)	0.063 (J)
Mean	0.1472	0.2202	0.1086	0.1427	0.1264
Std. Dev.	0.1083	0.1477	0.1036	0.1178	0.06696
Upper Lim.	0.15	0.258	0.1	0.15	0.155
Lower Lim.	0.086	0.132	0.068	0.082	0.0876

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	DGWC-37	DGWC-38	DGWC-39
9/8/2016				<0.001	<0.001	<0.001
12/7/2016				<0.001	<0.001	<0.001
3/30/2017				0.0014 (J)	<0.001	<0.001
7/13/2017				<0.001	<0.001	<0.001
10/26/2017				<0.001	0.0001 (J)	<0.001
3/1/2018				<0.001	<0.001	<0.001
7/12/2018				<0.001	<0.001	<0.001
11/8/2018				<0.001	<0.001	<0.001
8/28/2019				6.1E-05 (J)	<0.001	8E-05 (J)
10/18/2019				<0.001	7.4E-05 (J)	<0.001
3/9/2020				<0.001	6.1E-05 (J)	<0.001
8/13/2020				<0.001	<0.001	<0.001
8/17/2020	8.8E-05 (J)					
9/24/2020				<0.001	0.00014 (J)	
9/25/2020	0.00021 (J)					0.00022 (J)
12/9/2020		5.2E-05 (J)				
3/8/2021	0.00018 (J)	<0.001				
3/11/2021				<0.001	0.00014 (J)	<0.001
4/15/2021			0.00014 (J)			
9/13/2021	<0.001					
9/15/2021		<0.001			<0.001	
9/16/2021			<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	<0.001	
9/7/2022		<0.001	<0.001			<0.001
9/8/2022	<0.001			<0.001		
9/12/2022					<0.001	
2/1/2023		<0.001	<0.001			
2/2/2023	<0.001			<0.001	<0.001	
2/3/2023						<0.001
9/6/2023	<0.001			<0.001		
9/7/2023		<0.001	<0.001		<0.001	<0.001
Mean	0.0006848	0.0008646	0.0008567	0.0009716	0.0007639	0.0009105
Std. Dev.	0.0004364	0.0003583	0.0003511	0.0002388	0.0004062	0.000269
Upper Lim.	0.001	0.001	0.001	0.0014	0.001	0.001
Lower Lim.	8.8E-05	5.2E-05	0.00014	6.1E-05	0.00014	0.00022

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals
Plant McDonough Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	<0.001			
12/8/2016	<0.001			
3/30/2017	7E-05 (J)			
3/31/2017		<0.001		<0.001
5/12/2017		9E-05 (J)	<0.001	0.0001 (J)
6/16/2017		<0.001	<0.001	<0.001
7/13/2017	<0.001	<0.001	<0.001	<0.001
8/8/2017			<0.001	
10/26/2017	7E-05 (J)	<0.001	<0.001	<0.001
11/15/2017				9E-05 (J)
3/2/2018	<0.001	<0.001	<0.001	<0.001
7/12/2018	<0.001			
7/13/2018		<0.001	<0.001	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001
8/28/2019	8.1E-05 (J)	<0.001	<0.001	<0.001
10/16/2019			<0.001	<0.001
10/17/2019		<0.001		
10/18/2019	0.00015 (J)			
3/4/2020	0.00017 (J)			
3/9/2020		4.7E-05 (J)	<0.001	9E-05 (J)
8/13/2020	4.9E-05 (J)	5.6E-05 (J)	<0.001	5.9E-05 (J)
9/23/2020	0.00028 (J)	<0.001	0.00035 (J)	0.00017 (J)
3/8/2021	5.4E-05 (J)			
3/10/2021			6.7E-05 (J)	0.0001 (J)
3/11/2021		0.00025 (J)		
9/14/2021	<0.001			
9/16/2021		<0.001	<0.001	<0.001
1/19/2022	<0.001	<0.001		
1/25/2022			<0.001	<0.001
9/7/2022	<0.001		<0.001	<0.001
9/8/2022		<0.001		
2/1/2023	<0.001		<0.001	<0.001
2/2/2023		<0.001		
9/7/2023	<0.001	<0.001	<0.001	0.0002 (J)
Mean	0.0006276	0.0008128	0.0009167	0.0006905
Std. Dev.	0.0004514	0.0003745	0.000254	0.0004337
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	8.1E-05	0.00025	0.00035	0.0001

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					<0.05	0.0032 (J)
12/7/2016					<0.05	0.0035 (J)
3/30/2017					0.0029 (J)	0.0035 (J)
7/13/2017					<0.05	0.0032 (J)
10/26/2017					0.0018 (J)	0.0034 (J)
3/1/2018					0.0024 (J)	0.0033 (J)
7/12/2018					0.0028 (J)	0.0034 (J)
11/8/2018					<0.05	<0.05
1/30/2019				<0.05		
8/28/2019					0.0025 (J)	0.0034 (J)
9/11/2019				0.0078 (J)		
10/18/2019					0.0026 (J)	0.0032 (J)
10/21/2019				0.0078 (J)		
3/9/2020					0.0017 (J)	0.0033 (J)
8/13/2020				0.0087 (J)	0.0023 (J)	0.0028 (J)
8/17/2020	0.0013 (J)					
9/24/2020				0.0084 (J)	0.0021 (J)	0.0029 (J)
9/25/2020	0.0027 (J)					
12/9/2020		0.014 (J)				
3/8/2021	0.0024 (J)	0.015 (J)				
3/11/2021					0.0024 (J)	0.003 (J)
3/12/2021				0.0087 (J)		
4/15/2021			0.0045 (J)			
9/9/2021				0.0094 (J)		
9/13/2021	0.0022 (J)					
9/15/2021		0.014 (J)				0.0029 (J)
9/16/2021			0.0038 (J)		0.0021 (J)	
1/19/2022		0.013 (J)	0.0044 (J)			
1/20/2022				0.0092 (J)		
1/21/2022	0.0021 (J)				0.002 (J)	0.0025 (J)
9/7/2022		0.013 (J)	0.0039 (J)			
9/8/2022	0.0023 (J)			0.0085 (J)	0.0019 (J)	
9/12/2022						0.003 (J)
2/1/2023		0.013 (J)	0.0038 (J)			
2/2/2023	<0.03			0.0082 (J)	0.0018 (J)	0.0026 (J)
9/6/2023	0.0023 (J)				0.0021 (J)	
9/7/2023		0.013 (J)	0.0043 (J)	0.0092 (J)		0.0026 (J)
Mean	0.003787	0.01357	0.004117	0.01008	0.01228	0.004247
Std. Dev.	0.004548	0.0007868	0.0003189	0.004977	0.02001	0.005035
Upper Lim.	0.015	0.015	0.004555	0.0094	0.0029	0.0034
Lower Lim.	0.0013	0.013	0.003679	0.0078	0.0019	0.0028

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	0.0022 (J)			
12/8/2016	<0.05			
3/30/2017	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	0.0023 (J)	0.0044 (J)	<0.03	0.0029 (J)
8/8/2017			<0.03	
10/26/2017	0.0021 (J)	0.0043 (J)	<0.03	0.0034 (J)
11/15/2017				0.0034 (J)
3/2/2018	0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0022 (J)			
7/13/2018		0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.05	<0.05	<0.03	<0.05
8/28/2019	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	0.0024 (J)			
3/4/2020	0.0027 (J)			
3/9/2020		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	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)
3/8/2021	0.0022 (J)			
3/10/2021			<0.03	0.0023 (J)
3/11/2021		0.005 (J)		
9/14/2021	0.003 (J)			
9/16/2021		0.0044 (J)	0.00082 (J)	0.0023 (J)
1/19/2022	0.0024 (J)	0.0046 (J)		
1/25/2022			<0.03	0.0026 (J)
9/7/2022	0.0023 (J)		<0.03	0.0025 (J)
9/8/2022		0.0048 (J)		
2/1/2023	0.0021 (J)		<0.03	0.0021 (J)
2/2/2023		0.0048 (J)		
9/7/2023	0.0022 (J)	0.0046 (J)	<0.03	0.0022 (J)
Mean	0.0047	0.005732	0.02697	0.00384
Std. Dev.	0.007157	0.004677	0.009078	0.004997
Upper Lim.	0.0027	0.005	0.03	0.0032
Lower Lim.	0.0022	0.0044	0.0016	0.0023

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	DGWC-37	DGWC-38	DGWC-39	DGWC-40
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)
7/13/2017			<0.0002	<0.0002	<0.0002	<0.0002
10/26/2017			<0.0002	<0.0002	<0.0002	<0.0002
3/1/2018			<0.0002	<0.0002	<0.0002	
3/2/2018						<0.0002
7/12/2018			4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)
11/8/2018			<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019			<0.0002	<0.0002	<0.0002	<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	
8/13/2020			<0.0002	<0.0002	<0.0002	<0.0002
8/17/2020	0.00011 (J)					
9/23/2020						<0.0002
9/24/2020			9.1E-05 (J)	8.5E-05 (J)		
9/25/2020	<0.0002				<0.0002	
12/9/2020		8.7E-05 (J)				
9/13/2021	<0.0002					
9/14/2021						<0.0002
9/15/2021		<0.0002		<0.0002		
9/16/2021			<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	<0.0002		
9/7/2022		0.00014 (J)			<0.0002	<0.0002
9/8/2022	<0.0002		<0.0002			
9/12/2022				<0.0002		
2/1/2023		<0.0002				<0.0002
2/2/2023	<0.0002		<0.0002	<0.0002		
2/3/2023					<0.0002	
9/6/2023	<0.0002		<0.0002			
9/7/2023		<0.0002		<0.0002	<0.0002	<0.0002
Mean	0.0001871	0.0001712	0.0001775	0.0001775	0.0001922	0.0001766
Std. Dev.	3.402E-05	4.771E-05	5.241E-05	5.236E-05	3.323E-05	5.456E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.00011	8.7E-05	9.1E-05	8.5E-05	5.9E-05	9E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-67	DGWC-68A	DGWC-69
3/31/2017	<0.0002		<0.0002
5/12/2017	<0.0002	<0.0002	<0.0002
6/16/2017	7E-05 (J)	7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<0.0002	<0.0002
8/8/2017		<0.0002	
10/26/2017	<0.0002	<0.0002	<0.0002
11/15/2017			<0.0002
3/2/2018	<0.0002	<0.0002	<0.0002
7/13/2018	<0.0002	<0.0002	<0.0002
11/8/2018	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002	<0.0002	<0.0002
10/16/2019		<0.0002	<0.0002
10/17/2019	<0.0002		
3/9/2020	<0.0002	<0.0002	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002
9/23/2020	<0.0002	<0.0002	<0.0002
9/16/2021	<0.0002	<0.0002	<0.0002
1/19/2022	<0.0002		
1/25/2022		<0.0002	<0.0002
9/7/2022		<0.0002	<0.0002
9/8/2022	<0.0002		
2/1/2023		<0.0002	<0.0002
2/2/2023	<0.0002		
9/7/2023	<0.0002	<0.0002	<0.0002
Mean	0.0001928	0.0001928	0.0001932
Std. Dev.	3.064E-05	3.064E-05	2.982E-05
Upper Lim.	0.0002	0.0002	0.0002
Lower Lim.	7E-05	7E-05	7E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	B-105D	B-112D	DGWC-38	DGWC-39	DGWC-67
9/8/2016				<0.01	<0.01	
12/7/2016				<0.01	<0.01	
3/30/2017				0.0011 (J)	<0.01	
3/31/2017						<0.01
5/12/2017						<0.01
6/16/2017						<0.01
7/13/2017				0.0012 (J)	<0.01	<0.01
10/26/2017				0.0011 (J)	<0.01	<0.01
3/1/2018				<0.01	<0.01	
3/2/2018						<0.01
7/12/2018				<0.01	<0.01	
7/13/2018						<0.01
11/8/2018				<0.01	<0.01	<0.01
8/28/2019				<0.01	<0.01	<0.01
10/17/2019						<0.01
10/18/2019				<0.01	<0.01	
3/9/2020				0.001 (J)	<0.01	<0.01
8/13/2020				0.00098 (J)	<0.01	<0.01
8/17/2020	<0.01					
9/23/2020						<0.01
9/24/2020				0.001 (J)		
9/25/2020	<0.01				<0.01	
12/9/2020		<0.01				
3/8/2021	<0.01	0.0011 (J)				
3/11/2021				0.00092 (J)	<0.01	<0.01
4/15/2021			0.037			
9/13/2021	<0.01					
9/15/2021		<0.01		0.00099 (J)		
9/16/2021			0.032			<0.01
9/17/2021					<0.01	
1/19/2022		<0.01	0.032			<0.01
1/20/2022					<0.01	
1/21/2022	<0.01			0.0013 (J)		
9/7/2022		<0.01	0.028		<0.01	
9/8/2022	<0.01					<0.01
9/12/2022				0.0012 (J)		
2/1/2023		<0.01	0.03			
2/2/2023	0.19			0.0015 (J)		<0.01
2/3/2023					<0.01	
9/6/2023	<0.01					
9/7/2023		<0.01	0.026	0.0013 (J)	0.0016 (J)	0.0013 (J)
Mean	0.0325	0.008729	0.03083	0.004399	0.009558	0.009542
Std. Dev.	0.06364	0.003364	0.003817	0.004397	0.001927	0.001996
Upper Lim.	0.19	0.01	0.03608	0.01	0.01	0.01
Lower Lim.	0.01	0.0011	0.02559	0.001	0.0016	0.0013

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	DGWC-68A	DGWC-69
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)
8/28/2019	0.21	0.0059 (J)
10/16/2019	0.22	0.01
3/9/2020	0.19	0.0062 (J)
8/13/2020	0.19	0.011
9/23/2020	0.2	0.0056 (J)
3/10/2021	0.2	0.0056 (J)
9/16/2021	0.18	0.009 (J)
1/25/2022	0.23	0.0057 (J)
9/7/2022	0.2	0.0067 (J)
2/1/2023	0.19	0.0058 (J)
9/7/2023	0.18	0.0056 (J)
Mean	0.2071	0.009125
Std. Dev.	0.02205	0.005584
Upper Lim.	0.2185	0.011
Lower Lim.	0.1943	0.0056

Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

Plant McDonough Data: McDonough AP

	B-100	DGWC-38	DGWC-40	DGWC-67	DGWC-68A
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	0.0019 (J)		0.0023 (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
9/7/2022			0.0018 (J)		<0.005
9/8/2022	<0.005			<0.005	
9/12/2022		<0.005			
2/1/2023			<0.005		<0.005
2/2/2023	<0.005	<0.005		<0.005	
9/6/2023	<0.005				
9/7/2023		<0.005	<0.005	<0.005	<0.005
Mean	0.004612	0.004837	0.003732	0.004879	0.004826
Std. Dev.	0.001096	0.0007112	0.002192	0.0005277	0.0007571
Upper Lim.	0.005	0.005	0.003057	0.005	0.005
Lower Lim.	0.0019	0.0019	0.001861	0.0027	0.0017

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals

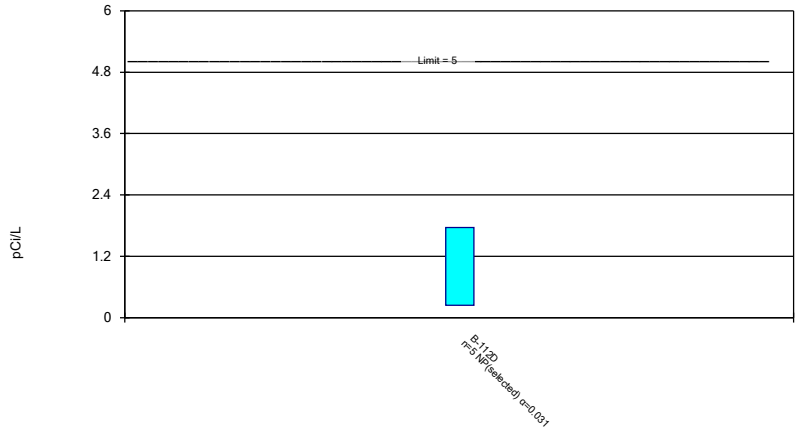
Plant McDonough Data: McDonough AP

	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
9/7/2022		<0.001	<0.001	<0.001
9/12/2022	<0.001			
2/1/2023			<0.001	<0.001
2/2/2023	<0.001			
2/3/2023		<0.001		
9/7/2023	<0.001	<0.001	<0.001	<0.001
Mean	0.0006321	0.0007595	0.0007541	0.0009553
Std. Dev.	0.0004436	0.0004136	0.0004227	0.000195
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.00014	0.0001	7E-05	0.00015

ND substitution: RL or RL/2 if <15% NDs.

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Normality testing disabled.

Constituent: Combined Radium 226 + 228 Analysis Run 11/22/2023 12:03 PM View: AP 1 Confidence Inte

Plant McDonough Data: McDonough AP

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/22/2023 12:06 PM View: AP 1 Confidence Intervals Nonparametric

Plant McDonough Data: McDonough AP

	B-112D
4/15/2021	0.945 (U)
9/16/2021	0.241 (U)
1/19/2022	0.738 (U)
2/1/2023	1.76
9/7/2023	0.902
Mean	0.9172
Std. Dev.	0.5479
Upper Lim.	1.76
Lower Lim.	0.241

FIGURE I.

Appendix IV Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/21/2023, 4:51 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	**DGWC-69**	**0.002458**	**67**	**66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.003507**	**-107**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**55**	**53**	**Yes**	**18**	**72.22**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	**DGWC-68A**	**-0.005078**	**-63**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Appendix IV Trend Tests - All Results

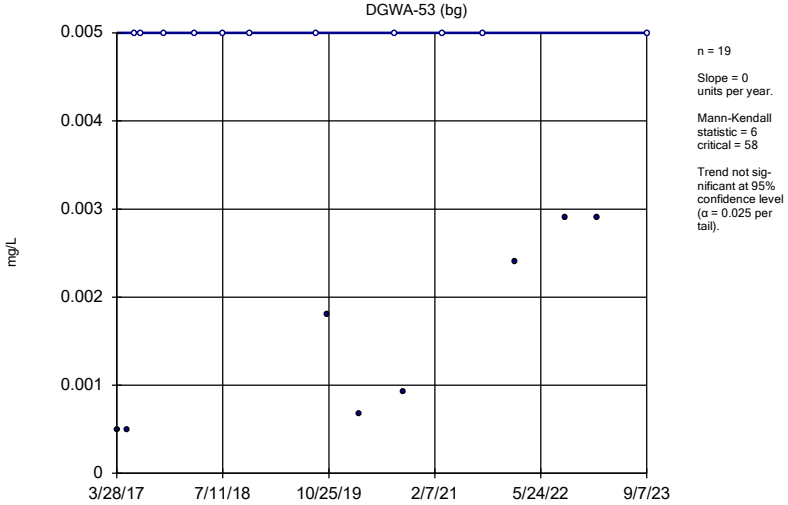
Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/21/2023, 4:51 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	6	58	No	19	57.89	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-25	-58	No	19	84.21	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	26	53	No	18	83.33	n/a	n/a	0.05	NP
Arsenic (mg/L)	**DGWC-69**	**0.002458**	**67**	**66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.003507**	**-107**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWA-70A (bg)	0	45	58	No	19	57.89	n/a	n/a	0.05	NP
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**55**	**53**	**Yes**	**18**	**72.22**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWC-40	0.00052	15	58	No	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-53 (bg)	-0.001775	-56	-58	No	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	58	No	19	100	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	17	53	No	18	94.44	n/a	n/a	0.05	NP
Molybdenum (mg/L)	**DGWC-68A**	**-0.005078**	**-63**	**-58**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-53 (bg)



n = 19

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 58

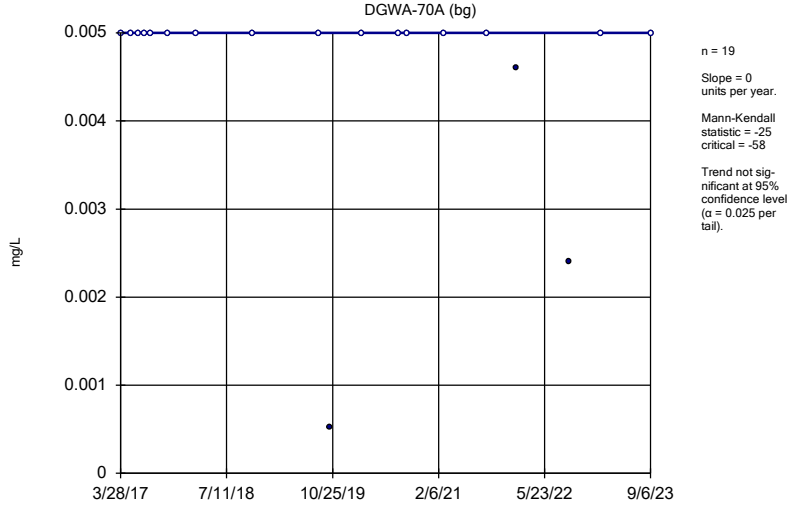
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 19

Slope = 0 units per year.

Mann-Kendall statistic = -25
critical = -58

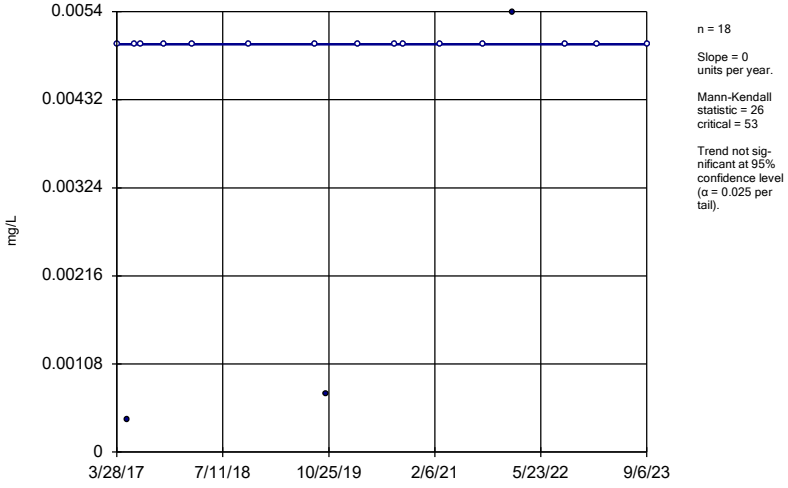
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 26
critical = 53

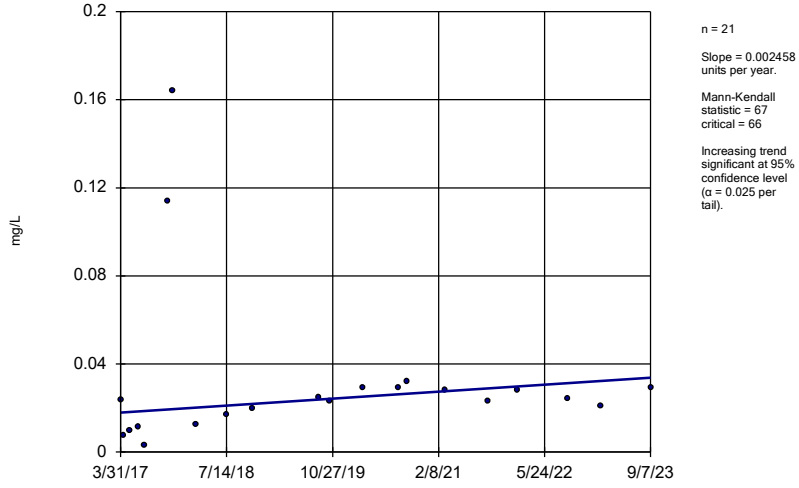
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.10 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-69



n = 21

Slope = 0.002458 units per year.

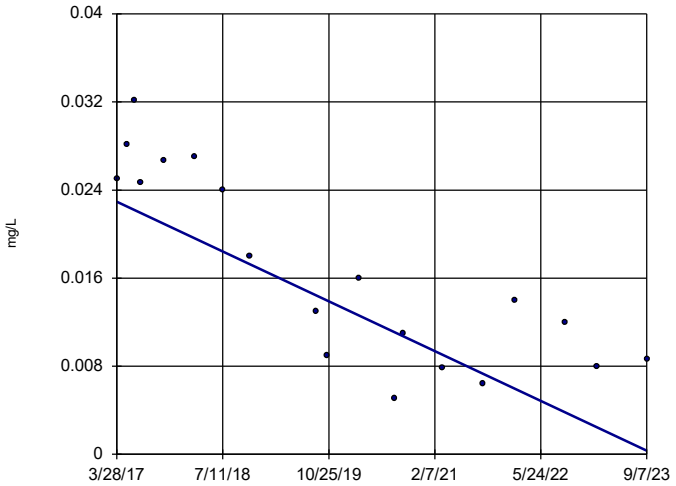
Mann-Kendall statistic = 67
critical = 66

Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)



n = 19

Slope = -0.003507 units per year.

Mann-Kendall statistic = -107
critical = -58

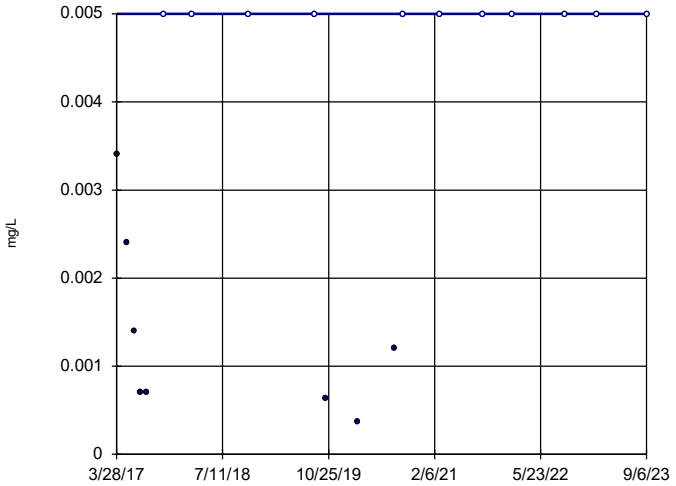
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 19

Slope = 0 units per year.

Mann-Kendall statistic = 45
critical = 58

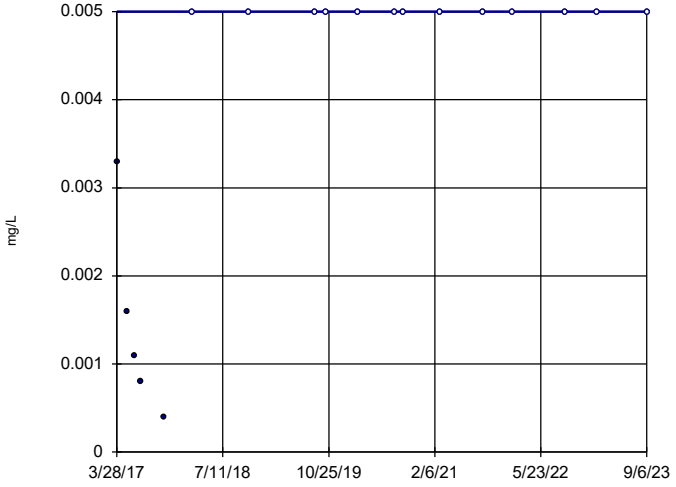
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 18

Slope = 0 units per year.

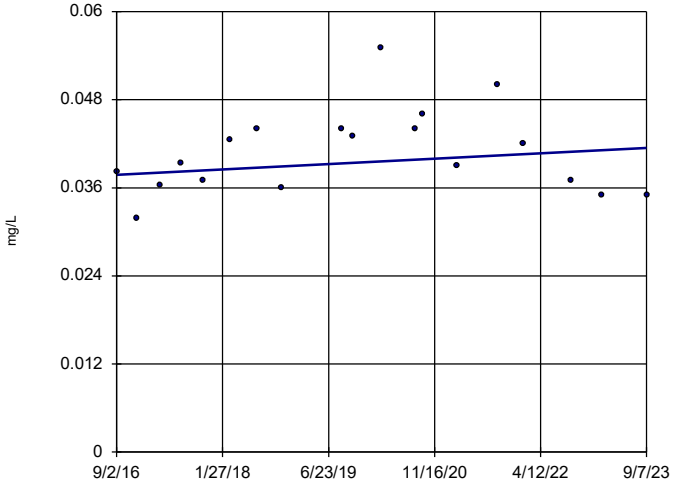
Mann-Kendall statistic = 55
critical = 53

Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-40



n = 19

Slope = 0.00052 units per year.

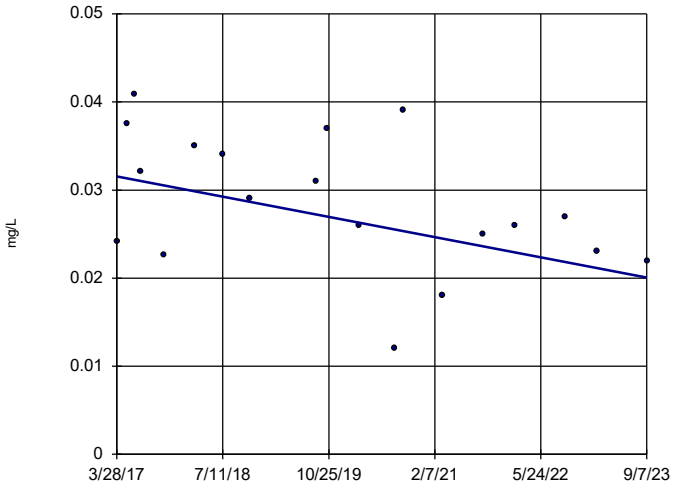
Mann-Kendall statistic = 15
critical = 58

Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)



n = 19

Slope = -0.001775 units per year.

Mann-Kendall statistic = -56
critical = -58

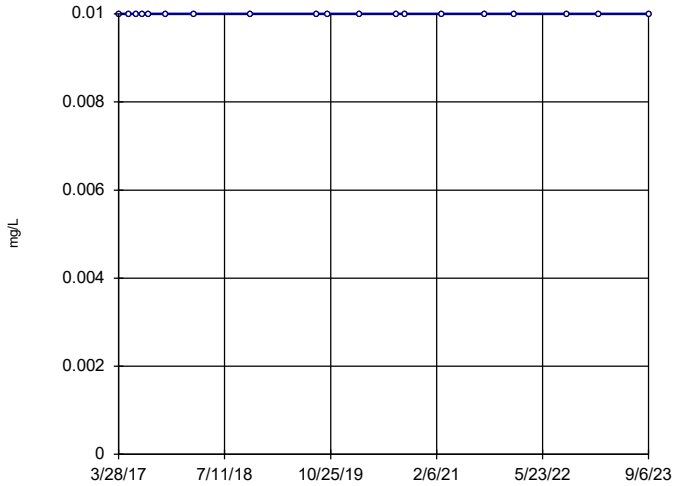
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 19

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 58

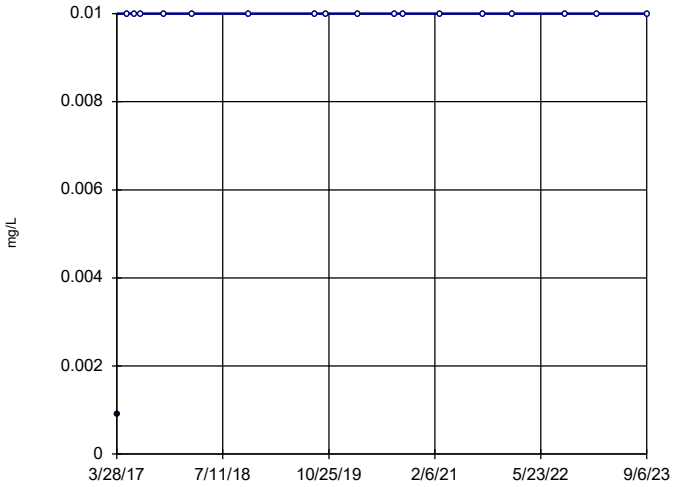
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 18

Slope = 0 units per year.

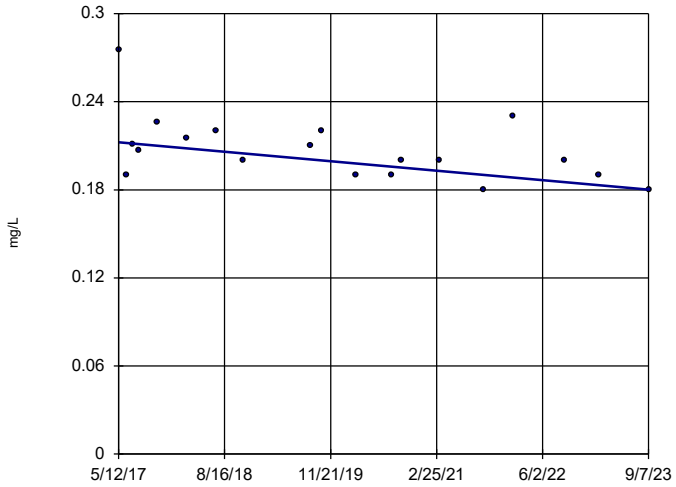
Mann-Kendall statistic = 17
critical = 53

Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-68A



n = 19

Slope = -0.005078 units per year.

Mann-Kendall statistic = -63
critical = -58

Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 11/21/2023 4:50 PM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

wsp.com