



Plant McIntosh Ash Pond 1

Permit No. 051-011D(CCR)
Effingham County

**2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT**



**ATLANTIC COAST
CONSULTING, INC.**

PROFESSIONAL CERTIFICATION

This *2022 Semiannual Groundwater Monitoring and Corrective Action Report, Georgia Power Company – Plant McIntosh Ash Pond 1* has been prepared in compliance with the United States Environmental Protection Agency Coal Combustion Residuals Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. (ACC). I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).

ATLANTIC COAST CONSULTING, INC.



Charles B. Adams, P.G.
Project Manager
Date: August 31, 2022

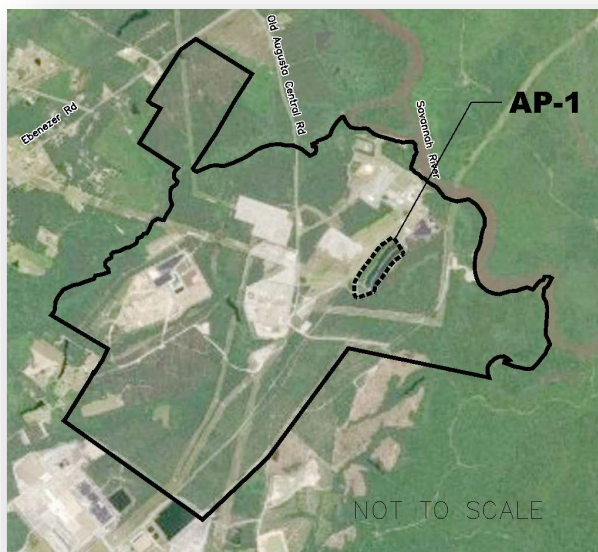
Chad Hall, PhD, P.E.
Senior Professional Engineer
Date: August 31, 2022

SUMMARY

This summary of the 2022 *Semiannual Groundwater Monitoring and Corrective Action Report* provides the groundwater monitoring and corrective action program status from January through July 2022 for Georgia Power Company (Georgia Power) Plant McIntosh Ash Pond 1 (the Site or AP-1). This summary was prepared by Atlantic Coast Consulting, Inc. (ACC) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6¹ of the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant McIntosh is located at 981 Old Augusta Central Road, approximately 4 miles northeast of the City of Rincon, and 20 miles north of the City of Savannah in Effingham County, Georgia. AP-1 is located on the eastern portion of the Plant McIntosh property. The Site has been closed by removal of CCR material.

Groundwater at the Site is monitored using a comprehensive monitoring system of wells installed to meet federal and state monitoring requirements. Routine sampling and reporting began after background groundwater conditions were established between May 2016 and April 2017. Based on groundwater conditions at the Site, an assessment monitoring program was established on January 15, 2018. An Alternate Source Demonstration (ASD) completed in January 2019 and a November 2019 supplement presented lines of evidence demonstrating that statistically significant levels (SSL) of cobalt and lithium in groundwater were not due to a release from the unit. The ASD and supplemental information were included in the 2018 and 2019 Annual Groundwater Monitoring and Corrective Action Reports, respectively. During this January through July 2022 semiannual reporting period, the Site remained in assessment monitoring. The Georgia Environmental Protection Division (EPD) approved the CCR permit (051-11D(CCR)) for the Site on February 6, 2020.



Plant McIntosh and Ash Pond 1 (AP-1)

On February 22, 2022 GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where an MCL has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L), except when site specific background concentrations of these constituents are higher. Statistical evaluation for the Spring 2022 event was updated to reflect these changes.

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

During the reporting period, ACC conducted a groundwater sampling event in February 2022. Groundwater samples were submitted to Eurofins Environment Testing America (Eurofins) for analysis. Per the CCR Rule, groundwater results for February 2022 data were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant levels of Appendix III² and Appendix IV³ parameters in wells provided in the table below.

Appendix III Parameter	February 2022
Boron	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Calcium	MGWC-3
Chloride	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Fluoride	MGWC-7
Sulfate	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
TDS	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Appendix IV Parameter	February 2022
Cobalt	MGWC-7, MGWC-8
Lithium	MGWC-7

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from January through July 2022, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power's website and provided to the Georgia EPD semiannually.

² Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

³ Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2022 Semiannual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power) Plant McIntosh Ash Pond 1 (the Site or AP-1). To specify groundwater monitoring requirements, Georgia 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.

A permit application to comply with Georgia EPD Rules was submitted in November 2018 and was approved in February 2020. Monitoring for the CCR Unit is performed in accordance with the permit monitoring requirements [Georgia EPD Permit No. 051-011D(CCR)], 40 CFR § 257.90 through 257.91 and § 257.93 through 257.95 of the Federal CCR Rule, and the Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

This report documents activities completed for the groundwater monitoring program from January through July 2022 in accordance with 40 CFR § 257.90(e). This report includes results of the semiannual assessment monitoring event conducted in February 2022.

1.1 Site Description and Background

Plant McIntosh is located at 981 Old Augusta Central Road, in Effingham County, Georgia, approximately 4 miles northeast of the City of Rincon, and 20 miles north of the City of Savannah. The plant is situated on approximately 2,300 acres (Figure 1, Site Location Map) west of the Savannah River. AP-1 is located on the eastern portion of the plant property.

All CCR material has been removed from Plant McIntosh AP-1. In a letter dated October 5, 2021 Georgia EPD acknowledged that all CCR removal activities had been completed at the Site. The Site has been graded and restored.

1.2 Regional Geology and Hydrogeologic Setting

Plant McIntosh is located in the Atlantic Coastal Plain Physiographic Province and situated on sediments that were deposited from the Cretaceous to Pleistocene periods. Regional lithology consists of stratified marine deposits and materials eroded from crystalline rock of the Piedmont Physiographic Province. Boring logs describe soils as interbedded clays, silts, and sands typical of Atlantic Coastal Plain sediments.

Monitoring wells and piezometers are screened in the surficial aquifer between approximately 30 and -20 feet North American Vertical Datum of 1988 (NAVD88). The predominant groundwater flow direction across Plant McIntosh is to the east.

1.3 Groundwater Monitoring System and CCR Unit Description

Pursuant to 40 CFR § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at AP-1. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Unit within the uppermost aquifer. The CCR Unit includes four cells (Cell A through Cell D). Each of these cells have been closed by removal of CCR. CCR removal has been certified as complete, and the area has been graded and restored. A figure depicting

the cell layout is provided as Figure 2, CCR Removal Map – February 2022. Figure 3, Well Location Map, shows the monitoring well locations. Wells were installed to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1A, Groundwater Monitoring Network Well Construction Details, and Table 1B, Piezometer Construction Details).

2.0 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed from January through July 2022 and discusses any change in status of the monitoring program. All groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on Figure 3 in February 2022.

2.1 Monitoring Well Installation and Maintenance

There were no changes to the groundwater monitoring system during the semiannual reporting period; the network remained the same as in the 2021 (previous) reporting year and is shown in Figure 3. Monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the Site conditions, and performing exterior maintenance necessary for sampling under safe and clean conditions. Well inspection checklists completed during each semiannual sampling event are included in Appendix A, Laboratory Analytical and Field Sampling Reports. Any issues identified in well inspection checklists will be addressed prior to the next monitoring event.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In February 2022, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix A. Well inspections and corrective actions were performed under the direction of a professional geologist or engineer registered in the State of Georgia.

2.2 Assessment Monitoring

Based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, Georgia Power initiated an assessment monitoring program on January 15, 2018. A notice of assessment monitoring was placed in the operation record on May 15, 2018. Monitoring wells were sampled for Appendix III and Appendix IV parameters in February 2022 as the first semiannual assessment monitoring event of 2022. Samples were collected from the monitoring network shown on Figure 3. A summary of groundwater sampling events completed during the semiannual reporting period is provided in Table 2, Groundwater Sampling Event Summary. Results of sampling activities are presented in Appendix A.

2.3 Additional Groundwater Sampling

Piezometers MGWC-20 and MGWC-23 were sampled to further characterize groundwater and data is provided in Appendix A.

3.0 SAMPLE METHODOLOGY & ANALYSIS

The following sections describe the methods used to conduct groundwater monitoring at the Site.

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater levels were measured and recorded to the nearest 0.01 foot within a 24-hour period from the certified well network and piezometers at the Site. Groundwater levels recorded during the monitoring events are summarized in Table 3, Summary of Groundwater Elevations. Groundwater levels and top of casing elevations were used to calculate groundwater elevations and develop the potentiometric surface elevation contour map provided in Figure 4, Potentiometric Contour Map – February 2022. The general direction of groundwater flow across AP-1 is predominately toward the east. The groundwater flow patterns observed during the February 2022 monitoring event are consistent with historical observations.

The horizontal groundwater flow velocity at the Site was calculated using a derivation of Darcy's Law.

Specifically:

Equation

$$v = \frac{K (dh/dl)}{P_e} \quad \text{where:} \quad \begin{array}{l} v = \text{groundwater velocity} \\ K = \text{hydraulic conductivity} \\ dh/dl = \text{hydraulic gradient} \\ P_e = \text{effective porosity} \end{array}$$

Groundwater flow velocities were calculated for the Site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on the default value for silty sands, US EPA, 1989). Groundwater flow velocities have been calculated and are tabulated on Table 4, Horizontal Groundwater Flow Velocity Calculations – February 2022. The calculated flow velocity is 0.038 feet per day during the February 2022 event.

This calculated groundwater velocity across the Site is generally consistent with historical calculations and with expected velocities in the Site-specific geology, therefore confirming the groundwater monitoring network is properly located to monitor the uppermost aquifer.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Purging and sampling was performed using either a peristaltic pump or non-dedicated QED bladder pump. In all cases pump intakes were located at the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations using procedures described in the latest version of the Region 4 US EPA Lab Services and Applied Science Division (LSASD) Operating Procedure for Field Equipment Cleaning and Decontamination as a guide (US EPA, 2020).

An Aqua Troll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) during well purging prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidity meter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- ± 5% for specific conductance

- $\pm 10\%$ or 0.2 milligrams per liter (mg/L), whichever is greater, for DO where DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L
- Turbidity measurements less than 5 nephelometric turbidity units (NTUs)

Once stabilization was achieved, samples were collected directly into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Eurofins Environment Testing America (Eurofins) of Pittsburgh, Pennsylvania following chain-of-custody protocol. Stabilization logs for each well during each monitoring event are included in Appendix A.

3.3 Laboratory Analyses

Groundwater samples were collected during one groundwater monitoring event in the semiannual monitoring period. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A.

Analytical data collected during the monitoring period are summarized in Table 5, Summary of Groundwater Analytical Data – February 2022.

Laboratory analyses were performed by Eurofins. Eurofins is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. In addition, Eurofins is certified to perform analysis by the State of Georgia. Laboratory reports and chain-of-custody records for the monitoring events are presented in Appendix A.

3.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of at least one field blank and duplicate sample per every 20 assessment samples. A set of QA/QC samples includes equipment blanks, field blanks, and duplicate samples. QA/QC sample data were evaluated during data validation and are included in Appendix A.

Groundwater quality data in this report were validated in accordance with US EPA guidance (US EPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spike/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits (RLs). The data are considered usable for meeting project objectives and the results are considered valid. The associated data validation report is included in Appendix A.

Values followed by a "J" flag on Table 5 indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory 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.

The initial lab analysis of radium data in MGWC-3 was anomalous with historical data, and a reanalysis was performed by the laboratory. After review of both datasets, the reanalysis data is considered more representative. Based on comparisons with duplicate data, the original data is considered an outlier, and the reanalysis data is used (see laboratory data validation report in Appendix A).

4.0 STATISTICAL ANALYSIS

Groundwater monitoring data collected during the February 2022 semiannual assessment monitoring event were statistically analyzed by Groundwater Stats Consulting, LLC (GSC) pursuant to 40 CFR § 257.95 following the Professional Engineer (PE)-certified statistical method. Appendix III detection monitoring parameters were statistically analyzed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard (GWPS). Statistical analysis methods and results are provided in Appendix B, Statistical Analyses. The following subsections and Table 6, Statistical Method Summary, provide an overview of the statistical method used to evaluate Appendix III and IV parameters and statistical analyses results.

4.1 Statistical Analysis Methods

The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package, that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the US EPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (US EPA, 2009).

4.1.1 Appendix III Statistical Methods

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for each of the Appendix III parameters. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified.

In 1-of-2 verification resampling, one independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the prediction limit, the initial exceedance is verified, and an SSI is identified. When a resample result does not verify the initial result, and does not exceed the prediction limit, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance.

4.1.2 Appendix IV Statistical Methods

Appendix IV constituents were sampled during the February 2022 semiannual assessment event. To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV parameters in each downgradient well. Those confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If there is an exceedance of the established standard, a statistically significant level (SSL) exceedance is identified.

US EPA revised the Federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. US EPA's updated GWPS were incorporated into Georgia EPD's CCR Rule 391-3-4-.10(6)(a) on February 22, 2022. The CCR Rule GWPS is as follows:

- (1) The federally established maximum contaminant level (MCL) established under 40 CFR § 141.62 and 141.66.
- (2) Where an MCL has not been established, the levels specified by the CCR Rule:

- (i). Cobalt 0.006 mg/L;
- (ii). Lead 0.015 mg/L;
- (iii). Lithium 0.040 mg/L; and
- (iv). Molybdenum 0.100 mg/L.

(3) Background levels for constituents where the background level is higher than the MCL.

On February 22, 2022 GA EPD updated to the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where an MCL has not been established, except when site specific background concentrations of these constituents are higher. Statistical evaluation for the Spring 2022 event was updated to reflect these changes.

Following the above rule requirements, GWPS have been established for statistical comparison of Appendix IV constituents. Table 7, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established for each constituent and the GWPS.

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A substitution of the most recent reporting limit is used for non-detect data. Additional details are presented in the Statistical Analyses provided in Appendix B.

4.2 Statistical Analysis Results

4.2.1 Semiannual Appendix III Statistical Results

Based on review of the Appendix III statistical analysis presented in Appendix B, Appendix III constituents have not returned to background levels. Exceedances were noted and are presented on the prediction limit summary table included in Appendix B. Assessment monitoring should continue pursuant to 40 CFR § 257.95(f).

4.2.2 Semiannual Appendix IV Statistical Results

Based on review of the Appendix IV statistical analyses presented in Appendix B, the following parameters were found to exceed the GWPS:

- Cobalt: MGWC-7 and MGWC-8
- Lithium: MGWC-7

5.0 ALTERNATE SOURCE DEMONSTRATION

In accordance with 40 CFR § 257.94(e), Georgia Power implemented assessment monitoring in May 2018. SSIs of Appendix III and SSIs of Appendix IV parameters were identified at the Site during the sampling event conducted in February 2022. An Alternate Source Demonstration (ASD) for cobalt and lithium was included in the *2018 Annual Groundwater Monitoring and Corrective Action Report*, and later supported by the *Supplemental Information for the Ash Pond 1 Alternate Source Demonstration*, dated November 21, 2019. The demonstration showed the source of cobalt and lithium in groundwater is not due to a release from the unit. The Site remains in assessment monitoring due to SSIs for Appendix III parameters.

6.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), Georgia Power implemented assessment monitoring in May 2018. Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from January through July 2022, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site.

7.0 CONCLUSIONS & FUTURE ACTIONS

This *2022 Semiannual Groundwater Monitoring and Corrective Action Report* for Georgia Power's Plant McIntosh AP-1 was prepared to fulfill the requirements of US EPA's CCR Rule and Georgia EPD Rules for Solid Waste Management Chapter 391-3-4-.10.

Statistical evaluations of the groundwater monitoring data for the Site identified SSIs of Appendix III groundwater monitoring parameters and SSLs of cobalt and lithium. In accordance with 40 CFR § 257.95(g)(3), Georgia Power prepared an ASD for cobalt and lithium in 2018 that concludes the state and federal SSLs for cobalt and lithium are not due to a release from the unit.

Based on the findings presented, AP-1 will remain in assessment monitoring. The next semiannual assessment monitoring event is currently scheduled for August 2022.

8.0 REFERENCES

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- US EPA, 2020. Field Equipment Cleaning and Decontamination – Operating Procedure: LSASDPROC-205-R4, Athens, Georgia, 16 p.
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TABLES

Table 1A
Groundwater Monitoring Network Well Construction Details
Plant McIntosh Ash Pond 1
Effingham County, Georgia

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Top of Casing Elevation (NAVD88)	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD88)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD88)	Purpose
MGWC-1	11/10/2015	856813.08	964287.47	65.26	56.08	9.18	45.78	19.48	Downgradient
MGWC-2	11/11/2015	856400.69	963958.38	48.54	37.36	11.18	27.06	21.48	Downgradient
MGWC-3	11/11/2015	856033.79	963658.28	52.65	38.74	13.91	28.44	24.21	Downgradient
MGWA-5	11/12/2015	855860.82	962763.17	64.36	63.09	1.27	52.79	11.57	Upgradient
MGWA-6	11/12/2015	856527.73	963130.08	61.08	41.93	19.15	31.63	29.45	Upgradient
MGWA-6A	01/16/2019	856520.82	963113.65	59.76	39.67	20.09	29.40	30.36	Upgradient
MGWC-7	11/13/2015	857417.68	964007.53	54.40	42.29	12.11	31.99	22.41	Downgradient
MGWC-8	11/10/2015	857177.10	964141.67	62.61	52.56	10.05	42.26	20.35	Downgradient
MGWA-10	11/17/2015	855934.25	961406.49	65.07	53.09	11.98	42.79	22.28	Upgradient
MGWA-11	05/27/2016	855985.31	962070.22	64.91	55.81	9.10	45.61	19.30	Upgradient
MGWC-12	05/26/2016	855545.67	963110.24	64.10	52.90	11.20	42.70	21.40	Downgradient

Notes:

1. Northings and Eastings are Georgia State Plane East Zone in feet relative to North American Datum 1983 (NAD83).
2. NAVD88 indicates feet relative to North American Vertical Datum of 1988.
3. ft BTOC indicates feet below top of casing.
4. Wells resurveyed June 2020.
5. MGWC-1 resurveyed July 2021.

**Table 1B
Piezometer Construction Details
Plant McIntosh Ash Pond 1
Effingham County, Georgia**

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Top of Casing Elevation (NAVD88)	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD88)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD88)	Purpose
MGWC-4	11/18/2015	855555.05	963139.37	64.33	67.35	-3.02	57.05	7.28	Downgradient Piezometer
MGWA-9	11/17/2015	857129.70	963164.58	59.29	43.05	16.24	32.75	26.54	Upgradient Piezometer
PZ-13	06/03/2016	856123.86	964192.52	40.91	26.76	14.15	16.36	24.55	Downgradient Piezometer
PZ-14	06/04/2016	855727.20	963895.98	47.11	41.50	5.61	31.10	16.01	Downgradient Piezometer
PZ-15	06/26/2018	856156.03	964192.45	42.37	28.87	13.50	18.57	23.80	Downgradient Piezometer
PZ-16	06/26/2018	857077.14	964957.28	54.71	42.39	12.32	32.09	22.62	Downgradient Piezometer
PZ-17	06/27/2018	857655.05	964525.72	57.51	45.12	12.39	34.82	22.69	Downgradient Piezometer
PZ-18	06/27/2018	857542.34	963505.91	53.48	41.70	11.78	31.40	22.08	Upgradient Piezometer
MGWC-19	10/04/2018	857406.16	963972.44	53.98	72.70	-18.72	62.40	-8.42	Downgradient Deep Piezometer
MGWC-20	10/03/2018	857596.86	964281.59	51.56	54.77	-3.21	44.47	7.09	Downgradient Piezometer
MGWC-21	11/28/2018	857159.04	964155.30	62.65	82.68	-20.03	72.38	-9.73	Downgradient Deep Piezometer
MGWC-22	11/29/2018	856381.60	963948.23	47.53	67.56	-20.03	57.26	-9.73	Downgradient Deep Piezometer
MGWC-23	11/30/2018	856940.45	964617.96	57.47	42.90	14.57	32.60	24.87	Downgradient Piezometer
MGWA-24	01/17/2019	856600.28	962885.22	60.53	47.00	13.53	35.80	24.73	Upgradient Piezometer

Notes:

1. Northings and Eastings are Georgia State Plane East Zone in feet relative to North American Datum 1983 (NAD83).
2. NAVD88 elevations are feet relative to North American Vertical Datum of 1988.
3. ft BTOC indicates feet below top of casing.
4. Wells resurveyed June 2020.

**Table 2
Groundwater Sampling Event Summary
Plant McIntosh Ash Pond 1
Effingham County, Georgia**

Well	Hydraulic Location	Feb. 22-23, 2022
Purpose of Sampling Event		Semiannual Assessment
MGWC-1	Downgradient	X
MGWC-2	Downgradient	X
MGWC-3	Downgradient	X
MGWA-5	Upgradient	X
MGWA-6	Upgradient	X
MGWA-6A	Upgradient	X
MGWC-7	Downgradient	X
MGWC-8	Downgradient	X
MGWA-10	Upgradient	X
MGWA-11	Upgradient	X
MGWC-12	Downgradient	X

Notes:

1. X indicates sample was collected.
2. Semiannual Assessment Event included Appendix III and Appendix IV.

Table 3
Summary of Groundwater Elevations
Plant McIntosh Ash Pond 1
Effingham County, Georgia

Well ID	Top of Casing Elevation (NAVD88)	Feb. 21, 2022 Groundwater Elevation (NAVD88)
MGWC-1	65.26	26.02
MGWC-2	48.54	27.03
MGWC-3	52.65	32.29
MGWC-4	64.33	36.51
MGWA-5	64.36	39.76
MGWA-6	61.08	37.40
MGWA-6A	59.76	37.46
MGWC-7	54.40	30.98
MGWC-8	62.61	29.12
MGWA-9	59.29	36.04
MGWA-10	65.07	46.48
MGWA-11	64.91	42.62
MGWC-12	64.10	36.69
PZ-13	40.91	23.39
PZ-14	47.11	28.54
PZ-15	42.37	23.37
PZ-16	54.71	21.66
PZ-17	57.51	25.45
PZ-18	53.48	32.29
MGWC-19	53.98	29.85
MGWC-20	51.56	27.78
MGWC-21	62.65	28.53
MGWC-22	47.53	28.17
MGWC-23	57.47	23.32
MGWA-24	60.53	38.62

Notes:

1. NAVD88 indicates feet North American Vertical Datum of 1988.

Table 4
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS
February 2022
Plant McIntosh Ash Pond 1
Effingham County, Georgia

Equation

$$v = \frac{K (dh/dl)}{P_e}$$

where: v = groundwater velocity
K = hydraulic conductivity
dh/dl = hydraulic gradient
P_e = effective porosity

Values Used in Calculation

Value			Source
K =	3.39E-04 0.962	cm/sec ft/day	See note 1.
dh/dl ₁ =	23.11/2796 0.0083	ft/ft unitless	Hydraulic gradient from MGWA-10 to PZ-15
dh/dl ₂ =	15.74/1898 0.0083	ft/ft unitless	MGWA-6 to PZ-16
dh/dl ₃ =	10.59/1458 0.0073	ft/ft unitless	MGWA-9 to PZ-17
dh/dl _{avg} =	0.0079	unitless	Average of dh/dl _{1,2,3}
P _e =	0.20	unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{(0.962)(0.0079)}{0.20}$$

$$v = 0.038 \text{ ft/day, or } 13.9 \text{ ft/year}$$

Notes

- (1) Aquifer tests from Hydrogeologic Assessment Report (Revision 01), Plant McIntosh Ash Pond 1 (AP 1) November 2018, Revised December 2019.
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 5
Summary of Groundwater Analytical Data
February 2022
Plant McIntosh Ash Pond 1
Effingham County, Georgia

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3
		2/22/2022	2/22/2022	2/22/2022	2/22/2022	2/22/2022	2/22/2022	2/23/2022	2/23/2022
APPENDIX III	Boron	<0.060	<0.060	<0.060	<0.060	<0.060	1.7	2.0	0.83
	Calcium	25	97	90	3.3	36	100	100	120
	Chloride	5.1	4.0	3.3	7.1	3.1	13	13	14
	Fluoride	<0.026	0.034 J	<0.026	<0.026	<0.026	0.047 J	0.075 J	0.086 J
	pH	7.57	7.14	7.20	5.38	7.60	7.32	7.44	6.98
	Sulfate	3.2	5.4	2.1	<0.76	1.1	150	180	150
	TDS	150	300	270	38	210	420	490	450
APPENDIX IV	Antimony	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051
	Arsenic	0.00052 J	0.011	0.013	<0.00028	0.0024	0.0014	<0.00028	0.0016
	Barium	0.038	0.030	0.034	0.022	0.13	0.11	0.046	0.17
	Beryllium	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.0039	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	0.0039	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	<0.00026	<0.00026	0.00049 J	<0.00026	<0.00026	<0.00026	0.0016 J	0.0012 J
	Fluoride	<0.026	0.034 J	<0.026	<0.026	<0.026	0.047 J	0.075 J	0.086 J
	Lead	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017
	Lithium	0.011	<0.00083	0.0012 J	0.0079	0.027	0.010	0.0066	0.013
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	0.00091 J	<0.00061	0.00078 J	<0.00061	0.0010 J	0.0014 J	<0.00061	<0.00061
	Radium (226 + 228)	0.511	0.594	0.728	1.06	0.837	1.85	0.598	1.47 ⁷
	Selenium	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074
Thallium	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. 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 (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
7. Radium analytical data for MGWC-3 was reanalyzed by the laboratory and the value shown is the reanalysis result.

Table 5
Summary of Groundwater Analytical Data
February 2022
Plant McIntosh Ash Pond 1
Effingham County, Georgia

Substance	Well ID			
	MGWC-7	MGWC-8	MGWC-12	
	2/23/2022	2/23/2022	2/22/2022	
APPENDIX III	Boron	2.1	4.1	<0.060
	Calcium	61	97	35
	Chloride	9.8	11	4.0
	Fluoride	0.22	0.050 J	0.093 J
	pH	6.91	6.22	7.41
	Sulfate	260	390	4.8
	TDS	390	630	190
APPENDIX IV	Antimony	<0.00051	<0.00051	<0.00051
	Arsenic	0.00040 J	0.00044 J	0.00089 J
	Barium	0.014	0.036	0.067
	Beryllium	<0.00027	0.0014 J	<0.00027
	Cadmium	<0.00022	0.0014 J	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015
	Cobalt	0.007	0.015	<0.00026
	Fluoride	0.22	0.050 J	0.093 J
	Lead	<0.00017	<0.00017	<0.00017
	Lithium	0.13	0.028	0.022
	Mercury	<0.00013	0.00028	<0.00013
	Molybdenum	<0.00061	<0.00061	0.00064 J
	Radium (226 + 228)	1.42	2.62	0.888
	Selenium	<0.00074	<0.00074	<0.00074
Thallium	<0.00047	<0.00047	<0.00047	

Notes:

- Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
- Radium data are for Radium 226 & Radium 228 (combined).
- < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
- 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 (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
- Radium analytical data for MGWC-3 was reanalyzed by the laboratory and the value shown is the reanalysis result.

**Table 6
Statistical Method Summary
Plant McIntosh Ash Pond 1
Effingham County, Georgia**

Plant McIntosh AP-1 Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	MGWA-5, MGWA-6, MGWA-6A, MGWA-10, and MGWA-11
	Downgradient Wells	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8, and MGWC-12
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and Total Dissolved Solids (TDS)
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits

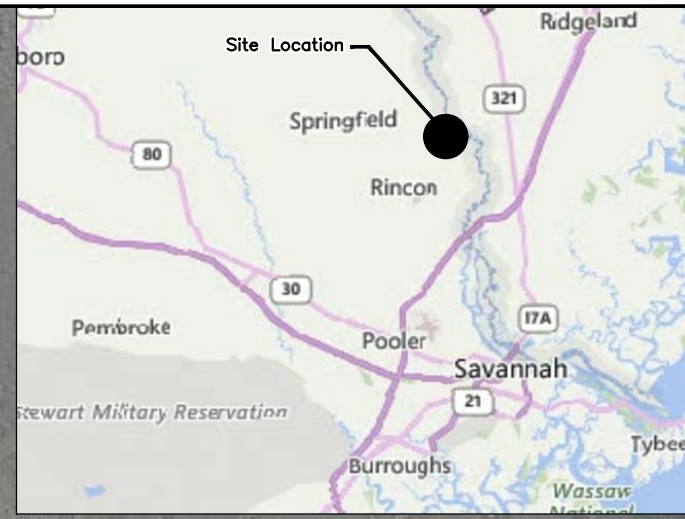
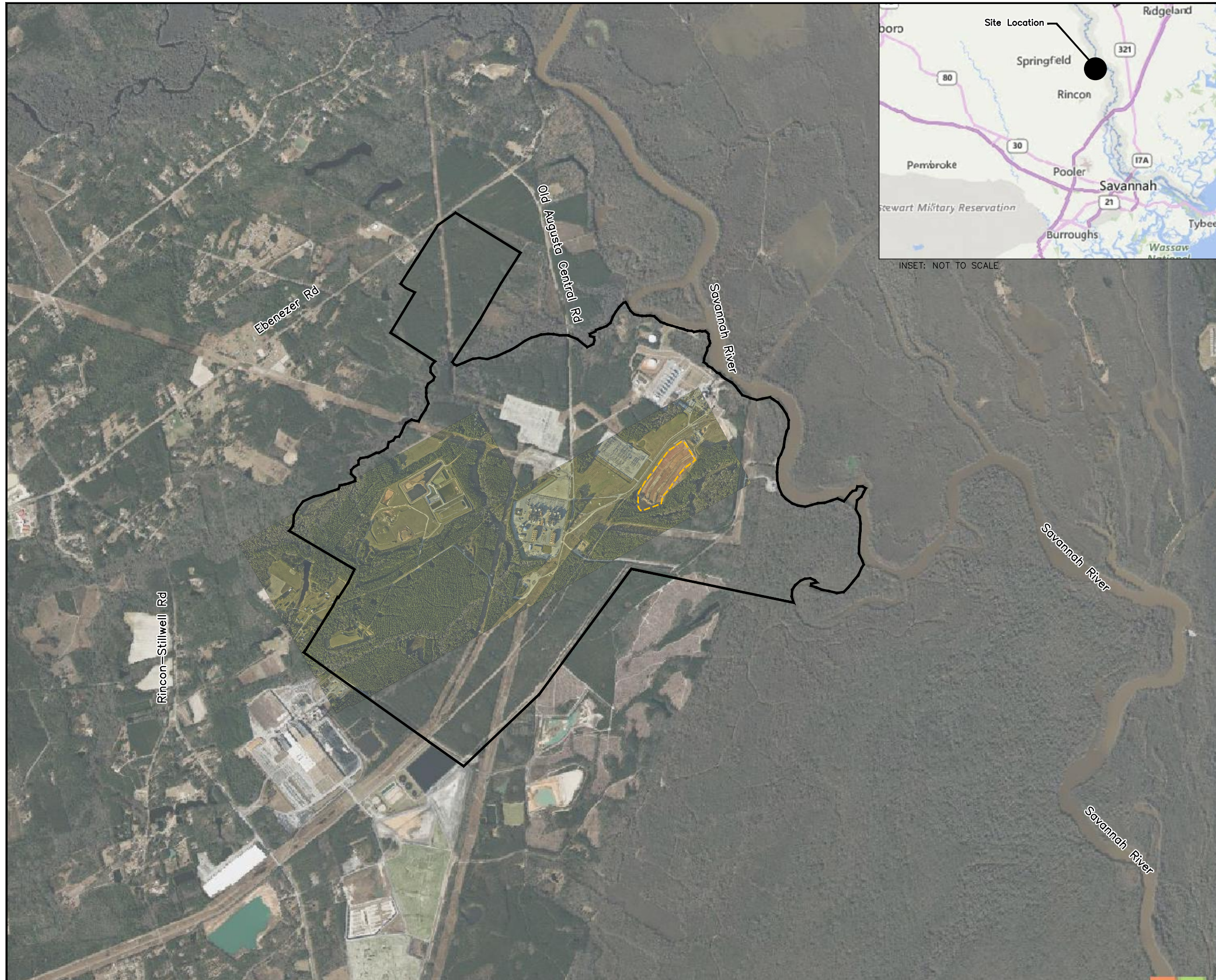
Table 7
Summary of Background Levels and Groundwater Protection Standards
Plant McIntosh Ash Pond 1
Effingham County, Georgia

Constituent	Site Background	CCR-Rule Specified GWPS	MCL	GWPS
Antimony	0.002	n/a	0.006	0.006
Arsenic	0.014	n/a	0.01	0.014
Barium	0.13	n/a	2	2
Beryllium	0.0025	n/a	0.004	0.004
Cadmium	0.0025	n/a	0.005	0.005
Chromium	0.0063	n/a	0.1	0.1
Cobalt	0.0025	0.006	n/a	0.006
Fluoride	0.19	n/a	4	4
Lead	0.001	0.015	n/a	0.015
Lithium	0.03	0.04	n/a	0.04
Mercury	0.0002	n/a	0.002	0.002
Molybdenum	0.015	0.1	n/a	0.1
Radium (226+228)	1.14	n/a	5	5
Selenium	0.005	n/a	0.05	0.05
Thallium	0.001	n/a	0.002	0.002

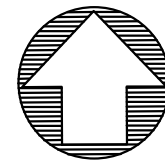
Notes:

1. Site Background = Tolerance limits calculated from pooled upgradient well data.
2. MCL = Maximum Contaminant Level, per Georgia EPD Rule 391-3-5-.18(1)(a).
3. GWPS = Groundwater protection standard, per Georgia EPD Rule 391-3-4-.10(6)(a).
4. CCR-Rule specified GWPS as stipulated in 40 CFR 257.95(h)(1-3) and incorporated into Georgia EPD's CCR rule 391-3-4-.10(6)(a) on February 22, 2022.
5. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter.
6. n/a = not applicable. There is no established MCL, per Georgia EPD Rule 391-3-5-.18(1)(a).

FIGURES



INSET: NOT TO SCALE



ATLANTIC COAST
CONSULTING, INC.

2,500 0 1,250 2,500



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE AP-1 BOUNDARY

- NOTES:
 1. AERIAL DATED 2/15/2022 FROM SAM, LLC.
 ADDITIONAL PHOTOGRAPHY DATED 2021 FROM
 MICROSOFT CORPORATION, MAXAR, CNES,
 DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH ASH POND 1

2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

SITE LOCATION MAP

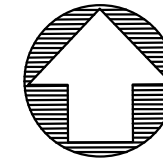
PROJECT NO. I054-110

July 2022

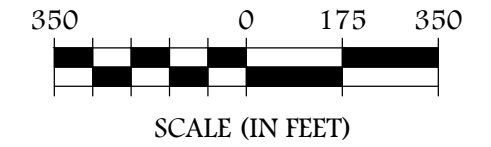
DRAWN BY: MM

FIGURE:

CHECKED BY: RW



ACC



LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	AREA WHERE ASH HAS BEEN CERTIFIED AS REMOVED AS OF OCTOBER 2021
	MGWC-1 NETWORK MONITORING WELL
	PZ-17 PIEZOMETER

- NOTES:
1. CELL BOUNDARY LAYERS PROVIDED BY GEI CONSULTANTS.
 2. AERIAL DATED 2/15/2022 FROM SAM, LLC. ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH ASH POND 1

2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

CCR REMOVAL MAP
FEBRUARY 2022

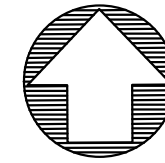
PROJECT NO. I054-110

March 2022

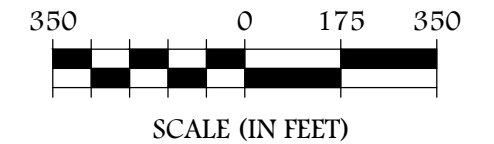
DRAWN BY: MM

FIGURE:

CHECKED BY: RW



ACC



LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 NETWORK MONITORING WELL
	PZ-17 PIEZOMETER

NOTES:
1. AERIAL DATED 2/15/2022 FROM SAM, LLC. ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH ASH POND 1

2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

WELL LOCATION MAP

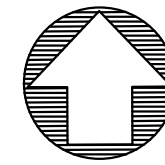
PROJECT NO. IO54-110 March 2022

<u>DRAWN BY:</u>	MM	<u>FIGURE:</u>	3
<u>CHECKED BY:</u>	RW		

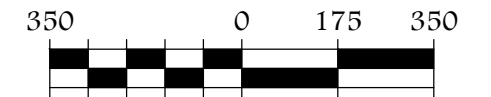
Summary of Groundwater Elevations
Plant McIntosh
Ash Pond 1
February 2022 Sampling Event

Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft NAVD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft NAVD)
MGWC-1	56.08	65.26	39.24	26.02
MGWC-2	37.36	48.54	21.51	27.03
MGWC-3	38.74	52.65	20.36	32.29
MGWC-4	67.35	64.33	27.82	36.51
MGWA-5	63.09	64.36	24.60	39.76
MGWA-6	41.93	61.08	23.68	37.40
MGWA-6A	39.67	59.76	22.30	37.46
MGWC-7	42.29	54.40	23.42	30.98
MGWC-8	52.56	62.61	33.49	29.12
MGWA-9	43.05	59.29	23.25	36.04
MGWA-10	53.09	65.07	18.59	46.48
MGWA-11	55.81	64.91	22.29	42.62
MGWC-12	52.90	64.10	27.41	36.69
PZ-13	26.76	40.91	17.52	23.39
PZ-14	41.50	47.11	18.57	28.54
PZ-15	28.87	42.37	19.00	23.37
PZ-16	42.39	54.71	33.05	21.66
PZ-17	45.12	57.51	32.06	25.45
PZ-18	41.70	53.48	21.19	32.29
MGWC-19	72.70	53.98	24.13	29.85
MGWC-20	54.77	51.56	23.78	27.78
MGWC-21	82.68	62.65	34.12	28.53
MGWC-22	67.56	47.53	19.36	28.17
MGWC-23	42.90	57.47	34.15	23.32
MGWA-24	47.00	60.53	21.91	38.62

Notes: Depths to water measured within a 24-hour period on February 21, 2022.
ft NAVD = feet North American Vertical Datum of 1988
ft BTOC = feet below top of casing
* MGWC-4, MGWC-19, MGWC-21, and MGWC-22 not used to calculate contours.



ATLANTIC COAST
CONSULTING, INC.

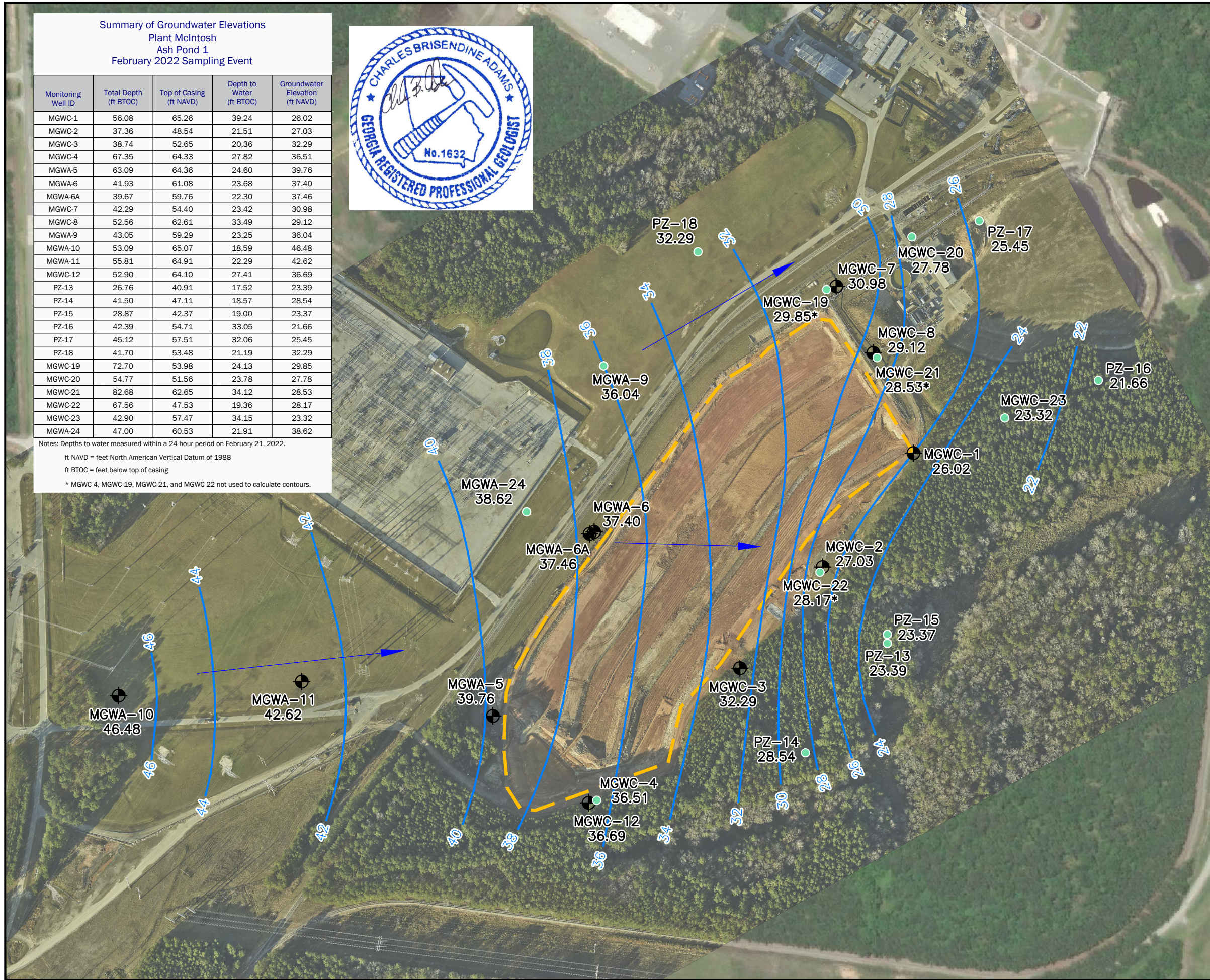


SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 27.18 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 27.10 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR GROUNDWATER FLOW DIRECTION

NOTES:
1. AERIAL DATED 2/15/2022 FROM SAM, LLC. ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.



PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH ASH POND 1

2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

POTENTIOMETRIC CONTOUR MAP
FEBRUARY 2022

PROJECT NO. I054-110

June 2022

DRAWN BY: RW

FIGURE:

CHECKED BY: MM

APPENDICES

APPENDIX A

Laboratory Analytical and Field Sampling Reports

ANALYTICAL REPORT

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-134223-1

Client Project/Site: Plant McIntosh Ash Pond 1
Revision: 1

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



*Authorized for release by:
4/4/2022 10:19:04 AM*

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Job ID: 180-134223-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative 180-134223-1

Comments

040422 Revised report at client request to correct result for Boron on the following sample after re-analysis: FB-2 (180-134315-3). Client also requested sample collection date change on the following sample to 022322: EB-2 (180-134317-3) A revised chain of custody is included. This report replaces the report previously issued on 032422.

Receipt

The samples were received on 2/24/2022 12:30 PM and 2/26/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 2.6° C, 2.6° C, 3.4° C, 3.4° C, 3.6° C and 4.0° C.

GC Semi VOA

Methods 300.0, 9056A: An incorrect volume of spiking solution was inadvertently added to the laboratory control sample (LCS), associated with analytical batch 180-389894. LCS was double spiked with reagent. Percent recoveries are based on the amount spiked.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Methods 200.8, 6020B: The continuing calibration verification (CCV) associated with batch 180-390021 recovered above the upper control limit for boron. The samples associated with this CCV were non-detects/batch QC for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 180-390021/135).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-02-22
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22 *
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21 *
South Carolina	State	89014	06-30-22
Texas	NELAP	T104704528	03-31-23
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Sample Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-134223-1	DUP-1	Water	02/22/22 00:01	02/24/22 12:30
180-134223-2	MGWA-10	Water	02/22/22 10:31	02/24/22 12:30
180-134223-3	MGWA-11	Water	02/22/22 13:45	02/24/22 12:30
180-134223-4	MGWC-1	Water	02/22/22 16:05	02/24/22 12:30
180-134223-5	FB-1	Water	02/22/22 15:30	02/24/22 12:30
180-134223-6	MGWA-6A	Water	02/22/22 11:05	02/24/22 12:30
180-134223-7	MGWA-6	Water	02/22/22 12:15	02/24/22 12:30
180-134223-8	MGWA-5	Water	02/22/22 13:32	02/24/22 12:30
180-134223-9	EB-1	Water	02/22/22 13:40	02/24/22 12:30
180-134223-10	MGWC-12	Water	02/22/22 15:00	02/24/22 12:30
180-134315-1	MGWC-2	Water	02/23/22 09:50	02/26/22 10:00
180-134315-2	MGWC-7	Water	02/23/22 11:25	02/26/22 10:00
180-134315-3	FB-2	Water	02/23/22 14:55	02/26/22 10:00
180-134315-4	MGWC-8	Water	02/23/22 15:50	02/26/22 10:00
180-134317-1	DUP-2	Water	02/23/22 00:01	02/26/22 10:00
180-134317-2	MGWC-3	Water	02/23/22 12:40	02/26/22 10:00
180-134317-3	EB-2	Water	02/23/22 14:40	02/26/22 10:00



Method Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: DUP-1
Date Collected: 02/22/22 00:01
Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 16:49	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/01/22 23:30	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 09:57	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 14:55	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-10
Date Collected: 02/22/22 10:31
Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 18:04	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/01/22 23:34	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:00	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 14:56	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390455	02/22/22 10:31	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-11
Date Collected: 02/22/22 13:45
Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 18:29	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/01/22 23:52	RSK	TAL PIT
Instrument ID: A										

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-11
Date Collected: 02/22/22 13:45
Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:12	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 14:57	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390455	02/22/22 13:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-1
Date Collected: 02/22/22 16:05
Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 18:54	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/01/22 23:55	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:22	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 14:58	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390455	02/22/22 16:05	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: FB-1
Date Collected: 02/22/22 15:30
Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 19:44	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/02/22 00:06	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:25	RSK	TAL PIT
Instrument ID: NEMO										

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Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: FB-1

Lab Sample ID: 180-134223-5

Date Collected: 02/22/22 15:30

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 14:59	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-134223-6

Date Collected: 02/22/22 11:05

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 20:59	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/02/22 00:10	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:27	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 15:00	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390455	02/22/22 11:05	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Lab Sample ID: 180-134223-7

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 21:23	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/02/22 00:13	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:30	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 15:04	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										

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Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-6

Lab Sample ID: 180-134223-7

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			390455	02/22/22 12:15	FDS	TAL PIT

Client Sample ID: MGWA-5

Lab Sample ID: 180-134223-8

Date Collected: 02/22/22 13:32

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			389675	02/26/22 23:28	JRB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			390021	03/02/22 00:17	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			390093	03/02/22 10:33	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			390482	03/04/22 15:05	RJR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			390455	02/22/22 13:32	FDS	TAL PIT

Client Sample ID: EB-1

Lab Sample ID: 180-134223-9

Date Collected: 02/22/22 13:40

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			389675	02/26/22 21:48	JRB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			390021	03/02/22 00:21	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			390093	03/02/22 10:35	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			390482	03/04/22 15:06	RJR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT

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Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-12

Lab Sample ID: 180-134223-10

Date Collected: 02/22/22 15:00

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389675	02/26/22 22:13	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390021	03/02/22 00:24	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389786	02/28/22 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390093	03/02/22 10:38	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390261	03/03/22 11:02	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390482	03/04/22 15:08	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389840	02/28/22 17:18	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390455	02/22/22 15:00	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-2

Lab Sample ID: 180-134315-1

Date Collected: 02/23/22 09:50

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			390373	03/05/22 04:39	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	389898	03/01/22 09:50	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390197	03/02/22 14:09	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:19	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389843	02/28/22 17:34	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390665	02/23/22 09:50	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-7

Lab Sample ID: 180-134315-2

Date Collected: 02/23/22 11:25

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389764	02/28/22 17:28	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	EPA 300.0 R2.1		5			389894	03/01/22 21:23	JRB	TAL PIT
Instrument ID: CHICS2100B										

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-134315-2

Date Collected: 02/23/22 11:25

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	389898	03/01/22 09:50	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390197	03/02/22 14:13	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:20	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389966	03/01/22 16:09	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390665	02/23/22 11:25	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: FB-2

Lab Sample ID: 180-134315-3

Date Collected: 02/23/22 14:55

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389764	02/28/22 17:42	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	389898	03/01/22 09:50	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390197	03/02/22 14:17	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	389898	03/01/22 09:50	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			393913	04/01/22 08:40	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:21	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389966	03/01/22 16:09	JCR	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-134315-4

Date Collected: 02/23/22 15:50

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389764	02/28/22 18:36	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	EPA 300.0 R2.1		5			389764	02/28/22 18:50	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	EPA 300.0 R2.1		1			392317	03/20/22 02:40	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389898	03/01/22 09:50	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390197	03/02/22 14:27	RSK	TAL PIT
Instrument ID: A										

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-8

Lab Sample ID: 180-134315-4

Date Collected: 02/23/22 15:50

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:22	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389966	03/01/22 16:09	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390665	02/23/22 15:50	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-2

Lab Sample ID: 180-134317-1

Date Collected: 02/23/22 00:01

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389764	02/28/22 19:17	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	EPA 300.0 R2.1		1			389894	03/01/22 21:36	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	389899	03/01/22 09:53	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390199	03/02/22 12:02	RSK	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:23	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389966	03/01/22 16:09	JCR	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-134317-2

Date Collected: 02/23/22 12:40

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			389764	02/28/22 19:45	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	EPA 300.0 R2.1		1			389894	03/01/22 21:50	JRB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	389899	03/01/22 09:53	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390199	03/02/22 12:06	RSK	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:24	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389966	03/01/22 16:09	JCR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			390764	02/23/22 12:40	FDS	TAL PIT
Instrument ID: NOEQUIP										

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: EB-2

Lab Sample ID: 180-134317-3

Date Collected: 02/23/22 14:40

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			390542	03/06/22 01:03	JRB	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	389899	03/01/22 09:53	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390199	03/02/22 12:09	RSK	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			25 mL	25 mL	390578	03/06/22 10:43	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			390860	03/08/22 14:25	KFS	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	389842	02/28/22 17:28	JCR	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

RGM = Rebecca Manns

RJR = Ron Rosenbaum

Batch Type: Analysis

FDS = Sampler Field

JCR = Jessica Rodgers

JRB = James Burzio

KFS = Kelly Shannon

RJR = Ron Rosenbaum

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: DUP-1
 Date Collected: 02/22/22 00:01
 Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-1
 Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.0		1.0	0.71	mg/L			02/26/22 16:49	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 16:49	1
Sulfate	0.94	J	1.0	0.76	mg/L			02/26/22 16:49	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/01/22 23:30	1
Arsenic	0.0025		0.0010	0.00028	mg/L		02/28/22 11:38	03/01/22 23:30	1
Barium	0.14		0.010	0.0031	mg/L		02/28/22 11:38	03/01/22 23:30	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/01/22 23:30	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 09:57	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/01/22 23:30	1
Calcium	37		0.50	0.13	mg/L		02/28/22 11:38	03/01/22 23:30	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/01/22 23:30	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/01/22 23:30	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/01/22 23:30	1
Lithium	0.027		0.0050	0.00083	mg/L		02/28/22 11:38	03/01/22 23:30	1
Molybdenum	0.0011	J	0.015	0.00061	mg/L		02/28/22 11:38	03/01/22 23:30	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/01/22 23:30	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/01/22 23:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		10	10	mg/L			02/28/22 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-10

Lab Sample ID: 180-134223-2

Date Collected: 02/22/22 10:31

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		1.0	0.71	mg/L			02/26/22 18:04	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 18:04	1
Sulfate	<0.76		1.0	0.76	mg/L			02/26/22 18:04	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/01/22 23:34	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		02/28/22 11:38	03/01/22 23:34	1
Barium	0.022		0.010	0.0031	mg/L		02/28/22 11:38	03/01/22 23:34	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/01/22 23:34	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:00	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/01/22 23:34	1
Calcium	3.3		0.50	0.13	mg/L		02/28/22 11:38	03/01/22 23:34	1
Chromium	0.0039		0.0020	0.0015	mg/L		02/28/22 11:38	03/01/22 23:34	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/01/22 23:34	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/01/22 23:34	1
Lithium	0.0079		0.0050	0.00083	mg/L		02/28/22 11:38	03/01/22 23:34	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/28/22 11:38	03/01/22 23:34	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/01/22 23:34	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/01/22 23:34	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.38				SU			02/22/22 10:31	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-11

Lab Sample ID: 180-134223-3

Date Collected: 02/22/22 13:45

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		1.0	0.71	mg/L			02/26/22 18:29	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 18:29	1
Sulfate	1.1		1.0	0.76	mg/L			02/26/22 18:29	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/01/22 23:52	1
Arsenic	0.0024		0.0010	0.00028	mg/L		02/28/22 11:38	03/01/22 23:52	1
Barium	0.13		0.010	0.0031	mg/L		02/28/22 11:38	03/01/22 23:52	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/01/22 23:52	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/01/22 23:52	1
Calcium	36		0.50	0.13	mg/L		02/28/22 11:38	03/01/22 23:52	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/01/22 23:52	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/01/22 23:52	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/01/22 23:52	1
Lithium	0.027		0.0050	0.00083	mg/L		02/28/22 11:38	03/01/22 23:52	1
Molybdenum	0.0010 J		0.015	0.00061	mg/L		02/28/22 11:38	03/01/22 23:52	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/01/22 23:52	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/01/22 23:52	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.60				SU			02/22/22 13:45	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-134223-4

Date Collected: 02/22/22 16:05

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.71	mg/L			02/26/22 18:54	1
Fluoride	0.047	J	0.10	0.026	mg/L			02/26/22 18:54	1
Sulfate	150		1.0	0.76	mg/L			02/26/22 18:54	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/01/22 23:55	1
Arsenic	0.0014		0.0010	0.00028	mg/L		02/28/22 11:38	03/01/22 23:55	1
Barium	0.11		0.010	0.0031	mg/L		02/28/22 11:38	03/01/22 23:55	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/01/22 23:55	1
Boron	1.7		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:22	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/01/22 23:55	1
Calcium	100		0.50	0.13	mg/L		02/28/22 11:38	03/01/22 23:55	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/01/22 23:55	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/01/22 23:55	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/01/22 23:55	1
Lithium	0.010		0.0050	0.00083	mg/L		02/28/22 11:38	03/01/22 23:55	1
Molybdenum	0.0014	J	0.015	0.00061	mg/L		02/28/22 11:38	03/01/22 23:55	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/01/22 23:55	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/01/22 23:55	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	420		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.32				SU			02/22/22 16:05	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: FB-1

Lab Sample ID: 180-134223-5

Date Collected: 02/22/22 15:30

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/26/22 19:44	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 19:44	1
Sulfate	<0.76		1.0	0.76	mg/L			02/26/22 19:44	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/02/22 00:06	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		02/28/22 11:38	03/02/22 00:06	1
Barium	<0.0031		0.010	0.0031	mg/L		02/28/22 11:38	03/02/22 00:06	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/02/22 00:06	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:25	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/02/22 00:06	1
Calcium	<0.13		0.50	0.13	mg/L		02/28/22 11:38	03/02/22 00:06	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/02/22 00:06	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/02/22 00:06	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/02/22 00:06	1
Lithium	<0.00083		0.0050	0.00083	mg/L		02/28/22 11:38	03/02/22 00:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/28/22 11:38	03/02/22 00:06	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/02/22 00:06	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/02/22 00:06	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/28/22 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-6A

Lab Sample ID: 180-134223-6

Date Collected: 02/22/22 11:05

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.71	mg/L			02/26/22 20:59	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 20:59	1
Sulfate	2.1		1.0	0.76	mg/L			02/26/22 20:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/02/22 00:10	1
Arsenic	0.013		0.0010	0.00028	mg/L		02/28/22 11:38	03/02/22 00:10	1
Barium	0.034		0.010	0.0031	mg/L		02/28/22 11:38	03/02/22 00:10	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/02/22 00:10	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:27	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/02/22 00:10	1
Calcium	90		0.50	0.13	mg/L		02/28/22 11:38	03/02/22 00:10	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/02/22 00:10	1
Cobalt	0.00049 J		0.0025	0.00026	mg/L		02/28/22 11:38	03/02/22 00:10	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/02/22 00:10	1
Lithium	0.0012 J		0.0050	0.00083	mg/L		02/28/22 11:38	03/02/22 00:10	1
Molybdenum	0.00078 J		0.015	0.00061	mg/L		02/28/22 11:38	03/02/22 00:10	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/02/22 00:10	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/02/22 00:10	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	270		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.20				SU			02/22/22 11:05	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-6

Lab Sample ID: 180-134223-7

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			02/26/22 21:23	1
Fluoride	0.034	J	0.10	0.026	mg/L			02/26/22 21:23	1
Sulfate	5.4		1.0	0.76	mg/L			02/26/22 21:23	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/02/22 00:13	1
Arsenic	0.011		0.0010	0.00028	mg/L		02/28/22 11:38	03/02/22 00:13	1
Barium	0.030		0.010	0.0031	mg/L		02/28/22 11:38	03/02/22 00:13	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/02/22 00:13	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:30	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/02/22 00:13	1
Calcium	97		0.50	0.13	mg/L		02/28/22 11:38	03/02/22 00:13	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/02/22 00:13	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/02/22 00:13	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/02/22 00:13	1
Lithium	<0.00083		0.0050	0.00083	mg/L		02/28/22 11:38	03/02/22 00:13	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/28/22 11:38	03/02/22 00:13	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/02/22 00:13	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/02/22 00:13	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.14				SU			02/22/22 12:15	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWA-5

Lab Sample ID: 180-134223-8

Date Collected: 02/22/22 13:32

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.71	mg/L			02/26/22 23:28	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 23:28	1
Sulfate	3.2		1.0	0.76	mg/L			02/26/22 23:28	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/02/22 00:17	1
Arsenic	0.00052	J	0.0010	0.00028	mg/L		02/28/22 11:38	03/02/22 00:17	1
Barium	0.038		0.010	0.0031	mg/L		02/28/22 11:38	03/02/22 00:17	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/02/22 00:17	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:33	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/02/22 00:17	1
Calcium	25		0.50	0.13	mg/L		02/28/22 11:38	03/02/22 00:17	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/02/22 00:17	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/02/22 00:17	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/02/22 00:17	1
Lithium	0.011		0.0050	0.00083	mg/L		02/28/22 11:38	03/02/22 00:17	1
Molybdenum	0.00091	J	0.015	0.00061	mg/L		02/28/22 11:38	03/02/22 00:17	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/02/22 00:17	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/02/22 00:17	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.57				SU			02/22/22 13:32	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: EB-1

Lab Sample ID: 180-134223-9

Date Collected: 02/22/22 13:40

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/26/22 21:48	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 21:48	1
Sulfate	<0.76		1.0	0.76	mg/L			02/26/22 21:48	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/02/22 00:21	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		02/28/22 11:38	03/02/22 00:21	1
Barium	<0.0031		0.010	0.0031	mg/L		02/28/22 11:38	03/02/22 00:21	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/02/22 00:21	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/02/22 00:21	1
Calcium	<0.13		0.50	0.13	mg/L		02/28/22 11:38	03/02/22 00:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/02/22 00:21	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/02/22 00:21	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/02/22 00:21	1
Lithium	<0.00083		0.0050	0.00083	mg/L		02/28/22 11:38	03/02/22 00:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/28/22 11:38	03/02/22 00:21	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/02/22 00:21	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/02/22 00:21	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/28/22 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-12

Lab Sample ID: 180-134223-10

Date Collected: 02/22/22 15:00

Matrix: Water

Date Received: 02/24/22 12:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			02/26/22 22:13	1
Fluoride	0.093	J	0.10	0.026	mg/L			02/26/22 22:13	1
Sulfate	4.8		1.0	0.76	mg/L			02/26/22 22:13	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/02/22 00:24	1
Arsenic	0.00089	J	0.0010	0.00028	mg/L		02/28/22 11:38	03/02/22 00:24	1
Barium	0.067		0.010	0.0031	mg/L		02/28/22 11:38	03/02/22 00:24	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/02/22 00:24	1
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 10:38	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/02/22 00:24	1
Calcium	35		0.50	0.13	mg/L		02/28/22 11:38	03/02/22 00:24	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/02/22 00:24	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/02/22 00:24	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/02/22 00:24	1
Lithium	0.022		0.0050	0.00083	mg/L		02/28/22 11:38	03/02/22 00:24	1
Molybdenum	0.00064	J	0.015	0.00061	mg/L		02/28/22 11:38	03/02/22 00:24	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/02/22 00:24	1
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/02/22 00:24	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		10	10	mg/L			02/28/22 17:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.41				SU			02/22/22 15:00	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-2

Lab Sample ID: 180-134315-1

Date Collected: 02/23/22 09:50

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.71	mg/L			03/05/22 04:39	1
Fluoride	0.075	J	0.10	0.026	mg/L			03/05/22 04:39	1
Sulfate	180		1.0	0.76	mg/L			03/05/22 04:39	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:50	03/02/22 14:09	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		03/01/22 09:50	03/02/22 14:09	1
Barium	0.046		0.010	0.0031	mg/L		03/01/22 09:50	03/02/22 14:09	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:50	03/02/22 14:09	1
Boron	2.0		0.080	0.060	mg/L		03/01/22 09:50	03/02/22 14:09	1
Cadmium	0.0039		0.0025	0.00022	mg/L		03/01/22 09:50	03/02/22 14:09	1
Calcium	100		0.50	0.13	mg/L		03/01/22 09:50	03/02/22 14:09	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:50	03/02/22 14:09	1
Cobalt	0.0016	J	0.0025	0.00026	mg/L		03/01/22 09:50	03/02/22 14:09	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:50	03/02/22 14:09	1
Lithium	0.0066		0.0050	0.00083	mg/L		03/01/22 09:50	03/02/22 14:09	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:50	03/02/22 14:09	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:50	03/02/22 14:09	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:50	03/02/22 14:09	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	490		10	10	mg/L			02/28/22 17:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.44				SU			02/23/22 09:50	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-134315-2

Date Collected: 02/23/22 11:25

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.8		1.0	0.71	mg/L			02/28/22 17:28	1
Fluoride	0.22		0.10	0.026	mg/L			02/28/22 17:28	1
Sulfate	260		5.0	3.8	mg/L			03/01/22 21:23	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:50	03/02/22 14:13	1
Arsenic	0.00040	J	0.0010	0.00028	mg/L		03/01/22 09:50	03/02/22 14:13	1
Barium	0.014		0.010	0.0031	mg/L		03/01/22 09:50	03/02/22 14:13	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:50	03/02/22 14:13	1
Boron	2.1		0.080	0.060	mg/L		03/01/22 09:50	03/02/22 14:13	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:50	03/02/22 14:13	1
Calcium	61		0.50	0.13	mg/L		03/01/22 09:50	03/02/22 14:13	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:50	03/02/22 14:13	1
Cobalt	0.0070		0.0025	0.00026	mg/L		03/01/22 09:50	03/02/22 14:13	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:50	03/02/22 14:13	1
Lithium	0.13		0.0050	0.00083	mg/L		03/01/22 09:50	03/02/22 14:13	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:50	03/02/22 14:13	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:50	03/02/22 14:13	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:50	03/02/22 14:13	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	390		10	10	mg/L			03/01/22 16:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.91				SU			02/23/22 11:25	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: FB-2

Lab Sample ID: 180-134315-3

Date Collected: 02/23/22 14:55

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/28/22 17:42	1
Fluoride	0.029	J	0.10	0.026	mg/L			02/28/22 17:42	1
Sulfate	<0.76		1.0	0.76	mg/L			02/28/22 17:42	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:50	03/02/22 14:17	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		03/01/22 09:50	03/02/22 14:17	1
Barium	<0.0031		0.010	0.0031	mg/L		03/01/22 09:50	03/02/22 14:17	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:50	03/02/22 14:17	1
Boron	<0.060		0.080	0.060	mg/L		03/01/22 09:50	04/01/22 08:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:50	03/02/22 14:17	1
Calcium	<0.13		0.50	0.13	mg/L		03/01/22 09:50	03/02/22 14:17	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:50	03/02/22 14:17	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		03/01/22 09:50	03/02/22 14:17	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:50	03/02/22 14:17	1
Lithium	<0.00083		0.0050	0.00083	mg/L		03/01/22 09:50	03/02/22 14:17	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:50	03/02/22 14:17	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:50	03/02/22 14:17	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:50	03/02/22 14:17	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/01/22 16:09	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-8

Lab Sample ID: 180-134315-4

Date Collected: 02/23/22 15:50

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.71	mg/L			02/28/22 18:36	1
Fluoride	0.050	J	0.10	0.026	mg/L			03/20/22 02:40	1
Sulfate	390		5.0	3.8	mg/L			02/28/22 18:50	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:50	03/02/22 14:27	1
Arsenic	0.00044	J	0.0010	0.00028	mg/L		03/01/22 09:50	03/02/22 14:27	1
Barium	0.036		0.010	0.0031	mg/L		03/01/22 09:50	03/02/22 14:27	1
Beryllium	0.0014	J	0.0025	0.00027	mg/L		03/01/22 09:50	03/02/22 14:27	1
Boron	4.1		0.080	0.060	mg/L		03/01/22 09:50	03/02/22 14:27	1
Cadmium	0.0014	J	0.0025	0.00022	mg/L		03/01/22 09:50	03/02/22 14:27	1
Calcium	97		0.50	0.13	mg/L		03/01/22 09:50	03/02/22 14:27	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:50	03/02/22 14:27	1
Cobalt	0.015		0.0025	0.00026	mg/L		03/01/22 09:50	03/02/22 14:27	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:50	03/02/22 14:27	1
Lithium	0.028		0.0050	0.00083	mg/L		03/01/22 09:50	03/02/22 14:27	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:50	03/02/22 14:27	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:50	03/02/22 14:27	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:50	03/02/22 14:27	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00028		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	630		10	10	mg/L			03/01/22 16:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.22				SU			02/23/22 15:50	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: DUP-2

Lab Sample ID: 180-134317-1

Date Collected: 02/23/22 00:01

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.71	mg/L			02/28/22 19:17	1
Fluoride	0.095	J	0.10	0.026	mg/L			03/01/22 21:36	1
Sulfate	130		1.0	0.76	mg/L			02/28/22 19:17	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:53	03/02/22 12:02	1
Arsenic	0.0016		0.0010	0.00028	mg/L		03/01/22 09:53	03/02/22 12:02	1
Barium	0.17		0.010	0.0031	mg/L		03/01/22 09:53	03/02/22 12:02	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:53	03/02/22 12:02	1
Boron	0.82		0.080	0.060	mg/L		03/01/22 09:53	03/02/22 12:02	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:53	03/02/22 12:02	1
Calcium	120		0.50	0.13	mg/L		03/01/22 09:53	03/02/22 12:02	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:53	03/02/22 12:02	1
Cobalt	0.00096	J	0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 12:02	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:53	03/02/22 12:02	1
Lithium	0.013		0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 12:02	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:53	03/02/22 12:02	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:53	03/02/22 12:02	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:53	03/02/22 12:02	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10	10	mg/L			03/01/22 16:09	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: MGWC-3

Lab Sample ID: 180-134317-2

Date Collected: 02/23/22 12:40

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.71	mg/L			02/28/22 19:45	1
Fluoride	0.086	J	0.10	0.026	mg/L			03/01/22 21:50	1
Sulfate	150		1.0	0.76	mg/L			02/28/22 19:45	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:53	03/02/22 12:06	1
Arsenic	0.0016		0.0010	0.00028	mg/L		03/01/22 09:53	03/02/22 12:06	1
Barium	0.17		0.010	0.0031	mg/L		03/01/22 09:53	03/02/22 12:06	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:53	03/02/22 12:06	1
Boron	0.83		0.080	0.060	mg/L		03/01/22 09:53	03/02/22 12:06	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:53	03/02/22 12:06	1
Calcium	120		0.50	0.13	mg/L		03/01/22 09:53	03/02/22 12:06	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:53	03/02/22 12:06	1
Cobalt	0.0012	J	0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 12:06	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:53	03/02/22 12:06	1
Lithium	0.013		0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 12:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:53	03/02/22 12:06	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:53	03/02/22 12:06	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:53	03/02/22 12:06	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		10	10	mg/L			03/01/22 16:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.98				SU			02/23/22 12:40	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Client Sample ID: EB-2

Lab Sample ID: 180-134317-3

Date Collected: 02/23/22 14:40

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			03/06/22 01:03	1
Fluoride	<0.026		0.10	0.026	mg/L			03/06/22 01:03	1
Sulfate	<0.76		1.0	0.76	mg/L			03/06/22 01:03	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:53	03/02/22 12:09	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		03/01/22 09:53	03/02/22 12:09	1
Barium	<0.0031		0.010	0.0031	mg/L		03/01/22 09:53	03/02/22 12:09	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:53	03/02/22 12:09	1
Boron	0.062 J		0.080	0.060	mg/L		03/01/22 09:53	03/02/22 12:09	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:53	03/02/22 12:09	1
Calcium	<0.13		0.50	0.13	mg/L		03/01/22 09:53	03/02/22 12:09	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:53	03/02/22 12:09	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 12:09	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:53	03/02/22 12:09	1
Lithium	<0.00083		0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 12:09	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:53	03/02/22 12:09	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:53	03/02/22 12:09	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:53	03/02/22 12:09	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/28/22 17:28	1

QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-389675/7
Matrix: Water
Analysis Batch: 389675

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/26/22 13:35	1
Fluoride	<0.026		0.10	0.026	mg/L			02/26/22 13:35	1
Sulfate	<0.76		1.0	0.76	mg/L			02/26/22 13:35	1

Lab Sample ID: LCS 180-389675/6
Matrix: Water
Analysis Batch: 389675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.5		mg/L		99	90 - 110
Fluoride	2.50	2.39		mg/L		96	90 - 110
Sulfate	50.0	50.1		mg/L		100	90 - 110

Lab Sample ID: 180-134223-1 MS
Matrix: Water
Analysis Batch: 389675

Client Sample ID: DUP-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3.0		50.0	51.5		mg/L		97	90 - 110
Fluoride	<0.026		2.50	2.35		mg/L		94	90 - 110
Sulfate	0.94	J	50.0	50.1		mg/L		98	90 - 110

Lab Sample ID: 180-134223-1 MSD
Matrix: Water
Analysis Batch: 389675

Client Sample ID: DUP-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3.0		50.0	51.5		mg/L		97	90 - 110	0	20
Fluoride	<0.026		2.50	2.38		mg/L		95	90 - 110	1	20
Sulfate	0.94	J	50.0	50.4		mg/L		99	90 - 110	1	20

Lab Sample ID: 180-134223-8 MS
Matrix: Water
Analysis Batch: 389675

Client Sample ID: MGWA-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5.1		50.0	53.1		mg/L		96	90 - 110
Fluoride	<0.026		2.50	2.39		mg/L		96	90 - 110
Sulfate	3.2		50.0	52.2		mg/L		98	90 - 110

Lab Sample ID: 180-134223-8 MSD
Matrix: Water
Analysis Batch: 389675

Client Sample ID: MGWA-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.1		50.0	53.0		mg/L		96	90 - 110	0	20
Fluoride	<0.026		2.50	2.42		mg/L		97	90 - 110	1	20
Sulfate	3.2		50.0	52.4		mg/L		98	90 - 110	0	20

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-389764/7
Matrix: Water
Analysis Batch: 389764

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/28/22 12:10	1
Fluoride	<0.026		0.10	0.026	mg/L			02/28/22 12:10	1
Sulfate	<0.76		1.0	0.76	mg/L			02/28/22 12:10	1

Lab Sample ID: LCS 180-389764/6
Matrix: Water
Analysis Batch: 389764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.1		mg/L		102	90 - 110
Fluoride	2.50	2.68		mg/L		107	90 - 110
Sulfate	50.0	51.8		mg/L		104	90 - 110

Lab Sample ID: MB 180-389894/7
Matrix: Water
Analysis Batch: 389894

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			03/01/22 13:17	1
Fluoride	<0.026		0.10	0.026	mg/L			03/01/22 13:17	1
Sulfate	<0.76		1.0	0.76	mg/L			03/01/22 13:17	1

Lab Sample ID: LCS 180-389894/6
Matrix: Water
Analysis Batch: 389894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	100	95.0		mg/L		95	90 - 110
Fluoride	5.00	4.79		mg/L		96	90 - 110
Sulfate	100	89.8		mg/L		90	90 - 110

Lab Sample ID: MB 180-390373/50
Matrix: Water
Analysis Batch: 390373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			03/05/22 03:04	1
Fluoride	<0.026		0.10	0.026	mg/L			03/05/22 03:04	1
Sulfate	<0.76		1.0	0.76	mg/L			03/05/22 03:04	1

Lab Sample ID: LCS 180-390373/49
Matrix: Water
Analysis Batch: 390373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Fluoride	2.50	2.64		mg/L		105	90 - 110
Sulfate	50.0	50.7		mg/L		101	90 - 110

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-390542/38
Matrix: Water
Analysis Batch: 390542

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			03/05/22 21:55	1
Fluoride	<0.026		0.10	0.026	mg/L			03/05/22 21:55	1
Sulfate	<0.76		1.0	0.76	mg/L			03/05/22 21:55	1

Lab Sample ID: LCS 180-390542/37
Matrix: Water
Analysis Batch: 390542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.9		mg/L		100	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	50.4		mg/L		101	90 - 110

Lab Sample ID: MB 180-392317/54
Matrix: Water
Analysis Batch: 392317

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			03/20/22 00:59	1
Fluoride	<0.026		0.10	0.026	mg/L			03/20/22 00:59	1
Sulfate	<0.76		1.0	0.76	mg/L			03/20/22 00:59	1

Lab Sample ID: LCS 180-392317/53
Matrix: Water
Analysis Batch: 392317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	52.7		mg/L		105	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.5		mg/L		105	90 - 110

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-389786/1-A
Matrix: Water
Analysis Batch: 390021

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		02/28/22 11:38	03/01/22 23:08	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		02/28/22 11:38	03/01/22 23:08	1
Barium	<0.0031		0.010	0.0031	mg/L		02/28/22 11:38	03/01/22 23:08	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		02/28/22 11:38	03/01/22 23:08	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/28/22 11:38	03/01/22 23:08	1
Calcium	<0.13		0.50	0.13	mg/L		02/28/22 11:38	03/01/22 23:08	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/28/22 11:38	03/01/22 23:08	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		02/28/22 11:38	03/01/22 23:08	1
Lead	<0.00017		0.0010	0.00017	mg/L		02/28/22 11:38	03/01/22 23:08	1
Lithium	<0.00083		0.0050	0.00083	mg/L		02/28/22 11:38	03/01/22 23:08	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/28/22 11:38	03/01/22 23:08	1
Selenium	<0.00074		0.0050	0.00074	mg/L		02/28/22 11:38	03/01/22 23:08	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-389786/1-A
Matrix: Water
Analysis Batch: 390021

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00047		0.0010	0.00047	mg/L		02/28/22 11:38	03/01/22 23:08	1

Lab Sample ID: MB 180-389786/1-A
Matrix: Water
Analysis Batch: 390093

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.060		0.080	0.060	mg/L		02/28/22 11:38	03/02/22 09:42	1

Lab Sample ID: LCS 180-389786/2-A
Matrix: Water
Analysis Batch: 390021

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.250	0.259		mg/L		104	80 - 120
Arsenic	1.00	0.953		mg/L		95	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Beryllium	0.500	0.490		mg/L		98	80 - 120
Cadmium	0.500	0.502		mg/L		100	80 - 120
Calcium	25.0	25.4		mg/L		102	80 - 120
Chromium	0.500	0.518		mg/L		104	80 - 120
Cobalt	0.500	0.481		mg/L		96	80 - 120
Lead	0.500	0.515		mg/L		103	80 - 120
Lithium	0.500	0.516		mg/L		103	80 - 120
Molybdenum	0.500	0.510		mg/L		102	80 - 120
Selenium	1.00	1.04		mg/L		104	80 - 120
Thallium	1.00	1.08		mg/L		108	80 - 120

Lab Sample ID: LCS 180-389786/2-A
Matrix: Water
Analysis Batch: 390093

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.25	1.35		mg/L		108	80 - 120

Lab Sample ID: 180-134223-2 MS
Matrix: Water
Analysis Batch: 390021

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00051		0.250	0.255		mg/L		102	75 - 125
Arsenic	<0.00028		1.00	0.917		mg/L		92	75 - 125
Barium	0.022		1.00	1.02		mg/L		100	75 - 125
Beryllium	<0.00027		0.500	0.471		mg/L		94	75 - 125
Cadmium	<0.00022		0.500	0.483		mg/L		97	75 - 125
Calcium	3.3		25.0	27.5		mg/L		97	75 - 125
Chromium	0.0039		0.500	0.513		mg/L		102	75 - 125
Cobalt	<0.00026		0.500	0.467		mg/L		93	75 - 125
Lead	<0.00017		0.500	0.498		mg/L		100	75 - 125
Lithium	0.0079		0.500	0.490		mg/L		96	75 - 125

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-134223-2 MS
Matrix: Water
Analysis Batch: 390021

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	<0.00061		0.500	0.497		mg/L		99	75 - 125
Selenium	<0.00074		1.00	0.991		mg/L		99	75 - 125
Thallium	<0.00047		1.00	1.05		mg/L		105	75 - 125

Lab Sample ID: 180-134223-2 MS
Matrix: Water
Analysis Batch: 390093

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	<0.060		1.25	1.30		mg/L		104	75 - 125

Lab Sample ID: 180-134223-2 MSD
Matrix: Water
Analysis Batch: 390021

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00051		0.250	0.260		mg/L		104	75 - 125	2	20
Arsenic	<0.00028		1.00	0.926		mg/L		93	75 - 125	1	20
Barium	0.022		1.00	1.05		mg/L		103	75 - 125	3	20
Beryllium	<0.00027		0.500	0.482		mg/L		96	75 - 125	2	20
Cadmium	<0.00022		0.500	0.498		mg/L		100	75 - 125	3	20
Calcium	3.3		25.0	27.8		mg/L		98	75 - 125	1	20
Chromium	0.0039		0.500	0.521		mg/L		103	75 - 125	2	20
Cobalt	<0.00026		0.500	0.469		mg/L		94	75 - 125	0	20
Lead	<0.00017		0.500	0.508		mg/L		102	75 - 125	2	20
Lithium	0.0079		0.500	0.518		mg/L		102	75 - 125	6	20
Molybdenum	<0.00061		0.500	0.499		mg/L		100	75 - 125	0	20
Selenium	<0.00074		1.00	1.02		mg/L		102	75 - 125	3	20
Thallium	<0.00047		1.00	1.07		mg/L		107	75 - 125	2	20

Lab Sample ID: 180-134223-2 MSD
Matrix: Water
Analysis Batch: 390093

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 389786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	<0.060		1.25	1.26		mg/L		100	75 - 125	4	20

Lab Sample ID: MB 180-389898/1-A
Matrix: Water
Analysis Batch: 390197

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.000563	J	0.0020	0.00051	mg/L		03/01/22 09:50	03/02/22 12:35	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		03/01/22 09:50	03/02/22 12:35	1
Barium	<0.0031		0.010	0.0031	mg/L		03/01/22 09:50	03/02/22 12:35	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:50	03/02/22 12:35	1
Boron	<0.060		0.080	0.060	mg/L		03/01/22 09:50	03/02/22 12:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:50	03/02/22 12:35	1
Calcium	<0.13		0.50	0.13	mg/L		03/01/22 09:50	03/02/22 12:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:50	03/02/22 12:35	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-389898/1-A
Matrix: Water
Analysis Batch: 390197

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00026		0.0025	0.00026	mg/L		03/01/22 09:50	03/02/22 12:35	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:50	03/02/22 12:35	1
Lithium	<0.00083		0.0050	0.00083	mg/L		03/01/22 09:50	03/02/22 12:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:50	03/02/22 12:35	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:50	03/02/22 12:35	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:50	03/02/22 12:35	1

Lab Sample ID: LCS 180-389898/2-A
Matrix: Water
Analysis Batch: 390197

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 389898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.250	0.246		mg/L		98	80 - 120
Arsenic	1.00	0.964		mg/L		96	80 - 120
Barium	1.00	0.981		mg/L		98	80 - 120
Beryllium	0.500	0.513		mg/L		103	80 - 120
Boron	1.25	1.16		mg/L		93	80 - 120
Cadmium	0.500	0.495		mg/L		99	80 - 120
Calcium	25.0	25.5		mg/L		102	80 - 120
Chromium	0.500	0.489		mg/L		98	80 - 120
Cobalt	0.500	0.490		mg/L		98	80 - 120
Lead	0.500	0.495		mg/L		99	80 - 120
Lithium	0.500	0.482		mg/L		96	80 - 120
Molybdenum	0.500	0.492		mg/L		98	80 - 120
Selenium	1.00	0.974		mg/L		97	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: MB 180-389899/1-A
Matrix: Water
Analysis Batch: 390199

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389899

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00051		0.0020	0.00051	mg/L		03/01/22 09:53	03/02/22 11:34	1
Arsenic	<0.00028		0.0010	0.00028	mg/L		03/01/22 09:53	03/02/22 11:34	1
Barium	<0.0031		0.010	0.0031	mg/L		03/01/22 09:53	03/02/22 11:34	1
Beryllium	<0.00027		0.0025	0.00027	mg/L		03/01/22 09:53	03/02/22 11:34	1
Boron	<0.060		0.080	0.060	mg/L		03/01/22 09:53	03/02/22 11:34	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/01/22 09:53	03/02/22 11:34	1
Calcium	<0.13		0.50	0.13	mg/L		03/01/22 09:53	03/02/22 11:34	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/01/22 09:53	03/02/22 11:34	1
Cobalt	<0.00026		0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 11:34	1
Lead	<0.00017		0.0010	0.00017	mg/L		03/01/22 09:53	03/02/22 11:34	1
Lithium	<0.00083		0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 11:34	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/01/22 09:53	03/02/22 11:34	1
Selenium	<0.00074		0.0050	0.00074	mg/L		03/01/22 09:53	03/02/22 11:34	1
Thallium	<0.00047		0.0010	0.00047	mg/L		03/01/22 09:53	03/02/22 11:34	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-389899/2-A
Matrix: Water
Analysis Batch: 390199

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 389899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	0.250	0.237		mg/L		95	80 - 120	
Arsenic	1.00	0.947		mg/L		95	80 - 120	
Barium	1.00	0.960		mg/L		96	80 - 120	
Beryllium	0.500	0.498		mg/L		100	80 - 120	
Boron	1.25	1.22		mg/L		98	80 - 120	
Cadmium	0.500	0.480		mg/L		96	80 - 120	
Calcium	25.0	27.5		mg/L		110	80 - 120	
Chromium	0.500	0.485		mg/L		97	80 - 120	
Cobalt	0.500	0.481		mg/L		96	80 - 120	
Lead	0.500	0.488		mg/L		98	80 - 120	
Lithium	0.500	0.474		mg/L		95	80 - 120	
Molybdenum	0.500	0.491		mg/L		98	80 - 120	
Selenium	1.00	0.943		mg/L		94	80 - 120	
Thallium	1.00	0.989		mg/L		99	80 - 120	

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-390261/1-A
Matrix: Water
Analysis Batch: 390482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390261

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00013		0.00020	0.00013	mg/L		03/03/22 11:02	03/04/22 14:45	1

Lab Sample ID: LCS 180-390261/2-A
Matrix: Water
Analysis Batch: 390482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390261

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Mercury	0.00250	0.00282		mg/L		113	80 - 120	

Lab Sample ID: MB 180-390578/1-A
Matrix: Water
Analysis Batch: 390860

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390578

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00013		0.00020	0.00013	mg/L		03/06/22 10:43	03/08/22 14:07	1

Lab Sample ID: LCS 180-390578/2-A
Matrix: Water
Analysis Batch: 390860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390578

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Mercury	0.00250	0.00261		mg/L		104	80 - 120	

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-389840/2
Matrix: Water
Analysis Batch: 389840

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/28/22 17:18	1

Lab Sample ID: LCS 180-389840/1
Matrix: Water
Analysis Batch: 389840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	469	468		mg/L		100	85 - 115

Lab Sample ID: 180-134223-1 DU
Matrix: Water
Analysis Batch: 389840

Client Sample ID: DUP-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	220		210		mg/L		3	10

Lab Sample ID: MB 180-389842/2
Matrix: Water
Analysis Batch: 389842

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/28/22 17:28	1

Lab Sample ID: LCS 180-389842/1
Matrix: Water
Analysis Batch: 389842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	469	456		mg/L		97	85 - 115

Lab Sample ID: MB 180-389843/2
Matrix: Water
Analysis Batch: 389843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/28/22 17:34	1

Lab Sample ID: LCS 180-389843/1
Matrix: Water
Analysis Batch: 389843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	469	454		mg/L		97	85 - 115

Lab Sample ID: 180-134315-1 DU
Matrix: Water
Analysis Batch: 389843

Client Sample ID: MGWC-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	490		495		mg/L		1	10

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QC Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-389966/2
Matrix: Water
Analysis Batch: 389966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/01/22 16:09	1

Lab Sample ID: LCS 180-389966/1
Matrix: Water
Analysis Batch: 389966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	469	456		mg/L		97	85 - 115

- 1
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- 13

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

HPLC/IC

Analysis Batch: 389675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-134223-2	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-134223-3	MGWA-11	Total/NA	Water	EPA 300.0 R2.1	
180-134223-4	MGWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-134223-5	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-134223-6	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-134223-7	MGWA-6	Total/NA	Water	EPA 300.0 R2.1	
180-134223-8	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-134223-9	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-134223-10	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
MB 180-389675/7	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-389675/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-134223-1 MS	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-134223-1 MSD	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-134223-8 MS	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-134223-8 MSD	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 389764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-2	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-134315-3	FB-2	Total/NA	Water	EPA 300.0 R2.1	
180-134315-4	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-134315-4	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-134317-1	DUP-2	Total/NA	Water	EPA 300.0 R2.1	
180-134317-2	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
MB 180-389764/7	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-389764/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 389894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-2	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-134317-1	DUP-2	Total/NA	Water	EPA 300.0 R2.1	
180-134317-2	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
MB 180-389894/7	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-389894/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 390373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total/NA	Water	EPA 300.0 R2.1	
MB 180-390373/50	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-390373/49	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 390542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-3	EB-2	Total/NA	Water	EPA 300.0 R2.1	
MB 180-390542/38	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-390542/37	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 392317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-4	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	

Eurofins Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

HPLC/IC (Continued)

Analysis Batch: 392317 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-392317/54	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-392317/53	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 389786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total Recoverable	Water	3005A	
180-134223-2	MGWA-10	Total Recoverable	Water	3005A	
180-134223-3	MGWA-11	Total Recoverable	Water	3005A	
180-134223-4	MGWC-1	Total Recoverable	Water	3005A	
180-134223-5	FB-1	Total Recoverable	Water	3005A	
180-134223-6	MGWA-6A	Total Recoverable	Water	3005A	
180-134223-7	MGWA-6	Total Recoverable	Water	3005A	
180-134223-8	MGWA-5	Total Recoverable	Water	3005A	
180-134223-9	EB-1	Total Recoverable	Water	3005A	
180-134223-10	MGWC-12	Total Recoverable	Water	3005A	
MB 180-389786/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-389786/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-134223-2 MS	MGWA-10	Total Recoverable	Water	3005A	
180-134223-2 MSD	MGWA-10	Total Recoverable	Water	3005A	

Prep Batch: 389898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total Recoverable	Water	3005A	
180-134315-2	MGWC-7	Total Recoverable	Water	3005A	
180-134315-3	FB-2	Total Recoverable	Water	3005A	
180-134315-4	MGWC-8	Total Recoverable	Water	3005A	
MB 180-389898/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-389898/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 389899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-1	DUP-2	Total Recoverable	Water	3005A	
180-134317-2	MGWC-3	Total Recoverable	Water	3005A	
180-134317-3	EB-2	Total Recoverable	Water	3005A	
MB 180-389899/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-389899/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 390021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-2	MGWA-10	Total Recoverable	Water	EPA 6020B	389786
180-134223-3	MGWA-11	Total Recoverable	Water	EPA 6020B	389786
180-134223-4	MGWC-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-5	FB-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-6	MGWA-6A	Total Recoverable	Water	EPA 6020B	389786
180-134223-7	MGWA-6	Total Recoverable	Water	EPA 6020B	389786
180-134223-8	MGWA-5	Total Recoverable	Water	EPA 6020B	389786
180-134223-9	EB-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-10	MGWC-12	Total Recoverable	Water	EPA 6020B	389786

Eurofins Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Metals (Continued)

Analysis Batch: 390021 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-389786/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	389786
LCS 180-389786/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	389786
180-134223-2 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	389786
180-134223-2 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	389786

Analysis Batch: 390093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-2	MGWA-10	Total Recoverable	Water	EPA 6020B	389786
180-134223-3	MGWA-11	Total Recoverable	Water	EPA 6020B	389786
180-134223-4	MGWC-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-5	FB-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-6	MGWA-6A	Total Recoverable	Water	EPA 6020B	389786
180-134223-7	MGWA-6	Total Recoverable	Water	EPA 6020B	389786
180-134223-8	MGWA-5	Total Recoverable	Water	EPA 6020B	389786
180-134223-9	EB-1	Total Recoverable	Water	EPA 6020B	389786
180-134223-10	MGWC-12	Total Recoverable	Water	EPA 6020B	389786
MB 180-389786/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	389786
LCS 180-389786/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	389786
180-134223-2 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	389786
180-134223-2 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	389786

Analysis Batch: 390197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total Recoverable	Water	EPA 6020B	389898
180-134315-2	MGWC-7	Total Recoverable	Water	EPA 6020B	389898
180-134315-3	FB-2	Total Recoverable	Water	EPA 6020B	389898
180-134315-4	MGWC-8	Total Recoverable	Water	EPA 6020B	389898
MB 180-389898/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	389898
LCS 180-389898/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	389898

Analysis Batch: 390199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-1	DUP-2	Total Recoverable	Water	EPA 6020B	389899
180-134317-2	MGWC-3	Total Recoverable	Water	EPA 6020B	389899
180-134317-3	EB-2	Total Recoverable	Water	EPA 6020B	389899
MB 180-389899/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	389899
LCS 180-389899/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	389899

Prep Batch: 390261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total/NA	Water	7470A	
180-134223-2	MGWA-10	Total/NA	Water	7470A	
180-134223-3	MGWA-11	Total/NA	Water	7470A	
180-134223-4	MGWC-1	Total/NA	Water	7470A	
180-134223-5	FB-1	Total/NA	Water	7470A	
180-134223-6	MGWA-6A	Total/NA	Water	7470A	
180-134223-7	MGWA-6	Total/NA	Water	7470A	
180-134223-8	MGWA-5	Total/NA	Water	7470A	
180-134223-9	EB-1	Total/NA	Water	7470A	
180-134223-10	MGWC-12	Total/NA	Water	7470A	

Eurofins Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Metals (Continued)

Prep Batch: 390261 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-390261/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-390261/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 390482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total/NA	Water	EPA 7470A	390261
180-134223-2	MGWA-10	Total/NA	Water	EPA 7470A	390261
180-134223-3	MGWA-11	Total/NA	Water	EPA 7470A	390261
180-134223-4	MGWC-1	Total/NA	Water	EPA 7470A	390261
180-134223-5	FB-1	Total/NA	Water	EPA 7470A	390261
180-134223-6	MGWA-6A	Total/NA	Water	EPA 7470A	390261
180-134223-7	MGWA-6	Total/NA	Water	EPA 7470A	390261
180-134223-8	MGWA-5	Total/NA	Water	EPA 7470A	390261
180-134223-9	EB-1	Total/NA	Water	EPA 7470A	390261
180-134223-10	MGWC-12	Total/NA	Water	EPA 7470A	390261
MB 180-390261/1-A	Method Blank	Total/NA	Water	EPA 7470A	390261
LCS 180-390261/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	390261

Prep Batch: 390578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total/NA	Water	7470A	
180-134315-2	MGWC-7	Total/NA	Water	7470A	
180-134315-3	FB-2	Total/NA	Water	7470A	
180-134315-4	MGWC-8	Total/NA	Water	7470A	
180-134317-1	DUP-2	Total/NA	Water	7470A	
180-134317-2	MGWC-3	Total/NA	Water	7470A	
180-134317-3	EB-2	Total/NA	Water	7470A	
MB 180-390578/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-390578/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 390860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total/NA	Water	EPA 7470A	390578
180-134315-2	MGWC-7	Total/NA	Water	EPA 7470A	390578
180-134315-3	FB-2	Total/NA	Water	EPA 7470A	390578
180-134315-4	MGWC-8	Total/NA	Water	EPA 7470A	390578
180-134317-1	DUP-2	Total/NA	Water	EPA 7470A	390578
180-134317-2	MGWC-3	Total/NA	Water	EPA 7470A	390578
180-134317-3	EB-2	Total/NA	Water	EPA 7470A	390578
MB 180-390578/1-A	Method Blank	Total/NA	Water	EPA 7470A	390578
LCS 180-390578/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	390578

Analysis Batch: 393913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-3	FB-2	Total Recoverable	Water	EPA 6020B	389898

General Chemistry

Analysis Batch: 389840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total/NA	Water	SM 2540C	

Eurofins Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

General Chemistry (Continued)

Analysis Batch: 389840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-2	MGWA-10	Total/NA	Water	SM 2540C	
180-134223-3	MGWA-11	Total/NA	Water	SM 2540C	
180-134223-4	MGWC-1	Total/NA	Water	SM 2540C	
180-134223-5	FB-1	Total/NA	Water	SM 2540C	
180-134223-6	MGWA-6A	Total/NA	Water	SM 2540C	
180-134223-7	MGWA-6	Total/NA	Water	SM 2540C	
180-134223-8	MGWA-5	Total/NA	Water	SM 2540C	
180-134223-9	EB-1	Total/NA	Water	SM 2540C	
180-134223-10	MGWC-12	Total/NA	Water	SM 2540C	
MB 180-389840/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-389840/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-134223-1 DU	DUP-1	Total/NA	Water	SM 2540C	

Analysis Batch: 389842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-3	EB-2	Total/NA	Water	SM 2540C	
MB 180-389842/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-389842/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 389843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total/NA	Water	SM 2540C	
MB 180-389843/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-389843/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-134315-1 DU	MGWC-2	Total/NA	Water	SM 2540C	

Analysis Batch: 389966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-2	MGWC-7	Total/NA	Water	SM 2540C	
180-134315-3	FB-2	Total/NA	Water	SM 2540C	
180-134315-4	MGWC-8	Total/NA	Water	SM 2540C	
180-134317-1	DUP-2	Total/NA	Water	SM 2540C	
180-134317-2	MGWC-3	Total/NA	Water	SM 2540C	
MB 180-389966/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-389966/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 390455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-2	MGWA-10	Total/NA	Water	Field Sampling	
180-134223-3	MGWA-11	Total/NA	Water	Field Sampling	
180-134223-4	MGWC-1	Total/NA	Water	Field Sampling	
180-134223-6	MGWA-6A	Total/NA	Water	Field Sampling	
180-134223-7	MGWA-6	Total/NA	Water	Field Sampling	
180-134223-8	MGWA-5	Total/NA	Water	Field Sampling	
180-134223-10	MGWC-12	Total/NA	Water	Field Sampling	

Analysis Batch: 390665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-1	MGWC-2	Total/NA	Water	Field Sampling	

Eurofins Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 390665 (Continued)

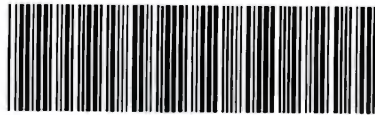
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134315-2	MGWC-7	Total/NA	Water	Field Sampling	
180-134315-4	MGWC-8	Total/NA	Water	Field Sampling	

Analysis Batch: 390764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-2	MGWC-3	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Information				Sampler: <u>Hunter Auld</u>			Lab PM: <u>Brown, Shali</u>				Carrier Tracking No(s):		COC No:								
Client Contact: SCS Contacts				Phone: <u>770-594-5998</u>			E-Mail: <u>shali.brown@eurofinset.com</u>						Page:								
Company: GA Power				Analysis Requested										Job #:							
Address: 241 Ralph McGill Blvd SE				Due Date Requested:			Field Filtered Sample (Yes or No) Perform MS/MS (Yes or No) App. III Metals (B, Ca) Cl, F, SO ₄ , TDS (EPA 300.0 & SW 2640C) App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Tl) Radium 226 & 228 (SW-946 9316/9320)				Total Number of Containers				Preservation Codes:						
City: Atlanta				TAT Requested (days):							A - HCL				M - Hexane						
State, Zip: GA, 30308											B - NaOH				N - None						
Phone: 404-506-7116(Tel)				PO #:							C - Zn Acetate				O - AsNaO2						
Email: SCS Contacts				WO #:							D - Nitric Acid				P - Na2O4S						
Project Name: Plant McIntosh Ash Pond 1				Project #: 18019956							Q - Na2SO3										
Site: Georgia				SSOW#:							R - Na2S2O3										
Sample Identification				Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform MS/MS (Yes or No)		App. III Metals (B, Ca)		App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Tl)		Radium 226 & 228 (SW-946 9316/9320)		Total Number of Containers		Special Instructions/Note: App III plus Detected App IV	Full
								Preservation Code:													
MGWC-2				2-23-22	0950	G	W	N	N	✓	✓	✓	✓	✓	✓	✓	✓	4	pH= 7.44		
MGWC-7				2-23-22	1125	G	W	M	N	✓	✓	✓	✓	✓	✓	✓	✓	6	pH= 6.91 Extra Rad		
FB-2				2-23-22	1455	G	W	M	N	✓	✓	✓	✓	✓	✓	✓	✓		pH=		
MGWC-8				2-23-22	1550	G	W	N	N	✓	✓	✓	✓	✓	✓	✓	✓		pH= 6.22		
																			pH=		
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180-134315 Chain of Custody

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: <u>H. Auld</u>	Date/Time: <u>2/23/22 1320</u>	Company: <u>ETA</u>	Received by: <u>[Signature]</u>	Date/Time: <u>2/24/22</u>	Company: <u>ETA</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>2/24/22 16:00</u>	Company: <u>ETA</u>	Received by: <u>[Signature]</u>	Date/Time: <u>2-26-22</u>	Company: <u>ETA</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>2/24/22 10:00</u>	Company: <u>ETA</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10:00</u>	Company: <u>ETA</u>

Custody Seals Intact: Yes No

Custody Seal No.:


Cooler Temperature(s) °C and Other Remarks:

Eurofins TestAmerica, Pittsburgh
 301 Alpha Drive RIDC Park
 Pittsburgh, PA 15238
 Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing America

Client Information					Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact:					Phone:		Brown, Shali				Page:	
SCS Contacts					770-544-5448		E-Mail:		shali.brown@eurofinset.com			
Company:					Analysis Requested					Job #:		
GA Power												
Address:					Due Date Requested:					Preservation Codes:		
241 Ralph McGill Blvd SE										A - HCL M - Hexane		
City:					TAT Requested (days):					B - NaOH N - None		
Atlanta										C - Zn Acetate O - AsNaO2		
State, Zip:					PO #:					D - Nitric Acid P - Na2O4S		
GA, 30308					WO #:					E - NaHSO4 Q - Na2SO3		
Phone:					Project #:					R - H2SO4 S - H2SO4		
404-506-7116(Tel)					18019956					H - Ascorbic Acid T - TSP Dodecahydrate		
Email:					SSOW#:					I - Ice U - Acetone		
SCS Contacts										J - DI Water V - MCAA		
Project Name:										K - EDTA W - pH 4-5		
Plant McIntosh Ash Pond 1										L - EDTA Z - other (specify)		
Site:										Other:		
Georgia												
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Tissue, Air)	Field Filtered Sample (Yes or No)	App. III Metals (B, Cu)	Cd, Cr, Pb, Hg, Mn, Ni, Se, Tl	App. IV Metals (Sb, As, Ba, Be, Bi, Br, Cd, Cr, Co, Pb, Li, Hg, Mn, Se, Ti)	Radium 226 & 228 (SM-5615/5320)	Total Number of Containers	Special Instructions/Note: Full App III plus Detected App IV	
Dup-2	2-23-22		6	W	Y	Y	Y	Y		4	pH= N/A	
M6WC-3	2-23-22	1240	6	W	N	Y	Y	Y		4	pH= 6.98	
EB-2	2-22-22	1440	6	W	N	Y	Y	Y		4	pH= N/A	
	2-23-22										pH=	
											pH=	
											pH=	
											pH=	
											pH=	
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											pH=	
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											pH=	
<div style="text-align: center;">  <p>180-134317 Chain of Custody</p> </div>												
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:							
Empty Kit Relinquished by:					Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>					Date/Time: 2/24/22 1320		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date/Time: 2/24/22 13:20	
Relinquished by: <i>[Signature]</i>					Date/Time: 2/24/22 16:00		Company: Etn		Received by: <i>[Signature]</i>		Date/Time: 2/26-22 10:00	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					

urofins

Environment Testing
TestAmerica

ID:SAVA (912) 354-7858
NG
INS TESTAMERICA SAV
LAROUCHE AVE
SAVANNAH, GA 31404
D STATES US

SHIP
ACTL
CAD:



BILL 180-134223 Waybill

AMPLE CUSTODY
ESTAMERICA LABORATORIES, INC.
01 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

REF: DEPT:

2) 983-7053

Uncorrected temp
Thermometer ID

3.7
16

CF 0 Initials Mo

PT-WI-SR-001 effective 11/8/18

FedEx
Express



211102012110101

THU - 24 FEB 10:30A
PRIORITY OVERNIGHT

2 of 3
MPS# 5146 3367 7256
D263
Mstr# 5146 3367 7245

15238
PIT

XN AGCA



eurofins

Environment Test
TestAmerica

ORIGIN ID:SAVA (912) 354-7858
SHIPPING
EUROFINS TESTAMERICA SAV
5102 LAROUCHE AVE
SAVANNAH, GA 31404
UNITED STATES US

SHIP DATE: 23F
ACTWGT: 45.00
CAD: 0886563/D

BILL THIRD-PAR

TO SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 983-7053

REF: DEPT:

Uncorrected temp
Thermometer ID

4.0
16

CF 0 Initials Mo

PT-WI-SR-001 effective 11/8/18

3 of 3
MPS# 5146 3367 7267
D263
Mstr# 5146 3367 7245

KN AGCA



eurofins

Environment Test
TestAmerica

ORIGIN ID:SAVA (912) 354-7858
SHIPPING
EUROFINS TESTAMERICA SAV
5102 LAROUCHE AVE
SAVANNAH, GA 31404
UNITED STATES US

BILL THIRD-PAR

TO SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 983-7053

Uncorrected temp
Thermometer ID

3.4
16

CF 0 Initials Mo

PT-WI-SR-001 effective 11/8/18

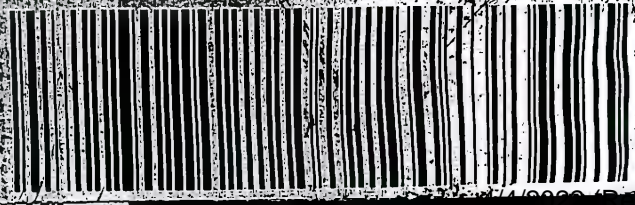
THU - 24 FEB 10:30A
PRIORITY OVERNIGHT

THU - 24 FEB 10:30A
PRIORITY OVERNIGHT

2 of 3
MPS# 5146 3367 7245
D263
Mstr# 5146 3367 7245

15238
PIT

XN AGCA





Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

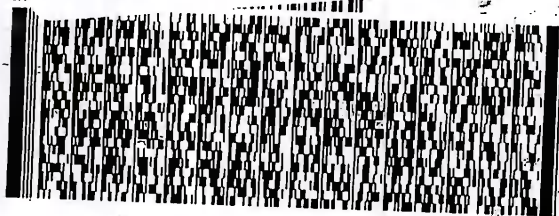
SHIP DATE: 24FEB22
ACTWGT: 52.15 LB
CAD: 859116/CAFE3510

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.



180-134315 Waybill



FedEx
Express



1 of 2
TRK# 5220 7116 4770
0201
MASTER

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

NA AGCA

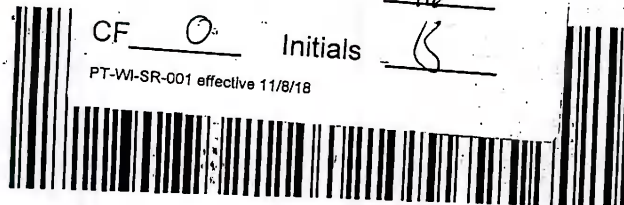
Uncorrected temp
Thermometer ID

3.4 °C us

15238
PIT

CF 0 Initials B

PT-WI-SR-001 effective 11/8/18



Part # 150469-4341MTM/EX/0922

570F2/027C/AF4B

J21102012110101

Environment Testing using this tag



Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 24FEB22
ACTWGT: 52.15 LB
CAD: 859116/CAFE3510

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 863-7068
INU:
PO:

REF:

DEPT:



FedEx
Express



2 of 2
NPS# 5220 7116 4781
263
/str# 5220 7116 4770
0201

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

NA AGCA

Uncorrected temp
Thermometer ID

2.6 °C
16

15238



Environment Testing
TestAmerica

ORIGIN ID:LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE:
ACTWGT: 52
CAD: 859116

BILL THIRD



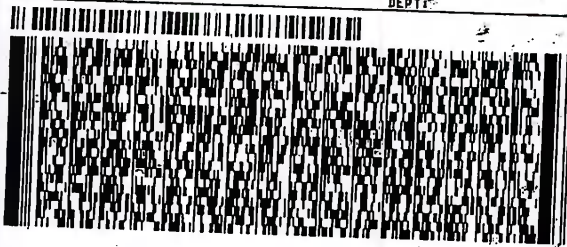
Pat # 159465-434 M/TW Exp 09/22

TO **SAMPLE RECIEVING**
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068

REF:

DEPT:



FedEx
Express



134317 Waybill

1 of 2
TRK# 5220 7116 4770
0201
MASTER

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

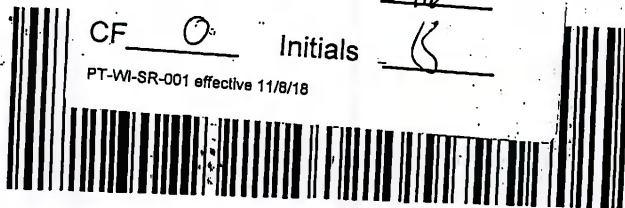
NA AGCA

Uncorrected temp
Thermometer ID 3.4 °C US

15238
PIT

CF 0 Initials B

PT-WI-SR-001 effective 11/8/18



Environment Testing
TestAmerica

ORIGIN ID:LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 24FEB22
ACTWGT: 52.15 LB
CAD: 859116/CAFE3510

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068

REF:

DEPT:



FedEx
Express



2 of 2
NPS# 5220 7116 4781
263
Instr# 5220 7116 4770

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

NA AGCA

Uncorrected temp
Thermometer ID 2.6 °C

15238
PIT

(412) 963-7068 (Rev. 1)

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-1

Login Number: 134223

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-1

Login Number: 134315

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-1

Login Number: 134317

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-134223-2

Client Project/Site: Plant McIntosh Ash Pond 1

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:
3/31/2022 7:13:29 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Job ID: 180-134223-2

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative 180-134223-2

Receipt

The samples were received on 2/24/2022 12:30 PM and 2/26/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6°C, 3.4°C, 3.6°C and 4.0°C

Receipt Exceptions

The labels for both of the RAD containers for the following sample did not match the information listed on the Chain-of-Custody (COC): MGWA-6A (180-134223-6). The container labels both list a sample id of MGWA-6. One liter has a collection time of 13:32 and one has 11:05, while the COC lists MGWA-6A at 11:05. The id and time on the COC was used.

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 Prep Batch 160-552933The following samples were prepared at a reduced aliquot due to Matrix: DUP-1 (180-134223-1) and MGWC-7 (180-134315-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9315_Ra226: Radium 226 batch 552933Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-134223-1), MGWA-10 (180-134223-2), MGWA-11 (180-134223-3), MGWC-1 (180-134223-4), FB-1 (180-134223-5), MGWA-6A (180-134223-6), MGWC-2 (180-134315-1), MGWC-7 (180-134315-2), FB-2 (180-134315-3), MGWC-8 (180-134315-4), DUP-2 (180-134317-1), MGWC-3 (180-134317-2) and EB-2 (180-134317-3)

Method 9315_Ra226: Radium 226 batch 552933Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-6 (180-134223-7), MGWA-5 (180-134223-8), EB-1 (180-134223-9) and MGWC-12 (180-134223-10)

Method 9320_Ra228: Radium-228 Prep Batch 160-552935The following samples were prepared at a reduced aliquot due to Matrix: DUP-1 (180-134223-1) and MGWC-7 (180-134315-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9320_Ra228: Radium 228 batch 552935Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-134223-1), MGWA-10 (180-134223-2), MGWA-11 (180-134223-3), MGWC-1 (180-134223-4), FB-1 (180-134223-5), MGWA-6A (180-134223-6), MGWA-6 (180-134223-7), MGWA-5 (180-134223-8), EB-1 (180-134223-9), MGWC-12 (180-134223-10), MGWC-2 (180-134315-1), MGWC-7 (180-134315-2), FB-2 (180-134315-3), MGWC-8 (180-134315-4), DUP-2 (180-134317-1), MGWC-3 (180-134317-2), EB-2 (180-134317-3), (LCS 160-552935/1-A), (LCSD 160-552935/2-A) and (MB 160-552935/22-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-07-23
Arizona	State	AZ0813	12-08-22
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	07-01-22
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
Kentucky (DW)	State	KY90125	12-31-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-22
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-22
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	NELAP	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	02-28-23
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	07-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

Sample Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-134223-1	DUP-1	Water	02/22/22 00:01	02/24/22 12:30
180-134223-2	MGWA-10	Water	02/22/22 10:31	02/24/22 12:30
180-134223-3	MGWA-11	Water	02/22/22 13:45	02/24/22 12:30
180-134223-4	MGWC-1	Water	02/22/22 16:05	02/24/22 12:30
180-134223-5	FB-1	Water	02/22/22 15:30	02/24/22 12:30
180-134223-6	MGWA-6A	Water	02/22/22 11:05	02/24/22 12:30
180-134223-7	MGWA-6	Water	02/22/22 12:15	02/24/22 12:30
180-134223-8	MGWA-5	Water	02/22/22 13:32	02/24/22 12:30
180-134223-9	EB-1	Water	02/22/22 13:40	02/24/22 12:30
180-134223-10	MGWC-12	Water	02/22/22 15:00	02/24/22 12:30
180-134315-1	MGWC-2	Water	02/23/22 09:50	02/26/22 10:00
180-134315-2	MGWC-7	Water	02/23/22 11:25	02/26/22 10:00
180-134315-3	FB-2	Water	02/23/22 14:55	02/26/22 10:00
180-134315-4	MGWC-8	Water	02/23/22 15:50	02/26/22 10:00
180-134317-1	DUP-2	Water	02/23/22 00:01	02/26/22 10:00
180-134317-2	MGWC-3	Water	02/23/22 12:40	02/26/22 10:00
180-134317-3	EB-2	Water	02/23/22 14:40	02/26/22 10:00



Method Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: DUP-1
 Date Collected: 02/22/22 00:01
 Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-1
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			745.01 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557095	03/25/22 17:16	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			745.01 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:05	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-10
 Date Collected: 02/22/22 10:31
 Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-2
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			996.59 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557095	03/25/22 17:16	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			996.59 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:05	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-11
 Date Collected: 02/22/22 13:45
 Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-3
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			992.16 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557095	03/25/22 17:16	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			992.16 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:05	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-1
 Date Collected: 02/22/22 16:05
 Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-4
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557095	03/25/22 17:17	FLC	TAL SL
Instrument ID: GFPCBLUE										

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-134223-4

Date Collected: 02/22/22 16:05

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.95 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:05	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-1

Lab Sample ID: 180-134223-5

Date Collected: 02/22/22 15:30

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			992.83 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:28	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			992.83 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:05	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-134223-6

Date Collected: 02/22/22 11:05

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.43 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:28	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.43 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Lab Sample ID: 180-134223-7

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			992.01 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:29	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			992.01 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWA-6

Lab Sample ID: 180-134223-7

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL

Client Sample ID: MGWA-5

Lab Sample ID: 180-134223-8

Date Collected: 02/22/22 13:32

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.51 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:29	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.51 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-1

Lab Sample ID: 180-134223-9

Date Collected: 02/22/22 13:40

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			991.86 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:30	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			991.86 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-12

Lab Sample ID: 180-134223-10

Date Collected: 02/22/22 15:00

Matrix: Water

Date Received: 02/24/22 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			997.75 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:30	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			997.75 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-2

Lab Sample ID: 180-134315-1

Date Collected: 02/23/22 09:50

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			995.21 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:31	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			995.21 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-7

Lab Sample ID: 180-134315-2

Date Collected: 02/23/22 11:25

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			755.30 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:31	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			755.30 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:06	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-2

Lab Sample ID: 180-134315-3

Date Collected: 02/23/22 14:55

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.73 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557097	03/25/22 16:31	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.73 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:07	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-134315-4

Date Collected: 02/23/22 15:50

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			995.72 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	557097	03/25/22 16:31	FLC	TAL SL
Instrument ID: GFPCRED										

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Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-8

Lab Sample ID: 180-134315-4

Date Collected: 02/23/22 15:50

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			995.72 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:07	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-2

Lab Sample ID: 180-134317-1

Date Collected: 02/23/22 00:01

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.34 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557095	03/25/22 17:17	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.34 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:07	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-134317-2

Date Collected: 02/23/22 12:40

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			997.72 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1			557095	03/25/22 17:17	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			997.72 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557095	03/25/22 13:08	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-2

Lab Sample ID: 180-134317-3

Date Collected: 02/23/22 14:40

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.85 mL	1.0 g	552933	03/02/22 09:52	LPS	TAL SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	557108	03/25/22 17:20	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			999.85 mL	1.0 g	552935	03/02/22 10:22	LPS	TAL SL
Total/NA	Analysis	9320		1			557108	03/25/22 13:08	FLC	TAL SL
Instrument ID: GFPCPURPLE										

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Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: EB-2

Lab Sample ID: 180-134317-3

Date Collected: 02/23/22 14:40

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			558094	03/31/22 15:23	EMH	TAL SL

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

LPS = Lauren Szostak

Batch Type: Analysis

EMH = Elizabeth Hoerchler

FLC = Fernando Cruz



Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: DUP-1
 Date Collected: 02/22/22 00:01
 Date Received: 02/24/22 12:30

Lab Sample ID: 180-134223-1
 Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0359	U	0.244	0.244	1.00	0.506	pCi/L	03/02/22 09:52	03/25/22 17:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					03/02/22 09:52	03/25/22 17:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.699		0.362	0.367	1.00	0.536	pCi/L	03/02/22 10:22	03/25/22 13:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					03/02/22 10:22	03/25/22 13:05	1
Y Carrier	83.4		40 - 110					03/02/22 10:22	03/25/22 13:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.663		0.437	0.441	5.00	0.536	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWA-10

Lab Sample ID: 180-134223-2

Date Collected: 02/22/22 10:31

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.330	U	0.322	0.323	1.00	0.502	pCi/L	03/02/22 09:52	03/25/22 17:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.5		40 - 110					03/02/22 09:52	03/25/22 17:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.731		0.382	0.388	1.00	0.567	pCi/L	03/02/22 10:22	03/25/22 13:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.5		40 - 110					03/02/22 10:22	03/25/22 13:05	1
Y Carrier	84.5		40 - 110					03/02/22 10:22	03/25/22 13:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.06		0.500	0.505	5.00	0.567	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWA-11

Lab Sample ID: 180-134223-3

Date Collected: 02/22/22 13:45

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.285	U	0.331	0.332	1.00	0.542	pCi/L	03/02/22 09:52	03/25/22 17:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.4		40 - 110					03/02/22 09:52	03/25/22 17:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.552		0.331	0.335	1.00	0.501	pCi/L	03/02/22 10:22	03/25/22 13:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.4		40 - 110					03/02/22 10:22	03/25/22 13:05	1
Y Carrier	82.2		40 - 110					03/02/22 10:22	03/25/22 13:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.837		0.468	0.472	5.00	0.542	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-134223-4

Date Collected: 02/22/22 16:05

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.57		0.421	0.444	1.00	0.355	pCi/L	03/02/22 09:52	03/25/22 17:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		40 - 110					03/02/22 09:52	03/25/22 17:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.282	U	0.245	0.246	1.00	0.391	pCi/L	03/02/22 10:22	03/25/22 13:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		40 - 110					03/02/22 10:22	03/25/22 13:05	1
Y Carrier	86.0		40 - 110					03/02/22 10:22	03/25/22 13:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.85		0.487	0.508	5.00	0.391	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: FB-1

Lab Sample ID: 180-134223-5

Date Collected: 02/22/22 15:30

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0232	U	0.250	0.250	1.00	0.500	pCi/L	03/02/22 09:52	03/25/22 16:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.3		40 - 110					03/02/22 09:52	03/25/22 16:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.434	U	0.396	0.398	1.00	0.637	pCi/L	03/02/22 10:22	03/25/22 13:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.3		40 - 110					03/02/22 10:22	03/25/22 13:05	1
Y Carrier	83.0		40 - 110					03/02/22 10:22	03/25/22 13:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.457	U	0.468	0.470	5.00	0.637	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWA-6A

Lab Sample ID: 180-134223-6

Date Collected: 02/22/22 11:05

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.638		0.340	0.345	1.00	0.438	pCi/L	03/02/22 09:52	03/25/22 16:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					03/02/22 09:52	03/25/22 16:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0890	U	0.264	0.264	1.00	0.460	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	83.7		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.728		0.430	0.434	5.00	0.460	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWA-6

Lab Sample ID: 180-134223-7

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.506		0.278	0.282	1.00	0.352	pCi/L	03/02/22 09:52	03/25/22 16:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		40 - 110					03/02/22 09:52	03/25/22 16:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0875	U	0.212	0.212	1.00	0.367	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	83.7		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.594		0.350	0.353	5.00	0.367	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWA-5

Lab Sample ID: 180-134223-8

Date Collected: 02/22/22 13:32

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.233	U	0.216	0.217	1.00	0.331	pCi/L	03/02/22 09:52	03/25/22 16:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.3		40 - 110					03/02/22 09:52	03/25/22 16:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.278	U	0.219	0.221	1.00	0.344	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.3		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	82.2		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.511		0.308	0.310	5.00	0.344	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: EB-1

Lab Sample ID: 180-134223-9

Date Collected: 02/22/22 13:40

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0289	U	0.175	0.175	1.00	0.381	pCi/L	03/02/22 09:52	03/25/22 16:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.3		40 - 110					03/02/22 09:52	03/25/22 16:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0507	U	0.257	0.257	1.00	0.472	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.3		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	81.5		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0796	U	0.311	0.311	5.00	0.472	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-12

Lab Sample ID: 180-134223-10

Date Collected: 02/22/22 15:00

Matrix: Water

Date Received: 02/24/22 12:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.555		0.280	0.284	1.00	0.341	pCi/L	03/02/22 09:52	03/25/22 16:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					03/02/22 09:52	03/25/22 16:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.333	U	0.266	0.268	1.00	0.421	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	80.4		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.888		0.386	0.390	5.00	0.421	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-2

Lab Sample ID: 180-134315-1

Date Collected: 02/23/22 09:50

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.198	U	0.203	0.204	1.00	0.318	pCi/L	03/02/22 09:52	03/25/22 16:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					03/02/22 09:52	03/25/22 16:31	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.400		0.239	0.241	1.00	0.359	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	86.7		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.598		0.314	0.316	5.00	0.359	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-7

Lab Sample ID: 180-134315-2

Date Collected: 02/23/22 11:25

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.12		0.506	0.516	1.00	0.559	pCi/L	03/02/22 09:52	03/25/22 16:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	63.3		40 - 110					03/02/22 09:52	03/25/22 16:31	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.299	U	0.463	0.464	1.00	0.780	pCi/L	03/02/22 10:22	03/25/22 13:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	63.3		40 - 110					03/02/22 10:22	03/25/22 13:06	1
Y Carrier	80.4		40 - 110					03/02/22 10:22	03/25/22 13:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.42		0.686	0.694	5.00	0.780	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: FB-2

Lab Sample ID: 180-134315-3

Date Collected: 02/23/22 14:55

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.107	U	0.196	0.197	1.00	0.352	pCi/L	03/02/22 09:52	03/25/22 16:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.8		40 - 110					03/02/22 09:52	03/25/22 16:31	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.559		0.316	0.321	1.00	0.477	pCi/L	03/02/22 10:22	03/25/22 13:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.8		40 - 110					03/02/22 10:22	03/25/22 13:07	1
Y Carrier	86.4		40 - 110					03/02/22 10:22	03/25/22 13:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.666		0.372	0.377	5.00	0.477	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-8

Lab Sample ID: 180-134315-4

Date Collected: 02/23/22 15:50

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.21		0.382	0.397	1.00	0.320	pCi/L	03/02/22 09:52	03/25/22 16:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					03/02/22 09:52	03/25/22 16:31	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.41		0.352	0.375	1.00	0.424	pCi/L	03/02/22 10:22	03/25/22 13:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					03/02/22 10:22	03/25/22 13:07	1
Y Carrier	86.7		40 - 110					03/02/22 10:22	03/25/22 13:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.62		0.519	0.546	5.00	0.424	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: DUP-2
 Date Collected: 02/23/22 00:01
 Date Received: 02/26/22 10:00

Lab Sample ID: 180-134317-1
 Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.795		0.331	0.339	1.00	0.386	pCi/L	03/02/22 09:52	03/25/22 17:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.1		40 - 110					03/02/22 09:52	03/25/22 17:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.672		0.258	0.266	1.00	0.349	pCi/L	03/02/22 10:22	03/25/22 13:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.1		40 - 110					03/02/22 10:22	03/25/22 13:07	1
Y Carrier	86.7		40 - 110					03/02/22 10:22	03/25/22 13:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.420	0.431	5.00	0.386	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: MGWC-3

Lab Sample ID: 180-134317-2

Date Collected: 02/23/22 12:40

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.29		0.432	0.447	1.00	0.474	pCi/L	03/02/22 09:52	03/25/22 17:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					03/02/22 09:52	03/25/22 17:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	20.7		1.01	2.15	1.00	0.385	pCi/L	03/02/22 10:22	03/25/22 13:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					03/02/22 10:22	03/25/22 13:08	1
Y Carrier	81.1		40 - 110					03/02/22 10:22	03/25/22 13:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	22.0		1.10	2.20	5.00	0.474	pCi/L		03/31/22 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Client Sample ID: EB-2

Lab Sample ID: 180-134317-3

Date Collected: 02/23/22 14:40

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0552	U	0.144	0.144	1.00	0.338	pCi/L	03/02/22 09:52	03/25/22 17:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.7		40 - 110					03/02/22 09:52	03/25/22 17:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.280	U	0.274	0.275	1.00	0.444	pCi/L	03/02/22 10:22	03/25/22 13:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.7		40 - 110					03/02/22 10:22	03/25/22 13:08	1
Y Carrier	88.2		40 - 110					03/02/22 10:22	03/25/22 13:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.224	U	0.310	0.310	5.00	0.444	pCi/L		03/31/22 15:23	1

QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-552933/22-A
Matrix: Water
Analysis Batch: 557108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552933

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.002167	U	0.157	0.157	1.00	0.325	pCi/L	03/02/22 09:52	03/25/22 17:20	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	94.6		40 - 110		03/02/22 09:52	03/25/22 17:20	1			

Lab Sample ID: LCS 160-552933/1-A
Matrix: Water
Analysis Batch: 557095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552933

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.61		1.38	1.00	0.349	pCi/L	94	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	98.0		40 - 110						

Lab Sample ID: LCSD 160-552933/2-A
Matrix: Water
Analysis Batch: 557095

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 552933

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	8.814		1.20	1.00	0.326	pCi/L	78	75 - 125	0.70	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	94.1		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-552935/22-A
Matrix: Water
Analysis Batch: 557108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552935

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3067	U	0.253	0.254	1.00	0.403	pCi/L	03/02/22 10:22	03/25/22 13:08	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	94.6		40 - 110		03/02/22 10:22	03/25/22 13:08	1			
Y Carrier	86.7		40 - 110		03/02/22 10:22	03/25/22 13:08	1			

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QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-552935/1-A
Matrix: Water
Analysis Batch: 557095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552935

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	8.76	9.448		1.10	1.00	0.382	pCi/L	108	75	125
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	98.0		40 - 110							
Y Carrier	83.4		40 - 110							

Lab Sample ID: LCSD 160-552935/2-A
Matrix: Water
Analysis Batch: 557095

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 552935

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									75	125	0.03	1
Radium-228	8.76	9.377		1.11	1.00	0.415	pCi/L	107	75	125	0.03	1
LCSD LCSD												
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	94.1		40 - 110									
Y Carrier	80.4		40 - 110									

QC Association Summary

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-2

Rad

Prep Batch: 552933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total/NA	Water	PrecSep-21	
180-134223-2	MGWA-10	Total/NA	Water	PrecSep-21	
180-134223-3	MGWA-11	Total/NA	Water	PrecSep-21	
180-134223-4	MGWC-1	Total/NA	Water	PrecSep-21	
180-134223-5	FB-1	Total/NA	Water	PrecSep-21	
180-134223-6	MGWA-6A	Total/NA	Water	PrecSep-21	
180-134223-7	MGWA-6	Total/NA	Water	PrecSep-21	
180-134223-8	MGWA-5	Total/NA	Water	PrecSep-21	
180-134223-9	EB-1	Total/NA	Water	PrecSep-21	
180-134223-10	MGWC-12	Total/NA	Water	PrecSep-21	
180-134315-1	MGWC-2	Total/NA	Water	PrecSep-21	
180-134315-2	MGWC-7	Total/NA	Water	PrecSep-21	
180-134315-3	FB-2	Total/NA	Water	PrecSep-21	
180-134315-4	MGWC-8	Total/NA	Water	PrecSep-21	
180-134317-1	DUP-2	Total/NA	Water	PrecSep-21	
180-134317-2	MGWC-3	Total/NA	Water	PrecSep-21	
180-134317-3	EB-2	Total/NA	Water	PrecSep-21	
MB 160-552933/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-552933/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-552933/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 552935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134223-1	DUP-1	Total/NA	Water	PrecSep_0	
180-134223-2	MGWA-10	Total/NA	Water	PrecSep_0	
180-134223-3	MGWA-11	Total/NA	Water	PrecSep_0	
180-134223-4	MGWC-1	Total/NA	Water	PrecSep_0	
180-134223-5	FB-1	Total/NA	Water	PrecSep_0	
180-134223-6	MGWA-6A	Total/NA	Water	PrecSep_0	
180-134223-7	MGWA-6	Total/NA	Water	PrecSep_0	
180-134223-8	MGWA-5	Total/NA	Water	PrecSep_0	
180-134223-9	EB-1	Total/NA	Water	PrecSep_0	
180-134223-10	MGWC-12	Total/NA	Water	PrecSep_0	
180-134315-1	MGWC-2	Total/NA	Water	PrecSep_0	
180-134315-2	MGWC-7	Total/NA	Water	PrecSep_0	
180-134315-3	FB-2	Total/NA	Water	PrecSep_0	
180-134315-4	MGWC-8	Total/NA	Water	PrecSep_0	
180-134317-1	DUP-2	Total/NA	Water	PrecSep_0	
180-134317-2	MGWC-3	Total/NA	Water	PrecSep_0	
180-134317-3	EB-2	Total/NA	Water	PrecSep_0	
MB 160-552935/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-552935/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-552935/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins TestAmerica, Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record



Client Information		Sampler: <u>Hunter Auld</u>		Lab PM: <u>Brown, Shali</u>		Carrier Tracking No(s):		COC No:				
Client Contact:		Phone: <u>770-594-5998</u>		E-Mail: <u>shali.brown@eurofinset.com</u>				Page: <u>2 of 2</u>				
Company: <u>GA Power</u>								Job #:				
Address: <u>241 Ralph McGill Blvd SE</u>		Due Date Requested:						Preservation Codes:				
City: <u>Atlanta</u>		TAT Requested (days): <u>Standard</u>						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA				
State, Zip: <u>GA, 30308</u>		PO #:						M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)				
Phone: <u>404-506-7116(Tel)</u>		WO #:						Other:				
Email: <u>SCS Contacts</u>		Project #:						Special Instructions/Note: Full				
Project Name: <u>Plant McIntosh Ash Pond 1</u>		SSOW#:						App III plus Detected App IV				
Site: <u>Georgia</u>												
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MS (Yes or No)	App. III Metals (B, Ca)	CI, F, SO ₄ , TDS (EPA 300.0 & SM 2540C)	App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Ti)	Radium 226 & 228 (SW-846 9316/9320)	Total Number of containers	Other:
<u>MGWA-6A</u>	<u>2-22-22</u>	<u>1105</u>	<u>G</u>	<u>W</u>	<u>N</u>	<u>N</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>pH= 7.20</u>
<u>MGWA-6</u>	<u>2-22-22</u>	<u>1215</u>	<u>G</u>	<u>W</u>	<u>N</u>	<u>N</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>pH= 7.14</u>
<u>MGWA-5</u>	<u>2-22-22</u>	<u>1332</u>	<u>G</u>	<u>W</u>	<u>N</u>	<u>N</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>pH= 7.57</u>
<u>EB-1</u>	<u>2-22-22</u>	<u>1340</u>	<u>G</u>	<u>W</u>	<u>N</u>	<u>N</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>pH= N/A</u>
<u>MGWC-12</u>	<u>2-22-22</u>	<u>1500</u>	<u>G</u>	<u>W</u>	<u>N</u>	<u>N</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>pH= 7.41</u>
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:						
Relinquished by: <u>[Signature]</u>		Date/Time: <u>2/23/22 0959</u>		Company: <u>ACC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>2/23/22 0959</u>		Company:		
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:		
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:		
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:								

urofins

Environment Testing
TestAmerica

ORIGIN ID: SAVA (912) 354-7858
SHIPPING ACT: CAD:
EUROFINS TESTAMERICA SAV
5102 LAROCHE AVE
SAVANNAH, GA 31404
UNITED STATES US

SHIP ACT: CAD:
BILL 180-134223 Waybill



SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

REF: DEPT:
2) 983-7053
Uncorrected temp
Thermometer ID
CF 0 Initials Mo
PT-WI-SR-001 effective 11/8/18



2 of 3
THU - 24 FEB 10:30A
PRIORITY OVERNIGHT

MPS# 5146 3367 7256
Mstr# 5146 3367 7245

XN AGCA

eurofins

Environment Test
TestAmerica

ORIGIN ID: SAVA (912) 354-7858
SHIPPING ACT: CAD:
EUROFINS TESTAMERICA SAV
5102 LAROCHE AVE
SAVANNAH, GA 31404
UNITED STATES US

SHIP DATE: 23F
ACTWGT: 45.00
CAD: 0886563/D

BILL THIRD-PAR

SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

REF: DEPT:
(412) 983-7053
Uncorrected temp
Thermometer ID
CF 0 Initials Mo
PT-WI-SR-001 effective 11/8/18

3 of 3
THU - 24 FEB 10:30A
PRIORITY OVERNIGHT

MPS# 5146 3367 7267
Mstr# 5146 3367 7245

KN AGCA

eurofins

Environment Test
TestAmerica

ORIGIN ID: SAVA (912) 354-7858
SHIPPING ACT: CAD:
EUROFINS TESTAMERICA SAV
5102 LAROCHE AVE
SAVANNAH, GA 31404
UNITED STATES US

BILL THIRD-PAR

SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

REF: DEPT:
(412) 983-7053
Uncorrected temp
Thermometer ID
CF 0 Initials Mo
PT-WI-SR-001 effective 11/8/18

3 of 3
THU - 24 FEB 10:30A
PRIORITY OVERNIGHT

MPS# 5146 3367 7245
Mstr# 5146 3367 7245

XN AGCA



Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

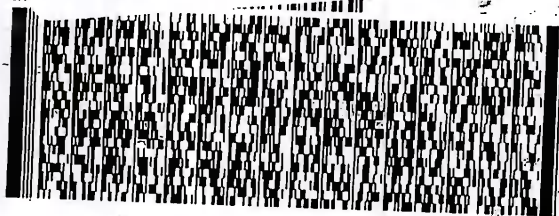
SHIP DATE: 24FEB22
ACTWGT: 52.15 LB
CAD: 859116/CAFE3510

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.



180-134315 Waybill



1 of 2
TRK# 5220 7116 4770
0201
MASTER

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

NA AGCA

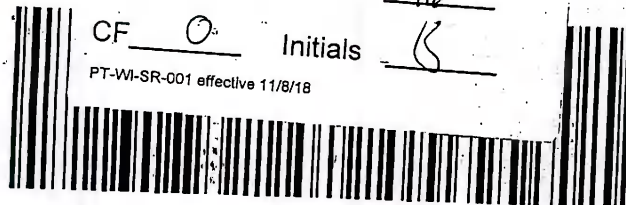
Uncorrected temp
Thermometer ID

3.4 °C - us

15238
PIT

CF 0 Initials B

PT-WI-SR-001 effective 11/8/18



Part # 150469-4341MTW/EX/0922

570F2/027C/AF4B

J21102012110101



Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 24FEB22
ACTWGT: 52.15 LB
CAD: 859116/CAFE3510

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 863-7068

REF:

DEPT:



2 of 2
NPS# 5220 7116 4781
263
/str# 5220 7116 4770

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

NA AGCA

Uncorrected temp
Thermometer ID

2.6 °C - us

15238

3PIT 2022

12

13

Eurofins Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record



Environment Testing
America



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking Not(s):	COC No:					
Client Contact: Shipping/Receiving		Brown, Shali		180-455792.1					
Company: TestAmerica Laboratories, Inc.		E-Mail: Shali.Brown@Eurofins.com	State of Origin: Georgia	Page: Page 1 of 2					
Address: 13715 Rider Trail North,		Accreditations Required (See note): 180-134223-2							
City: Earth City	Due Date Requested: 3/30/2022	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:							
State, Zip: MO, 63045	TAT Requested (days):	M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (Specify)							
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:	Analysis Requested							
Email:	WO #:	Total Number of Containers							
Project Name: Plant McIntosh Ash Pond 1	Project #: 18019956	Field Filtered Sample (Yes or No)							
Site: Southern McIntosh Ash Pond 1	SSOW#:	Perform MS/MSD (Yes or No)							
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:							
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Solid, O=Soil, B=BIOTISSUE, A=AIR)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PreSep_0 Standard Target List	9315_Ra228/PreSep_21 Radium-226	Ra226Ra228_GFPc
2/22/22	00:01 Eastern	Water	Water		X	X			
2/22/22	10:31 Eastern	Water	Water		X	X			
2/22/22	13:45 Eastern	Water	Water		X	X			
2/22/22	16:05 Eastern	Water	Water		X	X			
2/22/22	15:30 Eastern	Water	Water		X	X			
2/22/22	11:05 Eastern	Water	Water		X	X			
2/22/22	12:15 Eastern	Water	Water		X	X			
2/22/22	13:32 Eastern	Water	Water		X	X			
2/22/22	13:40 Eastern	Water	Water		X	X			

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Special Instructions/QC Requirements: Archive For _____ Months

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks: _____



Chain of Custody Record

Client Information (Sub Contract Lab)		Lab PM: Brown, Shali	Carrier Tracking No(s): 180-455792.2
Client Contact: Shipping/Receiving		E-Mail: Shali.Brown@Eurofins.com	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		State of Origin: Georgia	Job #: 180-134223-2
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Due Date Requested: 3/30/2022 TAT Requested (days):		Analysis Requested	
PO #	WO #	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
Project # 18019956	SSOW#	9320_Ra228/PreSep_0 Standard Target List	9315_Ra226/PreSep_21 Radium-226
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/soil, BT=Tissue, A=Air)
2/22/22	15:00 Eastern		Water
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type
MGWC-12 (180-134223-10)	2/22/22	15:00 Eastern	Water
Special Instructions/Note:		Total Number of Containers	
		2	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

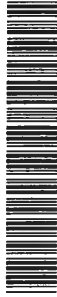
Date/Time	Date	Time	Method of Shipment
Relinquished by: <i>MO</i>	2-25-22	1700	FEDEX
Relinquished by:			Company: <i>FEDEX</i>
Relinquished by:			Company:
Relinquished by:			Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		

Received by: *Jana Weddington* Date/Time: **FEB 26 2022 0840** Company: *EMASR*

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Brown, Shali	Carrier Tracking No(s): 180-455925.1
Client Contact: TestAmerica Laboratories, Inc.		E-Mail: Shali.Brown@Eurofins.com	State of Origin: Georgia
Address: 13715 Rider Trail North, Earth City, MO, 63045		Phone: 314-298-8566(Tel) 314-298-8757(Fax)	Page: 1 of 1
City: Earth City		Project #: 18019956	Job #: 180-134315-2
State, Zip: MO, 63045		SSOW#:	Preservation Codes:
PO #: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Project Name: Plant McIntosh Ash Pond 1		Due Date Requested: 4/3/2022	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Site: Southern McIntosh Ash Pond 1		TAT Requested (days):	Total Number of Containers
Sample Identification - Client ID (Lab ID)		Field Filtered Sample (Yes or No)	Special Instructions/Note:
MGWC-2 (180-134315-1)	Sample Date: 2/23/22	Sample Time: 09:50 Eastern	920_Ra228/PreSep_0 Standard Target List
MGWC-7 (180-134315-2)	Sample Date: 2/23/22	Sample Time: 11:25 Eastern	935_Ra226/PreSep_21 Radium-226
FB-2 (180-134315-3)	Sample Date: 2/23/22	Sample Time: 14:55 Eastern	Ra226Ra228_GFPc
MGWC-8 (180-134315-4)	Sample Date: 2/23/22	Sample Time: 15:50 Eastern	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/esis/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.</p>			
Possible Hazard Identification			
Unconfirmed			
Deliverable Requested: I, II, III, IV, Other (specify)			
Primary Deliverable Rank: 2			
Empty Kit Relinquished by:			
Relinquished by: MO			
Date/Time: 2/28/22 17:00			
Relinquished by: FEDEX			
Date/Time: 2/28/22 17:00			
Relinquished by: FEDEX			
Date/Time: 2/28/22 17:00			
Relinquished by: Jena Worthington			
Date/Time: MAR 01 2022 09:00			
Relinquished by: Company			
Date/Time: Company			
Custody Seals Intact: Custody Seal No.:			
Δ Yes Δ No			
Cooler Temperature(s) °C and Other Remarks:			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-2

Login Number: 134223

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-2

Login Number: 134223

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 02/28/22 10:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-2

Login Number: 134315

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-2

Login Number: 134315

List Source: Eurofins St. Louis

List Number: 2

List Creation: 03/01/22 09:39 AM

Creator: Worthington, Sierra M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-2

Login Number: 134317

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-2

Login Number: 134317

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 03/01/22 09:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-134223-3

Client Project/Site: Plant McIntosh Ash Pond 1

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:
5/17/2022 5:35:33 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@et.eurofinsus.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Job ID: 180-134223-3

Laboratory: Eurofins Pittsburgh

Narrative

**Job Narrative
180-134223-3**

Receipt

The samples were received on 2/26/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6°C and 3.4°C

Gas Flow Proportional Counter

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Definitions/Glossary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-22
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	07-01-22
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
Kentucky (DW)	State	KY90125	12-31-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-22
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-22
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-23
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	NELAP	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	02-28-23
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	05-10-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

Sample Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-134317-1	DUP-2	Water	02/23/22 00:01	02/26/22 10:00
180-134317-2	MGWC-3	Water	02/23/22 12:40	02/26/22 10:00

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Method Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Client Sample ID: DUP-2
Date Collected: 02/23/22 00:01
Date Received: 02/26/22 10:00

Lab Sample ID: 180-134317-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			741.55 mL	1.0 g	559311	04/08/22 12:44	HRT	TAL SL
Total/NA	Analysis	9315		1			563255	05/02/22 22:34	CLP	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			741.55 mL	1.0 g	559319	04/08/22 13:34	HRT	TAL SL
Total/NA	Analysis	9320		1			563255	05/02/22 14:56	CLP	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			563705	05/04/22 18:35	EMH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3
Date Collected: 02/23/22 12:40
Date Received: 02/26/22 10:00

Lab Sample ID: 180-134317-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			761.38 mL	1.0 g	559311	04/08/22 12:44	HRT	TAL SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	563255	05/02/22 22:34	CLP	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			761.38 mL	1.0 g	559319	04/08/22 13:34	HRT	TAL SL
Total/NA	Analysis	9320		1			563255	05/02/22 14:56	CLP	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			563705	05/04/22 18:35	EMH	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

HRT = Hannah Tomasovic

Batch Type: Analysis

CLP = Cassandra Park

EMH = Elizabeth Hoerchler

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Client Sample ID: DUP-2
 Date Collected: 02/23/22 00:01
 Date Received: 02/26/22 10:00

Lab Sample ID: 180-134317-1
 Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.38		0.438	0.455	1.00	0.340	pCi/L	04/08/22 12:44	05/02/22 22:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		40 - 110					04/08/22 12:44	05/02/22 22:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.89		0.428	0.462	1.00	0.476	pCi/L	04/08/22 13:34	05/02/22 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		40 - 110					04/08/22 13:34	05/02/22 14:56	1
Y Carrier	83.4		40 - 110					04/08/22 13:34	05/02/22 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.27		0.612	0.648	5.00	0.476	pCi/L		05/04/22 18:35	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Client Sample ID: MGWC-3

Lab Sample ID: 180-134317-2

Date Collected: 02/23/22 12:40

Matrix: Water

Date Received: 02/26/22 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.20		0.439	0.452	1.00	0.411	pCi/L	04/08/22 12:44	05/02/22 22:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.6		40 - 110					04/08/22 12:44	05/02/22 22:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.274	U	0.326	0.327	1.00	0.537	pCi/L	04/08/22 13:34	05/02/22 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.6		40 - 110					04/08/22 13:34	05/02/22 14:56	1
Y Carrier	84.5		40 - 110					04/08/22 13:34	05/02/22 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.547	0.558	5.00	0.537	pCi/L		05/04/22 18:35	1

QC Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-559319/20-A
Matrix: Water
Analysis Batch: 563272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 559319

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac	
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)							
Radium-228	0.7283		0.279	0.287	1.00	0.386	pCi/L	04/08/22 13:34	05/02/22 15:00	1	
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed		Dil Fac
Ba Carrier	95.0		40 - 110				04/08/22 13:34		05/02/22 15:00		1
Y Carrier	83.7		40 - 110				04/08/22 13:34		05/02/22 15:00		1

Lab Sample ID: LCS 160-559319/1-A
Matrix: Water
Analysis Batch: 563255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 559319

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	8.66	9.317		1.11	1.00	0.404	pCi/L	108	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	81.8		40 - 110						
Y Carrier	85.2		40 - 110						

Lab Sample ID: LCSD 160-559319/2-A
Matrix: Water
Analysis Batch: 563255

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 559319

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-228	8.66	8.857		1.04	1.00	0.349	pCi/L	102	75 - 125	0.21	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	92.8		40 - 110								
Y Carrier	84.1		40 - 110								

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-134223-3

Rad

Prep Batch: 559311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-1	DUP-2	Total/NA	Water	PrecSep-21	
180-134317-2	MGWC-3	Total/NA	Water	PrecSep-21	

Prep Batch: 559319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134317-1	DUP-2	Total/NA	Water	PrecSep_0	
180-134317-2	MGWC-3	Total/NA	Water	PrecSep_0	
MB 160-559319/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-559319/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-559319/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins TestAmerica, Pittsburgh
 301 Alpha Drive RIDC Park
 Pittsburgh, PA 15238
 Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing America

Client Information		Sampler: <i>J. Berisford</i>		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:													
Client Contact: SCS Contacts		Phone: 770-544-5448		E-Mail: shall.brown@eurofinset.com				Page:													
Company: GA Power								Job #:													
Address: 241 Ralph McGill Blvd SE		Due Date Requested:																			
City: Atlanta		TAT Requested (days):																			
State, Zip: GA, 30308																					
Phone: 404-508-7116(Tel)		PO #:																			
Email: SCS Contacts		WO #:																			
Project Name: Plant McIntosh Ash Pond 1		Project #: 18019956																			
Site: Georgia		SSOW#:																			
								Analysis Requested App. I/ Metals (B, Ca) Cd, Cr, Cu, Pb, Li, Hg, Mn, Se, Tl App. II/ Metals (B, Ca) Cr, Fe, SS, TDS (EPA 300.0 & SM 2540C) App. III/ Metals (B, Ca) Barium 226 & 232 (SM 946-9315/9320)													
								Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - HNO3 R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)													
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=organic, BT=BIOSUR, A=Air)		Field Filtered Sample (Yes or No)		App. III/ Metals (B, Ca)		App. II/ Metals (B, Ca)		App. I/ Metals (B, Ca)		Total Number of Containers		Special Instructions/Note: Full App III plus Detected App IV	
Dup-2		2-23-22				6 W		W		N		N		N		N		4		pH= N/A	
M6WC-3		2-23-22		1240		6 W		W		N		N		N		N		4		pH= 6.98	
EB-2		2-22-22		1440		6 W		W		N		N		N		N		4		pH= N/A	
		2-23-22																		pH=	
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Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE:
ACTWGT: 52
CAD: 859116

BILL THIRD



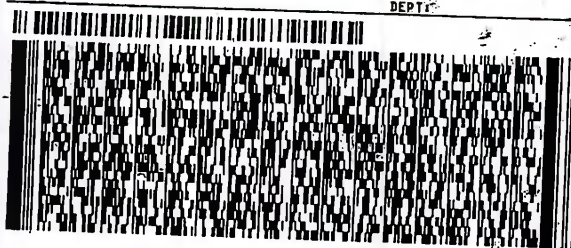
Pat # 159465-434 M/TM Exp 09/22

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
INU:
PO:

REF:

DEPT:



FedEx
Express



J211020121101101101

1 of 2
TRK# 5220 7116 4770
0201
MASTER

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

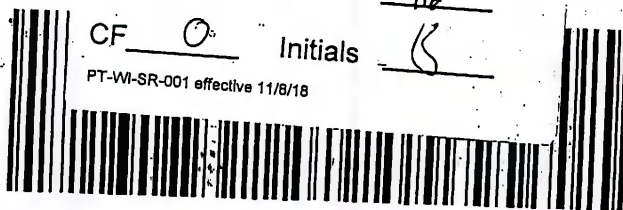
NA AGCA

15238
PIT

Uncorrected temp
Thermometer ID 3.4 °C - US

CF 0 Initials LS

PT-WI-SR-001 effective 11/8/18



Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTING AMERICA ATL SC
6215 REGENCY PARKWAY NW
SUITE 900
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 24 FEB 22
ACTWGT: 52.15 LB
CAD: 859116/CAFE3510

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
INU:
PO:

REF:

DEPT:



FedEx
Express



J211020121101101101

2 of 2
NPS# 5220 7116 4781
263
Instr# 5220 7116 4770

FRI - 25 FEB 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238

Uncorrected temp
Thermometer ID 2.6 °C - US

16

5/PT/2022

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-3

Login Number: 134317

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134223-3

Login Number: 134317

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 03/01/22 09:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



LEVEL 2A LABORATORY DATA VALIDATIONS

McIntosh Ash Pond 1

Semiannual Event

February 2022

Georgia Power Company – McIntosh Ash Pond 1

Quality Control Review of Analytical Data – February 2022

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins Environment Testing America, Pittsburgh and St. Louis for groundwater samples collected at McIntosh Ash Pond 1 between February 22, 2022 and February 23, 2022. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 180-134223-1 was revised to correct an errant boron detection in FB-2 (lab sample 180-134315-3) following reanalysis. SDG 180-134223-3 was provided following reanalysis of a sample and its field duplicate on SDG 180-134223-2 which yielded radium results that were inconsistent with historical data. The original radium-228 and combined radium results for MGWC-3 (lab sample 180-134317-2) analyzed on 3/25/2022 are considered outliers, and reanalysis data analyzed on 5/2/2022 are considered to be representative results based on comparisons with DUP-2 (lab sample 180-134317-1) from both the 3/25/2022 and 5/2/2022 analyses.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 Code of Federal Regulations (CFR), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III, and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)¹ and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)². The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, 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 analytical methodology, method-specific criteria or professional judgment were used.

DATA QUALITY OBJECTIVES

Laboratory Precision: Laboratory goals for precision were met.

Field Precision: Field goals for precision were met, except for radium-228 on MGWA-11 (180-134223-3) and cobalt, radium-226, and radium-228 on MGWC-3 (180-134317-2) as described in the qualifications section below.

Accuracy: Laboratory goals for accuracy were met.

Detection Limits: Project goals for detection limits were met.

Completeness: The analytical results for radium-228 and combined radium on MGWC-3 (180-134317-2) from the original analysis performed on 3/25/2022 and reported on SDG 180-134223-2 were rejected as outliers. The original radium-228 and combined radium results for DUP-2 (lab sample 180-134317-1) and the reanalysis data for both MGWC-3 and DUP-2 performed on 5/2/2022 and reported on SDG 180-134223-3 are considered to be representative results as they are consistent with each other and with historical data. Two data points were rejected during this event, resulting in a completion of 99.5%.

Holding Times: Holding time requirements were met.

QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

J: The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

ND: The analyte was not detected above the method detection limit

R: The result was rejected

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. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples MGWA-11 (180-134223-3) and DUP-1 (180-134223-1) were qualified as estimated (J) for radium-228 as the relative percent difference (RPD) exceeded QC criteria (23.50% above the limit of 20).
- Samples MGWC-3 (180-134317-2) and DUP-2 (180-134317-1) were qualified as estimated (J) for cobalt as the RPD exceeded QC criteria (22.22% above the limit of 20).
- The original results for samples MGWC-3 (180-134317-2) and DUP-2 (180-134317-1) on SDG 180-134223-2 were qualified as estimated (J) for radium-226 and radium-228 as the RPDs exceeded QC criteria (47.48% and 187.42%, respectively, above the limit of 20). Reanalysis on SDG 180-134223-3 yielded passing RPDs.
- The original results for sample MGWC-3 (180-134317-2) on SDG 180-134223-2 were qualified as rejected (R) for radium-228 and combined radium as the reanalysis results on SDG 180-134223-3 were consistent with its duplicate sample analysis and historical data.
- Certain radium-228 results on SDGs 180-134223-2 and 180-134223-3 were qualified as non-detect (ND) due to the analyte(s) being detected at a similar concentration in an associated blank sample. As shown in Table 2, when the original sample result was below the reporting limit (RL), the minimum detectable concentration (MDC) was raised to the blank detection as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh Ash Pond 1 sampled between February 22, 2022 and February 23, 2022 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

- ¹USEPA, 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
- ²USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

Plant McIntosh Ash Pond 1
2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 1

Georgia Power Company – McIntosh Ash Pond 1

Sample Summary Table – February 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
134223-1	DUP-1	2/22/2022	180-134223-1	GW	FD (MGWA-11)	X	X	X	
134223-2	DUP-1	2/22/2022	180-134223-1	GW	FD (MGWA-11)				X
134223-1	MGWA-10	2/22/2022	180-134223-2	GW		X	X	X	
134223-2	MGWA-10	2/22/2022	180-134223-2	GW					X
134223-1	MGWA-11	2/22/2022	180-134223-3	GW		X	X	X	
134223-2	MGWA-11	2/22/2022	180-134223-3	GW					X
134223-1	MGWC-1	2/22/2022	180-134223-4	GW		X	X	X	
134223-2	MGWC-1	2/22/2022	180-134223-4	GW					X
134223-1	FB-1	2/22/2022	180-134223-5	WQ	FB	X	X	X	
134223-2	FB-1	2/22/2022	180-134223-5	WQ	FB				X
134223-1	MGWA-6A	2/22/2022	180-134223-6	GW		X	X	X	
134223-2	MGWA-6A	2/22/2022	180-134223-6	GW					X
134223-1	MGWA-6	2/22/2022	180-134223-7	GW		X	X	X	
134223-2	MGWA-6	2/22/2022	180-134223-7	GW					X
134223-1	MGWA-5	2/22/2022	180-134223-8	GW		X	X	X	
134223-2	MGWA-5	2/22/2022	180-134223-8	GW					X
134223-1	EB-1	2/22/2022	180-134223-9	WQ	EB	X	X	X	
134223-2	EB-1	2/22/2022	180-134223-9	WQ	EB				X
134223-1	MGWC-12	2/22/2022	180-134223-10	GW		X	X	X	
134223-2	MGWC-12	2/22/2022	180-134223-10	GW					X
134223-1	MGWC-2	2/23/2022	180-134315-1	GW		X	X	X	
134223-2	MGWC-2	2/23/2022	180-134315-1	GW					X
134223-1	MGWC-7	2/23/2022	180-134315-2	GW		X	X	X	
134223-2	MGWC-7	2/23/2022	180-134315-2	GW					X
134223-1	FB-2	2/23/2022	180-134315-3	WQ	FB	X	X	X	
134223-2	FB-2	2/23/2022	180-134315-3	WQ	FB				X

Abbreviations:
 EB – Equipment Blank
 FB – Field Blank
 FD – Field Duplicate
 GW – Groundwater
 QC – Quality Control
 SDG – Sample Delivery Group
 TDS – Total Dissolved Solids
 WQ – Water Quality Control

Plant McIntosh Ash Pond 1
 2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 1 (continued)
 Georgia Power Company – McIntosh Ash Pond 1
 Sample Summary Table – February 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
134223-1	MGWC-8	2/23/2022	180-134315-4	GW		X	X	X	
134223-2	MGWC-8	2/23/2022	180-134315-4	GW					X
134223-1	DUP-2	2/23/2022	180-134317-1	GW	FD (MGWC-3)	X	X	X	
134223-2	DUP-2	2/23/2022	180-134317-1	GW	FD (MGWC-3)				X
134223-3	DUP-2	2/23/2022	180-134317-1	GW	FD (MGWC-3)				X
134223-1	MGWC-3	2/23/2022	180-134317-2	GW		X	X	X	
134223-2	MGWC-3	2/23/2022	180-134317-2	GW					X
134223-3	MGWC-3	2/23/2022	180-134317-2	GW					X
134223-1	EB-2	2/23/2022	180-134317-3	WQ	EB	X	X	X	
134223-2	EB-2	2/23/2022	180-134317-3	WQ	EB				X

Abbreviations:
 EB – Equipment Blank
 FB – Field Blank
 FD – Field Duplicate
 GW – Groundwater
 QC – Quality Control
 SDG – Sample Delivery Group
 TDS – Total Dissolved Solids
 WQ – Water Quality Control

Plant McIntosh Ash Pond 1
 2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 2
 Georgia Power Company – McIntosh Ash Pond 1
 Qualifier Summary Table – February 2022

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
134223-1	MGWC-3	Cobalt			J	RPD exceeds field goal
134223-1	DUP-2	Cobalt			J	RPD exceeds field goal
134223-2	MGWA-11	Radium-228			J	RPD exceeds field goal
134223-2	DUP-1	Radium-228			J	RPD exceeds field goal
134223-2	MGWC-3	Radium-226			J	RPD exceeds field goal
134223-2	DUP-2	Radium-226			J	RPD exceeds field goal
134223-2	MGWC-3	Radium-228			R	Replaced with reanalysis data
134223-2	DUP-2	Radium-228			J	RPD exceeds field goal
134223-2	MGWC-1	Radium-228		0.3067	ND	Blank detection
134223-2	MGWA-6A	Radium-228		0.3067	ND	Blank detection
134223-2	MGWA-6	Radium-228		0.3067	ND	Blank detection
134223-2	MGWA-5	Radium-228		0.3067	ND	Blank detection
134223-2	MGWC-7	Radium-228		0.3067	ND	Blank detection
134223-3	MGWC-3	Radium-228		0.7283	ND	Blank detection

Abbreviations:

MDC – Minimum Detectable Concentration
 MS/MSD – Matrix Spike / Matrix Spike Duplicate
 MDL – Method Detection Limit
 RL – Reporting Limit
 RPD – Relative Percent Difference
 SDG – Sample Delivery Group
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result
 ND – Non-Detect Result
 R – Rejected Data

ANALYTICAL REPORT

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-134316-1

Client Project/Site: Plant McIntosh Ash Pond 1 Supplemental

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:
3/4/2022 6:43:16 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Job ID: 180-134316-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-134316-1

Receipt

The samples were received on 2/26/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6°C and 3.4°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Definitions/Glossary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kansas	NELAP	E-10350	03-31-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-22
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-02-22
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22 *
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21 *
South Carolina	State	89014	06-30-22
Texas	NELAP	T104704528	03-31-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Sample Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-134316-1	MGWC-20	Water	02/23/22 14:30	02/26/22 10:00
180-134316-2	MGWC-23	Water	02/23/22 14:47	02/26/22 10:00

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Method Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Method	Method Description	Protocol	Laboratory
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Lab Chronicle

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Client Sample ID: MGWC-20

Lab Sample ID: 180-134316-1

Date Collected: 02/23/22 14:30

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	389899	03/01/22 09:53	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390199	03/02/22 11:55	RSK	TAL PIT

Instrument ID: DORY

Client Sample ID: MGWC-23

Lab Sample ID: 180-134316-2

Date Collected: 02/23/22 14:47

Matrix: Water

Date Received: 02/26/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	389899	03/01/22 09:53	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			390199	03/02/22 11:59	RSK	TAL PIT

Instrument ID: DORY

Laboratory References:

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

RGM = Rebecca Manns

Batch Type: Analysis

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Client Sample ID: MGWC-20

Lab Sample ID: 180-134316-1

Date Collected: 02/23/22 14:30

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00055	J	0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 11:55	1
Lithium	0.0066		0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 11:55	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Client Sample ID: MGWC-23

Lab Sample ID: 180-134316-2

Date Collected: 02/23/22 14:47

Matrix: Water

Date Received: 02/26/22 10:00

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00026		0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 11:59	1
Lithium	0.0043	J	0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 11:59	1

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QC Sample Results

Client: Southern Company
 Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-389899/1-A
Matrix: Water
Analysis Batch: 390199

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 389899

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cobalt	<0.00026		0.0025	0.00026	mg/L		03/01/22 09:53	03/02/22 11:34	1
Lithium	<0.00083		0.0050	0.00083	mg/L		03/01/22 09:53	03/02/22 11:34	1

Lab Sample ID: LCS 180-389899/2-A
Matrix: Water
Analysis Batch: 390199

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 389899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.474		mg/L		95	80 - 120

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Pond 1 Supplemental

Job ID: 180-134316-1

Metals

Prep Batch: 389899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134316-1	MGWC-20	Total Recoverable	Water	3005A	
180-134316-2	MGWC-23	Total Recoverable	Water	3005A	
MB 180-389899/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-389899/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 390199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-134316-1	MGWC-20	Total Recoverable	Water	EPA 6020B	389899
180-134316-2	MGWC-23	Total Recoverable	Water	EPA 6020B	389899
MB 180-389899/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	389899
LCS 180-389899/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	389899

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-134316-1

Login Number: 134316

List Number: 1

Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



LEVEL 2A LABORATORY DATA VALIDATIONS

McIntosh Ash Pond 1

Supplemental Event

February 2022

Georgia Power Company – McIntosh Ash Pond 1

Quality Control Review of Analytical Data – February 2022

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins Environment Testing America, Pittsburgh for groundwater samples collected at McIntosh AP1 February 23, 2022. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample location, analytical parameter, QC samples, sampling date, and laboratory sample delivery group (SDG) designation is summarized in Table 1 of this Appendix.

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 supplemental samples were analyzed for select assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. The test method included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)¹ and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)². The review included an assessment of the results for completeness, accuracy (laboratory control samples), and blank contamination (laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were 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.

Detection Limits: Project goals for detection limits were met.

Completeness: There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: Holding time requirements were met.

QUALIFICATIONS

In general, chemical results for the resample collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

J: The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

ND: The analyte was not detected above the method detection limit

The data generated as part of this supplemental event met the QC criteria established in the analytical method and data validation guidelines. No sample qualifications were required.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled February 23, 2022 in accordance with the analytical method, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

¹USEPA, 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

²USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – February 2022

						Analyses
SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Metals (6020B)
134316	MGWC-20	2/23/2022	180-134316-1	GW		X
134316	MGMC-23	2/23/2022	180-134316-2	GW		X

Abbreviations:
 GW – Groundwater
 QC – Quality Control

Low-Flow Test Report:

Test Date / Time: 2/22/2022 12:59:21 PM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWA-5 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 53.09 ft Total Depth: 63.09 ft Initial Depth to Water: 24.58 ft	Pump Type: Peristaltic pump Tubing Type: Poly Pump Intake From TOC: 58.4 ft Estimated Total Volume Pumped: 6 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 8.6 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled on 2-22-22 at 1332. Sunny,70s. EB-1 here at 1340.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/22/2022 12:59 PM	00:00	7.67 pH	34.13 °C	0.00 µS/cm	7.03 mg/L	10.00 NTU	44.4 mV	24.58 ft	175.00 ml/min
2/22/2022 1:04 PM	05:00	7.68 pH	24.86 °C	227.51 µS/cm	2.13 mg/L	5.10 NTU	12.2 mV	24.90 ft	175.00 ml/min
2/22/2022 1:09 PM	10:00	7.64 pH	23.65 °C	230.36 µS/cm	1.40 mg/L	4.50 NTU	3.5 mV	25.00 ft	175.00 ml/min
2/22/2022 1:14 PM	15:00	7.62 pH	23.55 °C	230.71 µS/cm	1.26 mg/L	4.50 NTU	5.1 mV	25.10 ft	175.00 ml/min
2/22/2022 1:19 PM	20:00	7.60 pH	23.42 °C	229.82 µS/cm	0.90 mg/L	4.90 NTU	-8.0 mV	25.10 ft	175.00 ml/min
2/22/2022 1:24 PM	25:00	7.58 pH	23.28 °C	232.09 µS/cm	0.56 mg/L	5.30 NTU	-53.9 mV	25.20 ft	175.00 ml/min
2/22/2022 1:29 PM	30:00	7.57 pH	23.22 °C	235.32 µS/cm	0.32 mg/L	4.80 NTU	-83.0 mV	25.30 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/22/2022 11:47:42 AM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWA-6 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 31.93 ft Total Depth: 41.93 ft Initial Depth to Water: 23.71 ft	Pump Type: Peristaltic pump Tubing Type: Poly Pump Intake From TOC: 37.1 ft Estimated Total Volume Pumped: 4.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 1.1 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled at 1215 on 2-22-22. Sunny, 70s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/22/2022 11:47 AM	00:00	7.33 pH	27.98 °C	474.51 µS/cm	5.47 mg/L	10.00 NTU	44.5 mV	23.71 ft	150.00 ml/min
2/22/2022 11:52 AM	05:00	7.17 pH	22.96 °C	501.07 µS/cm	0.43 mg/L	6.10 NTU	8.2 mV	23.80 ft	150.00 ml/min
2/22/2022 11:57 AM	10:00	7.15 pH	22.48 °C	502.00 µS/cm	0.32 mg/L	5.80 NTU	2.3 mV	23.80 ft	150.00 ml/min
2/22/2022 12:02 PM	15:00	7.15 pH	22.57 °C	503.54 µS/cm	0.23 mg/L	5.50 NTU	3.8 mV	23.80 ft	150.00 ml/min
2/22/2022 12:07 PM	20:00	7.14 pH	22.51 °C	502.98 µS/cm	0.20 mg/L	5.20 NTU	4.2 mV	23.80 ft	150.00 ml/min
2/22/2022 12:12 PM	25:00	7.14 pH	22.31 °C	502.91 µS/cm	0.22 mg/L	4.40 NTU	1.7 mV	23.80 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/22/2022 9:41:57 AM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWA-6A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29.67 ft Total Depth: 39.67 ft Initial Depth to Water: 22.36 ft	Pump Type: Peristaltic pump Tubing Type: Poly Pump Intake From TOC: 37.5 ft Estimated Total Volume Pumped: 12.75 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 12.5 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled at 1105 on 2-2-22. Cloudy, 70s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/22/2022 9:41 AM	00:00	7.12 pH	22.60 °C	536.89 µS/cm	3.17 mg/L	16.60 NTU	-62.8 mV	22.36 ft	130.00 ml/min
2/22/2022 9:46 AM	05:00	7.16 pH	21.72 °C	483.52 µS/cm	0.51 mg/L	16.60 NTU	-95.8 mV	22.90 ft	130.00 ml/min
2/22/2022 9:51 AM	10:00	7.17 pH	21.59 °C	477.51 µS/cm	0.33 mg/L	17.70 NTU	-102.6 mV	23.00 ft	130.00 ml/min
2/22/2022 9:56 AM	15:00	7.17 pH	21.66 °C	471.92 µS/cm	0.27 mg/L	16.10 NTU	-105.5 mV	23.10 ft	130.00 ml/min
2/22/2022 10:01 AM	20:00	7.17 pH	21.91 °C	475.73 µS/cm	0.20 mg/L	15.80 NTU	-107.8 mV	23.20 ft	130.00 ml/min
2/22/2022 10:06 AM	25:00	7.18 pH	21.90 °C	472.54 µS/cm	0.18 mg/L	15.00 NTU	-115.0 mV	23.20 ft	130.00 ml/min
2/22/2022 10:11 AM	30:00	7.18 pH	21.74 °C	473.32 µS/cm	0.16 mg/L	13.40 NTU	-107.2 mV	23.30 ft	130.00 ml/min
2/22/2022 10:16 AM	35:00	7.18 pH	21.83 °C	473.34 µS/cm	0.15 mg/L	13.50 NTU	-106.1 mV	23.30 ft	150.00 ml/min
2/22/2022 10:21 AM	40:00	7.17 pH	22.04 °C	469.51 µS/cm	0.14 mg/L	17.00 NTU	-105.9 mV	23.30 ft	150.00 ml/min
2/22/2022 10:26 AM	45:00	7.16 pH	22.17 °C	470.98 µS/cm	0.13 mg/L	11.60 NTU	-105.4 mV	23.40 ft	150.00 ml/min
2/22/2022 10:31 AM	50:00	7.16 pH	22.58 °C	468.96 µS/cm	0.12 mg/L	10.00 NTU	-104.9 mV	23.40 ft	150.00 ml/min
2/22/2022 10:36 AM	55:00	7.16 pH	22.69 °C	469.92 µS/cm	0.13 mg/L	10.20 NTU	-104.9 mV	23.40 ft	150.00 ml/min
2/22/2022 10:41 AM	01:00:00	7.18 pH	22.79 °C	466.41 µS/cm	0.12 mg/L	8.90 NTU	-103.5 mV	23.40 ft	150.00 ml/min
2/22/2022 10:46 AM	01:05:00	7.18 pH	22.19 °C	466.87 µS/cm	0.12 mg/L	7.40 NTU	-102.3 mV	23.40 ft	150.00 ml/min
2/22/2022 10:51 AM	01:10:00	7.18 pH	22.18 °C	466.48 µS/cm	0.11 mg/L	6.20 NTU	-101.9 mV	23.40 ft	150.00 ml/min

2/22/2022 10:56 AM	01:15:00	7.18 pH	22.51 °C	467.74 µS/cm	0.11 mg/L	5.10 NTU	-102.4 mV	23.40 ft	150.00 ml/min
2/22/2022 11:01 AM	01:20:00	7.20 pH	22.81 °C	467.17 µS/cm	0.10 mg/L	4.80 NTU	-101.9 mV	23.40 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/22/2022 9:51:09 AM

Project: Plant McIntosh AP-1

Operator Name: J. Berisford

Location Name: MGWA-10 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 43.09 ft Total Depth: 53.09 ft Initial Depth to Water: 18.6 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 48 ft Estimated Total Volume Pumped: 4 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 28.8 in	Instrument Used: Aqua TROLL 400 Serial Number: 884189
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Test Notes:

Sunny, 60s, sample time- 1031

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
2/22/2022 9:51 AM	00:00	6.52 pH	28.73 °C	0.00 µS/cm	7.65 mg/L	2.77 NTU	130.5 mV	18.60 ft	100.00 ml/min
2/22/2022 9:56 AM	05:00	5.61 pH	23.23 °C	70.78 µS/cm	3.56 mg/L	2.64 NTU	142.2 mV	19.30 ft	100.00 ml/min
2/22/2022 10:01 AM	10:00	5.59 pH	22.92 °C	64.53 µS/cm	3.34 mg/L	3.29 NTU	176.3 mV	19.90 ft	100.00 ml/min
2/22/2022 10:06 AM	15:00	5.56 pH	23.28 °C	64.21 µS/cm	3.18 mg/L	2.16 NTU	170.6 mV	20.10 ft	100.00 ml/min
2/22/2022 10:11 AM	20:00	5.50 pH	23.25 °C	59.91 µS/cm	3.04 mg/L	1.78 NTU	171.3 mV	20.40 ft	100.00 ml/min
2/22/2022 10:16 AM	25:00	5.45 pH	23.37 °C	57.38 µS/cm	2.93 mg/L	1.71 NTU	171.3 mV	20.70 ft	100.00 ml/min
2/22/2022 10:21 AM	30:00	5.41 pH	23.50 °C	57.47 µS/cm	2.81 mg/L	1.66 NTU	170.6 mV	20.90 ft	100.00 ml/min
2/22/2022 10:26 AM	35:00	5.39 pH	23.63 °C	57.88 µS/cm	2.72 mg/L	1.62 NTU	170.3 mV	20.90 ft	100.00 ml/min
2/22/2022 10:31 AM	40:00	5.38 pH	23.78 °C	56.64 µS/cm	2.67 mg/L	1.28 NTU	118.7 mV	21.00 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/22/2022 12:20:09 PM

Project: Plant McIntosh AP-1

Operator Name: J. Berisford

Location Name: MGWA-11 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 45.81 ft Total Depth: 55.81 ft Initial Depth to Water: 22.28 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 51 ft Estimated Total Volume Pumped: 15.7 liter Flow Cell Volume: 90 ml Final Flow Rate: 185 ml/min Final Draw Down: 6 in	Instrument Used: Aqua TROLL 400 Serial Number: 884189
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Test Notes:

Sunny, 70s, sample time -1345, DUP-1 here

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
2/22/2022 12:20 PM	00:00	6.72 pH	35.97 °C	0.00 µS/cm	6.73 mg/L	1.11 NTU	-51.4 mV	22.28 ft	185.00 ml/min
2/22/2022 12:25 PM	05:00	7.65 pH	24.52 °C	266.66 µS/cm	2.02 mg/L	0.96 NTU	72.5 mV	22.60 ft	185.00 ml/min
2/22/2022 12:30 PM	10:00	7.65 pH	22.86 °C	270.48 µS/cm	2.79 mg/L	1.01 NTU	47.9 mV	22.70 ft	185.00 ml/min
2/22/2022 12:35 PM	15:00	7.64 pH	22.60 °C	271.60 µS/cm	2.13 mg/L	0.84 NTU	47.0 mV	22.70 ft	185.00 ml/min
2/22/2022 12:40 PM	20:00	7.65 pH	22.63 °C	261.92 µS/cm	1.54 mg/L	0.77 NTU	32.7 mV	22.70 ft	185.00 ml/min
2/22/2022 12:45 PM	25:00	7.65 pH	22.49 °C	264.47 µS/cm	1.61 mg/L	0.28 NTU	-10.6 mV	22.70 ft	185.00 ml/min
2/22/2022 12:50 PM	30:00	7.64 pH	22.58 °C	267.33 µS/cm	1.43 mg/L	0.27 NTU	-64.8 mV	22.70 ft	185.00 ml/min
2/22/2022 12:55 PM	35:00	7.61 pH	22.52 °C	272.42 µS/cm	1.82 mg/L	0.20 NTU	-89.9 mV	22.70 ft	185.00 ml/min
2/22/2022 1:00 PM	40:00	7.62 pH	22.56 °C	275.14 µS/cm	1.66 mg/L	0.33 NTU	-52.3 mV	22.70 ft	185.00 ml/min
2/22/2022 1:05 PM	45:00	7.61 pH	22.58 °C	273.64 µS/cm	1.48 mg/L	0.41 NTU	-52.8 mV	22.70 ft	185.00 ml/min
2/22/2022 1:10 PM	50:00	7.61 pH	22.58 °C	273.49 µS/cm	1.35 mg/L	0.33 NTU	-53.1 mV	22.70 ft	185.00 ml/min
2/22/2022 1:15 PM	55:00	7.60 pH	22.63 °C	269.17 µS/cm	1.22 mg/L	0.38 NTU	-53.2 mV	22.70 ft	185.00 ml/min
2/22/2022 1:20 PM	01:00:00	7.61 pH	22.65 °C	262.75 µS/cm	1.07 mg/L	0.27 NTU	-53.8 mV	22.70 ft	185.00 ml/min
2/22/2022 1:25 PM	01:05:00	7.60 pH	22.55 °C	270.32 µS/cm	0.93 mg/L	0.32 NTU	-100.8 mV	22.70 ft	185.00 ml/min
2/22/2022 1:30 PM	01:10:00	7.61 pH	22.54 °C	270.09 µS/cm	0.83 mg/L	0.37 NTU	-54.5 mV	22.70 ft	185.00 ml/min

2/22/2022 1:35 PM	01:15:00	7.61 pH	22.47 °C	271.71 µS/cm	0.62 mg/L	0.28 NTU	-55.2 mV	22.70 ft	185.00 ml/min
2/22/2022 1:40 PM	01:20:00	7.60 pH	22.60 °C	269.53 µS/cm	0.54 mg/L	0.51 NTU	-55.4 mV	22.70 ft	185.00 ml/min
2/22/2022 1:45 PM	01:25:00	7.60 pH	22.63 °C	267.84 µS/cm	0.45 mg/L	0.38 NTU	-55.1 mV	22.70 ft	185.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/22/2022 2:55:05 PM

Project: Plant McIntosh AP-1

Operator Name: J. Berisford

Location Name: MGWC-1 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 46.08 ft Total Depth: 56.08 ft Initial Depth to Water: 39.24 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 51 ft Estimated Total Volume Pumped: 15.7 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 15.1 in	Instrument Used: Aqua TROLL 400 Serial Number: 884189
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Test Notes:

Sunny, 70s, sample time-1605, FB-1 here at 1530

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
2/22/2022 2:55 PM	00:00	6.16 pH	38.91 °C	0.00 µS/cm	6.50 mg/L	7.82 NTU	-63.3 mV	39.24 ft	225.00 ml/min
2/22/2022 3:00 PM	05:00	7.31 pH	24.52 °C	551.30 µS/cm	3.10 mg/L	6.18 NTU	41.6 mV	39.80 ft	225.00 ml/min
2/22/2022 3:05 PM	10:00	7.31 pH	23.08 °C	561.34 µS/cm	2.58 mg/L	8.43 NTU	36.6 mV	40.20 ft	225.00 ml/min
2/22/2022 3:10 PM	15:00	7.30 pH	23.00 °C	562.53 µS/cm	2.36 mg/L	8.11 NTU	43.3 mV	40.30 ft	225.00 ml/min
2/22/2022 3:15 PM	20:00	7.31 pH	22.74 °C	563.03 µS/cm	2.25 mg/L	7.89 NTU	42.6 mV	40.40 ft	225.00 ml/min
2/22/2022 3:20 PM	25:00	7.30 pH	22.49 °C	483.09 µS/cm	3.06 mg/L	36.00 NTU	39.7 mV	40.50 ft	225.00 ml/min
2/22/2022 3:25 PM	30:00	7.29 pH	22.80 °C	492.02 µS/cm	2.68 mg/L	29.00 NTU	38.4 mV	40.50 ft	225.00 ml/min
2/22/2022 3:30 PM	35:00	7.30 pH	22.32 °C	542.11 µS/cm	2.12 mg/L	19.00 NTU	43.3 mV	40.50 ft	225.00 ml/min
2/22/2022 3:35 PM	40:00	7.31 pH	22.18 °C	566.40 µS/cm	1.73 mg/L	7.99 NTU	32.4 mV	40.50 ft	225.00 ml/min
2/22/2022 3:40 PM	45:00	7.31 pH	22.20 °C	573.85 µS/cm	1.56 mg/L	5.61 NTU	11.3 mV	40.50 ft	225.00 ml/min
2/22/2022 3:45 PM	50:00	7.31 pH	22.21 °C	573.18 µS/cm	1.46 mg/L	4.08 NTU	-11.9 mV	40.50 ft	225.00 ml/min
2/22/2022 3:50 PM	55:00	7.31 pH	22.54 °C	574.83 µS/cm	1.32 mg/L	4.03 NTU	-16.2 mV	40.50 ft	225.00 ml/min
2/22/2022 3:55 PM	01:00:00	7.31 pH	22.53 °C	579.84 µS/cm	1.19 mg/L	3.57 NTU	-13.6 mV	40.50 ft	225.00 ml/min
2/22/2022 4:00 PM	01:05:00	7.32 pH	22.27 °C	583.21 µS/cm	1.09 mg/L	3.22 NTU	-8.8 mV	40.50 ft	225.00 ml/min
2/22/2022 4:05 PM	01:10:00	7.32 pH	22.36 °C	584.18 µS/cm	1.05 mg/L	2.58 NTU	-5.8 mV	40.50 ft	225.00 ml/min

Samples

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

Low-Flow Test Report:

Test Date / Time: 2/23/2022 9:23:47 AM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWC-2 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.36 ft Total Depth: 37.36 ft Initial Depth to Water: 21.53 ft	Pump Type: Peristaltic pump Tubing Type: Poly Pump Intake From TOC: 32.3 ft Estimated Total Volume Pumped: 5.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 8 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled on 2-23-22 at 0950. Sunny, 70s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/23/2022 9:23 AM	00:00	7.99 pH	20.92 °C	4.30 µS/cm	8.90 mg/L	10.00 NTU	198.9 mV	21.53 ft	200.00 ml/min
2/23/2022 9:28 AM	05:00	7.44 pH	20.37 °C	715.67 µS/cm	0.52 mg/L	7.30 NTU	29.9 mV	22.00 ft	200.00 ml/min
2/23/2022 9:33 AM	10:00	7.45 pH	20.53 °C	709.90 µS/cm	0.30 mg/L	6.00 NTU	19.6 mV	22.10 ft	200.00 ml/min
2/23/2022 9:38 AM	15:00	7.45 pH	20.63 °C	707.13 µS/cm	0.25 mg/L	4.70 NTU	18.2 mV	22.20 ft	200.00 ml/min
2/23/2022 9:43 AM	20:00	7.44 pH	20.65 °C	709.48 µS/cm	0.22 mg/L	4.80 NTU	16.5 mV	22.20 ft	200.00 ml/min
2/23/2022 9:48 AM	25:00	7.44 pH	20.70 °C	704.45 µS/cm	0.20 mg/L	3.90 NTU	15.2 mV	22.20 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/23/2022 12:10:06 PM

Project: Plant McIntosh AP-1

Operator Name: J. Berisford

Location Name: MGWC-3 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.74 ft Total Depth: 38.74 ft Initial Depth to Water: 20.45 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 34 ft Estimated Total Volume Pumped: 5.25 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 5.4 in	Instrument Used: Aqua TROLL 400 Serial Number: 884189
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Test Notes:

Sunny, 70s, sample time-1240. DUP-2 here

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
2/23/2022 12:10 PM	00:00	6.03 pH	25.51 °C	0.00 µS/cm	8.36 mg/L	9.79 NTU	30.5 mV	20.45 ft	175.00 ml/min
2/23/2022 12:15 PM	05:00	6.94 pH	22.81 °C	597.21 µS/cm	1.20 mg/L	5.11 NTU	102.3 mV	20.70 ft	175.00 ml/min
2/23/2022 12:20 PM	10:00	6.96 pH	22.00 °C	600.82 µS/cm	0.53 mg/L	3.40 NTU	68.2 mV	20.90 ft	175.00 ml/min
2/23/2022 12:25 PM	15:00	6.97 pH	21.91 °C	593.46 µS/cm	0.39 mg/L	2.58 NTU	53.9 mV	20.90 ft	175.00 ml/min
2/23/2022 12:30 PM	20:00	6.97 pH	21.73 °C	589.72 µS/cm	0.33 mg/L	2.77 NTU	46.9 mV	20.90 ft	175.00 ml/min
2/23/2022 12:35 PM	25:00	6.94 pH	21.76 °C	589.40 µS/cm	0.33 mg/L	2.81 NTU	42.6 mV	20.90 ft	175.00 ml/min
2/23/2022 12:40 PM	30:00	6.98 pH	21.82 °C	589.90 µS/cm	0.37 mg/L	2.39 NTU	40.0 mV	20.90 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/23/2022 10:38:24 AM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWC-7 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 32.29 ft Total Depth: 42.29 ft Initial Depth to Water: 23.42 ft	Pump Type: Peristaltic pump Tubing Type: Poly Pump Intake From TOC: 37.3 ft Estimated Total Volume Pumped: 5.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 120 ml/min Final Draw Down: 5.8 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled on 2-23-33 at 1125. Sunny, 70s. Extra rad here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/23/2022 10:38 AM	00:00	7.83 pH	26.74 °C	0.00 µS/cm	8.12 mg/L	10.00 NTU	33.5 mV	23.42 ft	120.00 ml/min
2/23/2022 10:43 AM	05:00	7.33 pH	24.88 °C	527.03 µS/cm	2.19 mg/L	18.60 NTU	-23.7 mV	23.70 ft	120.00 ml/min
2/23/2022 10:48 AM	10:00	7.21 pH	23.18 °C	547.14 µS/cm	0.45 mg/L	13.80 NTU	-36.1 mV	23.80 ft	120.00 ml/min
2/23/2022 10:53 AM	15:00	7.15 pH	23.12 °C	547.56 µS/cm	0.29 mg/L	13.40 NTU	-26.5 mV	23.80 ft	120.00 ml/min
2/23/2022 10:58 AM	20:00	7.05 pH	23.15 °C	545.96 µS/cm	0.23 mg/L	11.50 NTU	-26.2 mV	23.80 ft	120.00 ml/min
2/23/2022 11:03 AM	25:00	6.98 pH	23.32 °C	543.11 µS/cm	0.20 mg/L	9.20 NTU	-17.6 mV	23.80 ft	120.00 ml/min
2/23/2022 11:08 AM	30:00	6.95 pH	23.33 °C	541.48 µS/cm	0.17 mg/L	7.80 NTU	-15.7 mV	23.90 ft	120.00 ml/min
2/23/2022 11:13 AM	35:00	6.94 pH	23.42 °C	540.43 µS/cm	0.17 mg/L	6.40 NTU	-14.3 mV	23.90 ft	120.00 ml/min
2/23/2022 11:18 AM	40:00	6.92 pH	23.35 °C	539.23 µS/cm	0.15 mg/L	5.20 NTU	-15.0 mV	23.90 ft	120.00 ml/min
2/23/2022 11:23 AM	45:00	6.91 pH	23.16 °C	537.90 µS/cm	0.14 mg/L	4.80 NTU	-9.1 mV	23.90 ft	120.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/23/2022 3:18:20 PM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWC-8 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 42.56 ft Total Depth: 52.56 ft Initial Depth to Water: 33.42 ft	Pump Type: Bladder Pump Tubing Type: Poly Pump Intake From TOC: 47.8 ft Estimated Total Volume Pumped: 4.8 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 2.2 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled on 2-23-22 at 1550. Sunny, 70s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/23/2022 3:18 PM	00:00	7.57 pH	27.52 °C	0.20 µS/cm	8.06 mg/L	10.00 NTU	26.1 mV	33.42 ft	150.00 ml/min
2/23/2022 3:23 PM	05:00	5.61 pH	24.33 °C	484.27 µS/cm	0.66 mg/L	1.80 NTU	70.7 mV	33.50 ft	150.00 ml/min
2/23/2022 3:28 PM	10:00	5.46 pH	23.47 °C	577.33 µS/cm	0.36 mg/L	2.50 NTU	77.4 mV	33.50 ft	150.00 ml/min
2/23/2022 3:33 PM	15:00	6.09 pH	23.38 °C	739.00 µS/cm	0.28 mg/L	1.10 NTU	41.6 mV	33.50 ft	150.00 ml/min
2/23/2022 3:38 PM	20:00	6.13 pH	23.36 °C	775.64 µS/cm	0.21 mg/L	2.10 NTU	35.7 mV	33.50 ft	150.00 ml/min
2/23/2022 3:43 PM	25:00	6.20 pH	23.38 °C	793.67 µS/cm	0.19 mg/L	1.80 NTU	31.5 mV	33.60 ft	150.00 ml/min
2/23/2022 3:48 PM	30:00	6.22 pH	23.56 °C	800.75 µS/cm	0.16 mg/L	1.70 NTU	29.0 mV	33.60 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/22/2022 2:31:59 PM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWC-12 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 42.90 ft Total Depth: 52.90 ft Initial Depth to Water: 27.42 ft	Pump Type: Peristaltic pump Tubing Type: Poly Pump Intake From TOC: 48.7 ft Estimated Total Volume Pumped: 4.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 4.6 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled on 2-22-22 at 1500. Sunny, 70s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/22/2022 2:31 PM	00:00	7.56 pH	33.35 °C	0.00 µS/cm	7.06 mg/L	10.00 NTU	33.0 mV	27.42 ft	150.00 ml/min
2/22/2022 2:36 PM	05:00	7.46 pH	22.57 °C	301.11 µS/cm	0.71 mg/L	8.60 NTU	0.5 mV	27.70 ft	150.00 ml/min
2/22/2022 2:41 PM	10:00	7.43 pH	21.51 °C	306.31 µS/cm	0.39 mg/L	8.80 NTU	-8.0 mV	27.80 ft	150.00 ml/min
2/22/2022 2:46 PM	15:00	7.43 pH	21.18 °C	303.64 µS/cm	0.32 mg/L	6.50 NTU	-2.3 mV	27.80 ft	150.00 ml/min
2/22/2022 2:51 PM	20:00	7.42 pH	21.14 °C	304.20 µS/cm	0.26 mg/L	5.00 NTU	-6.9 mV	27.80 ft	150.00 ml/min
2/22/2022 2:56 PM	25:00	7.41 pH	21.05 °C	298.85 µS/cm	0.23 mg/L	4.70 NTU	-25.4 mV	27.80 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/23/2022 1:55:09 PM

Project: Plant McIntosh AP-1

Operator Name: J. Berisford

Location Name: MGWC-20 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 44.77 ft Total Depth: 54.77 ft Initial Depth to Water: 23.77 ft	Pump Type: Peri Pump Tubing Type: Poly Pump Intake From TOC: 50 ft Estimated Total Volume Pumped: 5.25 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 17.2 in	Instrument Used: Aqua TROLL 400 Serial Number: 884189
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Test Notes:

Sunny, 70s, sample time -1430

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
2/23/2022 1:55 PM	00:00		39.87 °C	0.00 µS/cm	6.35 mg/L	3.45 NTU	-27.6 mV	23.77 ft	150.00 ml/min
2/23/2022 2:00 PM	05:00	6.20 pH	26.58 °C	383.91 µS/cm	1.20 mg/L	2.97 NTU	85.3 mV	24.20 ft	150.00 ml/min
2/23/2022 2:05 PM	10:00	6.18 pH	24.77 °C	389.43 µS/cm	0.95 mg/L	1.17 NTU	63.9 mV	24.70 ft	150.00 ml/min
2/23/2022 2:10 PM	15:00	6.15 pH	24.61 °C	383.04 µS/cm	0.89 mg/L	1.04 NTU	77.3 mV	25.00 ft	150.00 ml/min
2/23/2022 2:15 PM	20:00	6.09 pH	24.66 °C	383.34 µS/cm	0.69 mg/L	0.94 NTU	74.8 mV	25.10 ft	150.00 ml/min
2/23/2022 2:20 PM	25:00	6.04 pH	24.43 °C	387.71 µS/cm	0.61 mg/L	0.57 NTU	72.2 mV	25.20 ft	150.00 ml/min
2/23/2022 2:25 PM	30:00	6.01 pH	24.63 °C	384.19 µS/cm	0.60 mg/L	0.87 NTU	52.0 mV	25.20 ft	150.00 ml/min
2/23/2022 2:30 PM	35:00	6.02 pH	24.42 °C	384.15 µS/cm	0.59 mg/L	0.41 NTU	48.5 mV	25.20 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/23/2022 1:34:03 PM

Project: Plant McIntosh AP-1

Operator Name: Hunter Auld

Location Name: MGWC-23 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 32.90 ft Total Depth: 42.90 ft Initial Depth to Water: 34.11 ft	Pump Type: Bladder Pump Tubing Type: Poly Pump Intake From TOC: 38.3 ft Estimated Total Volume Pumped: 18.3 liter Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 4.7 in	Instrument Used: Aqua TROLL 400 Serial Number: 728634
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Test Notes:

Sampled on 2-23-22 at 1447. Sunny, 70s. FB-2 here at 1455.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/23/2022 1:34 PM	00:00	7.32 pH	25.22 °C	505.34 µS/cm	1.03 mg/L	10.00 NTU	-48.7 mV	34.11 ft	250.00 ml/min
2/23/2022 1:39 PM	05:00	7.57 pH	21.44 °C	541.14 µS/cm	0.40 mg/L	14.40 NTU	-56.7 mV	34.50 ft	250.00 ml/min
2/23/2022 1:44 PM	10:00	7.57 pH	20.90 °C	537.89 µS/cm	0.26 mg/L	10.70 NTU	-63.5 mV	34.50 ft	250.00 ml/min
2/23/2022 1:49 PM	15:00	7.51 pH	20.74 °C	531.34 µS/cm	0.27 mg/L	8.80 NTU	-47.7 mV	34.50 ft	250.00 ml/min
2/23/2022 1:54 PM	20:00	7.45 pH	20.73 °C	514.47 µS/cm	0.24 mg/L	8.70 NTU	-48.5 mV	34.50 ft	250.00 ml/min
2/23/2022 1:59 PM	25:00	7.45 pH	20.72 °C	501.31 µS/cm	0.21 mg/L	7.00 NTU	-35.5 mV	34.50 ft	250.00 ml/min
2/23/2022 2:04 PM	30:00	7.44 pH	20.63 °C	494.48 µS/cm	0.28 mg/L	6.90 NTU	-41.2 mV	34.50 ft	250.00 ml/min
2/23/2022 2:09 PM	35:00	7.48 pH	20.65 °C	490.03 µS/cm	0.22 mg/L	5.10 NTU	-31.2 mV	34.50 ft	250.00 ml/min
2/23/2022 2:14 PM	40:00	7.49 pH	20.56 °C	487.89 µS/cm	0.21 mg/L	5.50 NTU	-38.5 mV	34.50 ft	250.00 ml/min
2/23/2022 2:19 PM	45:00	7.47 pH	20.65 °C	484.95 µS/cm	0.20 mg/L	5.10 NTU	-27.0 mV	34.50 ft	250.00 ml/min
2/23/2022 2:24 PM	50:00	7.47 pH	20.61 °C	483.87 µS/cm	0.21 mg/L	5.10 NTU	-35.1 mV	34.50 ft	250.00 ml/min
2/23/2022 2:29 PM	55:00	7.46 pH	20.66 °C	480.75 µS/cm	0.25 mg/L	5.10 NTU	-26.2 mV	34.50 ft	250.00 ml/min
2/23/2022 2:34 PM	01:00:00	7.48 pH	20.60 °C	479.55 µS/cm	0.21 mg/L	4.90 NTU	-33.1 mV	34.50 ft	250.00 ml/min
2/23/2022 2:39 PM	01:05:00	7.47 pH	20.61 °C	478.23 µS/cm	0.19 mg/L	5.30 NTU	-24.7 mV	34.50 ft	250.00 ml/min
2/23/2022 2:44 PM	01:10:00	7.48 pH	20.55 °C	477.55 µS/cm	0.17 mg/L	4.90 NTU	-32.1 mV	34.50 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Daily Instrument Calibration Log

SITE: M. Parkshy App-1
 TECHNICIAN: J. Berke
 WATER LEVEL: Solent
 WATER LEVEL S/N: 267309

INSTRUMENT S/N: 824189
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS:
 ID: Dist. Cal LOT #: 21070193 EXP. DATE: 8/22
 ID: pH 7 LOT #: 2100060 EXP. DATE: 8/22
 ID: pH 10 LOT #: 21080189 EXP. DATE: 6/22
 ID: ORP LOT #: 21140141 EXP. DATE: 8/22
 ID: Cond LOT #: 1649948 EXP. DATE: 8/22

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 2/22/22
 RDO: 100% sat. = 104% **Midday pH check**
 PH: 4.00 = 4.21 7.00 = 6.48 10.00 = 10.07 7.0 = 6.96
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1542
 ORP (mV) 228 = 223.4

Calibration Date: 2/23/22
 RDO: 100% sat. = 98.6% **Midday pH check**
 PH: 4.00 = 4.13 7.00 = 7.02 10.00 = 9.81 7.0 = 7.03
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1442
 ORP (mV) 228 = 233.1

Calibration Date:
 RDO: 100% sat. = **Midday pH check**
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Calibration Date:
 RDO: 100% sat. = **Midday pH check**
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Calibration Date:
 RDO: 100% sat. = **Midday pH check**
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =



Daily Instrument Calibration Log

SITE: Plant McIntosh
 TECHNICIAN: J. Benson

INSTRUMENT S/N: 150406040490
 INSTRUMENT TYPE: Hach 2100Q
 CAL. SOLUTION: 0 NTU - LOT # N/A — EXP. DATE: DI H₂O
10 NTU - LOT # A1013 EXP. DATE: 4/22
20 NTU - LOT # A1013 EXP. DATE: 4/22

Calibration Date: 2/22/22

Calibration Solution	Instrument Reading	
0.0	0.54	NTU
10.0	9.78	NTU
20.0	26.2	NTU

Calibration Date: 2/23/22

Calibration Solution	Instrument Reading	
0.0	0.41	NTU
10.0	9.82	NTU
20.0	26.8	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: Plant McIntosh
 TECHNICIAN: H. Auld
 WATER LEVEL: Solinst H
 WATER LEVEL S/N: 48832

INSTRUMENT S/N: 728634
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS:

ID: <u>pH4</u>	LOT #: <u>1641124</u>	EXP. DATE: <u>08/23</u>
ID: <u>pH7</u>	LOT #: <u>21080188</u>	EXP. DATE: <u>6/22</u>
ID: <u>pH10</u>	LOT #: <u>21080189</u>	EXP. DATE: <u>6/22</u>
ID: <u>Cond.</u>	LOT #: <u>164998</u>	EXP. DATE: <u>8/22</u>
ID: <u>ORP</u>	LOT #: <u>2114014</u>	EXP. DATE: <u>8/22</u>
ID:	LOT #:	EXP. DATE:
ID:	LOT #:	EXP. DATE:

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 2/22/22
 RDO: 100% sat. = 98.9
 PH: 4.00 = 4.11 7.00 = 7.07 10.00 = 10.03 7.0 = 7.06
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1467
 ORP (mV) 228 = 226

Midday pH check
 7.0 = 7.06
 7.0 = post recal check

Calibration Date: 2/23/22
 RDO: 100% sat. = 102%
 PH: 4.00 = 3.99 7.00 = 7.02 10.00 = 10.00 7.0 = 7.03
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1466
 ORP (mV) 228 = 233

Midday pH check
 7.0 = 7.03
 7.0 = post recal check

Calibration Date:
 RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Midday pH check
 7.0 =
 7.0 = post recal check

Calibration Date:
 RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Midday pH check
 7.0 =
 7.0 = post recal check

Calibration Date:
 RDO: 100% sat. =
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Midday pH check
 7.0 =
 7.0 = post recal check



Daily Instrument Calibration Log

SITE: _____ Plant McIntosh
TECHNICIAN: H. Auld

INSTRUMENT S/N: 171200063767
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: _____
10 NTU - LOT # A1201R EXP. DATE: Nov. 22
20 NTU - LOT # A1207 EXP. DATE: Nov. 22

Calibration Date: 2-22-22

Calibration Solution	Instrument Reading	
0.0	0.3	NTU
10.0	10.7	NTU
20.0	20.7	NTU

Calibration Date: 2-23-22

Calibration Solution	Instrument Reading	
0.0	0.2	NTU
10.0	10.5	NTU
20.0	20.3	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

1 - Location/Identification

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	Yes	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

2 - Protective Outer Casing		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

3 - Surface Pad

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

4 - Internal Well Casing

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

5 - Sampling (Groundwater Monitoring Wells Only):

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	N/A	No	No	No	No	No	N/A	No

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

Staff: J. Berisford
Date: 2/21/2022

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

1 - Location/Identification

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

2 - Protective Outer Casing		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

3 - Surface Pad

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

4 - Internal Well Casing

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

5 - Sampling (Groundwater Monitoring Wells Only):

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Does the well recharge adequately when purged?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

MGWC-12 - Well pad is loose, not firm to the ground. Corrective action still needed.
MGWC-22 - Redrilled weephole.

Staff: J. Berisford
Date: 2/21/2022

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

1 - Location/Identification

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

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

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

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

3 - Surface Pad

		PZ-16	PZ-17	PZ-18								
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes								
b	Does the well pad provide adequate surface seal and stability to the well?	No	Yes	Yes								
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes								
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	No	Yes	Yes								
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes								

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

4 - Internal Well Casing

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

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Plant McIntosh Ash Pond 1
February 2022 Well Inspection Form**



Permit No.: 051-011D

5 - Sampling (Groundwater Monitoring Wells Only):

		PZ-16	PZ-17	PZ-18								
a	Does the well recharge adequately when purged?	N/A	N/A	N/A								
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A								
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A								

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	PZ-16	PZ-17	PZ-18									
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes									

7 - Corrective actions completed and Notes:

PZ-16 - Well pad is slightly loose, not firm to the ground. Corrective action still needed.
PZ-17 - Well pad cleared of dirt/debris.

Staff: J. Berisford
Date: 2/21/2022

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".



**ATLANTIC COAST
CONSULTING, INC.**

1150 Northmeadow Parkway
Suite 100
Roswell GA 30076
(770) 594-5998
www.atlcc.net

MEMORANDUM

Date: July 14, 2022
 To: Lauren Hartley (Southern Company)
 CC: Kristen Jurinko (Southern Company), Ben Hodges (Southern Company)
 From: Atlantic Coast Consulting, Inc.
 Subject: Plant McIntosh Ash Pond 1- Well Maintenance and Repair Documentation
 Georgia Power Company

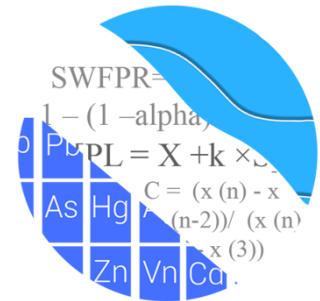
Atlantic Coast Consulting, Inc. (ACC) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant McIntosh during the 2022 Semiannual Groundwater Monitoring reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McIntosh /Ash Pond 1	2/21/2022	MGWC-22	Weep hole clogged / Redrilled weephole.
Plant McIntosh /Ash Pond 1	7/11-12/2022	PZ-16	Well pad loose, well pad stabilized and repaired.
Plant McIntosh /Ash Pond 1	7/11-12/2022	PZ-17	Dirt cleaned off of well pad and silt fence added.
Plant McIntosh /Ash Pond 1	7/11-12/2022	MGWC-12	Well pad loose. Well pad stabilized

APPENDIX B

Statistical Analyses

GROUNDWATER STATS CONSULTING



August 31, 2022

Southern Company Services
Attn: Ms. Lauren Coker
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant McIntosh Ash Pond 1 (AP-1)
Statistical Analysis February 2022

Dear Ms. Coker,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the February 2022 Semi-Annual Groundwater Detection and Assessment Monitoring statistical analysis for Georgia Power Company's Plant McIntosh AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division (EPD) 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 and IV parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Sampling is conducted on a semi-annual basis for all constituents. A list of all parameters is provided below.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** MGWA-5, MGWA-6, MGWA-6A, MGWA-10, and MGWA-11
- **Downgradient wells:** MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8, and MGWC-12

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to Groundwater Stats Consulting.

The Coal Combustion Residuals (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 well/constituent pairs containing 100% non-detects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening and demonstrated 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.

The original background screening was conducted in 2017 by MacStat Consulting. Values identified as outliers were flagged in the database and excluded prior to construction of statistical limits. Both intrawell and interwell prediction limits, combined with a 1-of-2 resample plan, were originally recommended. The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach.

Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter. 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.

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.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.

- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Statistical Analysis of Appendix III Parameters – February 2022

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. When values in background have been flagged as outliers, they may be seen in a lighter font and as a disconnected symbol on the graphs. No new values were flagged as outliers and a summary of flagged values follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through February 2022 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The February 2022 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter and includes a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Boron: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- Calcium: MGWC-3
- Chloride: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- Fluoride: MGWC-7
- Sulfate: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- TDS: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen’s Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing

- Boron: MGWC-7 and MGWC-8
- Sulfate: MGWC-3 and MGWC-8
- TDS: MGWC-8

Decreasing

- Boron: MGWA-6 (upgradient) and MGWC-2
- Calcium: MGWA-10 (upgradient)
- Chloride: MGWA-5 (upgradient), MGWA-6 (upgradient), MGWA-6A (upgradient), MGWC-2, and MGWC-7
- Fluoride: MGWC-7
- Sulfate: MGWA-5 (upgradient), MGWA-6 (upgradient), MGW-10 (upgradient), and MGWC-2
- TDS: MGWC-2

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-

specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. Confidence intervals are provided for Appendix IV well/constituent pairs with detections and with current reported data. The methods are described below.

Statistical Analysis of Appendix IV Parameters – February 2022

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that contain 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis.

During previous analyses, high concentrations from May 2016 through April 2017 for arsenic at upgradient well MGWA-6 were deselected prior to calculating an interwell upper tolerance limit. These historical measurements were considerably higher than more recent measurements; and this step results in a more conservative (i.e., lower) statistical limit from a regulatory perspective. All background data will be re-evaluated for upgradient wells during the next analysis. A summary of these background data ranges follows this letter. No new values were flagged as outliers and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for combined radium. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison of downgradient well data to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient and delineation well using all available data through February 2022.

The Sanitas software was used to calculate both the tolerance limits and the confidence intervals. Confidence intervals were compared to the GWPS prepared as described above (Figure H). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Summaries of the confidence intervals follow this letter and exceedances were identified for the following well/constituent pairs:

- Cobalt: MGWC-7 and MGWC-8
- Lithium: MGWC-7

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Cobalt: MGWC-8

Decreasing:

- None

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant McIntosh AP-1. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew T. Collins
Project Manager



Kristina L. Rayner
Senior Statistician

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/23/2022 5:02 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Antimony (mg/L)
MGWC-1, MGWC-2, MGWC-8

Beryllium (mg/L)
MGWC-12, MGWC-2, MGWC-7

Cadmium (mg/L)
MGWC-12, MGWC-3

Lead (mg/L)
MGWC-1, MGWC-2, MGWC-3

Mercury (mg/L)
MGWC-1

Molybdenum (mg/L)
MGWC-2, MGWC-3

Thallium (mg/L)
MGWC-7

Date Ranges

Date: 5/23/2022 1:17 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Arsenic (mg/L)

MGWA-6 overall:3/29/2018-2/23/2022

Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:35 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)	MGWC-1	0.18	n/a	2/22/2022	1.7	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	2/23/2022	2	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	2/23/2022	0.83	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	2/23/2022	2.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	2/23/2022	4.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	2/23/2022	120	Yes	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.409	n/a	2/22/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.409	n/a	2/23/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.409	n/a	2/23/2022	14	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.409	n/a	2/23/2022	9.8	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.409	n/a	2/23/2022	11	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	2/23/2022	0.22	Yes	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MGWC-1	20.19	n/a	2/22/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	20.19	n/a	2/23/2022	180	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	20.19	n/a	2/23/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	20.19	n/a	2/23/2022	260	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	20.19	n/a	2/23/2022	390	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	349.9	n/a	2/22/2022	420	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	349.9	n/a	2/23/2022	490	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	349.9	n/a	2/23/2022	450	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	349.9	n/a	2/23/2022	390	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	349.9	n/a	2/23/2022	630	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2

Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:35 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)	MGWC-1	0.18	n/a	2/22/2022	1.7	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-12	0.18	n/a	2/22/2022	0.08ND	No	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	2/23/2022	2	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	2/23/2022	0.83	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	2/23/2022	2.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	2/23/2022	4.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	2/22/2022	100	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-12	110	n/a	2/22/2022	35	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	2/23/2022	100	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	2/23/2022	120	Yes	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	2/23/2022	61	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	2/23/2022	97	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.409	n/a	2/22/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-12	9.409	n/a	2/22/2022	4	No	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.409	n/a	2/23/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.409	n/a	2/23/2022	14	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.409	n/a	2/23/2022	9.8	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.409	n/a	2/23/2022	11	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-1	0.19	n/a	2/22/2022	0.047J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	2/22/2022	0.093J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	2/23/2022	0.075J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	2/23/2022	0.086J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	2/23/2022	0.22	Yes	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-8	0.19	n/a	2/23/2022	0.05J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	7.926	4.577	2/22/2022	7.32	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-12	7.926	4.577	2/22/2022	7.41	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-2	7.926	4.577	2/23/2022	7.44	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-3	7.926	4.577	2/23/2022	6.98	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-7	7.926	4.577	2/23/2022	6.91	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-8	7.926	4.577	2/23/2022	6.22	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-1	20.19	n/a	2/22/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-12	20.19	n/a	2/22/2022	4.8	No	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	20.19	n/a	2/23/2022	180	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	20.19	n/a	2/23/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	20.19	n/a	2/23/2022	260	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	20.19	n/a	2/23/2022	390	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	349.9	n/a	2/22/2022	420	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-12	349.9	n/a	2/22/2022	190	No	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	349.9	n/a	2/23/2022	490	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	349.9	n/a	2/23/2022	450	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	349.9	n/a	2/23/2022	390	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	349.9	n/a	2/23/2022	630	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2

Appendix III Trend Tests - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02061	-104	-68	Yes	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-2	-0.2895	-101	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-7	0.06861	109	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-8	0.7274	78	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.4171	-75	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.185	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.199	-129	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.3857	-22	-21	Yes	8	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-2	-1.886	-127	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-7	-0.6906	-116	-68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWC-7	-0.04682	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.304	-90	-68	Yes	18	27.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.6861	-91	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.372	-119	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-2	-27.24	-126	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-3	7.58	117	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-8	59.07	102	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-2	-36.03	-109	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-8	89.13	101	68	Yes	18	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	44	68	No	18	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-11 (bg)	0	20	68	No	18	61.11	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-5 (bg)	0	29	68	No	18	88.89	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-6 (bg)	-0.02061	-104	-68	Yes	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-6A (bg)	0	2	21	No	8	75	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-1	0.1685	65	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-2	-0.2895	-101	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-3	0	8	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-7	0.06861	109	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-8	0.7274	78	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.4171	-75	-68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-11 (bg)	0	-3	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-5 (bg)	-0.1736	-22	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6 (bg)	0	13	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6A (bg)	-0.643	-1	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWC-3	2.173	50	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-10 (bg)	0	1	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-11 (bg)	-0.02392	-9	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.185	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.199	-129	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.3857	-22	-21	Yes	8	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-1	0	-21	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-2	-1.886	-127	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-3	0.185	64	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-7	-0.6906	-116	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-8	0.2771	65	68	No	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-10 (bg)	0	-47	-74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-11 (bg)	0.003202	20	74	No	19	10.53	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-5 (bg)	-0.003692	-38	-74	No	19	21.05	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-6 (bg)	-0.002711	-32	-74	No	19	31.58	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-6A (bg)	0.01291	9	21	No	8	25	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWC-7	-0.04682	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.304	-90	-68	Yes	18	27.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-11 (bg)	0.2448	58	68	No	18	33.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.6861	-91	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.372	-119	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6A (bg)	0.02637	0	21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-1	3.959	39	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-2	-27.24	-126	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-3	7.58	117	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-7	3.104	56	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-8	59.07	102	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-10 (bg)	-5.208	-50	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-11 (bg)	0.5376	14	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-5 (bg)	0	4	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6 (bg)	0	-12	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6A (bg)	8.255	6	21	No	8	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-1	12.37	35	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-2	-36.03	-109	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-3	8.026	39	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-7	10.03	35	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-8	89.13	101	68	Yes	18	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:59 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	71	n/a	n/a	90.14	n/a	n/a	0.0262	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.014	n/a	n/a	n/a	n/a	81	n/a	n/a	35.8	n/a	n/a	0.01569	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a	89	n/a	n/a	0	n/a	n/a	0.01041	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	79	n/a	n/a	93.67	n/a	n/a	0.01738	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	89	n/a	n/a	98.88	n/a	n/a	0.01041	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	n/a	79	n/a	n/a	70.89	n/a	n/a	0.01738	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	89	n/a	n/a	74.16	n/a	n/a	0.01041	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.141	n/a	n/a	n/a	n/a	90	0.5681	0.2949	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	84	n/a	n/a	30.95	n/a	n/a	0.01345	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	71	n/a	n/a	92.96	n/a	n/a	0.0262	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	89	n/a	n/a	29.21	n/a	n/a	0.01041	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	79	n/a	n/a	96.2	n/a	n/a	0.01738	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	n/a	79	n/a	n/a	60.76	n/a	n/a	0.01738	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	59	n/a	n/a	89.83	n/a	n/a	0.04849	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	79	n/a	n/a	81.01	n/a	n/a	0.01738	NP Inter(NDs)

PLANT MCINTOSH AP 1 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.014	0.014
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		1.14	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates background is higher than MCL or CCR-Rule*

**GWPS = Groundwater Protection Standard*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 6/2/2022, 11:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-7	0.01018	0.007454	0.006	Yes	20	0.008815	0.002397	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.01653	0.007613	0.006	Yes	20	0.01207	0.007847	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.112	0.04	Yes	20	0.1211	0.02015	0	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 6/2/2022, 11:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	16	0.0019	0.0004	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	16	0.001894	0.000425	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	16	0.001998	0.0000075	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002888	0.001978	0.014	No	20	0.002433	0.0008013	0	None	No	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001111	0.0006611	0.014	No	20	0.00098	0.0003666	30	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.014	No	20	0.0009045	0.0002067	80	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001658	0.001369	0.014	No	20	0.001492	0.0003034	5	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008456	0.000518	0.014	No	20	0.0008245	0.0002843	35	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.014	No	20	0.0009025	0.0002008	75	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.11	0.096	2	No	20	0.1072	0.01679	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06567	0.04922	2	No	20	0.05745	0.01448	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-2	0.05445	0.04909	2	No	20	0.05177	0.004721	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1553	0.14	2	No	20	0.1477	0.0134	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.01	2	No	20	0.01295	0.006858	5	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03885	0.03307	2	No	20	0.03607	0.005348	0	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	18	0.002371	0.0005468	94.44	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	18	0.002378	0.0005162	94.44	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001266	0.0006815	0.004	No	18	0.001323	0.0007309	16.67	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	20	0.002165	0.0008213	85	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.00318	0.001313	0.005	No	20	0.002444	0.001915	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	20	0.002386	0.0005076	95	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.001201	0.0005164	0.005	No	20	0.001461	0.00113	30	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	18	0.002089	0.0003771	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	18	0.003567	0.006354	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	18	0.002072	0.0003064	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	18	0.002056	0.0002357	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	18	0.00205	0.0003569	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	18	0.002061	0.0002593	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No	20	0.001681	0.001049	60	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No	20	0.002333	0.0005581	90	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.00333	0.002554	0.006	No	20	0.002942	0.000684	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.006	No	20	0.000881	0.0007174	15	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.01018	0.007454	0.006	Yes	20	0.008815	0.002397	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.01653	0.007613	0.006	Yes	20	0.01207	0.007847	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.665	1.256	5	No	21	1.46	0.3715	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.7283	0.4259	5	No	20	0.5771	0.2662	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.732	0.4444	5	No	20	0.5882	0.2533	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.627	1.335	5	No	21	1.481	0.2642	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.288	0.9211	5	No	20	1.104	0.3229	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	2.018	1.422	5	No	20	1.72	0.524	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2402	0.1449	4	No	19	0.1925	0.0814	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2538	0.1938	4	No	19	0.2238	0.05123	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.1094	0.07245	4	No	19	0.09747	0.03011	36.84	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MGWC-3	0.11	0.082	4	No	19	0.09974	0.03667	31.58	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3423	0.2223	4	No	19	0.2823	0.1025	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.11	0.084	4	No	19	0.09868	0.02762	15.79	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	16	0.0009438	0.000225	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	16	0.0009056	0.0002587	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-8	0.001	0.00022	0.015	No	16	0.0009513	0.000195	93.75	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01246	0.01027	0.04	No	20	0.01137	0.001925	5	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02169	0.01585	0.04	No	20	0.01877	0.00515	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.006782	0.005138	0.04	No	20	0.006094	0.001801	5	None	ln(x)	0.01	Param.
Lithium (mg/L)	MGWC-3	0.01342	0.0113	0.04	No	20	0.01236	0.00186	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.112	0.04	Yes	20	0.1211	0.02015	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.03863	0.02708	0.04	No	20	0.03286	0.01016	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 6/2/2022, 11:56 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	18	0.0001867	0.00003886	88.89	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	18	0.0001877	0.00003609	88.89	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	18	0.0001928	0.00003064	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	18	0.0001933	0.00002828	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00014	0.002	No	19	0.0004135	0.0009031	42.11	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.0029	0.0012	0.1	No	18	0.004547	0.00577	22.22	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No	18	0.01126	0.006218	72.22	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	18	0.01436	0.002708	94.44	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	18	0.01437	0.002663	94.44	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-1	0.005	0.0005	0.05	No	14	0.004679	0.001203	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-12	0.005	0.00027	0.05	No	14	0.004662	0.001264	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-2	0.005	0.00045	0.05	No	14	0.004675	0.001216	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-3	0.005	0.00044	0.05	No	14	0.004674	0.001219	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-7	0.005	0.00026	0.05	No	14	0.004661	0.001267	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-8	0.005	0.00038	0.05	No	14	0.003813	0.002011	71.43	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00016	0.002	No	18	0.0007669	0.0003893	72.22	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	18	0.0009122	0.0002563	88.89	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	18	0.0009561	0.0001862	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	18	0.0009183	0.0002404	88.89	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002481	0.000136	0.002	No	18	0.0003994	0.000342	22.22	Kaplan-Meier	ln(x)	0.01	Param.

Appendix IV Trend Tests - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 5:06 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-8	0.003692	111	81	Yes	20	0	n/a	n/a	0.01	NP

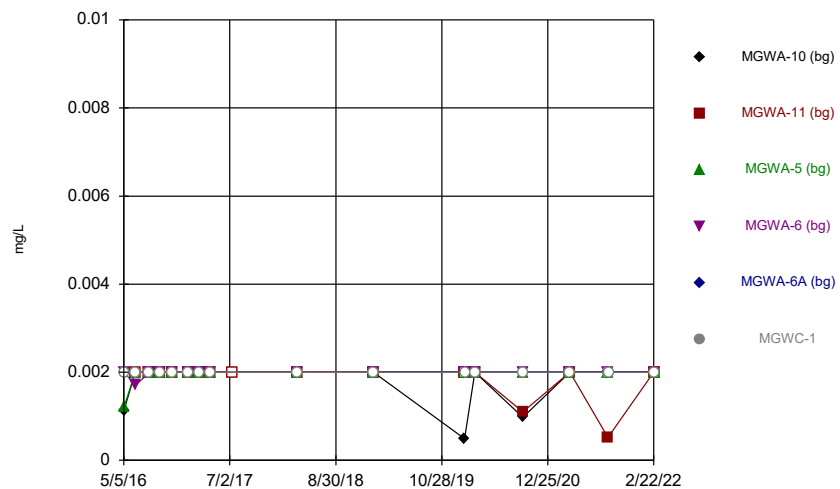
Appendix IV Trend Tests - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 5:06 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	MGWA-10 (bg)	0	-6	-81	No	20	85	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-11 (bg)	0	19	81	No	20	95	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-5 (bg)	0	17	81	No	20	95	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-6 (bg)	0	4	81	No	20	45	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-6A (bg)	0.00005762	3	25	No	9	22.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWC-7	-0.0004386	-47	-81	No	20	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWC-8	0.003692	111	81	Yes	20	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-10 (bg)	0.00007562	17	81	No	20	5	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-11 (bg)	0.0007894	27	81	No	20	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-5 (bg)	0.0003923	43	81	No	20	5	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-6 (bg)	0	7	81	No	20	95	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-6A (bg)	-0.0009798	-24	-25	No	9	55.56	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWC-7	0	-1	-81	No	20	0	n/a	n/a	0.01	NP

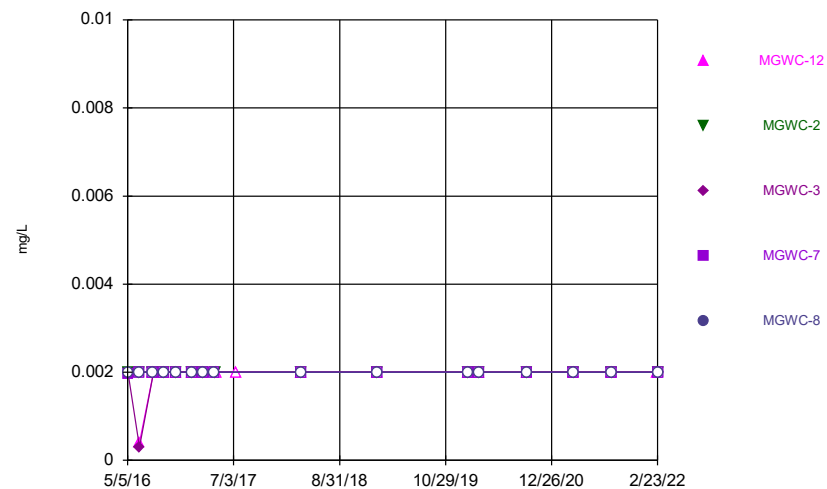
FIGURE A.

Time Series



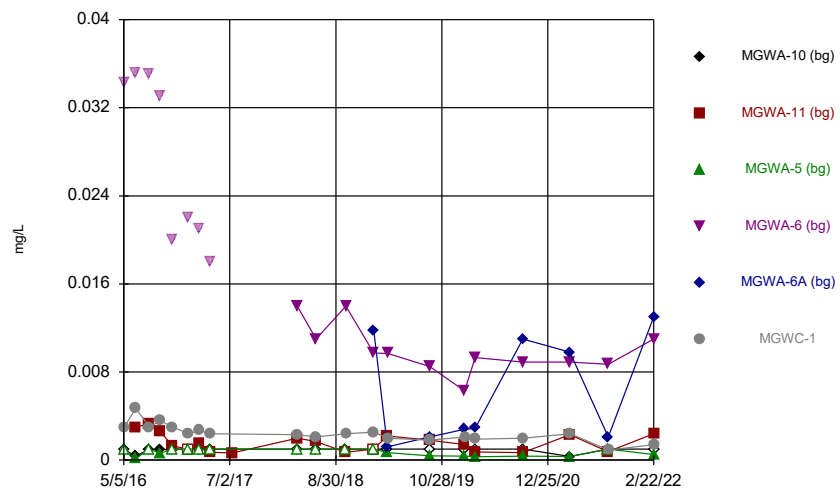
Constituent: Antimony Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



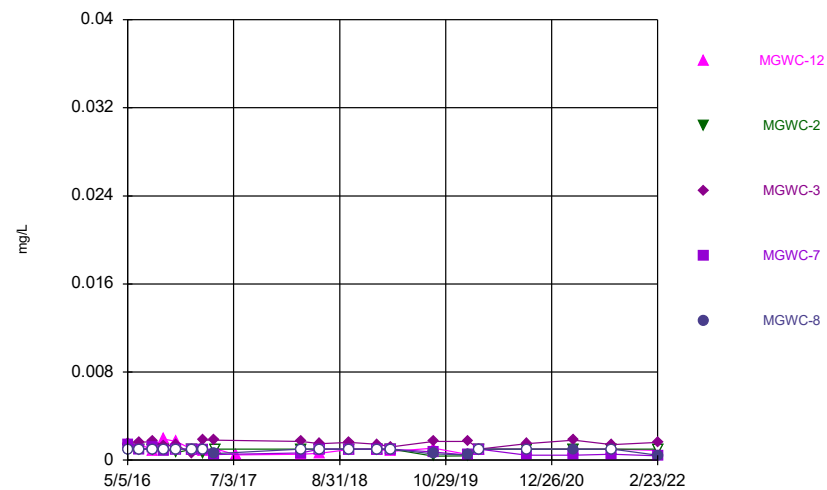
Constituent: Antimony Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



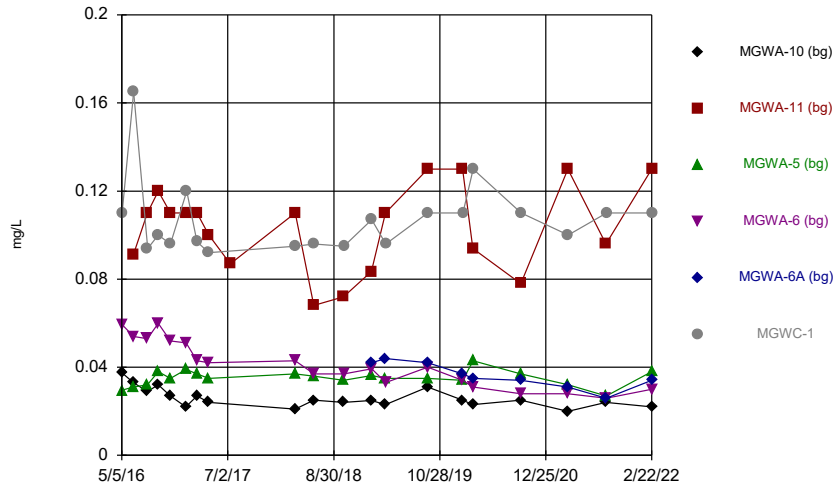
Constituent: Arsenic Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Arsenic Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

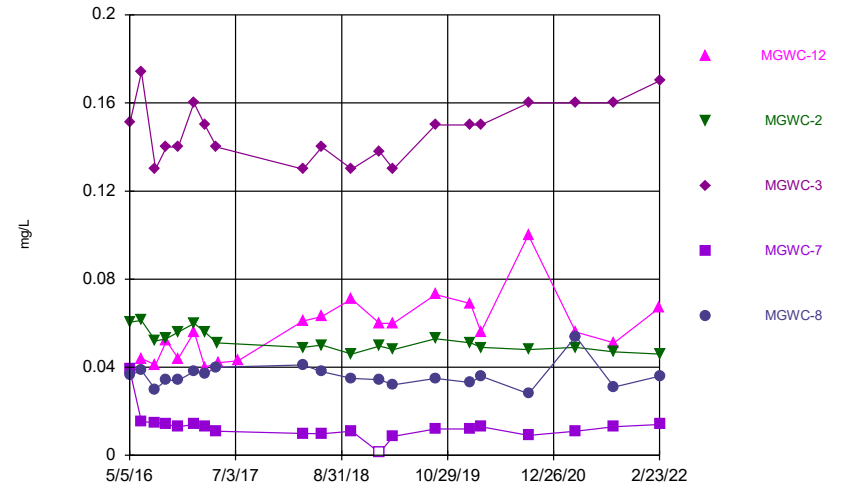
Time Series



Constituent: Barium Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

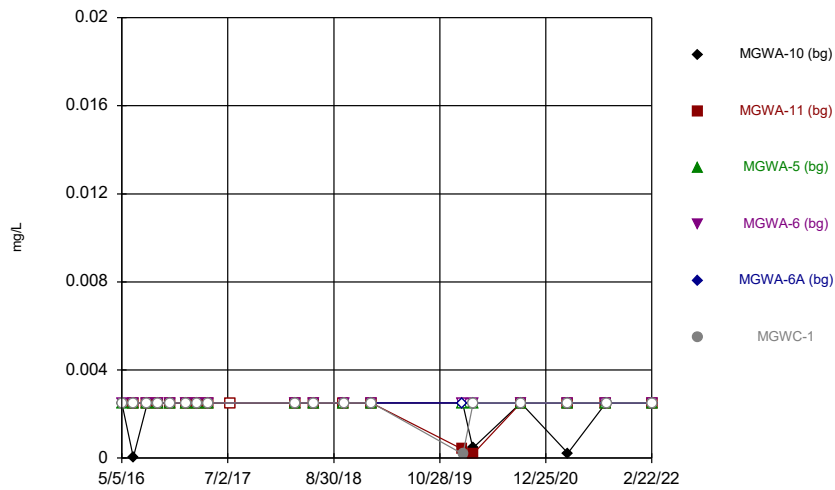
Time Series



Constituent: Barium Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

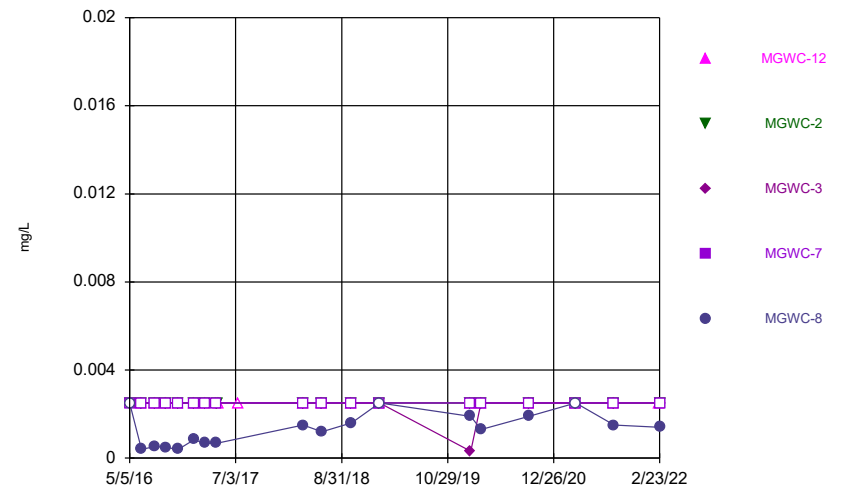
Time Series



Constituent: Beryllium Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

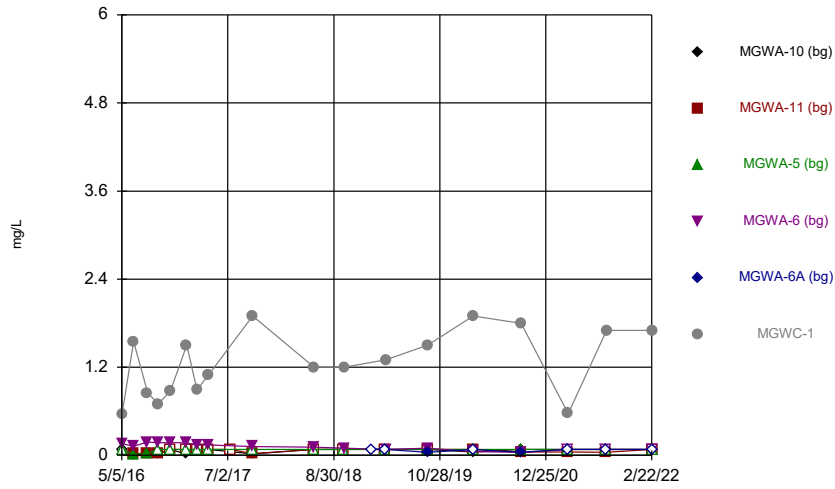
Hollow symbols indicate censored values.

Time Series



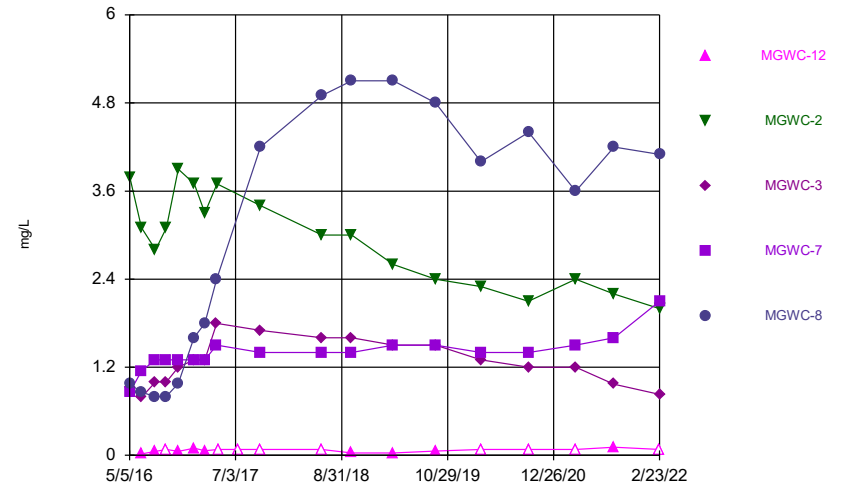
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



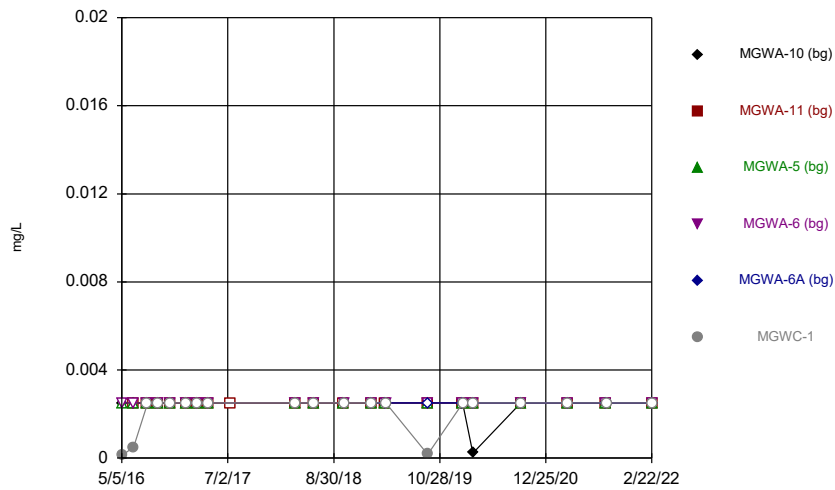
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



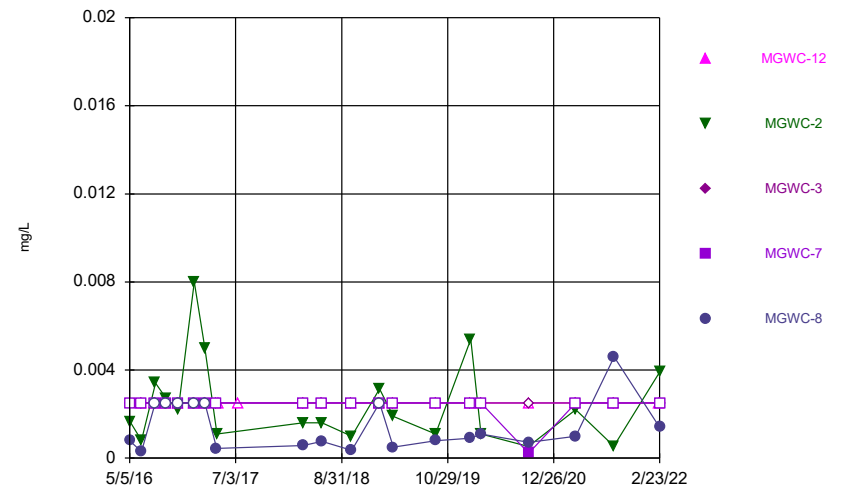
Constituent: Boron Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



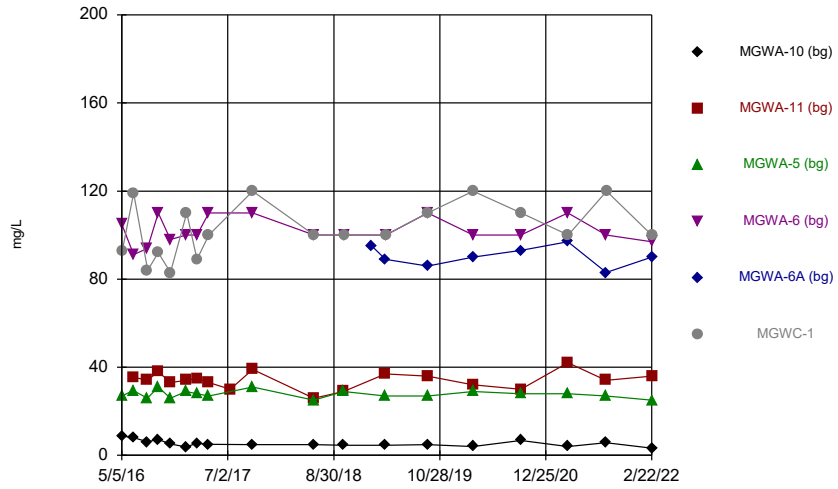
Constituent: Cadmium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



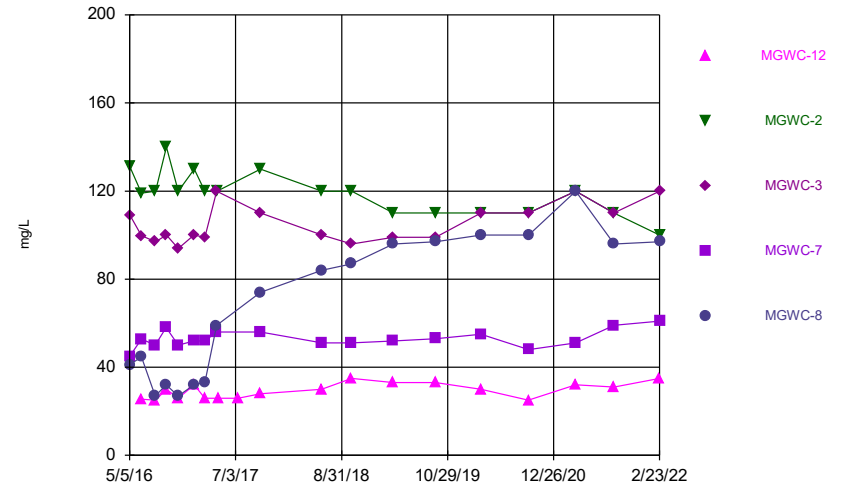
Constituent: Cadmium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



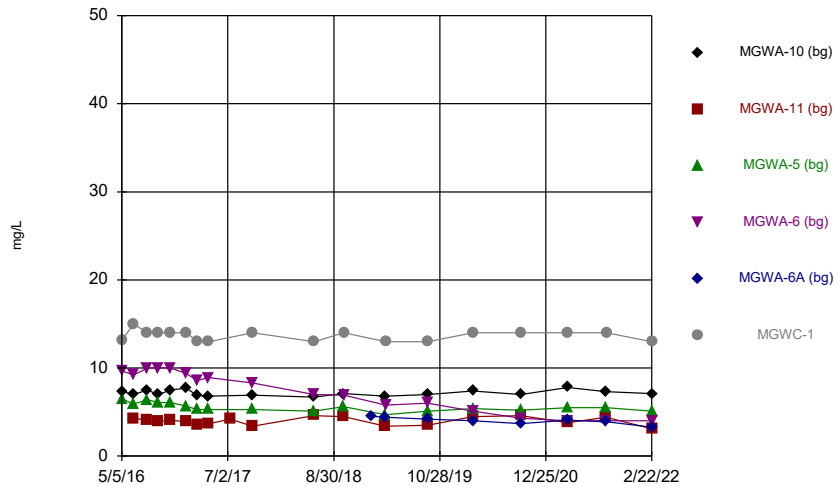
Constituent: Calcium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



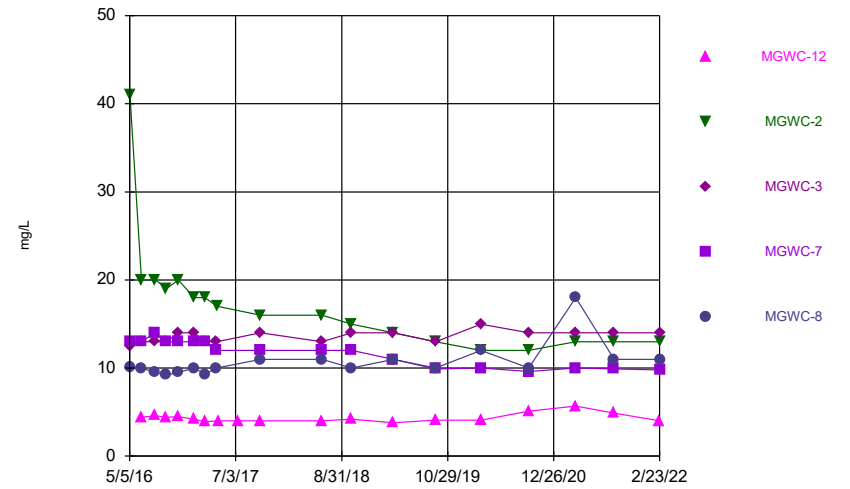
Constituent: Calcium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



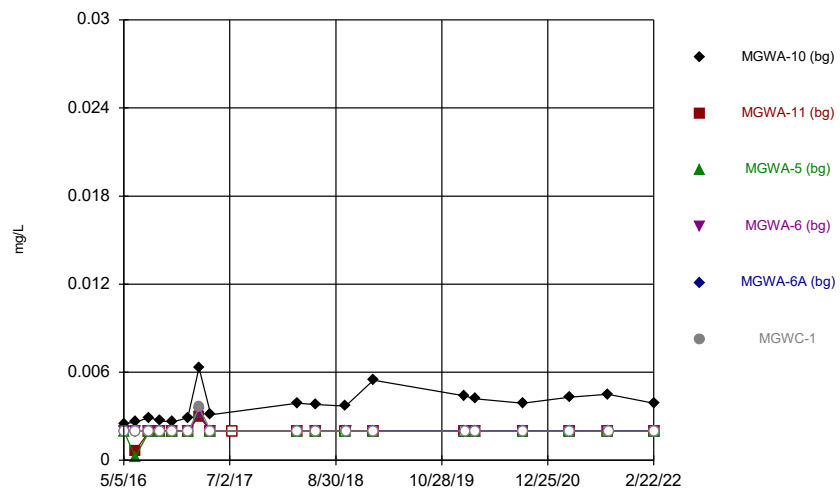
Constituent: Chloride Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



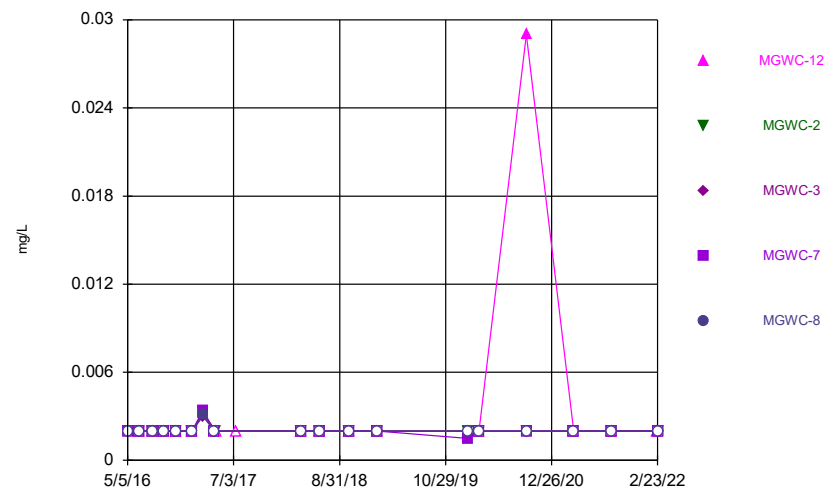
Constituent: Chloride Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



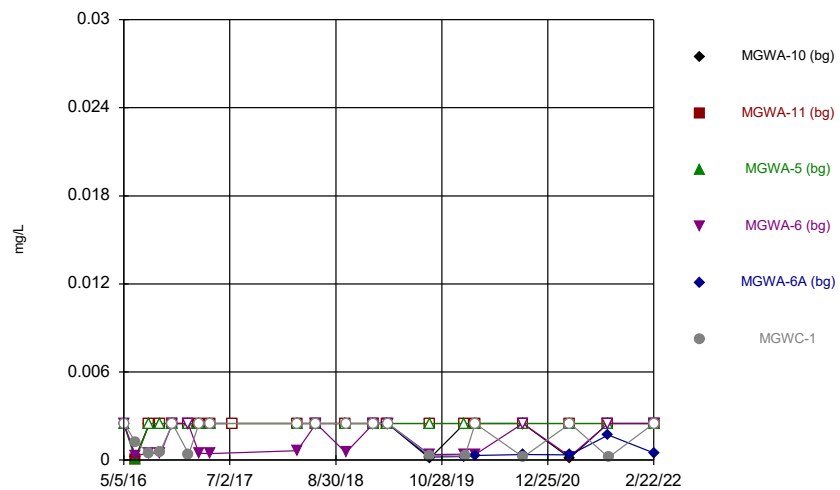
Constituent: Chromium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



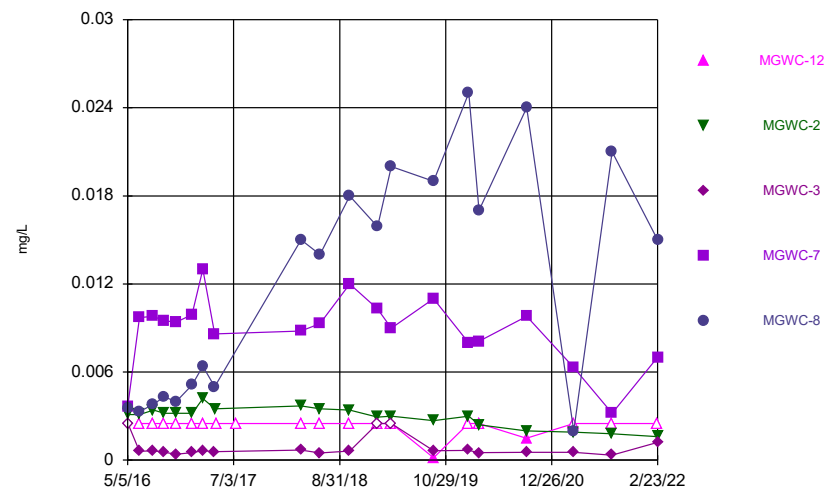
Constituent: Chromium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



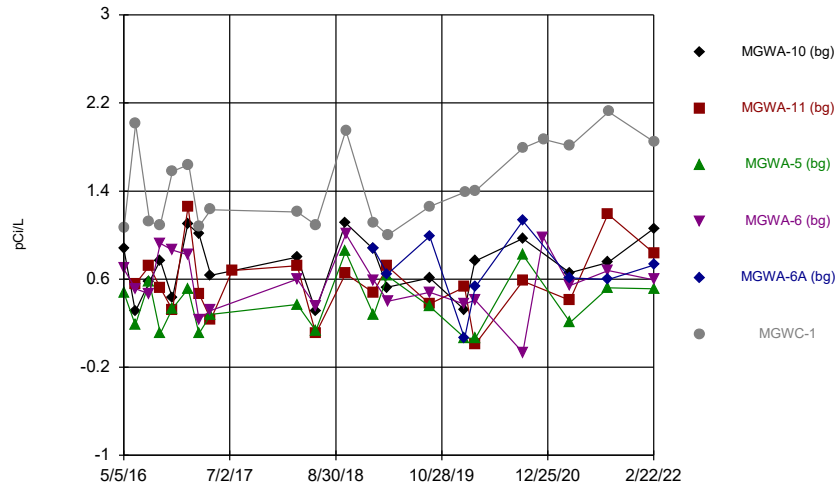
Constituent: Cobalt Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



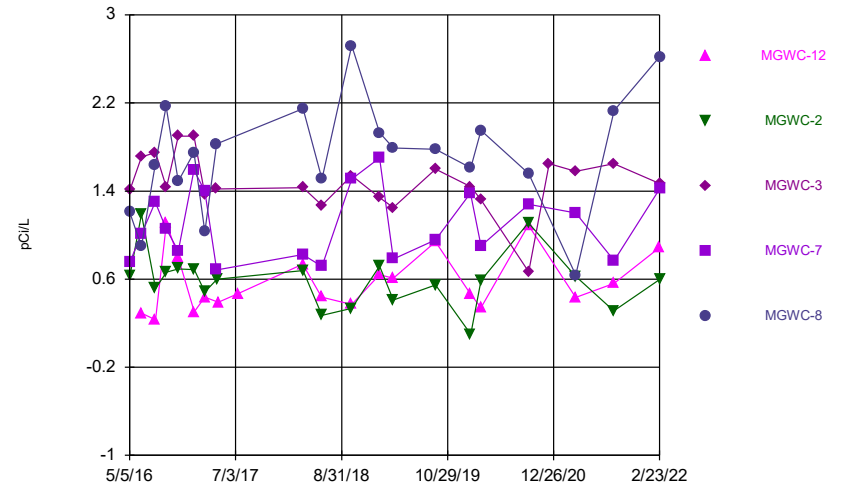
Constituent: Cobalt Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



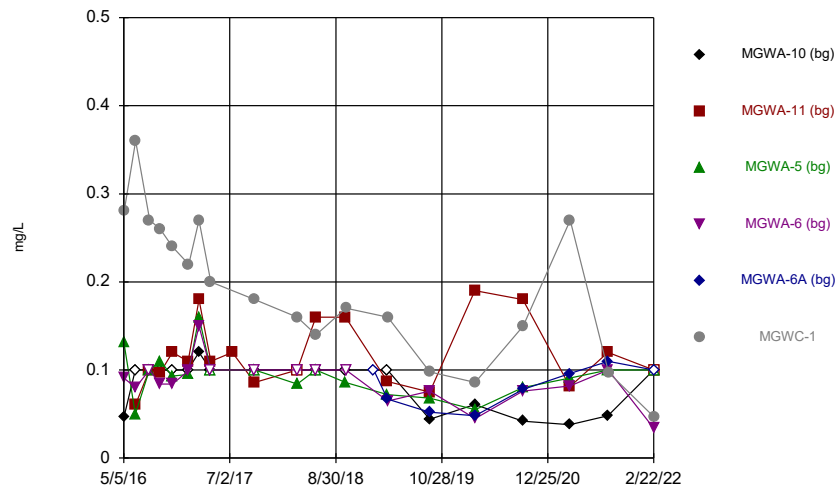
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



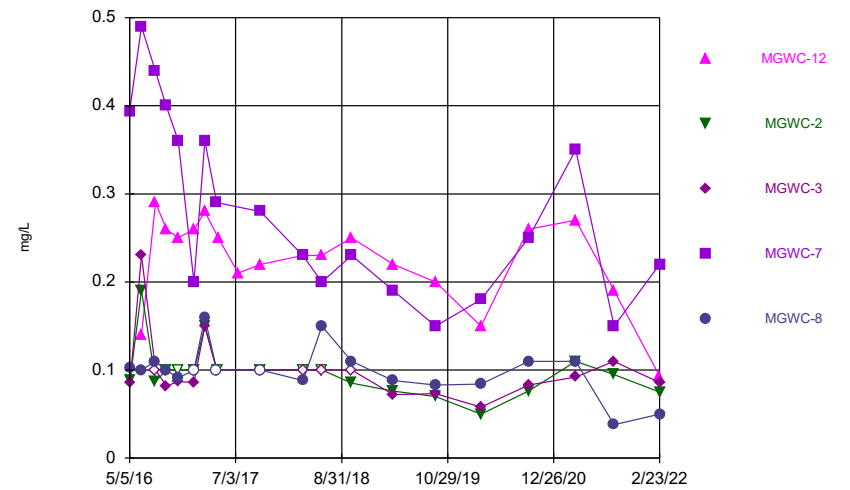
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



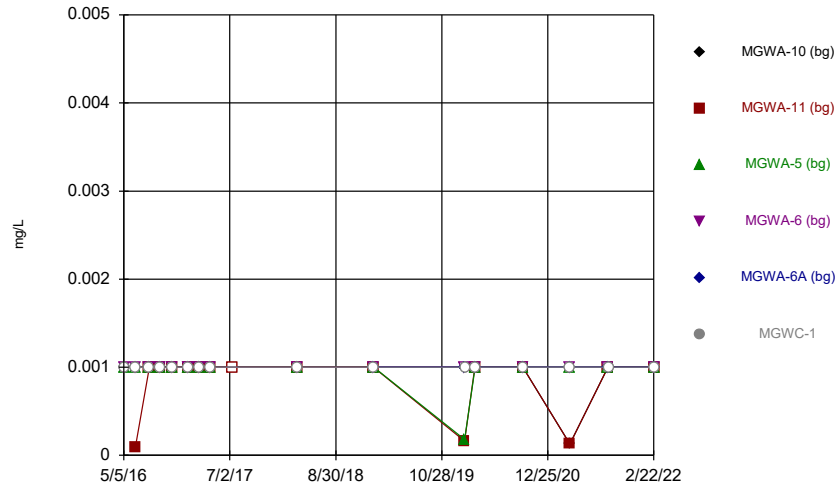
Constituent: Fluoride Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



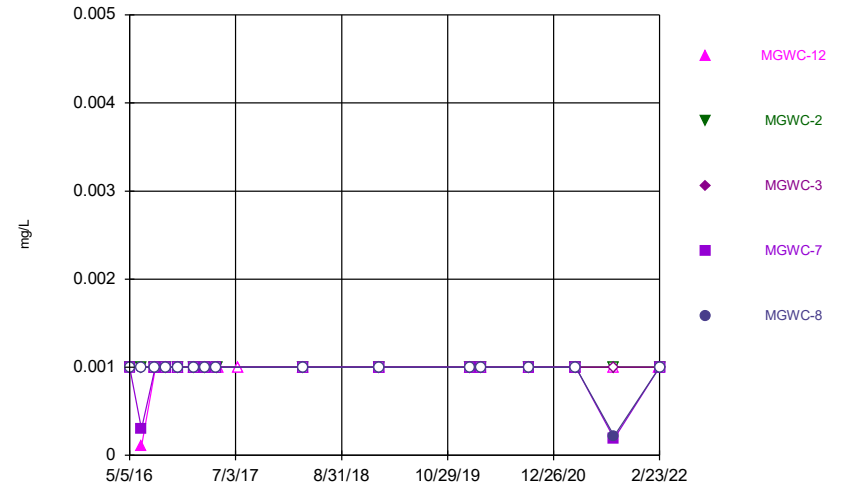
Constituent: Fluoride Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



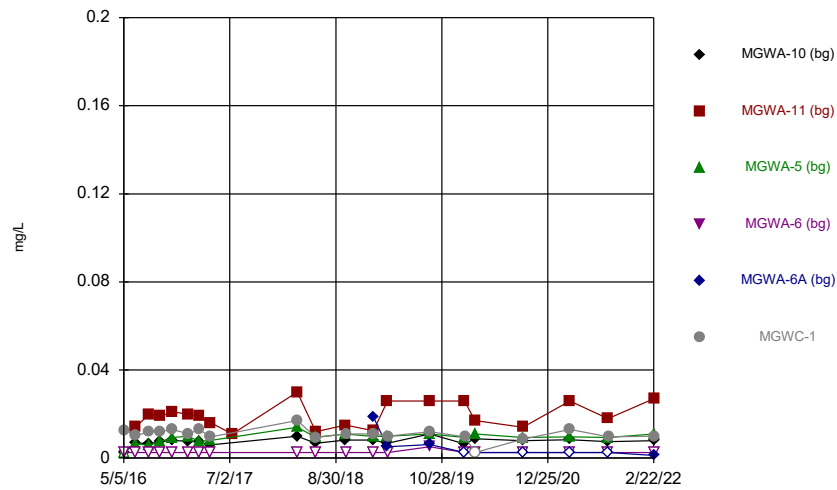
Constituent: Lead Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



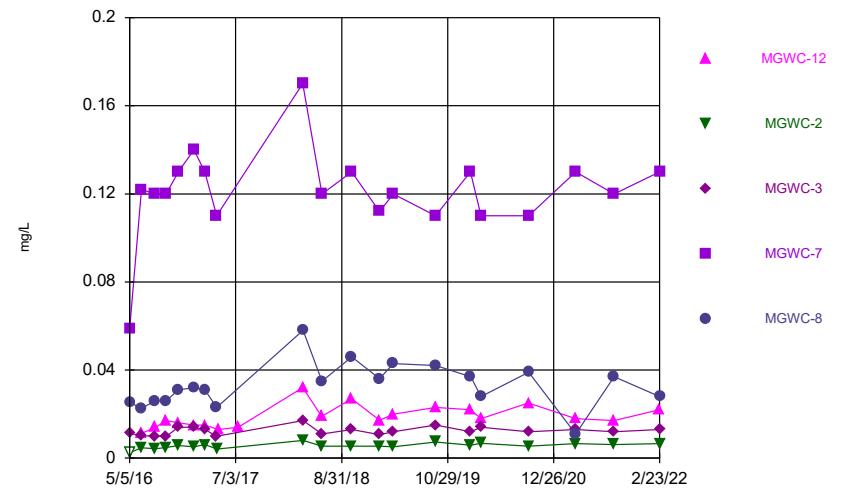
Constituent: Lead Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



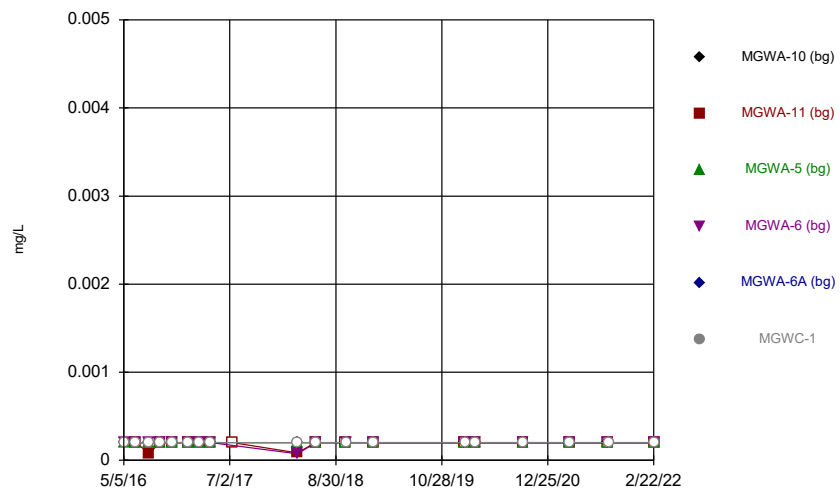
Constituent: Lithium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



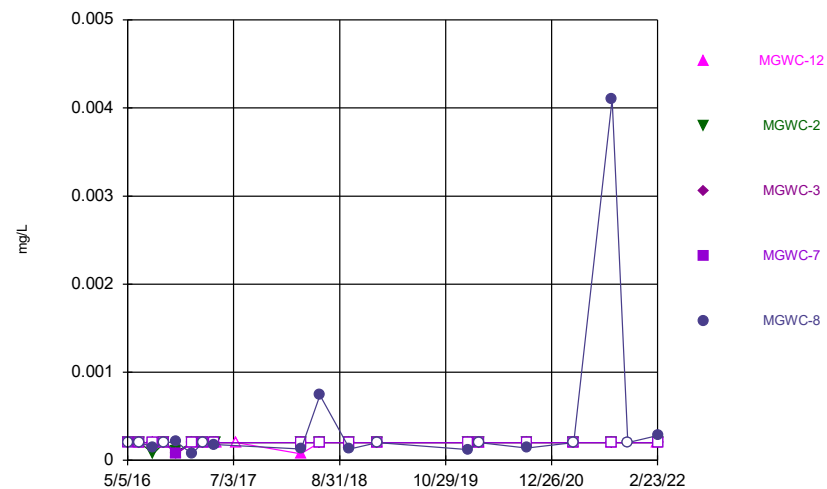
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



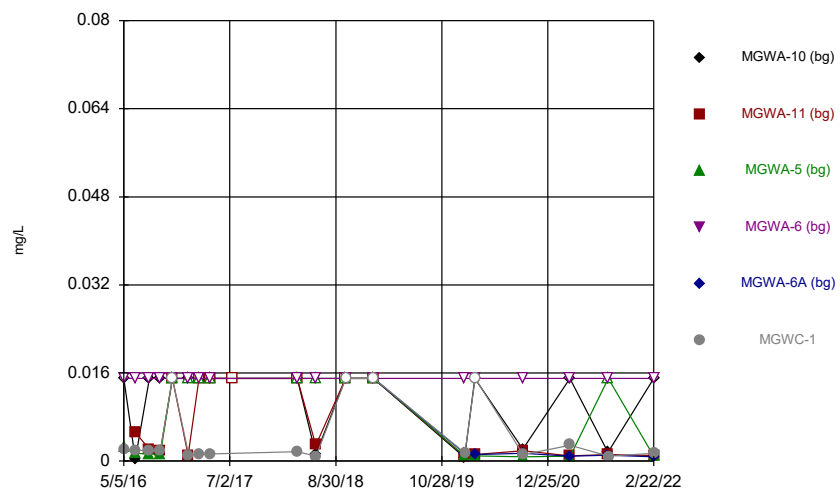
Constituent: Mercury Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



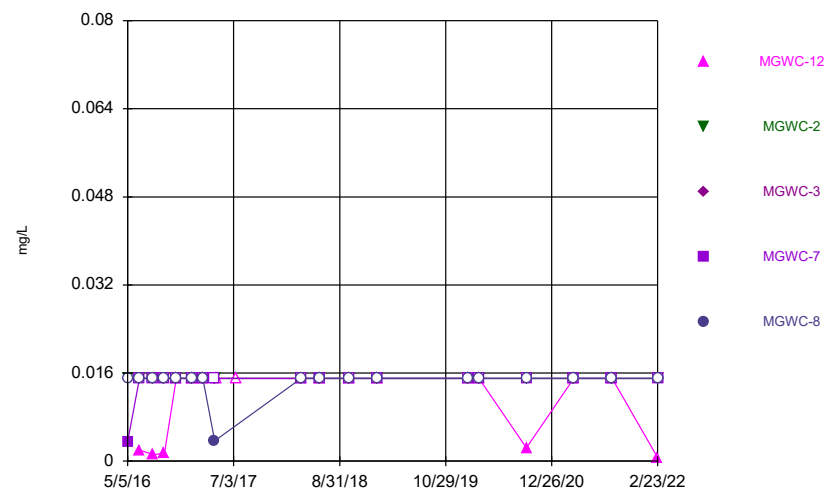
Constituent: Mercury Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



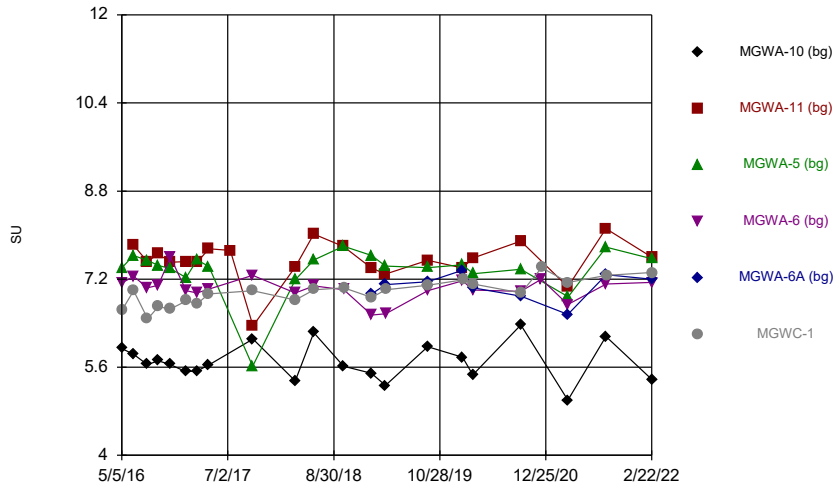
Constituent: Molybdenum Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



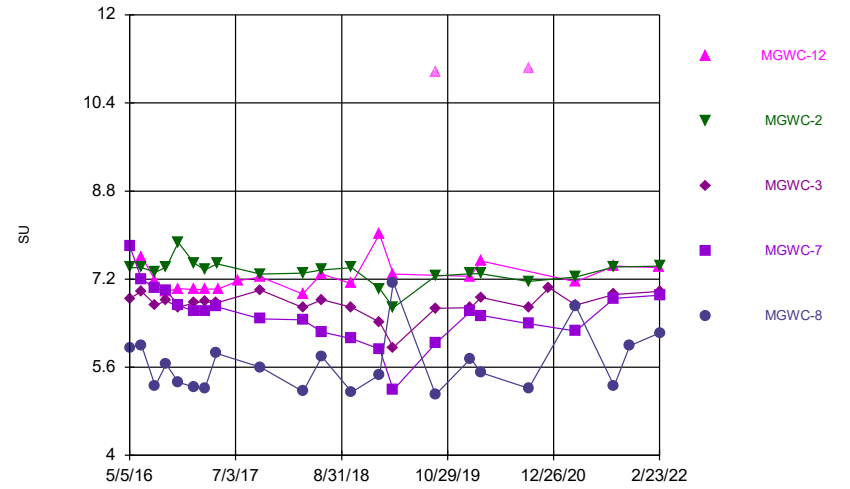
Constituent: Molybdenum Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



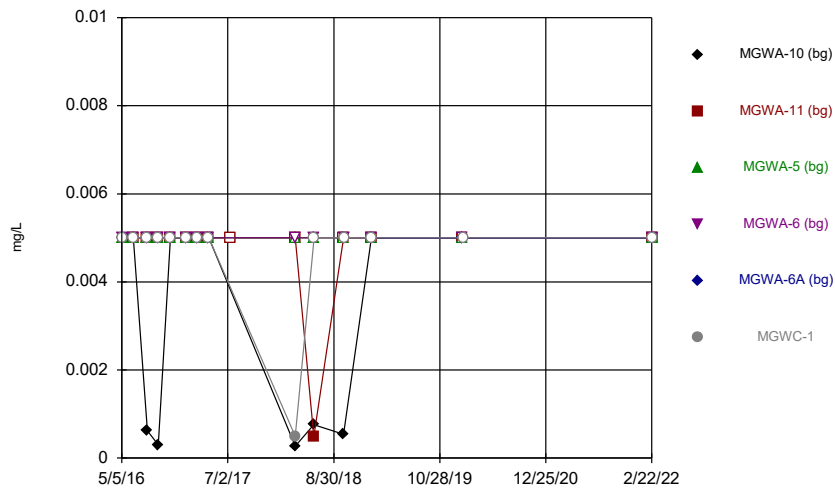
Constituent: pH Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



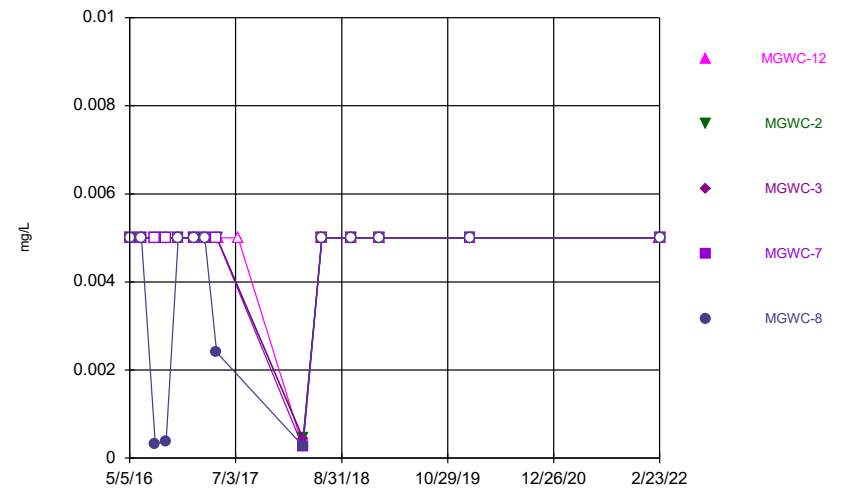
Constituent: pH Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



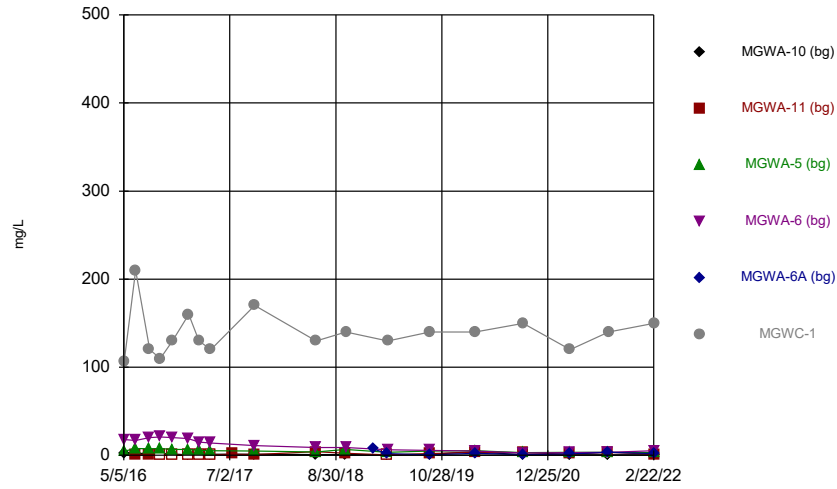
Constituent: Selenium Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



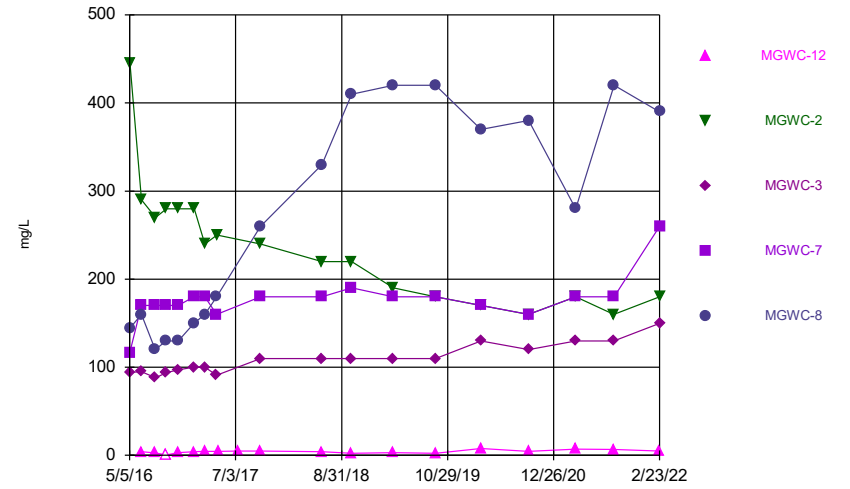
Constituent: Selenium Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



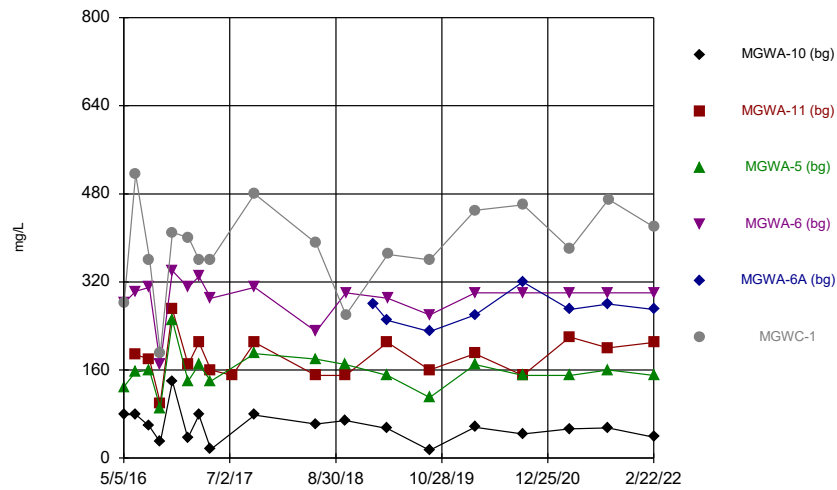
Constituent: Sulfate Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



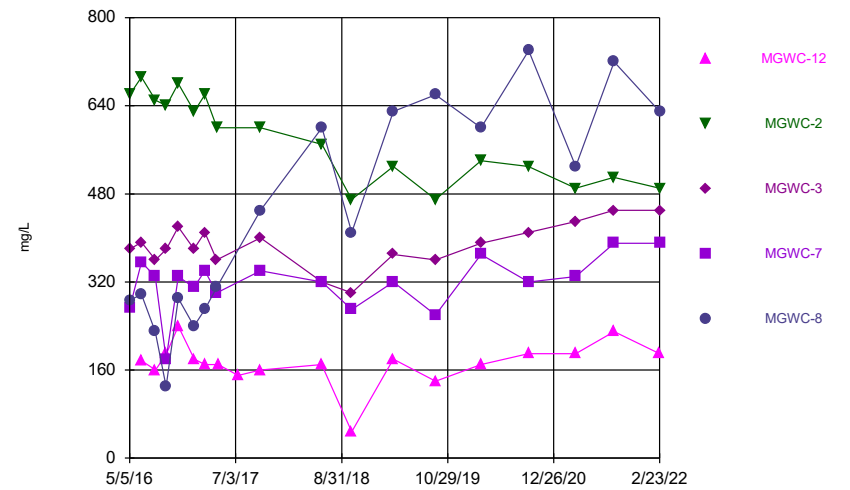
Constituent: Sulfate Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



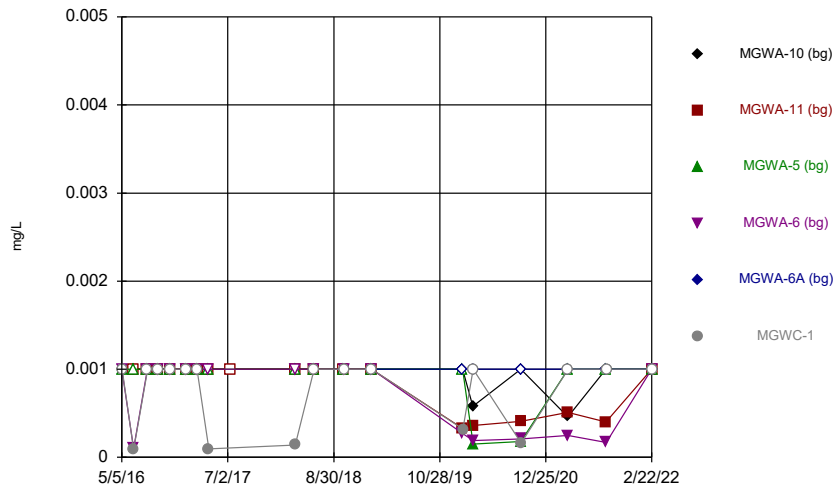
Constituent: TDS Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



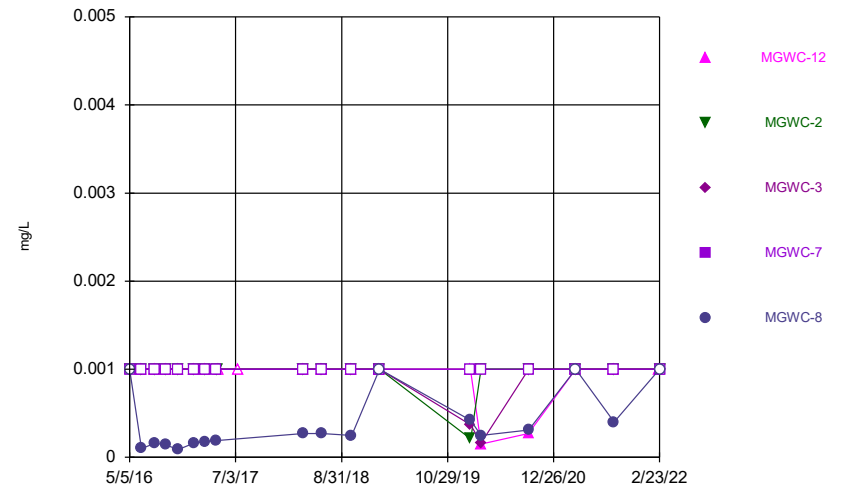
Constituent: TDS Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Thallium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Thallium Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00197 (J)	<0.002
5/6/2016		<0.002	<0.002		
6/21/2016	0.0004 (J)	<0.002	0.0003 (J)	<0.002	<0.002
8/15/2016				<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002		
9/28/2016				<0.002	<0.002
9/29/2016	<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017			<0.002	<0.002	<0.002
1/18/2017	<0.002	<0.002			
3/2/2017	<0.002	<0.002	<0.002	<0.002	<0.002
4/18/2017			<0.002	<0.002	<0.002
4/19/2017		<0.002			
4/25/2017	<0.002				
7/13/2017	<0.002				
3/29/2018	<0.002			<0.002	
3/30/2018		<0.002	<0.002		<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020	<0.002			<0.002	
1/29/2020		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020	<0.002	<0.002			
9/17/2020			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021		<0.002	<0.002		
8/25/2021	<0.002			<0.002	<0.002
2/22/2022	<0.002				
2/23/2022		<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/23/2022 1:19 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	0.0343		
5/6/2016						0.00299 (J)
6/20/2016	0.00036 (J)	0.003 (J)	0.00014 (J)			
6/21/2016				0.0352		0.0047 (J)
8/15/2016	0.00096 (J)	0.0033	<0.001	0.035		
8/16/2016						0.003
9/28/2016	0.00095 (J)	0.0026	0.00062 (J)	0.033		0.0036
11/16/2016	<0.001	0.0013	<0.001	0.02		0.003
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	0.022		
1/19/2017						0.0024
3/2/2017	<0.001	0.0015	<0.001	0.021		0.0027
4/18/2017	<0.001	0.00071 (J)	<0.001	0.018		0.0024
7/13/2017		0.00066 (J)				
3/29/2018	<0.001	0.002	<0.001	0.014		0.0023
6/12/2018	<0.001	0.0017	<0.001			
6/13/2018				0.011		0.0021
10/9/2018	<0.001	0.00072 (J)	<0.001			
10/10/2018				0.014		0.0024
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	0.00972	0.0118	0.00255
3/25/2019	<0.001	0.0022	0.00069 (J)		0.0012 (J)	
3/26/2019				0.0097		0.002
9/10/2019	<0.001	0.0018	0.00039 (J)	0.0085	0.0021	0.0018
1/28/2020	<0.001	0.0014	0.00036 (J)	0.0063	0.0028	
1/29/2020						0.0021
3/9/2020	<0.001	0.00073 (J)				
3/10/2020			0.00031 (J)	0.0093	0.0029	0.0019
9/16/2020	<0.001	0.00069 (J)	0.00035 (J)	0.0089	0.011	
9/17/2020						0.002
3/23/2021	0.00033 (J)	0.0023		0.0089	0.0098	
3/24/2021			0.00033 (J)			0.0024
8/23/2021	<0.001	0.00077 (J)				
8/24/2021			<0.001	0.0087	0.0021	
8/25/2021						0.00092 (J)
2/22/2022	<0.001	0.0024	0.00052 (J)	0.011	0.013	0.0014

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00143 (J)	<0.001
5/6/2016		<0.001	0.00154 (J)		
6/21/2016	0.0015 (J)	<0.001	0.0016 (J)	0.0009 (J)	<0.001
8/15/2016				0.0012 (J)	<0.001
8/16/2016	0.00082 (J)	<0.001	0.0017		
9/28/2016				0.00084 (J)	<0.001
9/29/2016	0.0019	<0.001	0.0013		
11/16/2016	0.0017	0.00068 (J)	0.0014	<0.001	<0.001
1/17/2017			0.00056 (J)	<0.001	<0.001
1/18/2017	0.00096 (J)	<0.001			
3/2/2017	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.001
4/18/2017			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	0.00047 (J)				
3/29/2018	0.00053 (J)			0.00066 (J)	
3/30/2018		<0.001	0.0017		<0.001
6/12/2018	0.00063 (J)				
6/13/2018		<0.001	0.0015	<0.001	<0.001
10/10/2018	0.00098 (J)	<0.001	0.0016	<0.001	<0.001
1/29/2019	<0.001	<0.001	0.00143	<0.001	<0.001
3/26/2019	0.00079 (J)	<0.001	0.0012 (J)	<0.001	<0.001
9/10/2019	0.0011	0.00036 (J)	0.0017	0.00074 (J)	0.00056 (J)
1/28/2020	0.00051 (J)			0.00046 (J)	
1/29/2020		0.0004 (J)	0.0017		0.00047 (J)
3/10/2020	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001			
9/17/2020			0.0015	0.00045 (J)	<0.001
3/24/2021	<0.001	<0.001	0.0018	0.00046 (J)	0.00099 (J)
8/24/2021		<0.001	0.0014		
8/25/2021	<0.001			0.00055 (J)	<0.001
2/22/2022	0.00089 (J)				
2/23/2022		<0.001	0.0016	0.0004 (J)	0.00044 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 5/23/2022 1:19 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.0376		0.0295	0.0595		
5/6/2016						0.11
6/20/2016	0.033	0.091	0.031			
6/21/2016				0.0539		0.165
8/15/2016	0.029	0.11	0.032	0.053		
8/16/2016						0.094
9/28/2016	0.032	0.12	0.038	0.06		0.1
11/16/2016	0.027	0.11	0.035	0.052		0.096
1/16/2017	0.022					
1/17/2017		0.11	0.039	0.051		
1/19/2017						0.12
3/2/2017	0.027	0.11	0.037	0.043		0.097
4/18/2017	0.024	0.1	0.035	0.042		0.092
7/13/2017		0.087				
3/29/2018	0.021	0.11	0.037	0.043		0.095
6/12/2018	0.025	0.068	0.036			
6/13/2018				0.037		0.096
10/9/2018	0.024	0.072	0.034			
10/10/2018				0.037		0.095
1/28/2019	0.0249	0.0834				
1/29/2019			0.0363	0.0393	0.0421	0.107
3/25/2019	0.023	0.11	0.035		0.044	
3/26/2019				0.033		0.096
9/10/2019	0.031	0.13	0.035	0.04	0.042	0.11
1/28/2020	0.025	0.13	0.034	0.034	0.037	
1/29/2020						0.11
3/9/2020	0.023	0.094				
3/10/2020			0.043	0.031	0.035	0.13
9/16/2020	0.025	0.078	0.037	0.028	0.034	
9/17/2020						0.11
3/23/2021	0.02	0.13		0.028	0.031	
3/24/2021			0.032			0.1
8/23/2021	0.024	0.096				
8/24/2021			0.027	0.026	0.026	
8/25/2021						0.11
2/22/2022	0.022	0.13	0.038	0.03	0.034	0.11

Time Series

Constituent: Barium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.039	0.0364
5/6/2016		0.0605	0.151		
6/21/2016	0.0439	0.0613	0.174	0.0152	0.0386
8/15/2016				0.015	0.03
8/16/2016	0.041	0.052	0.13		
9/28/2016				0.014	0.034
9/29/2016	0.052	0.053	0.14		
11/16/2016	0.044	0.056	0.14	0.013	0.034
1/17/2017			0.16	0.014	0.038
1/18/2017	0.056	0.06			
3/2/2017	0.04	0.056	0.15	0.013	0.037
4/18/2017			0.14	0.011	0.04
4/19/2017		0.051			
4/25/2017	0.042				
7/13/2017	0.043				
3/29/2018	0.061			0.01	
3/30/2018		0.049	0.13		0.041
6/12/2018	0.063				
6/13/2018		0.05	0.14	0.0098	0.038
10/10/2018	0.071	0.046	0.13	0.011	0.035
1/29/2019	0.06	0.0496	0.138	<0.0025	0.0344
3/26/2019	0.06	0.048	0.13	0.0086	0.032
9/10/2019	0.073	0.053	0.15	0.012	0.035
1/28/2020	0.069			0.012	
1/29/2020		0.051	0.15		0.033
3/10/2020	0.056	0.049	0.15	0.013	0.036
9/16/2020	0.1	0.048			
9/17/2020			0.16	0.0091 (J)	0.028
3/24/2021	0.056	0.049	0.16	0.011	0.054
8/24/2021		0.047	0.16		
8/25/2021	0.051			0.013	0.031
2/22/2022	0.067				
2/23/2022		0.046	0.17	0.014	0.036

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0025	<0.0025
5/6/2016		<0.0025	<0.0025		
6/21/2016	<0.0025	<0.0025	<0.0025	<0.0025	0.0004 (J)
8/15/2016				<0.0025	0.00053 (J)
8/16/2016	<0.0025	<0.0025	<0.0025		
9/28/2016				<0.0025	0.00049 (J)
9/29/2016	<0.0025	<0.0025	<0.0025		
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025	0.0004 (J)
1/17/2017			<0.0025	<0.0025	0.00084 (J)
1/18/2017	<0.0025	<0.0025			
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025	0.00068 (J)
4/18/2017			<0.0025	<0.0025	0.00067 (J)
4/19/2017		<0.0025			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			<0.0025	
3/30/2018		<0.0025	<0.0025		0.0015 (J)
6/12/2018	<0.0025				
6/13/2018		<0.0025	<0.0025	<0.0025	0.0012 (J)
10/10/2018	<0.0025	<0.0025	<0.0025	<0.0025	0.0016 (J)
1/29/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025			<0.0025	
1/29/2020		<0.0025	0.00031 (J)		0.0019
3/10/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.0013 (J)
9/16/2020	<0.0025	<0.0025			
9/17/2020			<0.0025	<0.0025	0.0019 (J)
3/24/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/24/2021		<0.0025	<0.0025		
8/25/2021	<0.0025			<0.0025	0.0015 (J)
2/22/2022	<0.0025				
2/23/2022		<0.0025	<0.0025	<0.0025	0.0014 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.08		<0.08	0.157		
5/6/2016						0.567
6/20/2016	0.011 (J)	0.017 (J)	0.013 (J)			
6/21/2016				0.124		1.55
8/15/2016	0.022 (J)	0.032 (J)	0.023 (J)	0.18		
8/16/2016						0.85
9/28/2016	0.023 (J)	0.021 (J)	<0.08	0.17		0.7
11/16/2016	<0.08	<0.08	<0.08	0.17		0.88
1/16/2017	0.021 (J)					
1/17/2017		<0.08	<0.08	0.17		
1/19/2017						1.5
3/2/2017	<0.08	<0.08	<0.08	0.14		0.89
4/18/2017	<0.08	<0.08	<0.08	0.14		1.1
7/13/2017		<0.08				
10/10/2017	0.021 (J)	0.025 (J)	<0.08	0.12		1.9
6/12/2018	<0.08	<0.08	<0.08			
6/13/2018				0.11		1.2
10/9/2018	<0.08	<0.08	<0.08			
10/10/2018				0.096 (J)		1.2
1/29/2019					<0.08	
3/25/2019	<0.08	<0.08	<0.08		<0.08	
3/26/2019				0.079 (J)		1.3
9/10/2019	<0.08	<0.08	<0.08	0.097	0.04 (J)	1.5
3/9/2020	0.045 (J)	<0.08				
3/10/2020			<0.08	0.051 (J)	<0.08	1.9
9/16/2020	<0.08	0.045 (J)	<0.08	0.041 (J)	0.04 (J)	
9/17/2020						1.8
3/23/2021	<0.08	0.047 (J)		<0.08	<0.08	
3/24/2021			<0.08			0.57
8/23/2021	<0.08	0.043 (J)				
8/24/2021			<0.08	<0.08	<0.08	
8/25/2021						1.7
2/22/2022	<0.08	<0.08	<0.08	<0.08	<0.08	1.7

Time Series

Constituent: Boron (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.855	0.976
5/6/2016		3.78	0.926		
6/21/2016	0.0201 (J)	3.1	0.792	1.15	0.862
8/15/2016				1.3	0.8
8/16/2016	0.055	2.8	1		
9/28/2016				1.3	0.8
9/29/2016	<0.08	3.1	1		
11/16/2016	0.055	3.9	1.2	1.3	0.98
1/17/2017			1.3	1.3	1.6
1/18/2017	0.097	3.7			
3/2/2017	0.064	3.3	1.3	1.3	1.8
4/18/2017			1.8	1.5	2.4
4/19/2017		3.7			
4/25/2017	<0.08				
7/13/2017	<0.08				
10/10/2017	<0.08	3.4	1.7	1.4	4.2
6/12/2018	<0.08				
6/13/2018		3	1.6	1.4	4.9
10/10/2018	0.034 (J)	3	1.6	1.4	5.1
3/26/2019	0.032 (J)	2.6	1.5	1.5	5.1
9/10/2019	0.06 (J)	2.4	1.5	1.5	4.8
3/10/2020	<0.08	2.3	1.3	1.4	4
9/16/2020	<0.08	2.1			
9/17/2020			1.2	1.4	4.4
3/24/2021	<0.08	2.4	1.2	1.5	3.6
8/24/2021		2.2	0.97		
8/25/2021	0.11			1.6	4.2
2/22/2022	<0.08				
2/23/2022		2	0.83	2.1	4.1

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0025	0.000784 (J)
5/6/2016		0.00166	<0.0025		
6/21/2016	<0.0025	0.0008 (J)	<0.0025	<0.0025	0.0003 (J)
8/15/2016				<0.0025	<0.0025
8/16/2016	<0.0025	0.0034	<0.0025		
9/28/2016				<0.0025	<0.0025
9/29/2016	<0.0025	0.0027	<0.0025		
11/16/2016	<0.0025	0.0022 (J)	<0.0025	<0.0025	<0.0025
1/17/2017			<0.0025	<0.0025	<0.0025
1/18/2017	<0.0025	0.008			
3/2/2017	<0.0025	0.005	<0.0025	<0.0025	<0.0025
4/18/2017			<0.0025	<0.0025	0.00044 (J)
4/19/2017		0.0011 (J)			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			<0.0025	
3/30/2018		0.0016 (J)	<0.0025		0.00058 (J)
6/12/2018	<0.0025				
6/13/2018		0.0016 (J)	<0.0025	<0.0025	0.00076 (J)
10/10/2018	<0.0025	0.001 (J)	<0.0025	<0.0025	0.00035 (J)
1/29/2019	<0.0025	0.00315	<0.0025	<0.0025	<0.0025
3/26/2019	<0.0025	0.0019 (J)	<0.0025	<0.0025	0.0005 (J)
9/10/2019	<0.0025	0.0011	<0.0025	<0.0025	0.00079 (J)
1/28/2020	<0.0025			<0.0025	
1/29/2020		0.0054	<0.0025		0.0009 (J)
3/10/2020	<0.0025	0.0011 (J)	<0.0025	<0.0025	0.0011 (J)
9/16/2020	<0.0025	0.00053 (J)			
9/17/2020			<0.0025	0.00023 (J)	0.00072 (J)
3/24/2021	<0.0025	0.0022 (J)	<0.0025	<0.0025	0.001 (J)
8/24/2021		0.00054 (J)	<0.0025		
8/25/2021	<0.0025			<0.0025	0.0046
2/22/2022	<0.0025				
2/23/2022		0.0039	<0.0025	<0.0025	0.0014 (J)

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	8.83		27	105		
5/6/2016						92.5
6/20/2016	8.1	35.5	29.4			
6/21/2016				91.2		119
8/15/2016	6.1	34	26	94		
8/16/2016						84
9/28/2016	7.2	38	31	110		92
11/16/2016	5.2	33	26	98		83
1/16/2017	3.8					
1/17/2017		34	29	100		
1/19/2017						110
3/2/2017	5.4	35	28	100		89
4/18/2017	5	33	27	110		100
7/13/2017		30				
10/10/2017	4.8	39	31	110		120
6/12/2018	4.8	26	25			
6/13/2018				100		100
10/9/2018	4.5	29	29			
10/10/2018				100		100
1/29/2019					95.1	
3/25/2019	4.6	37	27		89	
3/26/2019				100		100
9/10/2019	4.9	36	27	110	86	110
3/9/2020	4	32				
3/10/2020			29	100	90	120
9/16/2020	6.8	30	28	100	93	
9/17/2020						110
3/23/2021	4	42		110	97	
3/24/2021			28			100
8/23/2021	5.8	34				
8/24/2021			27	100	83	
8/25/2021						120
2/22/2022	3.3	36	25	97	90	100

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				45	41.2
5/6/2016		131	109		
6/21/2016	25.5	119	99.7	52.8	44.7
8/15/2016				50	27
8/16/2016	25	120	97		
9/28/2016				58	32
9/29/2016	30	140	100		
11/16/2016	26	120	94	50	27
1/17/2017			100	52	32
1/18/2017	32	130			
3/2/2017	26	120	99	52	33
4/18/2017			120	56	59
4/19/2017		120			
4/25/2017	26				
7/13/2017	26				
10/10/2017	28	130	110	56	74
6/12/2018	30				
6/13/2018		120	100	51	84
10/10/2018	35	120	96	51	87
3/26/2019	33	110	99	52	96
9/10/2019	33	110	99	53	97
3/10/2020	30	110	110	55	100
9/16/2020	25	110			
9/17/2020			110	48	100
3/24/2021	32	120	120	51	120
8/24/2021		110	110		
8/25/2021	31			59	96
2/22/2022	35				
2/23/2022		100	120	61	97

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	7.35		6.51	9.67		
5/6/2016						13.2
6/20/2016	7	4.3	5.9			
6/21/2016				9.2		15
8/15/2016	7.5	4.1	6.4	10		
8/16/2016						14
9/28/2016	7	3.9	6.1	10		14
11/16/2016	7.5	4.1	6.1	10		14
1/16/2017	7.7					
1/17/2017		3.9	5.7	9.4		
1/19/2017						14
3/2/2017	6.9	3.5	5.3	8.6		13
4/18/2017	6.8	3.7	5.3	8.9		13
7/13/2017		4.2				
10/10/2017	6.9	3.4	5.3	8.3		14
6/12/2018	6.7	4.6	5.1			
6/13/2018				7		13
10/9/2018	7.1	4.5	5.6			
10/10/2018				6.9		14
1/29/2019					4.51	
3/25/2019	6.8	3.4	4.7		4.4	
3/26/2019				5.8		13
9/10/2019	7	3.5	5.1	6	4.2	13
3/9/2020	7.4	4.5				
3/10/2020			5.4	5.1	4	14
9/16/2020	7	4.6	5.2	4.3	3.7	
9/17/2020						14
3/23/2021	7.8	3.8		4	4.1	
3/24/2021			5.5			14
8/23/2021	7.3	4.4				
8/24/2021			5.5	4	3.9	
8/25/2021						14
2/22/2022	7.1	3.1	5.1	4	3.3	13

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				13	10.1
5/6/2016		41	12.5		
6/21/2016	4.4	20	13	13	10
8/15/2016				14	9.5
8/16/2016	4.6	20	13		
9/28/2016				13	9.2
9/29/2016	4.4	19	13		
11/16/2016	4.5	20	14	13	9.5
1/17/2017			14	13	10
1/18/2017	4.2	18			
3/2/2017	3.9	18	13	13	9.3
4/18/2017			13	12	10
4/19/2017		17			
4/25/2017	4				
7/13/2017	4				
10/10/2017	4	16	14	12	11
6/12/2018	4				
6/13/2018		16	13	12	11
10/10/2018	4.2	15	14	12	10
3/26/2019	3.8	14	14	11	11
9/10/2019	4.1	13	13	9.9	10
3/10/2020	4.1	12	15	10	12
9/16/2020	5.1	12			
9/17/2020			14	9.6	10
3/24/2021	5.7	13	14	10	18
8/24/2021		13	14		
8/25/2021	4.9			9.9	11
2/22/2022	4				
2/23/2022		13	14	9.8	11

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.00249 (J)		<0.002	<0.002		
5/6/2016						<0.002
6/20/2016	0.0026 (J)	0.00066 (J)	0.00024 (J)			
6/21/2016				<0.002		<0.002
8/15/2016	0.0029	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	0.0027	<0.002	<0.002	<0.002		<0.002
11/16/2016	0.0026	<0.002	<0.002	<0.002		<0.002
1/16/2017	0.0029					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	0.0063	0.003	0.0032	0.0032		0.0036
4/18/2017	0.0031	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	0.0039	<0.002	<0.002	<0.002		<0.002
6/12/2018	0.0038	<0.002	<0.002			
6/13/2018				<0.002		<0.002
10/9/2018	0.0037	<0.002	<0.002			
10/10/2018				<0.002		<0.002
1/28/2019	0.00545	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.0044	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	0.0042	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002
9/16/2020	0.0039	<0.002	<0.002	<0.002	<0.002	
9/17/2020						<0.002
3/23/2021	0.0043	<0.002		<0.002	<0.002	
3/24/2021			<0.002			<0.002
8/23/2021	0.0045	<0.002				
8/24/2021			<0.002	<0.002	<0.002	
8/25/2021						<0.002
2/22/2022	0.0039	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.002	<0.002
5/6/2016		<0.002	<0.002		
6/21/2016	<0.002	<0.002	<0.002	<0.002	<0.002
8/15/2016				<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002		
9/28/2016				<0.002	<0.002
9/29/2016	<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017			<0.002	<0.002	<0.002
1/18/2017	<0.002	<0.002			
3/2/2017	0.0032	0.0033	0.003	0.0034	0.0031
4/18/2017			<0.002	<0.002	<0.002
4/19/2017		<0.002			
4/25/2017	<0.002				
7/13/2017	<0.002				
3/29/2018	<0.002			<0.002	
3/30/2018		<0.002	<0.002		<0.002
6/12/2018	<0.002				
6/13/2018		<0.002	<0.002	<0.002	<0.002
10/10/2018	<0.002	<0.002	<0.002	<0.002	<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020	<0.002			0.0015 (J)	
1/29/2020		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020	0.029	<0.002			
9/17/2020			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021		<0.002	<0.002		
8/25/2021	<0.002			<0.002	<0.002
2/22/2022	<0.002				
2/23/2022		<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/23/2022 1:20 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						<0.0025
6/20/2016	0.00018 (J)	3.9E-05 (J)	1.2E-05 (J)			
6/21/2016				0.0003 (J)		0.0012 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	0.00049 (J)		
8/16/2016						0.00047 (J)
9/28/2016	<0.0025	<0.0025	<0.0025	0.00043 (J)		0.00058 (J)
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						0.0004 (J)
3/2/2017	<0.0025	<0.0025	<0.0025	0.00046 (J)		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	0.00044 (J)		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	0.00065 (J)		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				0.00051 (J)		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
3/25/2019	<0.0025	<0.0025	<0.0025		<0.0025	
3/26/2019				<0.0025		<0.0025
9/10/2019	0.00011 (J)	<0.0025	<0.0025	0.00037 (J)	0.0002 (J)	0.00032 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	0.00041 (J)	0.00024 (J)	
1/29/2020						0.00027 (J)
3/9/2020	<0.0025	<0.0025				
3/10/2020			<0.0025	0.00038 (J)	0.00032 (J)	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.00038 (J)	
9/17/2020						0.0002 (J)
3/23/2021	0.00014 (J)	<0.0025		0.00025 (J)	0.00036 (J)	
3/24/2021			<0.0025			<0.0025
8/23/2021	<0.0025	<0.0025				
8/24/2021			<0.0025	<0.0025	0.0017 (J)	
8/25/2021						0.00018 (J)
2/22/2022	<0.0025	<0.0025	<0.0025	<0.0025	0.00049 (J)	<0.0025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.0036 (J)	0.00359 (J)
5/6/2016		0.00311 (J)	<0.0025		
6/21/2016	<0.0025	0.0031 (J)	0.0006 (J)	0.0097 (J)	0.0033 (J)
8/15/2016				0.0098	0.0038
8/16/2016	<0.0025	0.0034	0.00064 (J)		
9/28/2016				0.0095	0.0043
9/29/2016	<0.0025	0.0032	0.00054 (J)		
11/16/2016	<0.0025	0.0032	0.00041 (J)	0.0094	0.004
1/17/2017			0.00051 (J)	0.0099	0.0051
1/18/2017	<0.0025	0.0032			
3/2/2017	<0.0025	0.0042	0.00064 (J)	0.013	0.0064
4/18/2017			0.00057 (J)	0.0086	0.005
4/19/2017		0.0035			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			0.0088	
3/30/2018		0.0037	0.00068 (J)		0.015
6/12/2018	<0.0025				
6/13/2018		0.0035	0.00048 (J)	0.0093	0.014
10/10/2018	<0.0025	0.0034	0.00063 (J)	0.012	0.018
1/29/2019	<0.0025	0.00293	<0.0025	0.0103	0.0159
3/26/2019	<0.0025	0.003	<0.0025	0.009	0.02
9/10/2019	0.00016 (J)	0.0027	0.00065	0.011	0.019
1/28/2020	<0.0025			0.008	
1/29/2020		0.003	0.00067		0.025
3/10/2020	<0.0025	0.0024 (J)	0.0005 (J)	0.0081	0.017
9/16/2020	0.0015 (J)	0.002 (J)			
9/17/2020			0.00053 (J)	0.0098	0.024
3/24/2021	<0.0025	0.0019 (J)	0.00053 (J)	0.0063	0.002 (J)
8/24/2021		0.0018 (J)	0.00034 (J)		
8/25/2021	<0.0025			0.0032	0.021
2/22/2022	<0.0025				
2/23/2022		0.0016 (J)	0.0012 (J)	0.007	0.015

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.879		0.48	0.694		
5/6/2016						1.07
6/20/2016	0.305 (U)	0.556 (U)	0.184			
6/21/2016				0.511 (U)		2.01
8/15/2016	0.577	0.72	0.577	0.467		
8/16/2016						1.12
9/28/2016	0.77	0.521 (U)	0.107 (U)	0.926		1.09
11/16/2016	0.427 (U)	0.322 (U)	0.333 (U)	0.863		1.58
1/16/2017	1.1					
1/17/2017		1.26	0.511 (U)	0.82		
1/19/2017						1.64
3/2/2017	1.01	0.47	0.105 (U)	0.236 (U)		1.08
4/18/2017	0.635	0.233 (U)	0.279 (U)	0.316 (U)		1.23
7/13/2017		0.679				
3/29/2018	0.799	0.723	0.37	0.6		1.21
6/12/2018	0.313 (U)	0.105 (U)	0.133 (U)			
6/13/2018				0.349 (U)		1.09
10/9/2018	1.11	0.65	0.85			
10/10/2018				1.01		1.95
1/28/2019	0.872	0.478				
1/29/2019			0.275 (U)	0.591	0.874	1.11
3/25/2019	0.526	0.717	0.629		0.646	
3/26/2019				0.4		1
9/10/2019	0.612	0.377 (U)	0.354 (U)	0.481	0.988	1.26
1/28/2020	0.322 (U)	0.528	0.0677 (U)	0.374 (U)	0.0609 (U)	
1/29/2020						1.39
3/9/2020	0.761	0.00483 (U)				
3/10/2020			0.0594 (U)	0.41 (U)	0.528	1.4
9/16/2020	0.969	0.583	0.821	-0.0651 (U)	1.13	
9/17/2020						1.79
12/7/2020				0.979		
12/8/2020						1.87
3/23/2021	0.657	0.409 (U)		0.542	0.612	
3/24/2021			0.206 (U)			1.81
8/23/2021	0.752	1.19				
8/24/2021			0.521 (U)	0.678	0.596	
8/25/2021						2.12
2/22/2022	1.06	0.837	0.511	0.594	0.728	1.85

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.75	1.21
5/6/2016		0.633	1.41		
6/21/2016	0.292 (U)	1.19 (U)	1.71	1.01	0.895 (U)
8/15/2016				1.3	1.64
8/16/2016	0.232 (U)	0.516	1.75		
9/28/2016				1.06	2.17
9/29/2016	1.11	0.665	1.43		
11/16/2016	0.798	0.694	1.9	0.855	1.49
1/17/2017			1.9	1.59	1.75
1/18/2017	0.302 (U)	0.688			
3/2/2017	0.437	0.484	1.37	1.4	1.03
4/18/2017			1.42	0.684	1.83
4/19/2017		0.599			
4/25/2017	0.391				
7/13/2017	0.47				
3/29/2018	0.736			0.822	
3/30/2018		0.677	1.43		2.15
6/12/2018	0.438				
6/13/2018		0.272 (U)	1.27	0.716	1.51
10/10/2018	0.371	0.336	1.54	1.51	2.72
1/29/2019	0.639	0.719	1.34	1.7	1.93
3/26/2019	0.607	0.41 (U)	1.25	0.784	1.79
9/10/2019	0.939	0.548	1.6	0.958	1.78
1/28/2020	0.465			1.38	
1/29/2020		0.0985 (U)	1.44		1.61
3/10/2020	0.34 (U)	0.589	1.32	0.903	1.95
9/16/2020	1.09	1.11			
9/17/2020			0.666 (U)	1.28	1.56
12/8/2020			1.65		
3/24/2021	0.434 (U)	0.625	1.58	1.2	0.636
8/24/2021		0.313 (U)	1.65		
8/25/2021	0.563			0.767	2.13
2/22/2022	0.888				
2/23/2022		0.598	1.47	1.42	2.62

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.046 (J)		0.132 (J)	0.091 (J)		
5/6/2016						0.28 (J)
6/20/2016	<0.1	0.06 (J)	0.05 (J)			
6/21/2016				0.08 (J)		0.36
8/15/2016	<0.1	0.1 (J)	0.1 (J)	<0.1		
8/16/2016						0.27
9/28/2016	<0.1	0.097 (J)	0.11 (J)	0.084 (J)		0.26
11/16/2016	<0.1	0.12 (J)	0.093 (J)	0.084 (J)		0.24
1/16/2017	<0.1					
1/17/2017		0.11 (J)	0.095 (J)	0.099 (J)		
1/19/2017						0.22
3/2/2017	0.12 (J)	0.18 (J)	0.16 (J)	0.15 (J)		0.27
4/18/2017	<0.1	0.11 (J)	<0.1	<0.1		0.2
7/13/2017		0.12 (J)				
10/10/2017	<0.1	0.086 (J)	<0.1	<0.1		0.18 (J)
3/29/2018	<0.1	<0.1	0.084 (J)	<0.1		0.16 (J)
6/12/2018	<0.1	0.16 (J)	<0.1			
6/13/2018				<0.1		0.14 (J)
10/9/2018	<0.1	0.16 (J)	0.086 (J)			
10/10/2018				<0.1		0.17 (J)
1/29/2019					<0.1	
3/25/2019	<0.1	0.087 (J)	0.072 (J)		0.067 (J)	
3/26/2019				0.065 (J)		0.16
9/10/2019	0.044 (J)	0.075 (J)	0.068 (J)	0.076 (J)	0.052 (J)	0.098 (J)
3/9/2020	0.061 (J)	0.19				
3/10/2020			0.055 (J)	0.045 (J)	0.048 (J)	0.086 (J)
9/16/2020	0.042 (J)	0.18	0.08 (J)	0.076 (J)	0.078 (J)	
9/17/2020						0.15
3/23/2021	0.038 (J)	0.081 (J)		0.082 (J)	0.096 (J)	
3/24/2021			0.091 (J)			0.27
8/23/2021	0.048 (J)	0.12				
8/24/2021			0.1	0.1	0.11	
8/25/2021						0.097 (J)
2/22/2022	<0.1	<0.1	<0.1	0.034 (J)	<0.1	0.047 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.394	0.103 (J)
5/6/2016		0.088 (J)	0.086 (J)		
6/21/2016	0.14 (J)	0.19 (J)	0.23 (J)	0.49	0.1 (J)
8/15/2016				0.44	0.11 (J)
8/16/2016	0.29	0.087 (J)	<0.1		
9/28/2016				0.4	0.1 (J)
9/29/2016	0.26	<0.1	0.082 (J)		
11/16/2016	0.25	<0.1	0.087 (J)	0.36	0.091 (J)
1/17/2017			0.086 (J)	0.2	<0.1
1/18/2017	0.26	<0.1			
3/2/2017	0.28	0.15 (J)	0.15 (J)	0.36	0.16 (J)
4/18/2017			<0.1	0.29	<0.1
4/19/2017		<0.1			
4/25/2017	0.25				
7/13/2017	0.21				
10/10/2017	0.22	<0.1	<0.1	0.28	<0.1
3/29/2018	0.23			0.23	
3/30/2018		<0.1	<0.1		0.088 (J)
6/12/2018	0.23				
6/13/2018		<0.1	<0.1	0.2	0.15 (J)
10/10/2018	0.25	0.085 (J)	<0.1	0.23	0.11 (J)
3/26/2019	0.22	0.076 (J)	0.072 (J)	0.19 (J)	0.088 (J)
9/10/2019	0.2	0.07 (J)	0.073 (J)	0.15	0.083 (J)
3/10/2020	0.15	0.05 (J)	0.058 (J)	0.18	0.084 (J)
9/16/2020	0.26	0.076 (J)			
9/17/2020			0.083 (J)	0.25	0.11
3/24/2021	0.27	0.11	0.092 (J)	0.35	0.11
8/24/2021		0.095 (J)	0.11		
8/25/2021	0.19			0.15	0.038 (J)
2/22/2022	0.093 (J)				
2/23/2022		0.075 (J)	0.086 (J)	0.22	0.05 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.001	<0.001
5/6/2016		<0.001	<0.001		
6/21/2016	0.0001 (J)	<0.001	<0.001	0.0003 (J)	<0.001
8/15/2016				<0.001	<0.001
8/16/2016	<0.001	<0.001	<0.001		
9/28/2016				<0.001	<0.001
9/29/2016	<0.001	<0.001	<0.001		
11/16/2016	<0.001	<0.001	<0.001	<0.001	<0.001
1/17/2017			<0.001	<0.001	<0.001
1/18/2017	<0.001	<0.001			
3/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2017			<0.001	<0.001	<0.001
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	<0.001				
3/29/2018	<0.001			<0.001	
3/30/2018		<0.001	<0.001		<0.001
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001			<0.001	
1/29/2020		<0.001	<0.001		<0.001
3/10/2020	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001			
9/17/2020			<0.001	<0.001	<0.001
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021		<0.001	<0.001		
8/25/2021	<0.001			0.00019 (J)	0.00022 (J)
2/22/2022	<0.001				
2/23/2022		<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/23/2022 1:20 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.005		<0.005	<0.005		
5/6/2016						0.0128 (J)
6/20/2016	0.0071 (J)	0.014 (J)	0.0065 (J)			
6/21/2016				<0.005		0.0102 (J)
8/15/2016	0.0065	0.02	0.0059	<0.005		
8/16/2016						0.012
9/28/2016	0.0075	0.019	0.0075	<0.005		0.012
11/16/2016	0.0081	0.021	0.0094	<0.005		0.013
1/16/2017	0.0076					
1/17/2017		0.02	0.01	<0.005		
1/19/2017						0.011
3/2/2017	0.0073	0.019	0.0076	<0.005		0.013
4/18/2017	0.006	0.016	0.008	<0.005		0.0097
7/13/2017		0.011				
3/29/2018	0.01 (J)	0.03 (J)	0.014 (J)	<0.005		0.017 (J)
6/12/2018	0.0068	0.012	0.0095			
6/13/2018				<0.005		0.0094
10/9/2018	0.0082	0.015	0.011			
10/10/2018				<0.005		0.011
1/28/2019	0.00821	0.0124				
1/29/2019			0.00987	<0.005	0.0184	0.0109
3/25/2019	0.0068	0.026	0.01		0.0052	
3/26/2019				<0.005		0.01
9/10/2019	0.011	0.026	0.011	0.0051	0.0062	0.012
1/28/2020	0.0064	0.026	0.0093	<0.005	<0.005	
1/29/2020						0.0096
3/9/2020	0.0088	0.017				
3/10/2020			0.011	<0.005	<0.005	<0.005
9/16/2020	0.0079	0.014	0.0094	<0.005	<0.005	
9/17/2020						0.0086
3/23/2021	0.0084	0.026		<0.005	<0.005	
3/24/2021			0.0097			0.013
8/23/2021	0.0075	0.018				
8/24/2021			0.0093	<0.005	<0.005	
8/25/2021						0.0096
2/22/2022	0.0079	0.027	0.011	<0.005	0.0012 (J)	0.01

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.0586	0.0252 (J)
5/6/2016		<0.005	0.0113 (J)		
6/21/2016	0.0112 (J)	0.0047 (J)	0.0103 (J)	0.122	0.0228 (J)
8/15/2016				0.12	0.026
8/16/2016	0.014	0.0043 (J)	0.01		
9/28/2016				0.12	0.026
9/29/2016	0.017	0.0048 (J)	0.01		
11/16/2016	0.016	0.0058	0.014	0.13	0.031
1/17/2017			0.014	0.14	0.032
1/18/2017	0.015	0.0051			
3/2/2017	0.015	0.0061	0.013	0.13	0.031
4/18/2017			0.01	0.11	0.023
4/19/2017		0.0042 (J)			
4/25/2017	0.013				
7/13/2017	0.014				
3/29/2018	0.032 (J)			0.17 (J)	
3/30/2018		0.008 (J)	0.017 (J)		0.058 (J)
6/12/2018	0.019				
6/13/2018		0.0054	0.011	0.12	0.035
10/10/2018	0.027	0.0055	0.013	0.13	0.046
1/29/2019	0.0172	0.00537	0.0106	0.112	0.0361
3/26/2019	0.02	0.0051	0.012	0.12	0.043
9/10/2019	0.023	0.0074	0.015	0.11	0.042
1/28/2020	0.022			0.13	
1/29/2020		0.0059	0.012		0.037
3/10/2020	0.018	0.0068	0.014	0.11	0.028
9/16/2020	0.025	0.0055			
9/17/2020			0.012	0.11	0.039
3/24/2021	0.018	0.0066	0.013	0.13	0.011
8/24/2021		0.0062	0.012		
8/25/2021	0.017			0.12	0.037
2/22/2022	0.022				
2/23/2022		0.0066	0.013	0.13	0.028

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0002	<0.0002
5/6/2016		<0.0002	<0.0002		
6/21/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/15/2016				<0.0002	0.00015 (J)
8/16/2016	<0.0002	7.8E-05 (J)	<0.0002		
9/28/2016				<0.0002	<0.0002
9/29/2016	<0.0002	<0.0002	<0.0002		
11/16/2016	8.6E-05 (J)	0.0001 (J)	7E-05 (J)	8E-05 (J)	0.00021
1/17/2017			<0.0002	<0.0002	7.6E-05 (J)
1/18/2017	<0.0002	<0.0002			
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017			<0.0002	<0.0002	0.00018 (J)
4/19/2017		<0.0002			
4/25/2017	<0.0002				
7/13/2017	<0.0002				
3/29/2018	7.4E-05 (J)			<0.0002	
3/30/2018		<0.0002	<0.0002		0.00013 (J)
6/12/2018	<0.0002				
6/13/2018		<0.0002	<0.0002	<0.0002	0.00074
10/10/2018	<0.0002	<0.0002	<0.0002	<0.0002	0.00013 (J)
1/29/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002			<0.0002	
1/29/2020		<0.0002	<0.0002		0.00012 (J)
3/10/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002			
9/17/2020			<0.0002	<0.0002	0.00014 (J)
3/24/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/24/2021		<0.0002	<0.0002		
8/25/2021	<0.0002			<0.0002	0.0041
10/26/2021					<0.0002
2/22/2022	<0.0002				
2/23/2022		<0.0002	<0.0002	<0.0002	0.00028

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.015		0.0026 (J)	<0.015		
5/6/2016						0.0021 (J)
6/20/2016	0.00031 (J)	0.0052 (J)	0.0014 (J)			
6/21/2016				<0.015		0.002 (J)
8/15/2016	<0.015	0.0022 (J)	0.0013 (J)	<0.015		
8/16/2016						0.0019 (J)
9/28/2016	<0.015	0.0018 (J)	0.0012 (J)	<0.015		0.0018 (J)
11/16/2016	<0.015	<0.015	<0.015	<0.015		<0.015
1/16/2017	<0.015					
1/17/2017		0.0011 (J)	<0.015	<0.015		
1/19/2017						0.0011 (J)
3/2/2017	<0.015	<0.015	<0.015	<0.015		0.0012 (J)
4/18/2017	<0.015	<0.015	<0.015	<0.015		0.0013 (J)
7/13/2017		<0.015				
3/29/2018	<0.015	<0.015	<0.015	<0.015		0.0017 (J)
6/12/2018	0.0012 (J)	0.0029 (J)	<0.015			
6/13/2018				<0.015		0.00087 (J)
10/9/2018	<0.015	<0.015	<0.015			
10/10/2018				<0.015		<0.015
1/28/2019	<0.015	<0.015				
1/29/2019			<0.015	<0.015	<0.015	<0.015
1/28/2020	0.00064 (J)	0.00085 (J)	0.00095 (J)	<0.015	0.0014 (J)	
1/29/2020						0.0015 (J)
3/9/2020	<0.015	0.0012 (J)				
3/10/2020			0.00093 (J)	<0.015	0.0012 (J)	<0.015
9/16/2020	0.0022 (J)	0.0019 (J)	0.00079 (J)	<0.015	0.0014 (J)	
9/17/2020						0.0012 (J)
3/23/2021	<0.015	0.00093 (J)		<0.015	0.00089 (J)	
3/24/2021			0.00089 (J)			0.0029 (J)
8/23/2021	0.0016 (J)	0.0012 (J)				
8/24/2021			<0.015	<0.015	0.0011 (J)	
8/25/2021						0.00088 (J)
2/22/2022	<0.015	0.001 (J)	0.00091 (J)	<0.015	0.00078 (J)	0.0014 (J)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00351 (J)	<0.015
5/6/2016		<0.015	<0.015		
6/21/2016	0.002 (J)	<0.015	<0.015	<0.015	<0.015
8/15/2016				<0.015	<0.015
8/16/2016	0.0012 (J)	<0.015	<0.015		
9/28/2016				<0.015	<0.015
9/29/2016	0.0014 (J)	<0.015	<0.015		
11/16/2016	<0.015	<0.015	<0.015	<0.015	<0.015
1/17/2017			<0.015	<0.015	<0.015
1/18/2017	<0.015	<0.015			
3/2/2017	<0.015	<0.015	<0.015	<0.015	<0.015
4/18/2017			<0.015	<0.015	0.0037 (J)
4/19/2017		<0.015			
4/25/2017	<0.015				
7/13/2017	<0.015				
3/29/2018	<0.015			<0.015	
3/30/2018		<0.015	<0.015		<0.015
6/12/2018	<0.015				
6/13/2018		<0.015	<0.015	<0.015	<0.015
10/10/2018	<0.015	<0.015	<0.015	<0.015	<0.015
1/29/2019	<0.015	<0.015	<0.015	<0.015	<0.015
1/28/2020	<0.015			<0.015	
1/29/2020		<0.015	<0.015		<0.015
3/10/2020	<0.015	<0.015	<0.015	<0.015	<0.015
9/16/2020	0.0024 (J)	<0.015			
9/17/2020			<0.015	<0.015	<0.015
3/24/2021	<0.015	<0.015	<0.015	<0.015	<0.015
8/24/2021		<0.015	<0.015		
8/25/2021	<0.015			<0.015	<0.015
2/22/2022	0.00064 (J)				
2/23/2022		<0.015	<0.015	<0.015	<0.015

Time Series

Constituent: pH (SU) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	5.94		7.4	7.13		
5/6/2016						6.64
6/20/2016	5.84 (D)	7.82	7.63			
6/21/2016				7.25		6.99
8/15/2016	5.65	7.52	7.54	7.04		
8/16/2016						6.48
9/28/2016	5.72	7.66	7.45	7.09		6.7
11/16/2016	5.65	7.51	7.39	7.6		6.66
1/16/2017	5.52					
1/17/2017		7.52	7.23	6.99		
1/19/2017						6.81
3/2/2017	5.53	7.5	7.55	6.95		6.75
4/18/2017	5.64	7.75	7.43	7.02		6.93
7/13/2017		7.72				
10/10/2017			5.62	7.27		6.99
10/11/2017	6.11	6.35				
3/29/2018	5.35	7.42	7.19	6.95		6.82
6/12/2018	6.23	8.02	7.55			
6/13/2018				7.08		7.01
10/9/2018	5.62 (D)	7.79 (D)	7.8 (D)			
10/10/2018				7.01 (D)		7.04 (D)
1/28/2019	5.49 (D)	7.4 (D)				
1/29/2019			7.63 (D)	6.55 (D)	6.93 (D)	6.87 (D)
3/25/2019	5.27 (D)	7.29 (D)	7.44 (D)		7.1 (D)	
3/26/2019				6.57 (D)		7.01 (D)
9/10/2019	5.97	7.54	7.41	6.99	7.15	7.09
1/28/2020	5.78	7.4	7.46	7.17	7.36	
1/29/2020						7.19
3/9/2020	5.46	7.58				
3/10/2020			7.3	7	7.04	7.11
9/16/2020	6.37	7.89	7.38	6.98	6.89	
9/17/2020						6.95
12/7/2020				7.2		
12/8/2020						7.41
3/23/2021	5	7.06		6.74	6.56	
3/24/2021			6.88			7.14
8/23/2021	6.16	8.12				
8/24/2021			7.78	7.11	7.28	
8/25/2021						7.27
2/22/2022	5.38	7.6	7.57	7.14	7.2	7.32

Time Series

Constituent: pH (SU) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				7.81	5.96
5/6/2016		7.41	6.85		
6/21/2016	7.61	7.41	6.98	7.2	6
8/15/2016				7.04	5.26
8/16/2016	7.17	7.33	6.73		
9/28/2016				7	5.66
9/29/2016	6.97	7.42	6.81		
11/16/2016	7.03	7.87	6.69	6.73	5.33
1/17/2017			6.77	6.61	5.24
1/18/2017	7.01	7.49			
3/2/2017	7.02	7.37	6.79	6.62	5.21
4/18/2017			6.77	6.7	5.85
4/19/2017		7.48			
4/25/2017	7.02				
7/13/2017	7.17				
10/10/2017	7.24	7.29	7	6.48	5.6
3/29/2018	6.93			6.46	
3/30/2018		7.31	6.68		5.16
6/12/2018	7.29				
6/13/2018		7.37	6.83	6.24	5.79
10/10/2018	7.12 (D)	7.41 (D)	6.69 (D)	6.12 (D)	5.15 (D)
1/29/2019	8.02 (D)	7.03 (D)	6.42 (D)	5.93 (D)	5.46 (D)
3/26/2019	7.29 (D)	6.68 (D)	5.96 (D)	5.19 (D)	7.14 (D)
9/10/2019	10.96 (o)	7.26	6.67	6.03	5.1
1/28/2020	7.25			6.61	
1/29/2020		7.3	6.68		5.76
3/10/2020	7.53	7.3	6.87	6.54	5.5
9/16/2020	11.03 (o)	7.16			
9/17/2020			6.68	6.39	5.22
12/8/2020			7.04		
3/24/2021	7.15	7.24	6.73	6.26	6.71
8/24/2021		7.42	6.92		
8/25/2021	7.44			6.85	5.26
10/26/2021					5.99
2/22/2022	7.41				
2/23/2022		7.44	6.98	6.91	6.22

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.005	<0.005
5/6/2016		<0.005	<0.005		
6/21/2016	<0.005	<0.005	<0.005	<0.005	<0.005
8/15/2016				<0.005	0.00033 (J)
8/16/2016	<0.005	<0.005	<0.005		
9/28/2016				<0.005	0.00038 (J)
9/29/2016	<0.005	<0.005	<0.005		
11/16/2016	<0.005	<0.005	<0.005	<0.005	<0.005
1/17/2017			<0.005	<0.005	<0.005
1/18/2017	<0.005	<0.005			
3/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2017			<0.005	<0.005	0.0024
4/19/2017		<0.005			
4/25/2017	<0.005				
7/13/2017	<0.005				
3/29/2018	0.00027 (J)			0.00026 (J)	
3/30/2018		0.00045 (J)	0.00044 (J)		0.00027 (J)
6/12/2018	<0.005				
6/13/2018		<0.005	<0.005	<0.005	<0.005
10/10/2018	<0.005	<0.005	<0.005	<0.005	<0.005
1/29/2019	<0.005	<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005			<0.005	
1/29/2020		<0.005	<0.005		<0.005
2/22/2022	<0.005				
2/23/2022		<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/23/2022 1:20 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	2.46		4.47	17.8		
5/6/2016						106
6/20/2016	2.5	1	7.7			
6/21/2016				17		210
8/15/2016	1.9	0.73 (J)	7.5	20		
8/16/2016						120
9/28/2016	1.9	<1	7.8	21		110
11/16/2016	1.7	<1	6.7	20		130
1/16/2017	<1					
1/17/2017		<1	6.7	19		
1/19/2017						160
3/2/2017	1.4	<1	5.6	15		130
4/18/2017	1.3	<1	5.1	14		120
7/13/2017		1.4				
10/10/2017	1.1	0.87 (J)	4.9	11		170
6/12/2018	0.82 (J)	4.1	3.8			
6/13/2018				8.7		130
10/9/2018	0.82 (J)	2.2	6.7			
10/10/2018				8.7		140
1/29/2019					7.08	
3/25/2019	<1	<1	3.4 (J)		1.8 (J)	
3/26/2019				6.3 (J)		130
9/10/2019	1.1	1.8	4.7	5.6	0.6 (J)	140
3/9/2020	4.2	3.4				
3/10/2020			5.2	5	2.4	140
9/16/2020	0.69 (J)	3	3.2	2.7	1	
9/17/2020						150
3/23/2021	<1	1.4		3.2	1.7	
3/24/2021			3.5			120
8/23/2021	<1	3.4				
8/24/2021			3.6	3.5	3.3	
8/25/2021						140
2/22/2022	<1	1.1	3.2	5.4	2.1	150

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				116	144
5/6/2016		445	94.2		
6/21/2016	4	290	95	170	160
8/15/2016				170	120
8/16/2016	2.8	270	88		
9/28/2016				170	130
9/29/2016	<1	280	94		
11/16/2016	3	280	97	170	130
1/17/2017			100	180	150
1/18/2017	4.1	280			
3/2/2017	4.6	240	100	180	160
4/18/2017			91	160	180
4/19/2017		250			
4/25/2017	4.4				
7/13/2017	4.8				
10/10/2017	4.9	240	110	180	260
6/12/2018	4.1				
6/13/2018		220	110	180	330
10/10/2018	2.5	220	110	190	410
3/26/2019	2.9 (J)	190	110	180	420
9/10/2019	2.5	180	110	180	420
3/10/2020	7.8	170	130	170	370
9/16/2020	4.4	160			
9/17/2020			120	160	380
3/24/2021	7.1	180	130	180	280
8/24/2021		160	130		
8/25/2021	6.6			180	420
2/22/2022	4.8				
2/23/2022		180	150	260	390

Time Series

Constituent: TDS (mg/L) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	78		129	281		
5/6/2016						282
6/20/2016	80	188	156			
6/21/2016				303		516
8/15/2016	58	180	160	310		
8/16/2016						360
9/28/2016	29	100	91	170		190
11/16/2016	140	270	250	340		410
1/16/2017	36					
1/17/2017		170	140	310		
1/19/2017						400
3/2/2017	78	210	170	330		360
4/18/2017	16	160	140	290		360
7/13/2017		150				
10/10/2017	78	210	190	310		480
6/12/2018	62	150	180			
6/13/2018				230		390
10/9/2018	68	150	170			
10/10/2018				300		260
1/29/2019					280	
3/25/2019	54	210	150		250	
3/26/2019				290		370
9/10/2019	14	160	110	260	230	360
3/9/2020	56	190				
3/10/2020			170	300	260	450
9/16/2020	44	150	150	300	320	
9/17/2020						460
3/23/2021	53	220		300	270	
3/24/2021			150			380
8/23/2021	55	200				
8/24/2021			160	300	280	
8/25/2021						470
2/22/2022	38	210	150	300	270	420

Time Series

Constituent: TDS (mg/L) Analysis Run 5/23/2022 1:20 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				272	287
5/6/2016		661	380		
6/21/2016	177	692	392	356	297
8/15/2016				330	230
8/16/2016	160	650	360		
9/28/2016				180	130
9/29/2016	190	640	380		
11/16/2016	240	680	420	330	290
1/17/2017			380	310	240
1/18/2017	180	630			
3/2/2017	170	660	410	340	270
4/18/2017			360	300	310
4/19/2017		600			
4/25/2017	170				
7/13/2017	150				
10/10/2017	160	600	400	340	450
6/12/2018	170				
6/13/2018		570	320	320	600
10/10/2018	48	470	300	270	410
3/26/2019	180	530	370	320	630
9/10/2019	140	470	360	260	660
3/10/2020	170	540	390	370	600
9/16/2020	190	530			
9/17/2020			410	320	740
3/24/2021	190	490	430	330	530
8/24/2021		510	450		
8/25/2021	230			390	720
2/22/2022	190				
2/23/2022		490	450	390	630

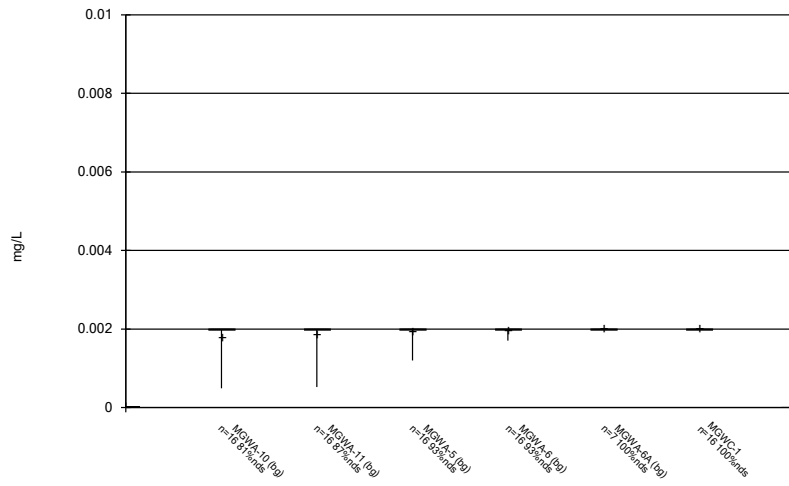
Time Series

Constituent: Thallium (mg/L) Analysis Run 5/23/2022 1:20 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.001	<0.001
5/6/2016		<0.001	<0.001		
6/21/2016	<0.001	<0.001	<0.001	<0.001	0.0001 (J)
8/15/2016				<0.001	0.00016 (J)
8/16/2016	<0.001	<0.001	<0.001		
9/28/2016				<0.001	0.00014 (J)
9/29/2016	<0.001	<0.001	<0.001		
11/16/2016	<0.001	<0.001	<0.001	<0.001	9E-05 (J)
1/17/2017			<0.001	<0.001	0.00016 (J)
1/18/2017	<0.001	<0.001			
3/2/2017	<0.001	<0.001	<0.001	<0.001	0.00018 (J)
4/18/2017			<0.001	<0.001	0.00019 (J)
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	<0.001				
3/29/2018	<0.001			<0.001	
3/30/2018		<0.001	<0.001		0.00027 (J)
6/12/2018	<0.001				
6/13/2018		<0.001	<0.001	<0.001	0.00027 (J)
10/10/2018	<0.001	<0.001	<0.001	<0.001	0.00025 (J)
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001			<0.001	
1/29/2020		0.00021 (J)	0.00037 (J)		0.00042 (J)
3/10/2020	0.00015 (J)	<0.001	0.00016 (J)	<0.001	0.00025 (J)
9/16/2020	0.00027 (J)	<0.001			
9/17/2020			<0.001	<0.001	0.00031 (J)
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021		<0.001	<0.001		
8/25/2021	<0.001			<0.001	0.0004 (J)
2/22/2022	<0.001				
2/23/2022		<0.001	<0.001	<0.001	<0.001

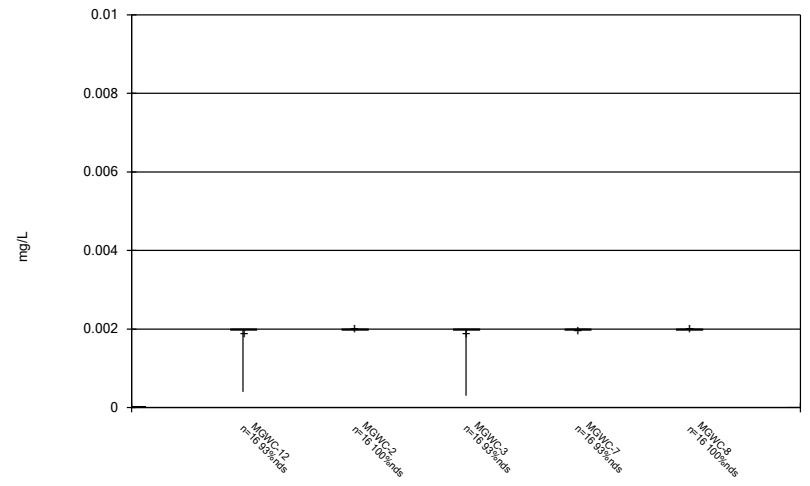
FIGURE B.

Box & Whiskers Plot



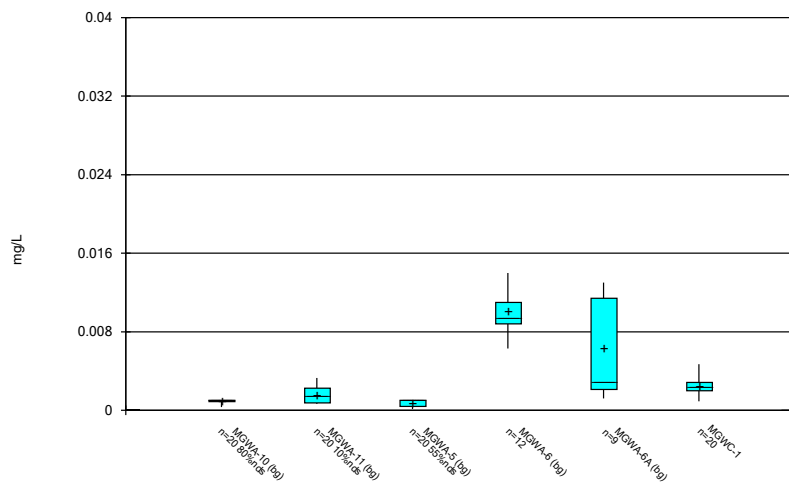
Constituent: Antimony Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



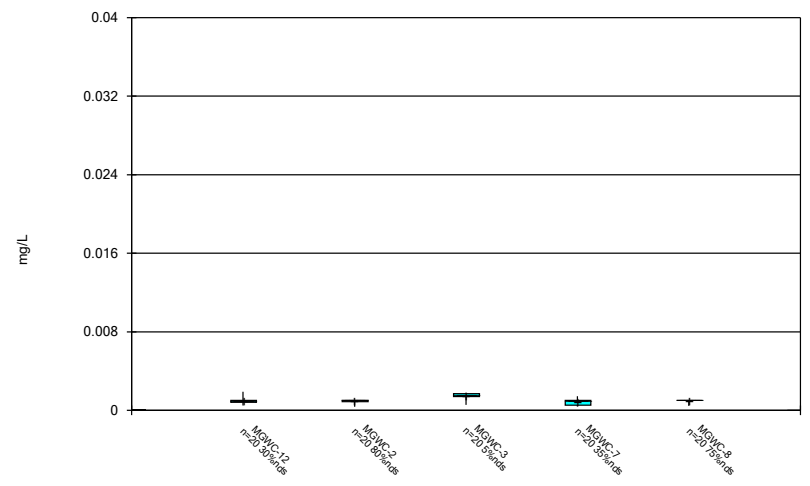
Constituent: Antimony Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



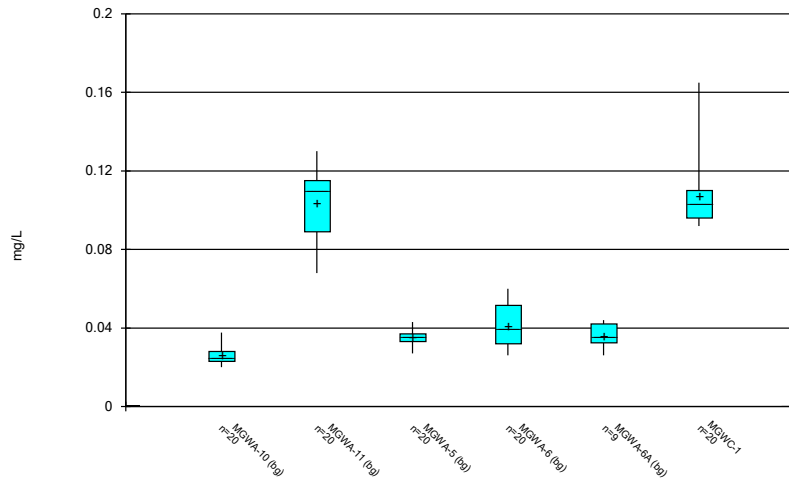
Constituent: Arsenic Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



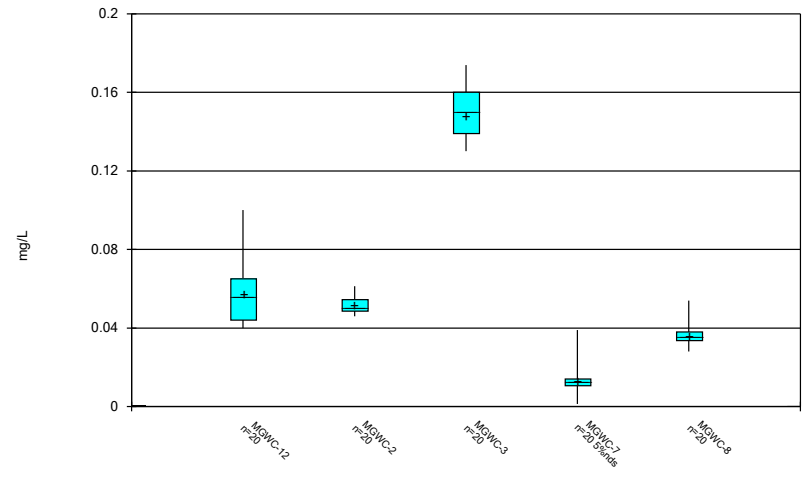
Constituent: Arsenic Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



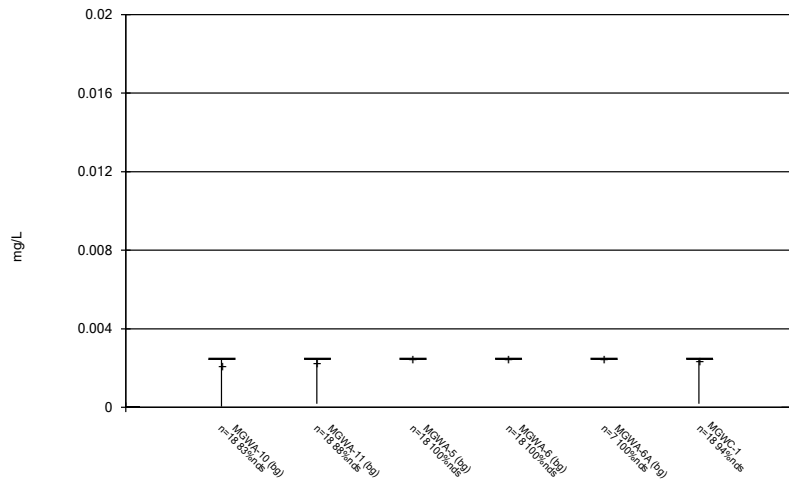
Constituent: Barium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



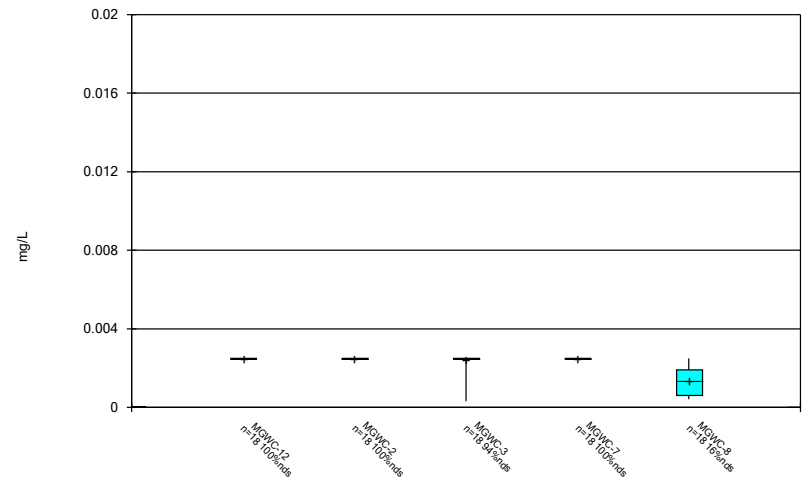
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



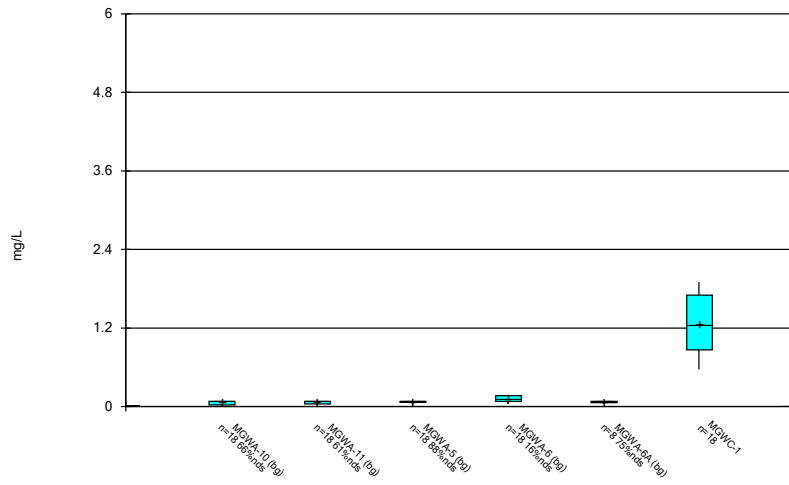
Constituent: Beryllium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



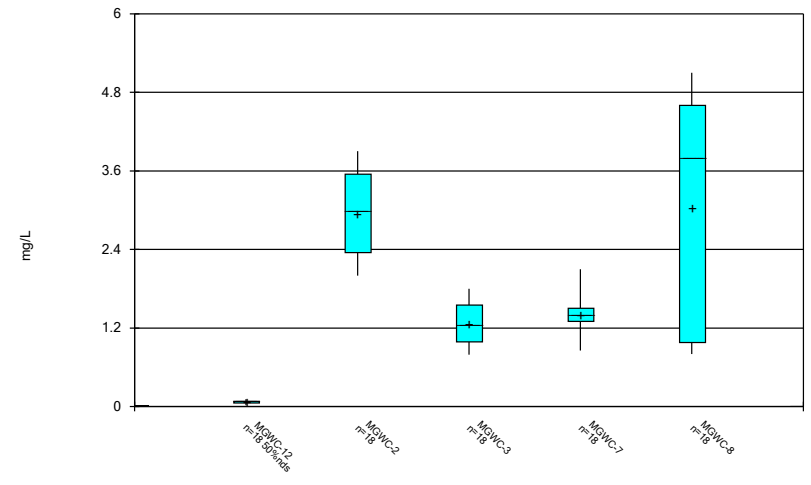
Constituent: Beryllium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



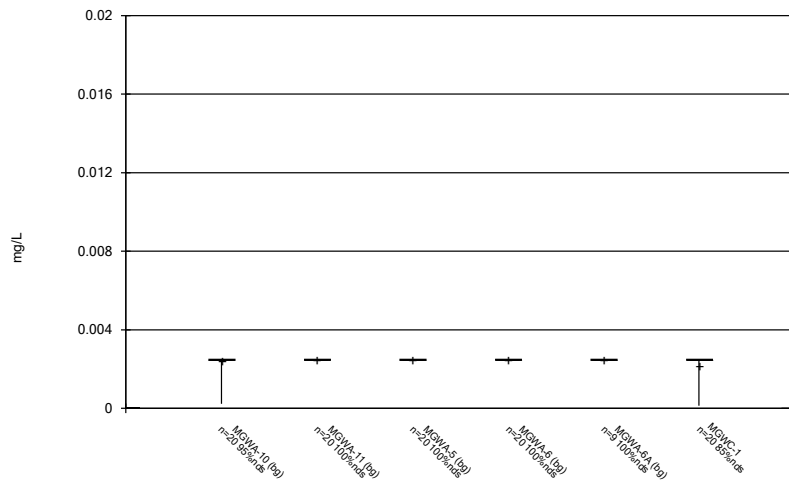
Constituent: Boron Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



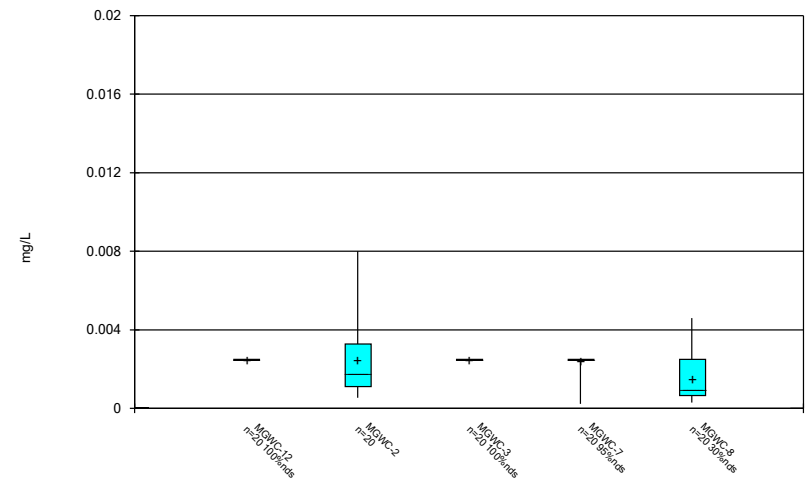
Constituent: Boron Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



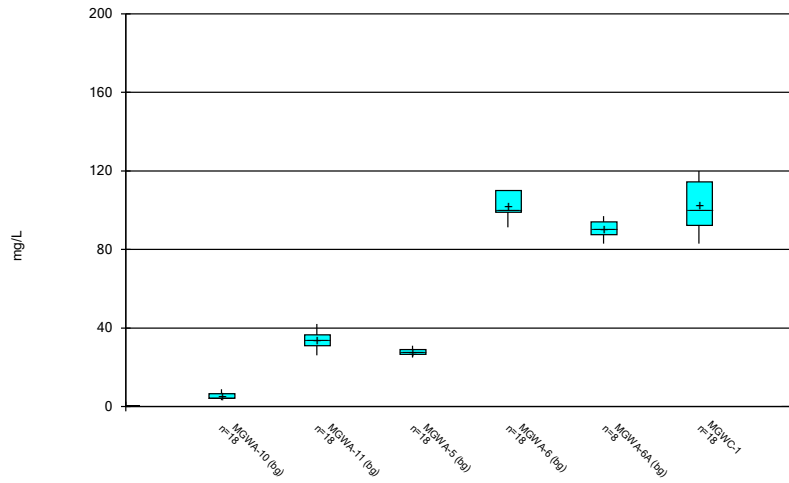
Constituent: Cadmium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



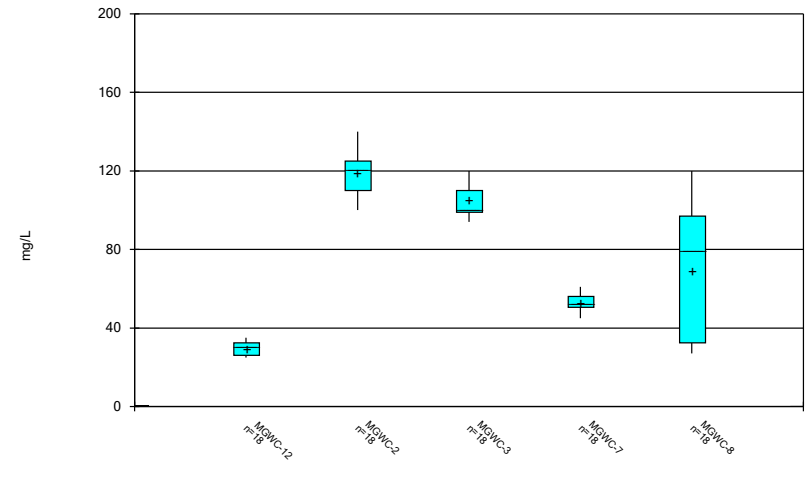
Constituent: Cadmium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



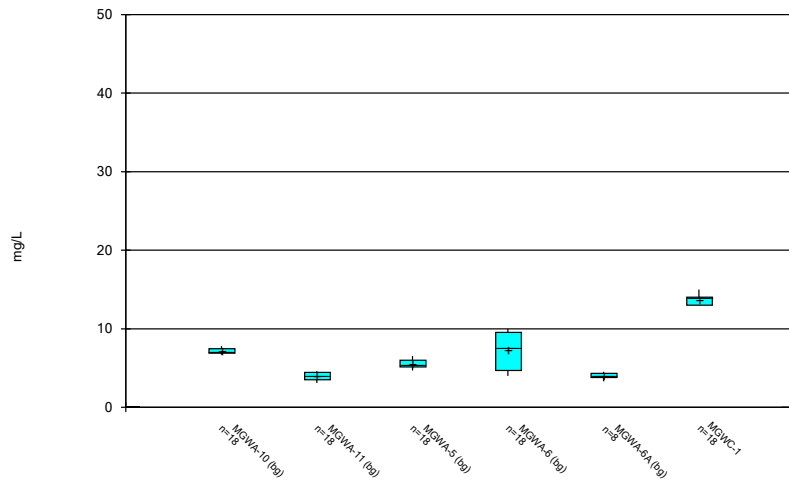
Constituent: Calcium Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



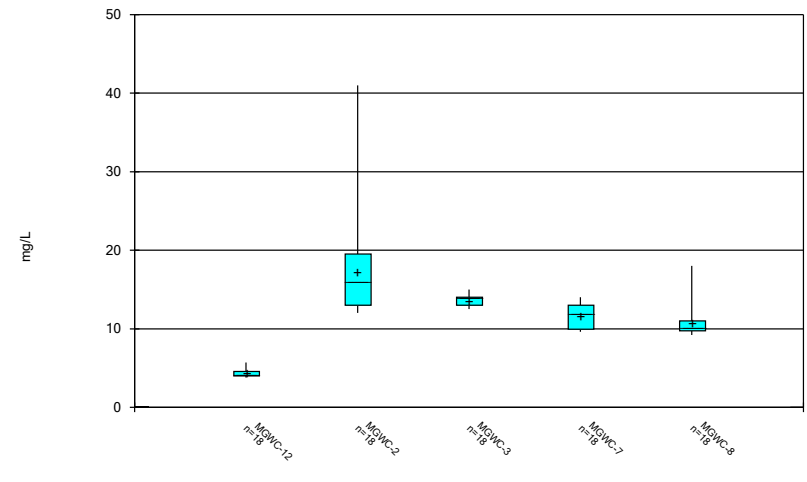
Constituent: Calcium Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



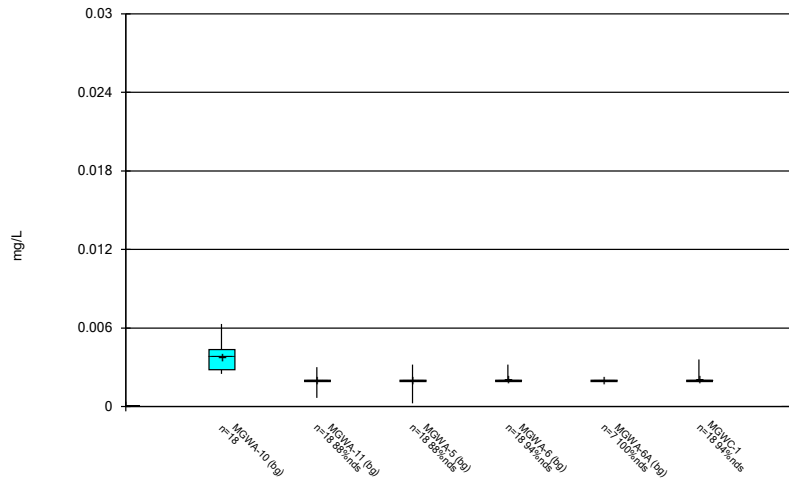
Constituent: Chloride Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



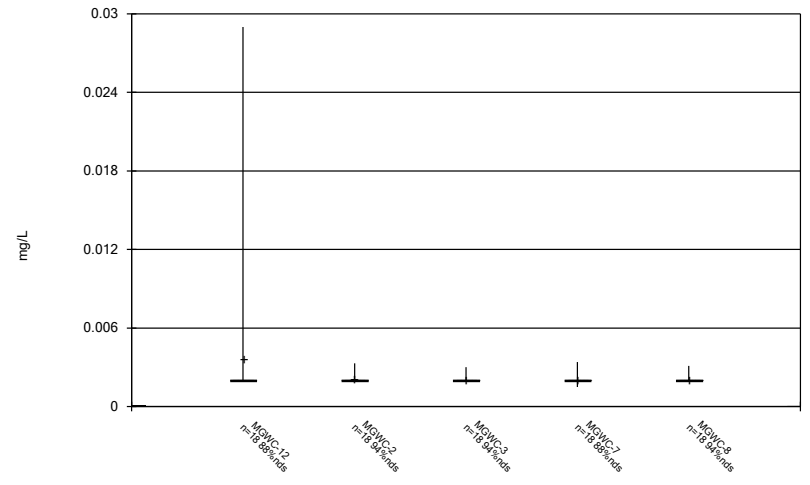
Constituent: Chloride Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



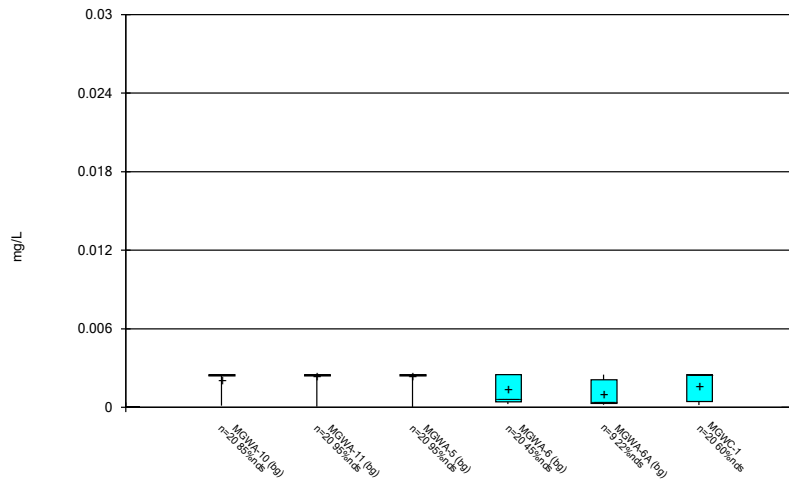
Constituent: Chromium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



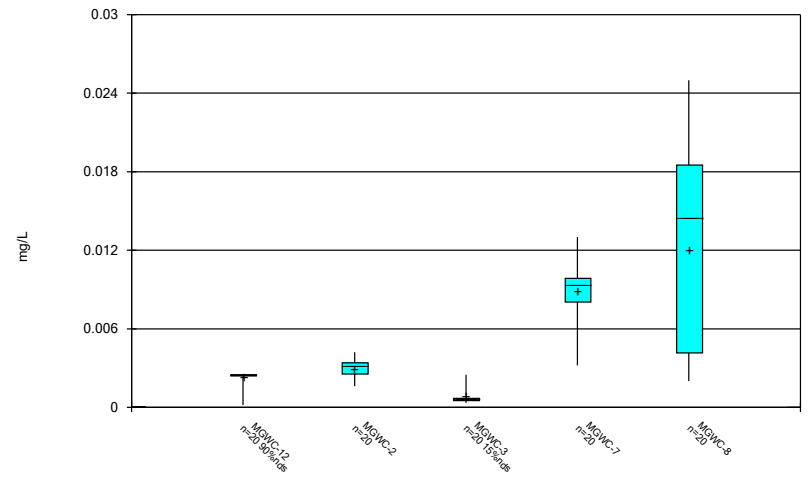
Constituent: Chromium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



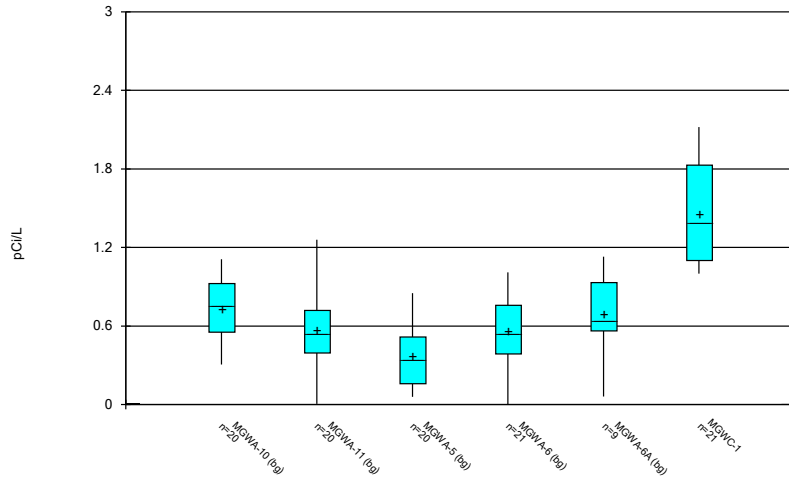
Constituent: Cobalt Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



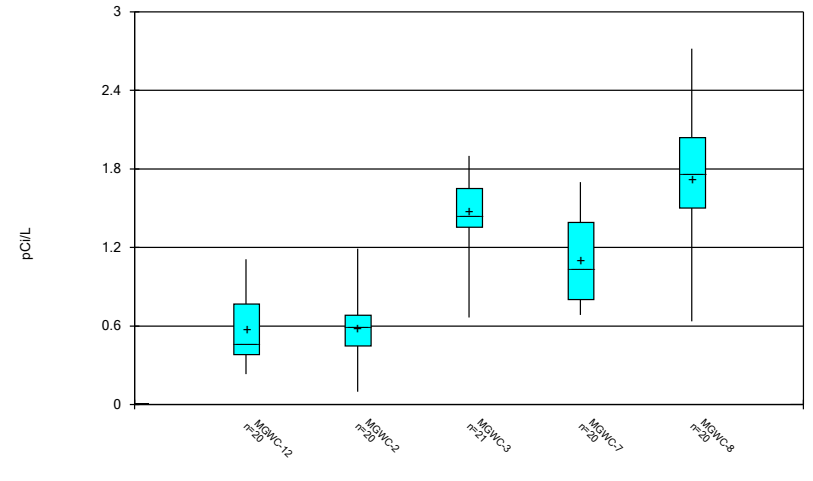
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



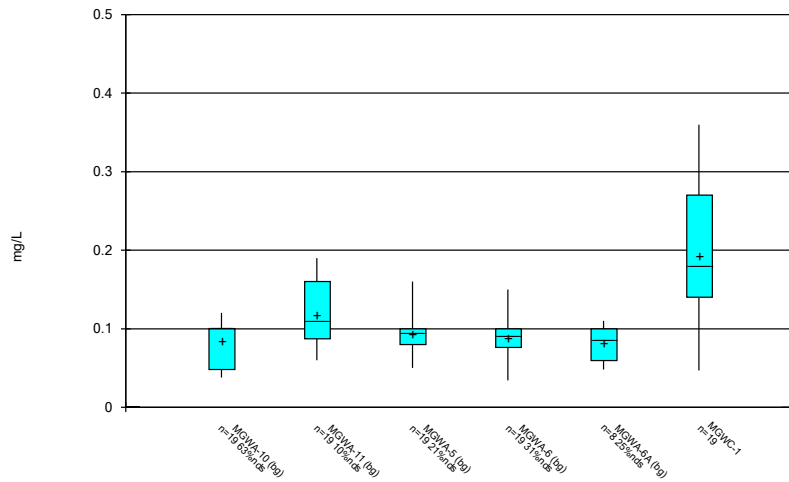
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



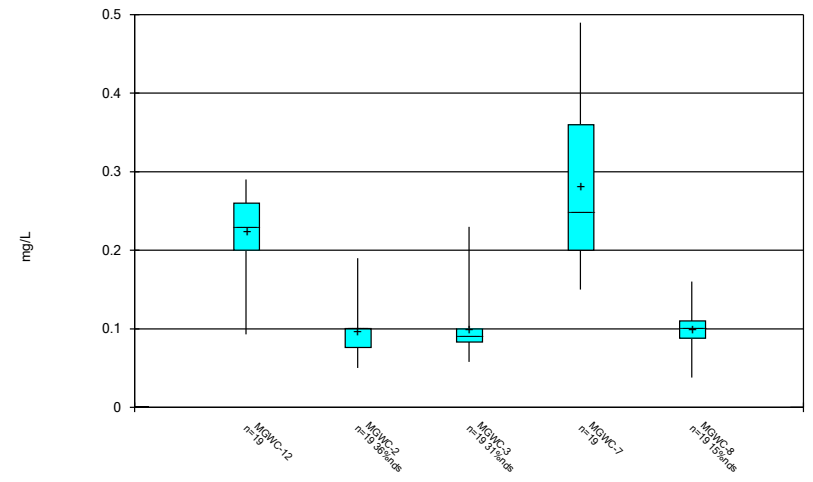
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



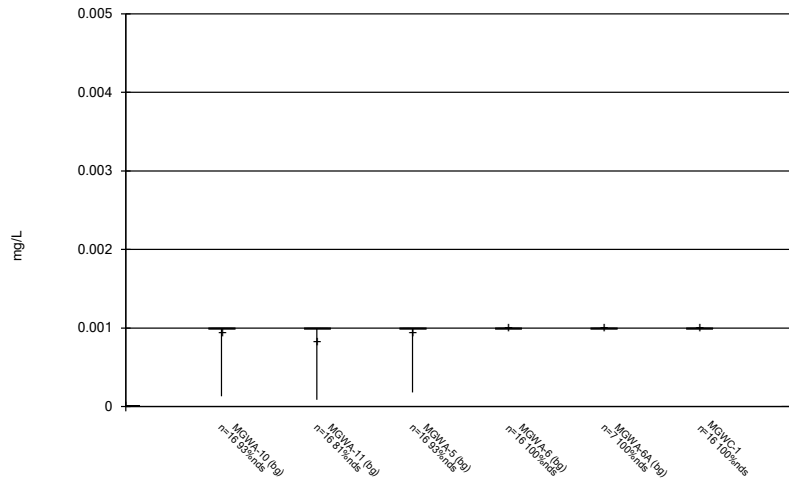
Constituent: Fluoride Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



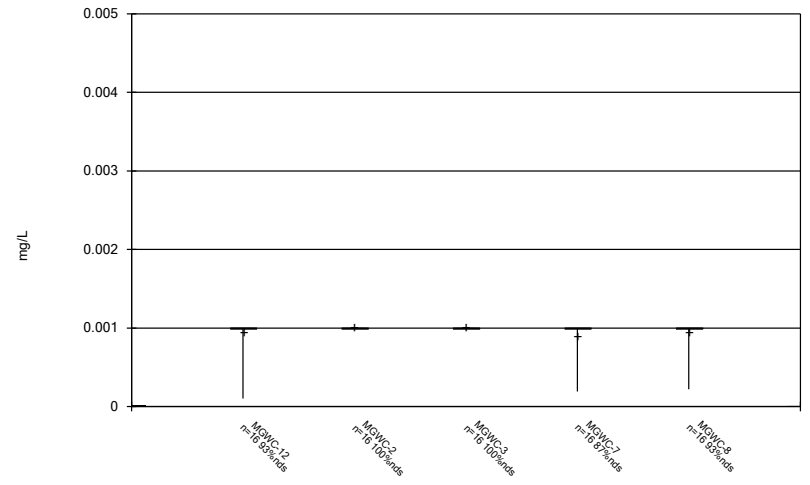
Constituent: Fluoride Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



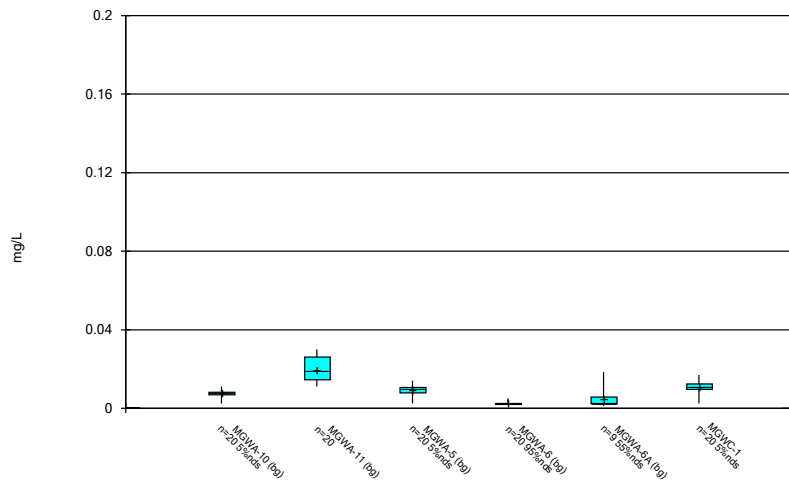
Constituent: Lead Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



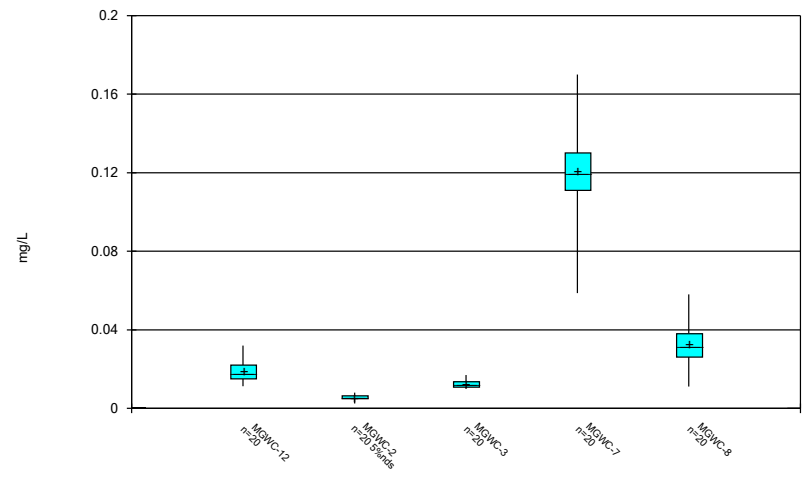
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



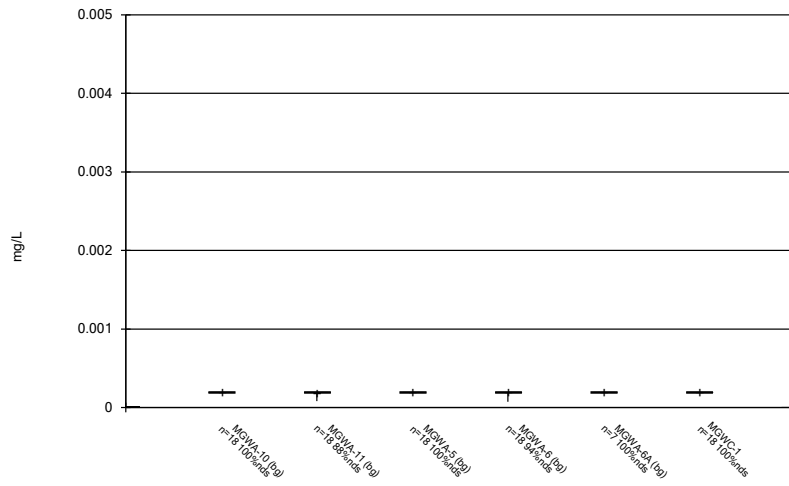
Constituent: Lithium Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



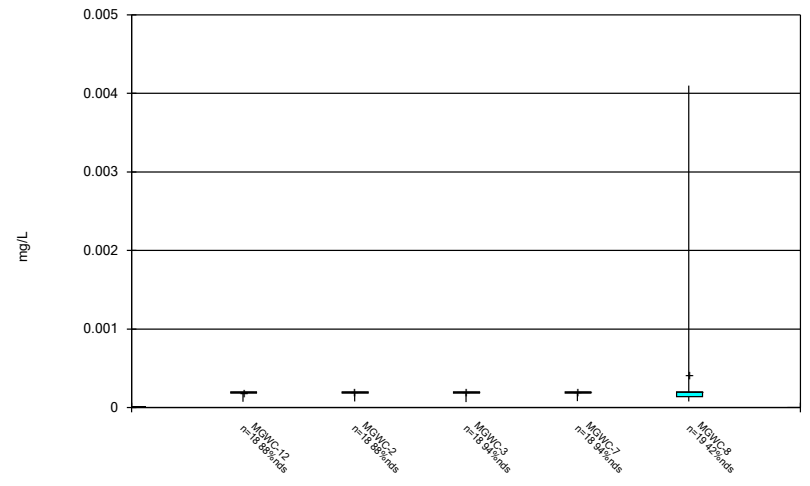
Constituent: Lithium Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



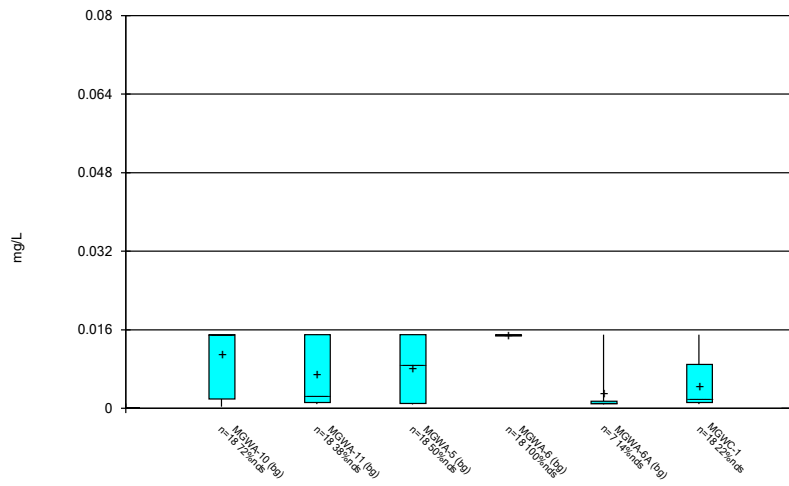
Constituent: Mercury Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



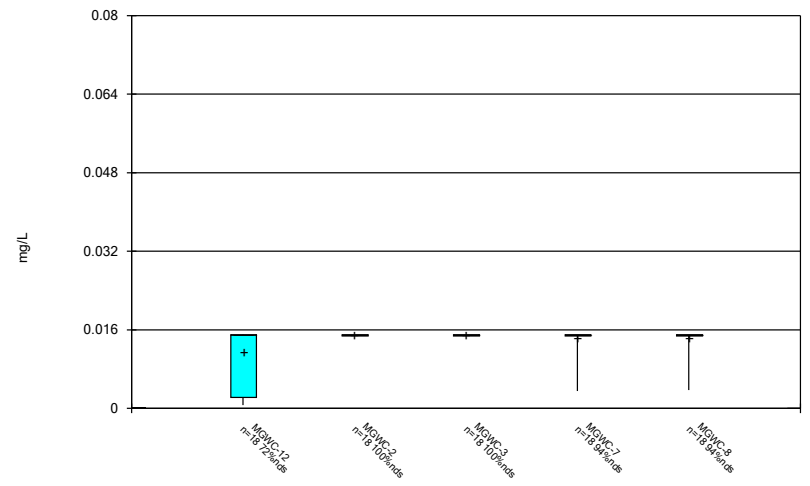
Constituent: Mercury Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



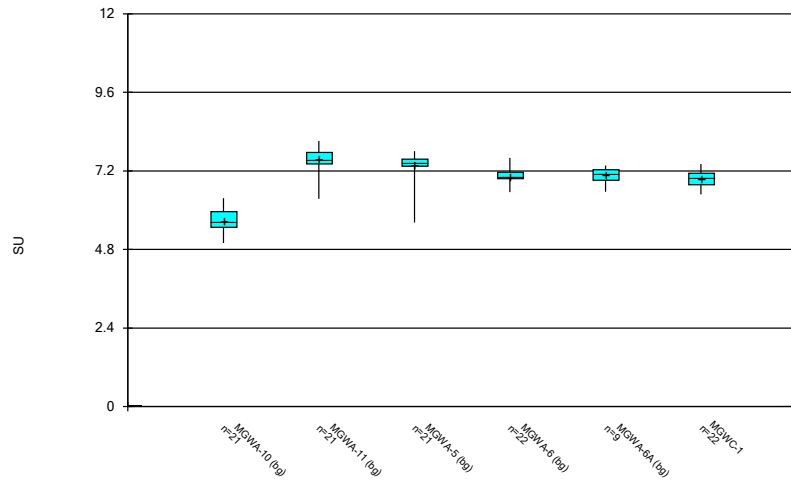
Constituent: Molybdenum Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



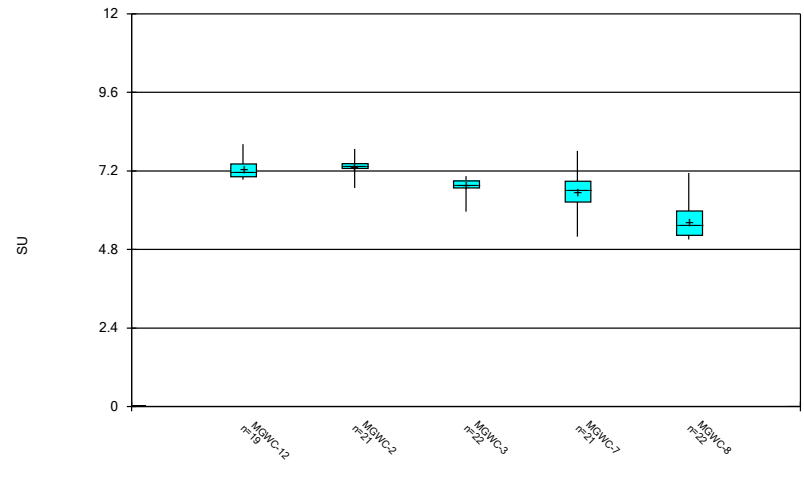
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



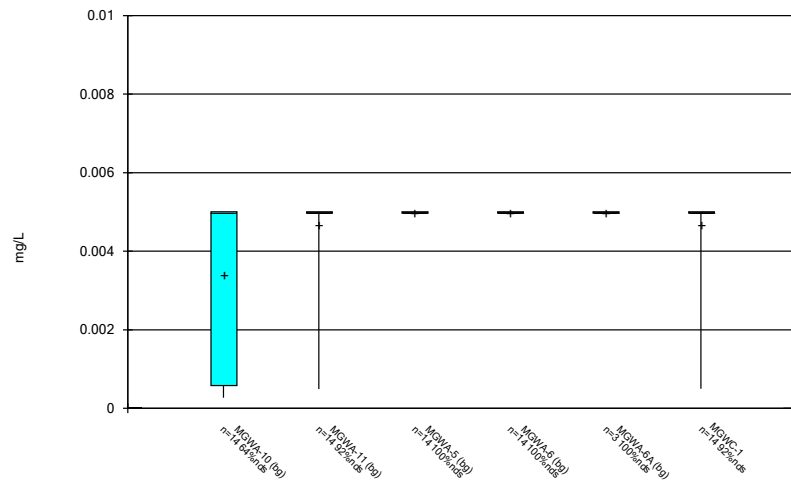
Constituent: pH Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



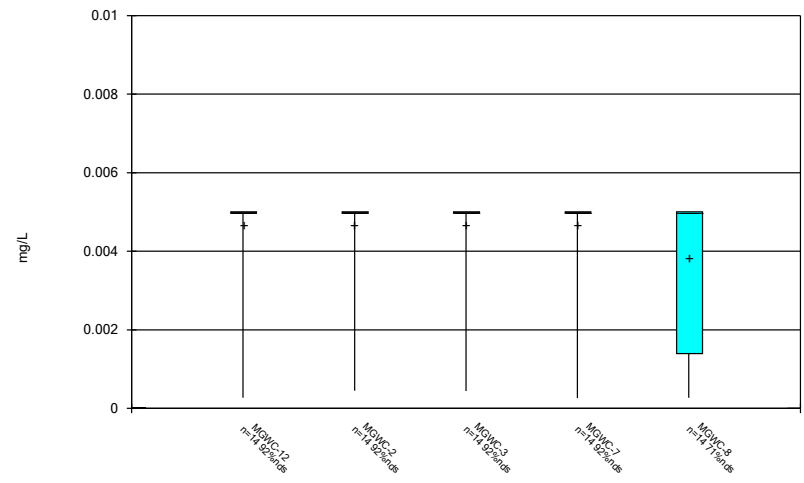
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



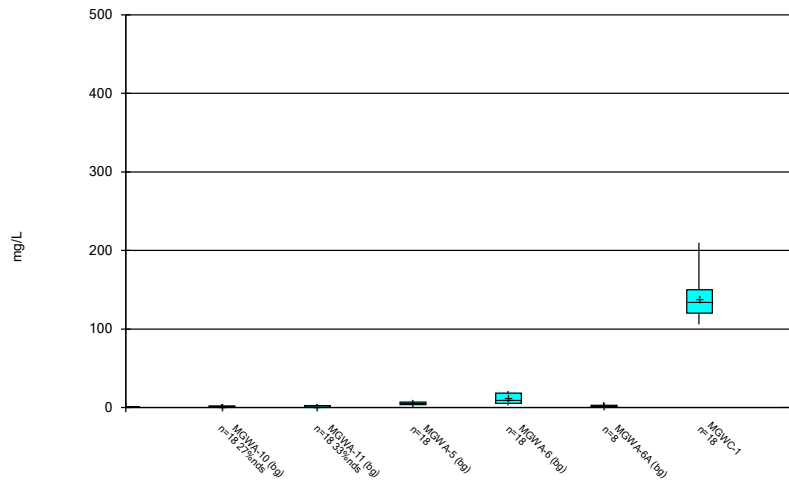
Constituent: Selenium Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



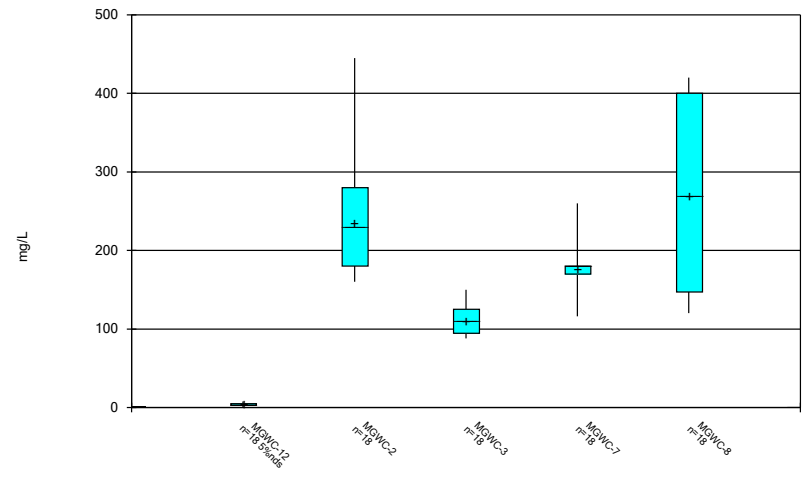
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



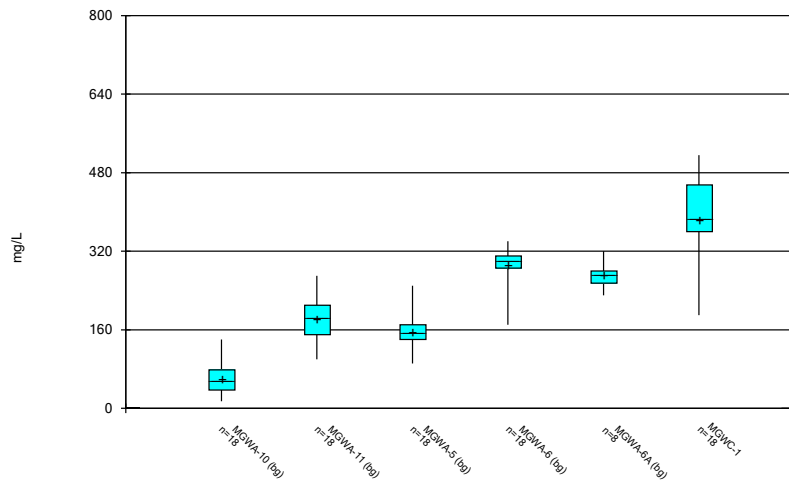
Constituent: Sulfate Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



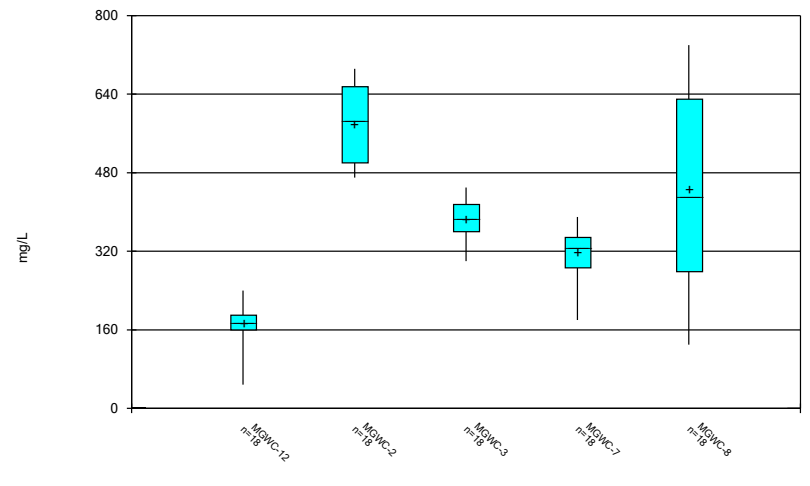
Constituent: Sulfate Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



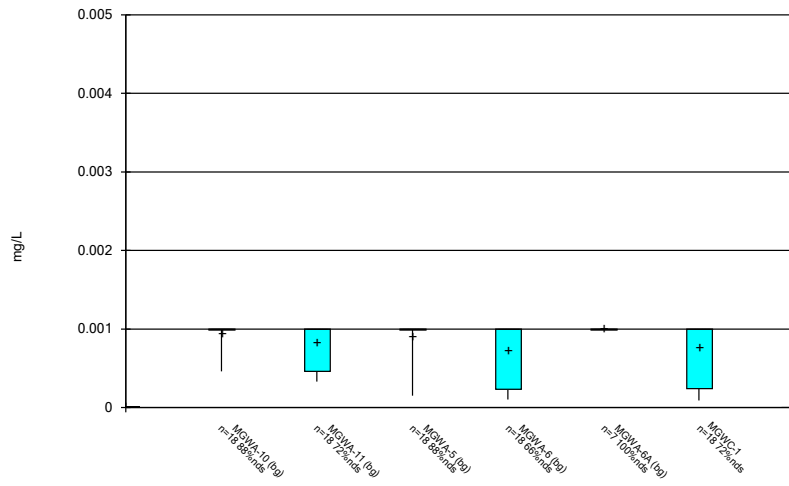
Constituent: TDS Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



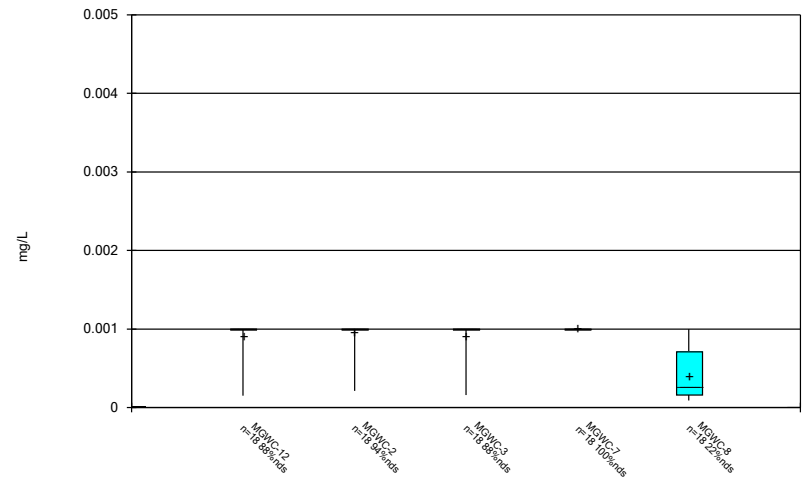
Constituent: TDS Analysis Run 5/23/2022 1:21 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/23/2022 1:21 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE C.

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:31 PM

MGWC-12 pH (SU)

9/10/2019	10.96 (o)
9/16/2020	11.03 (o)

FIGURE D.

Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:35 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)	MGWC-1	0.18	n/a	2/22/2022	1.7	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	2/23/2022	2	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	2/23/2022	0.83	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	2/23/2022	2.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	2/23/2022	4.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	2/23/2022	120	Yes	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.409	n/a	2/22/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.409	n/a	2/23/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.409	n/a	2/23/2022	14	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.409	n/a	2/23/2022	9.8	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.409	n/a	2/23/2022	11	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	2/23/2022	0.22	Yes	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MGWC-1	20.19	n/a	2/22/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	20.19	n/a	2/23/2022	180	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	20.19	n/a	2/23/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	20.19	n/a	2/23/2022	260	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	20.19	n/a	2/23/2022	390	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	349.9	n/a	2/22/2022	420	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	349.9	n/a	2/23/2022	490	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	349.9	n/a	2/23/2022	450	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	349.9	n/a	2/23/2022	390	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	349.9	n/a	2/23/2022	630	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2

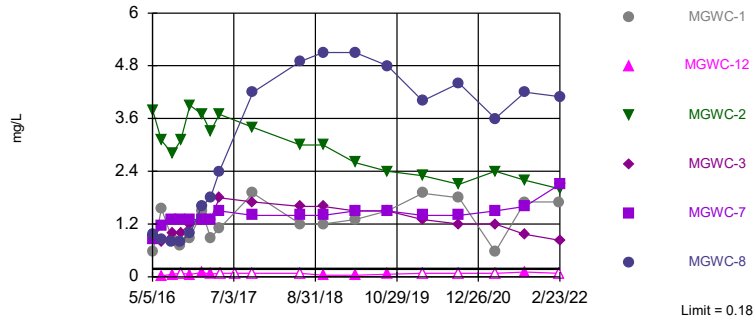
Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:35 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)	MGWC-1	0.18	n/a	2/22/2022	1.7	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-12	0.18	n/a	2/22/2022	0.08ND	No	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	2/23/2022	2	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	2/23/2022	0.83	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	2/23/2022	2.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	2/23/2022	4.1	Yes	80	n/a	n/a	60	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	2/22/2022	100	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-12	110	n/a	2/22/2022	35	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	2/23/2022	100	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	2/23/2022	120	Yes	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	2/23/2022	61	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	2/23/2022	97	No	80	n/a	n/a	0	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.409	n/a	2/22/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-12	9.409	n/a	2/22/2022	4	No	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.409	n/a	2/23/2022	13	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.409	n/a	2/23/2022	14	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.409	n/a	2/23/2022	9.8	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.409	n/a	2/23/2022	11	Yes	80	2.378	0.3711	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-1	0.19	n/a	2/22/2022	0.047J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	2/22/2022	0.093J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	2/23/2022	0.075J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	2/23/2022	0.086J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	2/23/2022	0.22	Yes	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-8	0.19	n/a	2/23/2022	0.05J	No	84	n/a	n/a	30.95	n/a	n/a	0.0002742	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	7.926	4.577	2/22/2022	7.32	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-12	7.926	4.577	2/22/2022	7.41	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-2	7.926	4.577	2/23/2022	7.44	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-3	7.926	4.577	2/23/2022	6.98	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-7	7.926	4.577	2/23/2022	6.91	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-8	7.926	4.577	2/23/2022	6.22	No	94	128544	64655	0	None	x^6	0.0006268	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-1	20.19	n/a	2/22/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-12	20.19	n/a	2/22/2022	4.8	No	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	20.19	n/a	2/23/2022	180	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	20.19	n/a	2/23/2022	150	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	20.19	n/a	2/23/2022	260	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	20.19	n/a	2/23/2022	390	Yes	80	0.9799	1.091	13.75	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	349.9	n/a	2/22/2022	420	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-12	349.9	n/a	2/22/2022	190	No	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	349.9	n/a	2/23/2022	490	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	349.9	n/a	2/23/2022	450	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	349.9	n/a	2/23/2022	390	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	349.9	n/a	2/23/2022	630	Yes	80	181.4	90.75	0	None	No	0.001254	Param Inter 1 of 2

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit
Interwell Non-parametric

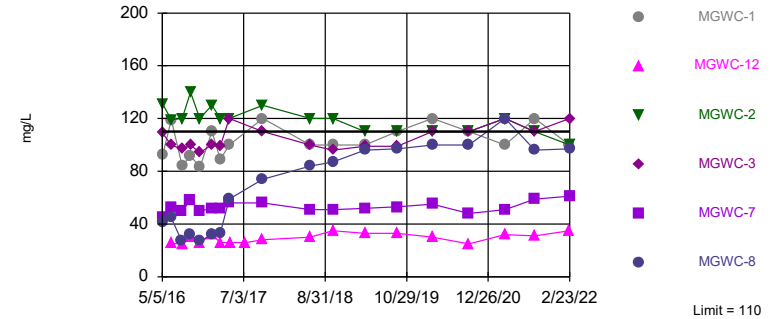


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 80 background values. 60% NDs. Annual per-constituent alpha = 0.00358. Individual comparison alpha = 0.0002988 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-3

Prediction Limit
Interwell Non-parametric

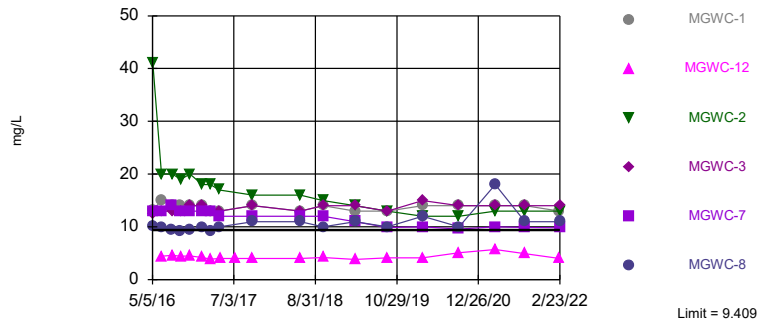


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. Annual per-constituent alpha = 0.00358. Individual comparison alpha = 0.0002988 (1 of 2). Comparing 6 points to limit.

Constituent: Calcium Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit
Interwell Parametric

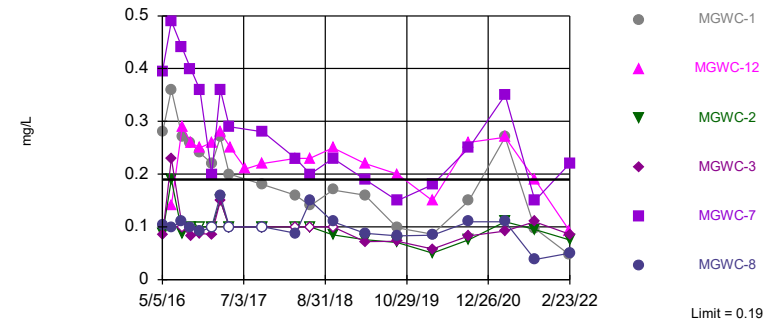


Background Data Summary (based on square root transformation): Mean=2.378, Std. Dev.=0.3711, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9652, critical = 0.957. Kappa = 1.857 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Chloride Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-7

Prediction Limit
Interwell Non-parametric

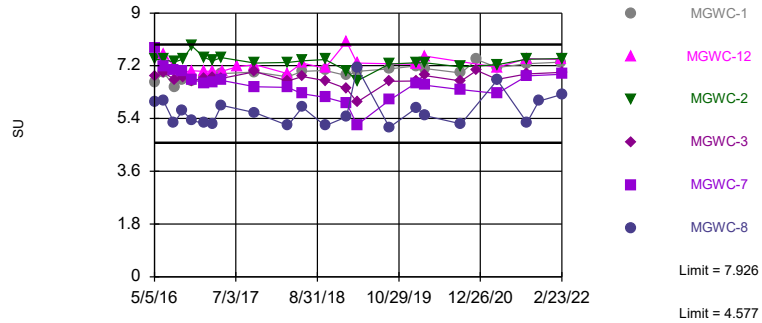


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 30.95% NDs. Annual per-constituent alpha = 0.003286. Individual comparison alpha = 0.0002742 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Within Limits

Prediction Limit
Interwell Parametric



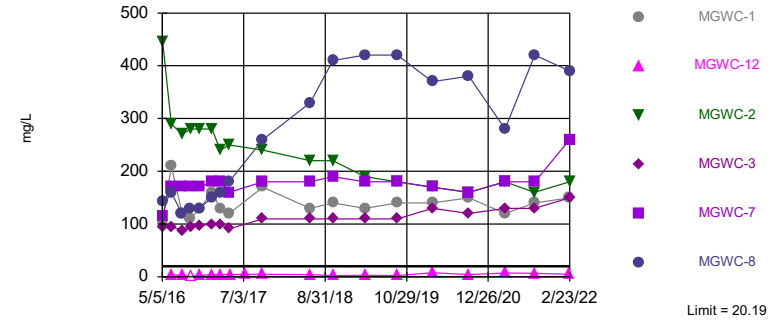
Background Data Summary (based on x^6 transformation): Mean=128544, Std. Dev.=64655, n=94. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9664, critical = 0.964. Kappa = 1.846 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Comparing 6 points to limit.

Constituent: pH Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit
Interwell Parametric

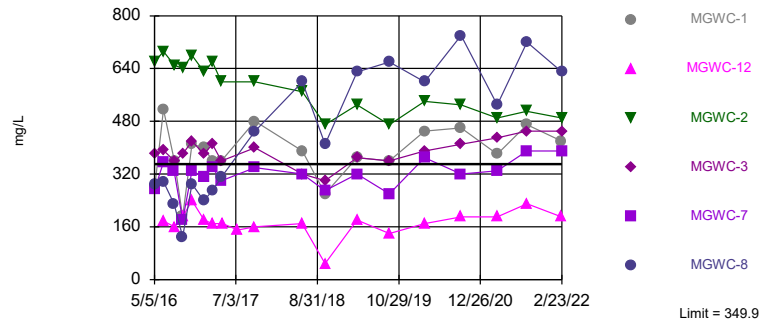


Background Data Summary (based on natural log transformation): Mean=0.9799, Std. Dev.=1.091, n=80, 13.75% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9693, critical = 0.957. Kappa = 1.857 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=181.4, Std. Dev.=90.75, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9644, critical = 0.957. Kappa = 1.857 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 5/23/2022 4:33 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWC-7	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	<0.08	0.157	0.976	0.855	<0.08				
5/6/2016						0.926	0.567	3.78	
6/20/2016	0.011 (J)				0.013 (J)				0.017 (J)
6/21/2016		0.124	0.862	1.15		0.792	1.55	3.1	
8/15/2016	0.022 (J)	0.18	0.8	1.3	0.023 (J)				0.032 (J)
8/16/2016						1	0.85	2.8	
9/28/2016	0.023 (J)	0.17	0.8	1.3	<0.08		0.7		0.021 (J)
9/29/2016						1		3.1	
11/16/2016	<0.08	0.17	0.98	1.3	<0.08	1.2	0.88	3.9	<0.08
1/16/2017	0.021 (J)								
1/17/2017		0.17	1.6	1.3	<0.08	1.3			<0.08
1/18/2017								3.7	
1/19/2017							1.5		
3/2/2017	<0.08	0.14	1.8	1.3	<0.08	1.3	0.89	3.3	<0.08
4/18/2017	<0.08	0.14	2.4	1.5	<0.08	1.8	1.1		<0.08
4/19/2017								3.7	
4/25/2017									
7/13/2017									<0.08
10/10/2017	0.021 (J)	0.12	4.2	1.4	<0.08	1.7	1.9	3.4	0.025 (J)
6/12/2018	<0.08				<0.08				<0.08
6/13/2018		0.11	4.9	1.4		1.6	1.2	3	
10/9/2018	<0.08				<0.08				<0.08
10/10/2018		0.096 (J)	5.1	1.4		1.6	1.2	3	
1/29/2019									
3/25/2019	<0.08				<0.08				<0.08
3/26/2019		0.079 (J)	5.1	1.5		1.5	1.3	2.6	
9/10/2019	<0.08	0.097	4.8	1.5	<0.08	1.5	1.5	2.4	<0.08
3/9/2020	0.045 (J)								<0.08
3/10/2020		0.051 (J)	4	1.4	<0.08	1.3	1.9	2.3	
9/16/2020	<0.08	0.041 (J)			<0.08			2.1	0.045 (J)
9/17/2020			4.4	1.4		1.2	1.8		
3/23/2021	<0.08	<0.08							0.047 (J)
3/24/2021			3.6	1.5	<0.08	1.2	0.57	2.4	
8/23/2021	<0.08								0.043 (J)
8/24/2021		<0.08			<0.08	0.97		2.2	
8/25/2021			4.2	1.6			1.7		
2/22/2022	<0.08	<0.08			<0.08		1.7		<0.08
2/23/2022			4.1	2.1		0.83		2	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	0.0201 (J)	
8/15/2016		
8/16/2016	0.055	
9/28/2016		
9/29/2016	<0.08	
11/16/2016	0.055	
1/16/2017		
1/17/2017		
1/18/2017	0.097	
1/19/2017		
3/2/2017	0.064	
4/18/2017		
4/19/2017		
4/25/2017	<0.08	
7/13/2017	<0.08	
10/10/2017	<0.08	
6/12/2018	<0.08	
6/13/2018		
10/9/2018		
10/10/2018	0.034 (J)	
1/29/2019		<0.08
3/25/2019		<0.08
3/26/2019	0.032 (J)	
9/10/2019	0.06 (J)	0.04 (J)
3/9/2020		
3/10/2020	<0.08	<0.08
9/16/2020	<0.08	0.04 (J)
9/17/2020		
3/23/2021		<0.08
3/24/2021	<0.08	
8/23/2021		
8/24/2021		<0.08
8/25/2021	0.11	
2/22/2022	<0.08	<0.08
2/23/2022		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWC-7	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	8.83	105	41.2	45	27				
5/6/2016						109	92.5	131	
6/20/2016	8.1				29.4				35.5
6/21/2016		91.2	44.7	52.8		99.7	119	119	
8/15/2016	6.1	94	27	50	26				34
8/16/2016						97	84	120	
9/28/2016	7.2	110	32	58	31		92		38
9/29/2016						100		140	
11/16/2016	5.2	98	27	50	26	94	83	120	33
1/16/2017	3.8								
1/17/2017		100	32	52	29	100			34
1/18/2017								130	
1/19/2017							110		
3/2/2017	5.4	100	33	52	28	99	89	120	35
4/18/2017	5	110	59	56	27	120	100		33
4/19/2017								120	
4/25/2017									
7/13/2017									30
10/10/2017	4.8	110	74	56	31	110	120	130	39
6/12/2018	4.8				25				26
6/13/2018		100	84	51		100	100	120	
10/9/2018	4.5				29				29
10/10/2018		100	87	51		96	100	120	
1/29/2019									
3/25/2019	4.6				27				37
3/26/2019		100	96	52		99	100	110	
9/10/2019	4.9	110	97	53	27	99	110	110	36
3/9/2020	4								32
3/10/2020		100	100	55	29	110	120	110	
9/16/2020	6.8	100			28			110	30
9/17/2020			100	48		110	110		
3/23/2021	4	110							42
3/24/2021			120	51	28	120	100	120	
8/23/2021	5.8								34
8/24/2021		100			27	110		110	
8/25/2021			96	59			120		
2/22/2022	3.3	97			25		100		36
2/23/2022			97	61		120		100	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	25.5	
8/15/2016		
8/16/2016	25	
9/28/2016		
9/29/2016	30	
11/16/2016	26	
1/16/2017		
1/17/2017		
1/18/2017	32	
1/19/2017		
3/2/2017	26	
4/18/2017		
4/19/2017		
4/25/2017	26	
7/13/2017	26	
10/10/2017	28	
6/12/2018	30	
6/13/2018		
10/9/2018		
10/10/2018	35	
1/29/2019		95.1
3/25/2019		89
3/26/2019	33	
9/10/2019	33	86
3/9/2020		
3/10/2020	30	90
9/16/2020	25	93
9/17/2020		
3/23/2021		97
3/24/2021	32	
8/23/2021		
8/24/2021		83
8/25/2021	31	
2/22/2022	35	90
2/23/2022		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWC-7	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	7.35	9.67	10.1	13	6.51				
5/6/2016						12.5	13.2	41	
6/20/2016	7				5.9				4.3
6/21/2016		9.2	10	13		13	15	20	
8/15/2016	7.5	10	9.5	14	6.4				4.1
8/16/2016						13	14	20	
9/28/2016	7	10	9.2	13	6.1		14		3.9
9/29/2016						13		19	
11/16/2016	7.5	10	9.5	13	6.1	14	14	20	4.1
1/16/2017	7.7								
1/17/2017		9.4	10	13	5.7	14			3.9
1/18/2017								18	
1/19/2017							14		
3/2/2017	6.9	8.6	9.3	13	5.3	13	13	18	3.5
4/18/2017	6.8	8.9	10	12	5.3	13	13		3.7
4/19/2017								17	
4/25/2017									
7/13/2017									4.2
10/10/2017	6.9	8.3	11	12	5.3	14	14	16	3.4
6/12/2018	6.7				5.1				4.6
6/13/2018		7	11	12		13	13	16	
10/9/2018	7.1				5.6				4.5
10/10/2018		6.9	10	12		14	14	15	
1/29/2019									
3/25/2019	6.8				4.7				3.4
3/26/2019		5.8	11	11		14	13	14	
9/10/2019	7	6	10	9.9	5.1	13	13	13	3.5
3/9/2020	7.4								4.5
3/10/2020		5.1	12	10	5.4	15	14	12	
9/16/2020	7	4.3			5.2			12	4.6
9/17/2020			10	9.6		14	14		
3/23/2021	7.8	4							3.8
3/24/2021			18	10	5.5	14	14	13	
8/23/2021	7.3								4.4
8/24/2021		4			5.5	14		13	
8/25/2021			11	9.9			14		
2/22/2022	7.1	4			5.1		13		3.1
2/23/2022			11	9.8		14		13	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	4.4	
8/15/2016		
8/16/2016	4.6	
9/28/2016		
9/29/2016	4.4	
11/16/2016	4.5	
1/16/2017		
1/17/2017		
1/18/2017	4.2	
1/19/2017		
3/2/2017	3.9	
4/18/2017		
4/19/2017		
4/25/2017	4	
7/13/2017	4	
10/10/2017	4	
6/12/2018	4	
6/13/2018		
10/9/2018		
10/10/2018	4.2	
1/29/2019		4.51
3/25/2019		4.4
3/26/2019	3.8	
9/10/2019	4.1	4.2
3/9/2020		
3/10/2020	4.1	4
9/16/2020	5.1	3.7
9/17/2020		
3/23/2021		4.1
3/24/2021	5.7	
8/23/2021		
8/24/2021		3.9
8/25/2021	4.9	
2/22/2022	4	3.3
2/23/2022		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-7	MGWA-5 (bg)	MGWA-6 (bg)	MGWC-8	MGWC-2	MGWC-1	MGWC-3	MGWA-11 (bg)
5/5/2016	0.046 (J)	0.394	0.132 (J)	0.091 (J)	0.103 (J)				
5/6/2016						0.088 (J)	0.28 (J)	0.086 (J)	
6/20/2016	<0.1		0.05 (J)						0.06 (J)
6/21/2016		0.49		0.08 (J)	0.1 (J)	0.19 (J)	0.36	0.23 (J)	
8/15/2016	<0.1	0.44	0.1 (J)	<0.1	0.11 (J)				0.1 (J)
8/16/2016						0.087 (J)	0.27	<0.1	
9/28/2016	<0.1	0.4	0.11 (J)	0.084 (J)	0.1 (J)		0.26		0.097 (J)
9/29/2016						<0.1		0.082 (J)	
11/16/2016	<0.1	0.36	0.093 (J)	0.084 (J)	0.091 (J)	<0.1	0.24	0.087 (J)	0.12 (J)
1/16/2017	<0.1								
1/17/2017		0.2	0.095 (J)	0.099 (J)	<0.1			0.086 (J)	0.11 (J)
1/18/2017						<0.1			
1/19/2017							0.22		
3/2/2017	0.12 (J)	0.36	0.16 (J)	0.15 (J)	0.16 (J)	0.15 (J)	0.27	0.15 (J)	0.18 (J)
4/18/2017	<0.1	0.29	<0.1	<0.1	<0.1		0.2	<0.1	0.11 (J)
4/19/2017						<0.1			
4/25/2017									
7/13/2017									0.12 (J)
10/10/2017	<0.1	0.28	<0.1	<0.1	<0.1	<0.1	0.18 (J)	<0.1	0.086 (J)
3/29/2018	<0.1	0.23	0.084 (J)	<0.1			0.16 (J)		<0.1
3/30/2018					0.088 (J)	<0.1		<0.1	
6/12/2018	<0.1		<0.1						0.16 (J)
6/13/2018		0.2		<0.1	0.15 (J)	<0.1	0.14 (J)	<0.1	
10/9/2018	<0.1		0.086 (J)						0.16 (J)
10/10/2018		0.23		<0.1	0.11 (J)	0.085 (J)	0.17 (J)	<0.1	
1/29/2019									
3/25/2019	<0.1		0.072 (J)						0.087 (J)
3/26/2019		0.19 (J)		0.065 (J)	0.088 (J)	0.076 (J)	0.16	0.072 (J)	
9/10/2019	0.044 (J)	0.15	0.068 (J)	0.076 (J)	0.083 (J)	0.07 (J)	0.098 (J)	0.073 (J)	0.075 (J)
3/9/2020	0.061 (J)								0.19
3/10/2020		0.18	0.055 (J)	0.045 (J)	0.084 (J)	0.05 (J)	0.086 (J)	0.058 (J)	
9/16/2020	0.042 (J)		0.08 (J)	0.076 (J)		0.076 (J)			0.18
9/17/2020		0.25			0.11		0.15	0.083 (J)	
3/23/2021	0.038 (J)			0.082 (J)					0.081 (J)
3/24/2021		0.35	0.091 (J)		0.11	0.11	0.27	0.092 (J)	
8/23/2021	0.048 (J)								0.12
8/24/2021			0.1	0.1		0.095 (J)		0.11	
8/25/2021		0.15			0.038 (J)		0.097 (J)		
2/22/2022	<0.1		<0.1	0.034 (J)			0.047 (J)		<0.1
2/23/2022		0.22			0.05 (J)	0.075 (J)		0.086 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	0.14 (J)	
8/15/2016		
8/16/2016	0.29	
9/28/2016		
9/29/2016	0.26	
11/16/2016	0.25	
1/16/2017		
1/17/2017		
1/18/2017	0.26	
1/19/2017		
3/2/2017	0.28	
4/18/2017		
4/19/2017		
4/25/2017	0.25	
7/13/2017	0.21	
10/10/2017	0.22	
3/29/2018	0.23	
3/30/2018		
6/12/2018	0.23	
6/13/2018		
10/9/2018		
10/10/2018	0.25	
1/29/2019		<0.1
3/25/2019		0.067 (J)
3/26/2019	0.22	
9/10/2019	0.2	0.052 (J)
3/9/2020		
3/10/2020	0.15	0.048 (J)
9/16/2020	0.26	0.078 (J)
9/17/2020		
3/23/2021		0.096 (J)
3/24/2021	0.27	
8/23/2021		
8/24/2021		0.11
8/25/2021	0.19	
2/22/2022	0.093 (J)	<0.1
2/23/2022		

Prediction Limit

Constituent: pH (SU) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-8	MGWC-2	MGWC-1	MGWC-3	MGWA-11 (bg)
5/5/2016	5.94	7.13	7.81	7.4	5.96				
5/6/2016						7.41	6.64	6.85	
6/20/2016	5.84 (D)			7.63					7.82
6/21/2016		7.25	7.2		6	7.41	6.99	6.98	
8/15/2016	5.65	7.04	7.04	7.54	5.26				7.52
8/16/2016						7.33	6.48	6.73	
9/28/2016	5.72	7.09	7	7.45	5.66		6.7		7.66
9/29/2016						7.42		6.81	
11/16/2016	5.65	7.6	6.73	7.39	5.33	7.87	6.66	6.69	7.51
1/16/2017	5.52								
1/17/2017		6.99	6.61	7.23	5.24			6.77	7.52
1/18/2017						7.49			
1/19/2017							6.81		
3/2/2017	5.53	6.95	6.62	7.55	5.21	7.37	6.75	6.79	7.5
4/18/2017	5.64	7.02	6.7	7.43	5.85		6.93	6.77	7.75
4/19/2017						7.48			
4/25/2017									
7/13/2017									7.72
10/10/2017		7.27	6.48	5.62	5.6	7.29	6.99	7	
10/11/2017	6.11								6.35
3/29/2018	5.35	6.95	6.46	7.19			6.82		7.42
3/30/2018					5.16	7.31		6.68	
6/12/2018	6.23			7.55					8.02
6/13/2018		7.08	6.24		5.79	7.37	7.01	6.83	
10/9/2018	5.62 (D)			7.8 (D)					7.79 (D)
10/10/2018		7.01 (D)	6.12 (D)		5.15 (D)	7.41 (D)	7.04 (D)	6.69 (D)	
1/28/2019	5.49 (D)								7.4 (D)
1/29/2019		6.55 (D)	5.93 (D)	7.63 (D)	5.46 (D)	7.03 (D)	6.87 (D)	6.42 (D)	
3/25/2019	5.27 (D)			7.44 (D)					7.29 (D)
3/26/2019		6.57 (D)	5.19 (D)		7.14 (D)	6.68 (D)	7.01 (D)	5.96 (D)	
9/10/2019	5.97	6.99	6.03	7.41	5.1	7.26	7.09	6.67	7.54
1/28/2020	5.78	7.17	6.61	7.46					7.4
1/29/2020					5.76	7.3	7.19	6.68	
3/9/2020	5.46								7.58
3/10/2020		7	6.54	7.3	5.5	7.3	7.11	6.87	
9/16/2020	6.37	6.98		7.38		7.16			7.89
9/17/2020			6.39		5.22		6.95	6.68	
12/7/2020		7.2							
12/8/2020							7.41	7.04	
3/23/2021	5	6.74							7.06
3/24/2021			6.26	6.88	6.71	7.24	7.14	6.73	
8/23/2021	6.16								8.12
8/24/2021		7.11		7.78		7.42		6.92	
8/25/2021			6.85		5.26		7.27		
10/26/2021					5.99				
2/22/2022	5.38	7.14		7.57			7.32		7.6
2/23/2022			6.91		6.22	7.44		6.98	

Prediction Limit

Constituent: pH (SU) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	7.61	
8/15/2016		
8/16/2016	7.17	
9/28/2016		
9/29/2016	6.97	
11/16/2016	7.03	
1/16/2017		
1/17/2017		
1/18/2017	7.01	
1/19/2017		
3/2/2017	7.02	
4/18/2017		
4/19/2017		
4/25/2017	7.02	
7/13/2017	7.17	
10/10/2017	7.24	
10/11/2017		
3/29/2018	6.93	
3/30/2018		
6/12/2018	7.29	
6/13/2018		
10/9/2018		
10/10/2018	7.12 (D)	
1/28/2019		
1/29/2019	8.02 (D)	6.93 (D)
3/25/2019		7.1 (D)
3/26/2019	7.29 (D)	
9/10/2019	10.96 (o)	7.15
1/28/2020	7.25	7.36
1/29/2020		
3/9/2020		
3/10/2020	7.53	7.04
9/16/2020	11.03 (o)	6.89
9/17/2020		
12/7/2020		
12/8/2020		
3/23/2021		6.56
3/24/2021	7.15	
8/23/2021		
8/24/2021		7.28
8/25/2021	7.44	
10/26/2021		
2/22/2022	7.41	7.2
2/23/2022		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWC-7	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	2.46	17.8	144	116	4.47				
5/6/2016						94.2	106	445	
6/20/2016	2.5				7.7				1
6/21/2016		17	160	170		95	210	290	
8/15/2016	1.9	20	120	170	7.5				0.73 (J)
8/16/2016						88	120	270	
9/28/2016	1.9	21	130	170	7.8		110		<1
9/29/2016						94		280	
11/16/2016	1.7	20	130	170	6.7	97	130	280	<1
1/16/2017	<1								
1/17/2017		19	150	180	6.7	100			<1
1/18/2017								280	
1/19/2017							160		
3/2/2017	1.4	15	160	180	5.6	100	130	240	<1
4/18/2017	1.3	14	180	160	5.1	91	120		<1
4/19/2017								250	
4/25/2017									
7/13/2017									1.4
10/10/2017	1.1	11	260	180	4.9	110	170	240	0.87 (J)
6/12/2018	0.82 (J)				3.8				4.1
6/13/2018		8.7	330	180		110	130	220	
10/9/2018	0.82 (J)				6.7				2.2
10/10/2018		8.7	410	190		110	140	220	
1/29/2019									
3/25/2019	<1				3.4 (J)				<1
3/26/2019		6.3 (J)	420	180		110	130	190	
9/10/2019	1.1	5.6	420	180	4.7	110	140	180	1.8
3/9/2020	4.2								3.4
3/10/2020		5	370	170	5.2	130	140	170	
9/16/2020	0.69 (J)	2.7			3.2			160	3
9/17/2020			380	160		120	150		
3/23/2021	<1	3.2							1.4
3/24/2021			280	180	3.5	130	120	180	
8/23/2021	<1								3.4
8/24/2021		3.5			3.6	130		160	
8/25/2021			420	180			140		
2/22/2022	<1	5.4			3.2		150		1.1
2/23/2022			390	260		150		180	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	4	
8/15/2016		
8/16/2016	2.8	
9/28/2016		
9/29/2016	<1	
11/16/2016	3	
1/16/2017		
1/17/2017		
1/18/2017	4.1	
1/19/2017		
3/2/2017	4.6	
4/18/2017		
4/19/2017		
4/25/2017	4.4	
7/13/2017	4.8	
10/10/2017	4.9	
6/12/2018	4.1	
6/13/2018		
10/9/2018		
10/10/2018	2.5	
1/29/2019		7.08
3/25/2019		1.8 (J)
3/26/2019	2.9 (J)	
9/10/2019	2.5	0.6 (J)
3/9/2020		
3/10/2020	7.8	2.4
9/16/2020	4.4	1
9/17/2020		
3/23/2021		1.7
3/24/2021	7.1	
8/23/2021		
8/24/2021		3.3
8/25/2021	6.6	
2/22/2022	4.8	2.1
2/23/2022		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWC-7	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	78	281	287	272	129				
5/6/2016						380	282	661	
6/20/2016	80				156				188
6/21/2016		303	297	356		392	516	692	
8/15/2016	58	310	230	330	160				180
8/16/2016						360	360	650	
9/28/2016	29	170	130	180	91		190		100
9/29/2016						380		640	
11/16/2016	140	340	290	330	250	420	410	680	270
1/16/2017	36								
1/17/2017		310	240	310	140	380			170
1/18/2017								630	
1/19/2017							400		
3/2/2017	78	330	270	340	170	410	360	660	210
4/18/2017	16	290	310	300	140	360	360		160
4/19/2017								600	
4/25/2017									
7/13/2017									150
10/10/2017	78	310	450	340	190	400	480	600	210
6/12/2018	62				180				150
6/13/2018		230	600	320		320	390	570	
10/9/2018	68				170				150
10/10/2018		300	410	270		300	260	470	
1/29/2019									
3/25/2019	54				150				210
3/26/2019		290	630	320		370	370	530	
9/10/2019	14	260	660	260	110	360	360	470	160
3/9/2020	56								190
3/10/2020		300	600	370	170	390	450	540	
9/16/2020	44	300			150			530	150
9/17/2020			740	320		410	460		
3/23/2021	53	300							220
3/24/2021			530	330	150	430	380	490	
8/23/2021	55								200
8/24/2021		300			160	450		510	
8/25/2021			720	390			470		
2/22/2022	38	300			150		420		210
2/23/2022			630	390		450		490	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/23/2022 4:35 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	177	
8/15/2016		
8/16/2016	160	
9/28/2016		
9/29/2016	190	
11/16/2016	240	
1/16/2017		
1/17/2017		
1/18/2017	180	
1/19/2017		
3/2/2017	170	
4/18/2017		
4/19/2017		
4/25/2017	170	
7/13/2017	150	
10/10/2017	160	
6/12/2018	170	
6/13/2018		
10/9/2018		
10/10/2018	48	
1/29/2019		280
3/25/2019		250
3/26/2019	180	
9/10/2019	140	230
3/9/2020		
3/10/2020	170	260
9/16/2020	190	320
9/17/2020		
3/23/2021		270
3/24/2021	190	
8/23/2021		
8/24/2021		280
8/25/2021	230	
2/22/2022	190	270
2/23/2022		

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02061	-104	-68	Yes	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-2	-0.2895	-101	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-7	0.06861	109	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-8	0.7274	78	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.4171	-75	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.185	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.199	-129	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.3857	-22	-21	Yes	8	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-2	-1.886	-127	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-7	-0.6906	-116	-68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWC-7	-0.04682	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.304	-90	-68	Yes	18	27.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.6861	-91	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.372	-119	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-2	-27.24	-126	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-3	7.58	117	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-8	59.07	102	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-2	-36.03	-109	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-8	89.13	101	68	Yes	18	0	n/a	n/a	0.01	NP

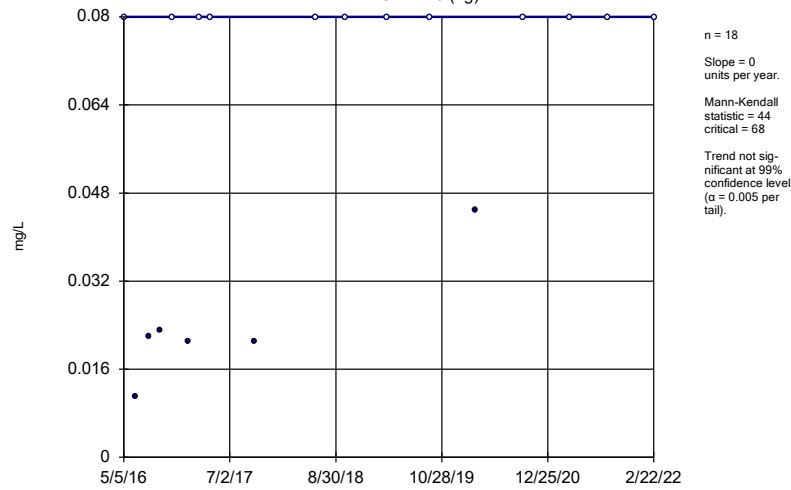
Appendix III Trend Tests - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	44	68	No	18	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-11 (bg)	0	20	68	No	18	61.11	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-5 (bg)	0	29	68	No	18	88.89	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-6 (bg)	-0.02061	-104	-68	Yes	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-6A (bg)	0	2	21	No	8	75	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-1	0.1685	65	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-2	-0.2895	-101	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-3	0	8	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-7	0.06861	109	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-8	0.7274	78	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.4171	-75	-68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-11 (bg)	0	-3	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-5 (bg)	-0.1736	-22	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6 (bg)	0	13	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6A (bg)	-0.643	-1	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWC-3	2.173	50	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-10 (bg)	0	1	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-11 (bg)	-0.02392	-9	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.185	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.199	-129	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.3857	-22	-21	Yes	8	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-1	0	-21	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-2	-1.886	-127	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-3	0.185	64	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-7	-0.6906	-116	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-8	0.2771	65	68	No	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-10 (bg)	0	-47	-74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-11 (bg)	0.003202	20	74	No	19	10.53	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-5 (bg)	-0.003692	-38	-74	No	19	21.05	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-6 (bg)	-0.002711	-32	-74	No	19	31.58	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWA-6A (bg)	0.01291	9	21	No	8	25	n/a	n/a	0.01	NP
Fluoride (mg/L)	MGWC-7	-0.04682	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.304	-90	-68	Yes	18	27.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-11 (bg)	0.2448	58	68	No	18	33.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.6861	-91	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.372	-119	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6A (bg)	0.02637	0	21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-1	3.959	39	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-2	-27.24	-126	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-3	7.58	117	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-7	3.104	56	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-8	59.07	102	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-10 (bg)	-5.208	-50	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-11 (bg)	0.5376	14	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-5 (bg)	0	4	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6 (bg)	0	-12	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6A (bg)	8.255	6	21	No	8	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-1	12.37	35	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-2	-36.03	-109	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-3	8.026	39	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-7	10.03	35	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-8	89.13	101	68	Yes	18	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

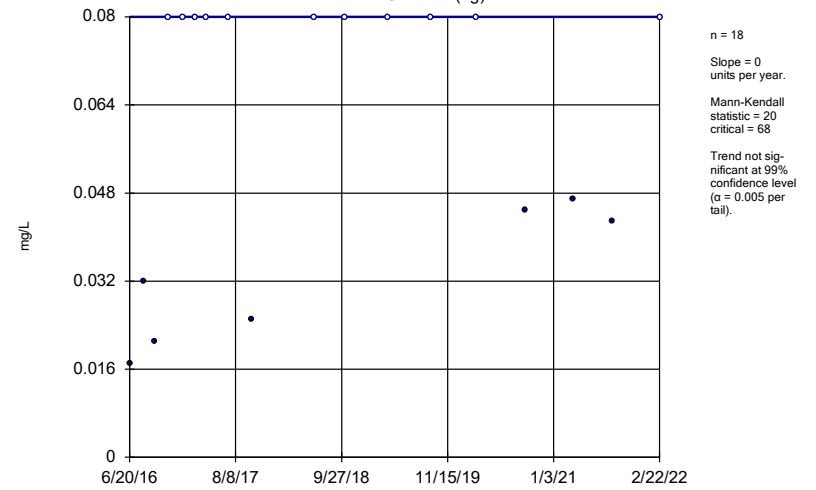
MGWA-10 (bg)



Constituent: Boron Analysis Run 5/23/2022 4:36 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

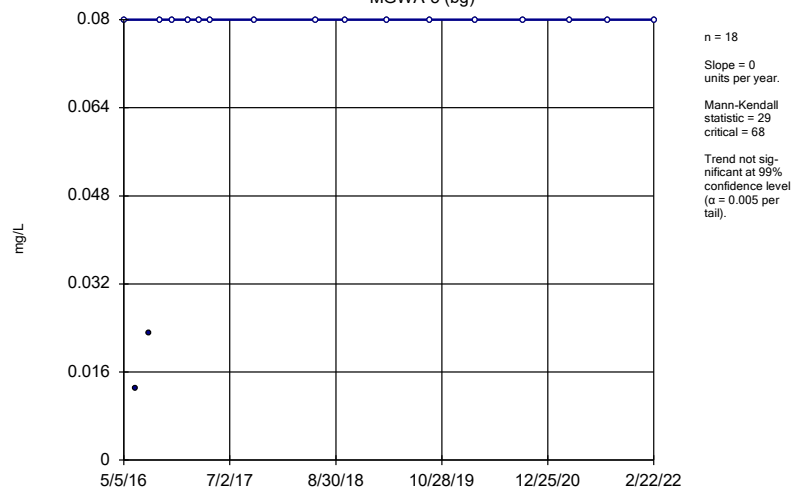
MGWA-11 (bg)



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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

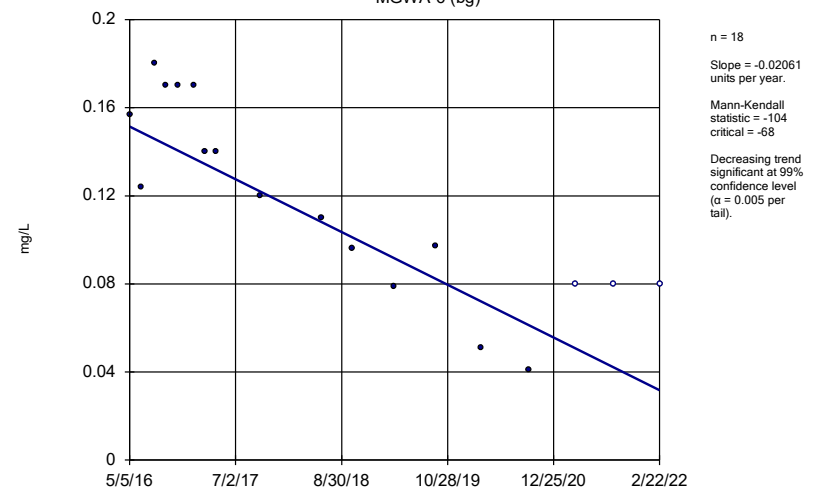
MGWA-5 (bg)



Constituent: Boron Analysis Run 5/23/2022 4:36 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

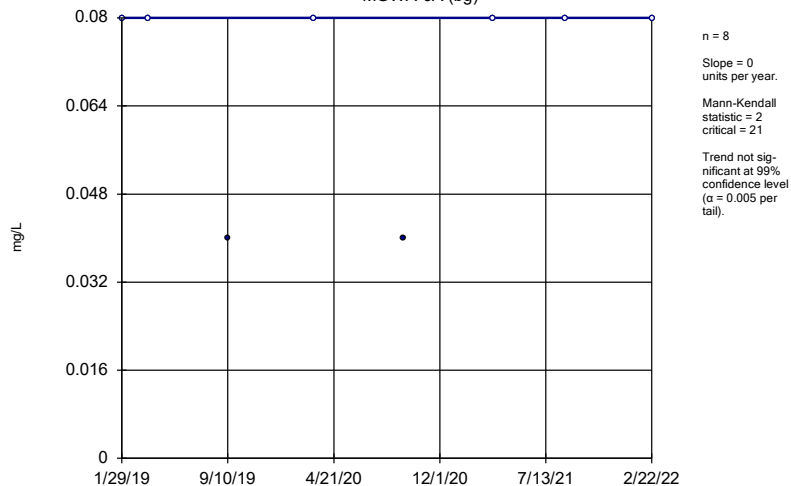
MGWA-6 (bg)



Constituent: Boron Analysis Run 5/23/2022 4:36 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

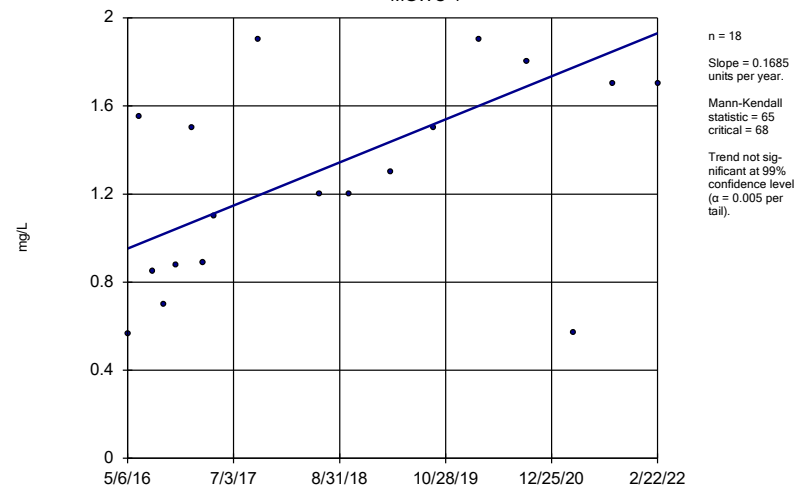
MGWA-6A (bg)



Constituent: Boron Analysis Run 5/23/2022 4:36 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

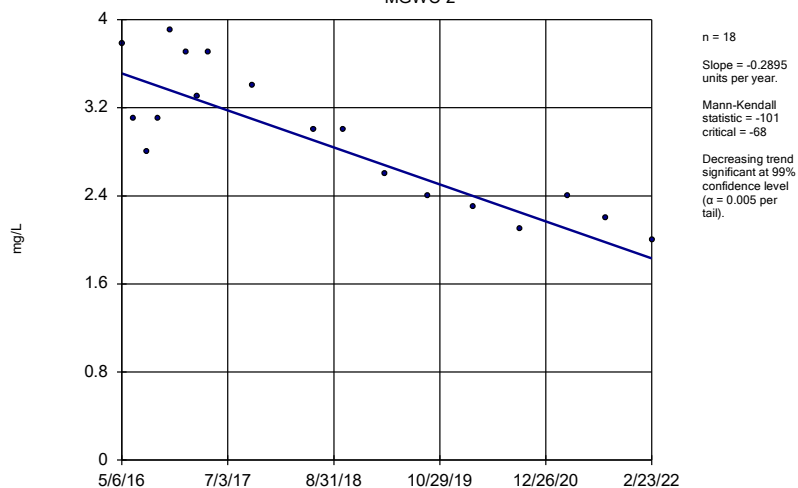
MGWC-1



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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

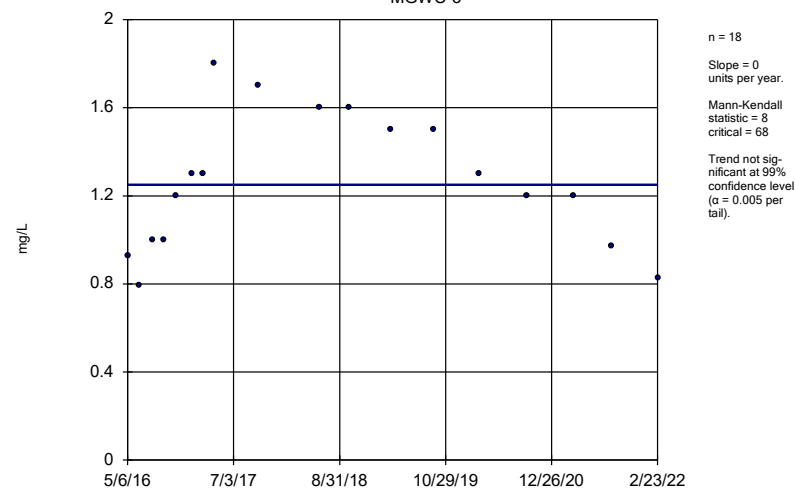
MGWC-2



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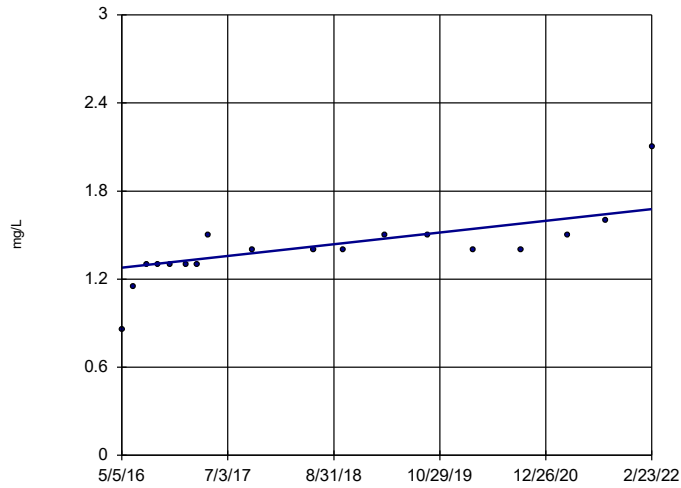
Sen's Slope Estimator

MGWC-3



Constituent: Boron Analysis Run 5/23/2022 4:36 PM View: Appendix III - Trend Tests
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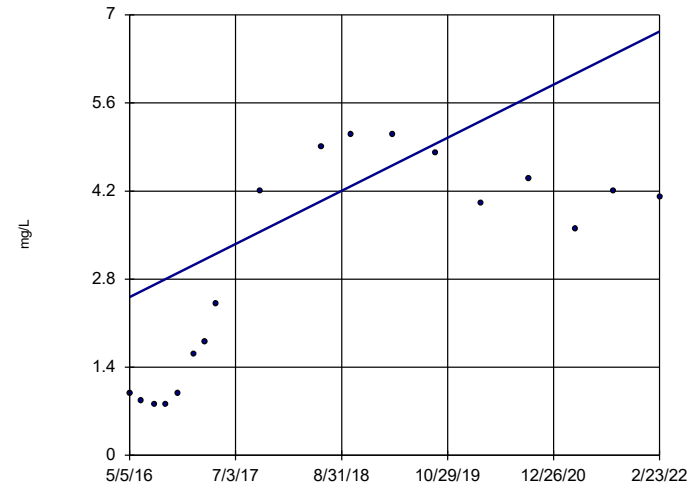
Sen's Slope Estimator
MGWC-7



n = 18
Slope = 0.06861 units per year.
Mann-Kendall statistic = 109
critical = 68
Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Boron Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

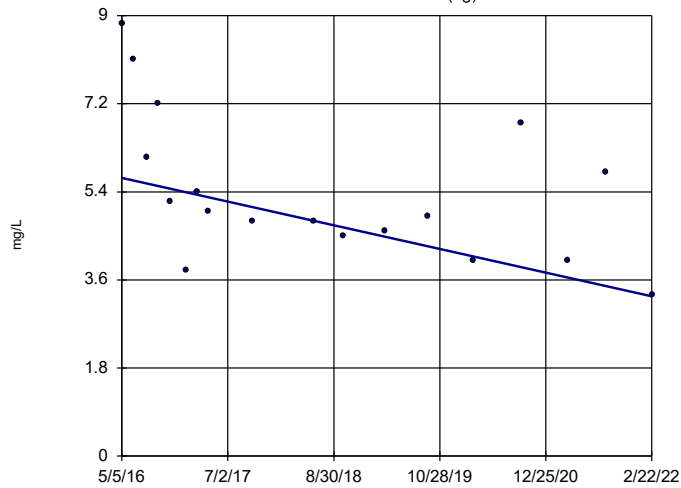
Sen's Slope Estimator
MGWC-8



n = 18
Slope = 0.7274 units per year.
Mann-Kendall statistic = 78
critical = 68
Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Boron Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

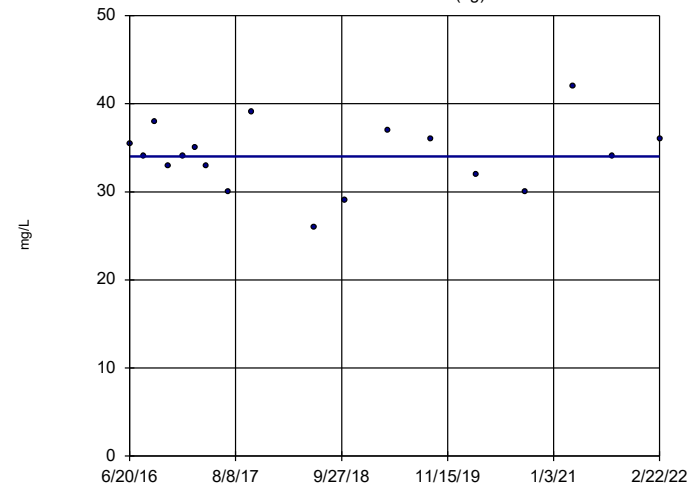
Sen's Slope Estimator
MGWA-10 (bg)



n = 18
Slope = -0.4171 units per year.
Mann-Kendall statistic = -75
critical = -68
Decreasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Calcium Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-11 (bg)

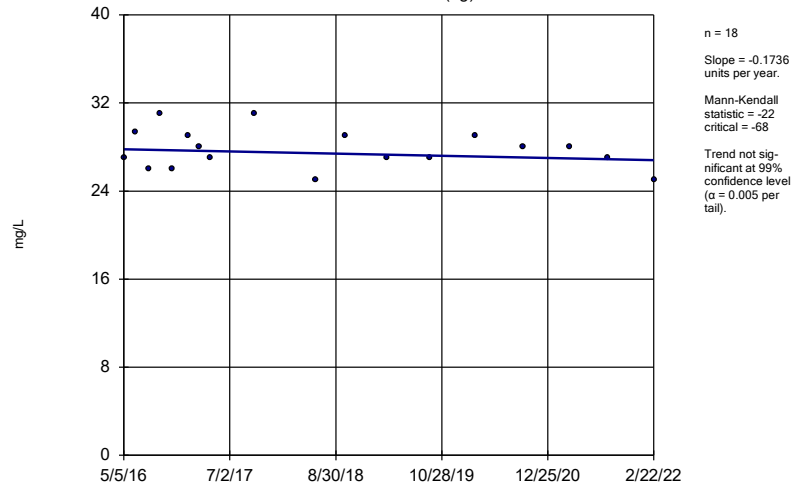


n = 18
Slope = 0 units per year.
Mann-Kendall statistic = -3
critical = -68
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Calcium Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

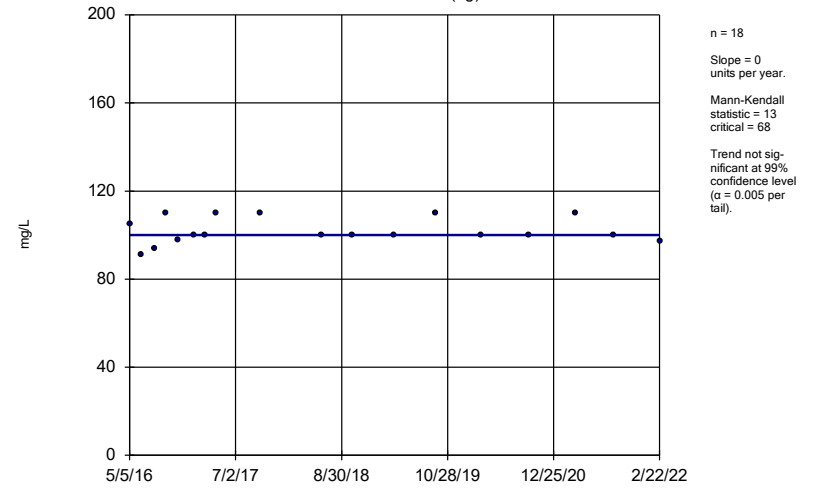
MGWA-5 (bg)



Constituent: Calcium Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

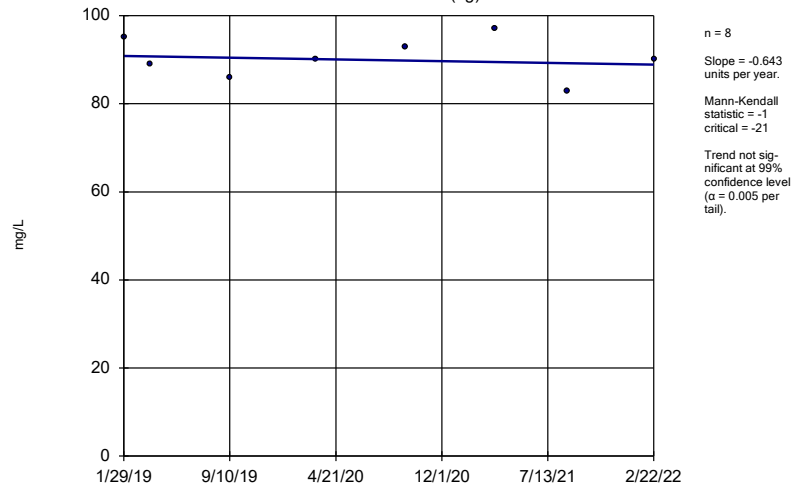
MGWA-6 (bg)



Constituent: Calcium Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

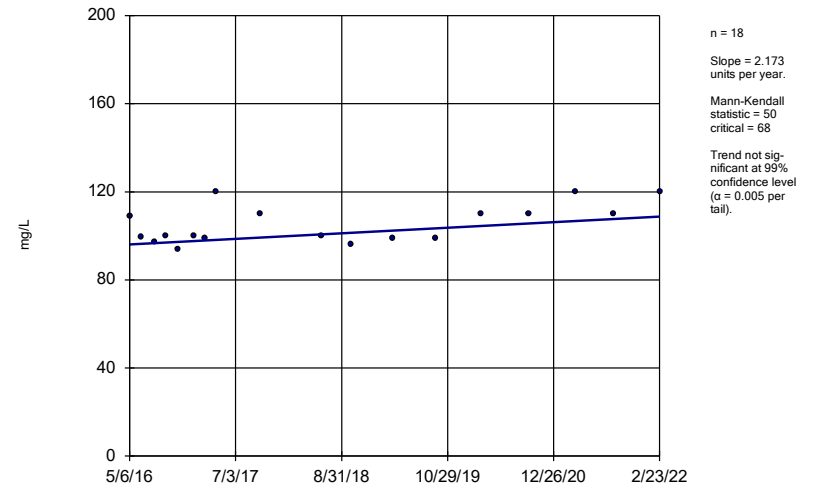
MGWA-6A (bg)



Constituent: Calcium Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

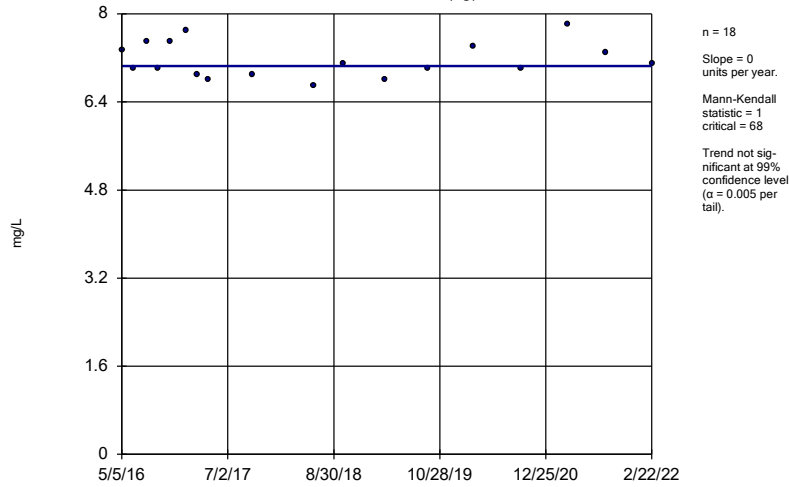
MGWC-3



Constituent: Calcium Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

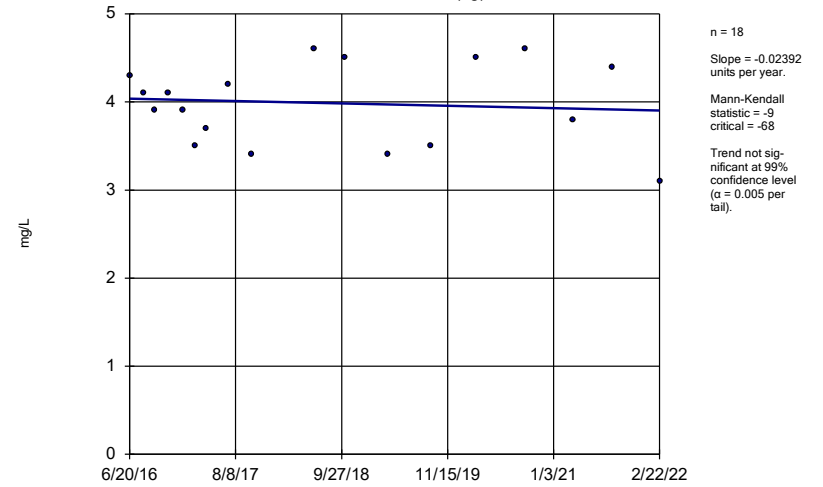
MGWA-10 (bg)



Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

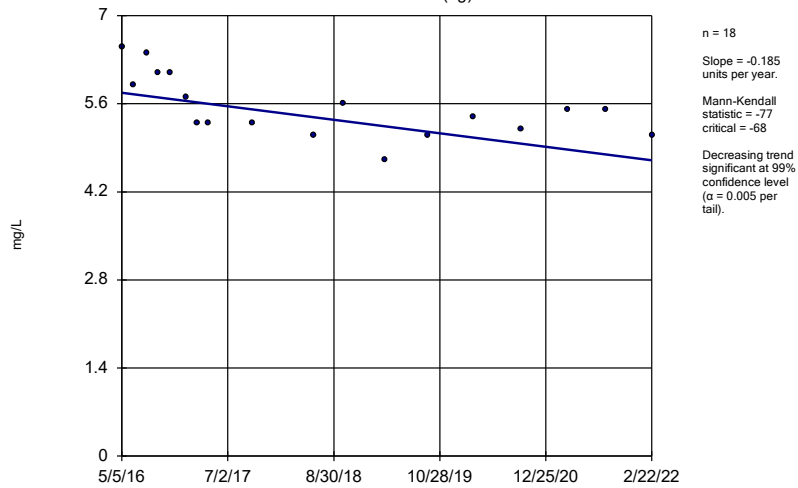
MGWA-11 (bg)



Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

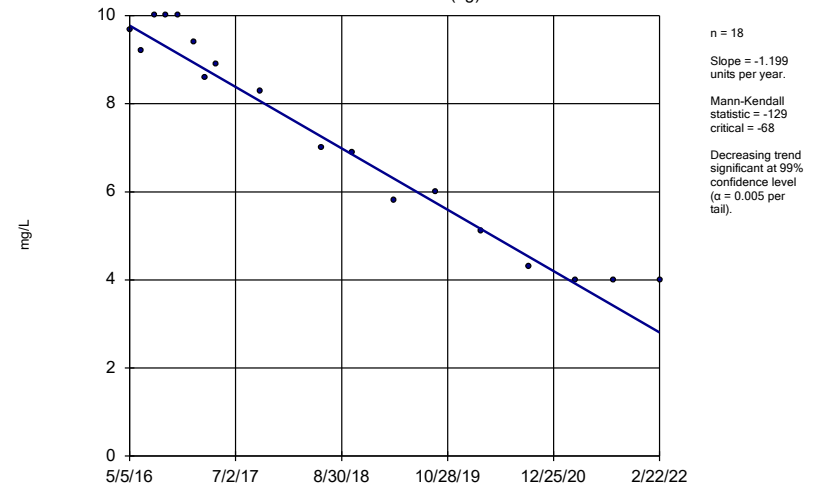
MGWA-5 (bg)



Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

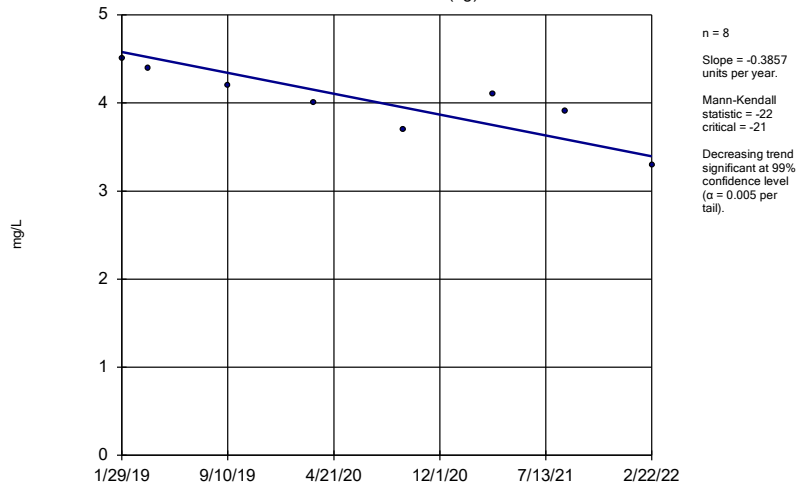
Sen's Slope Estimator

MGWA-6 (bg)



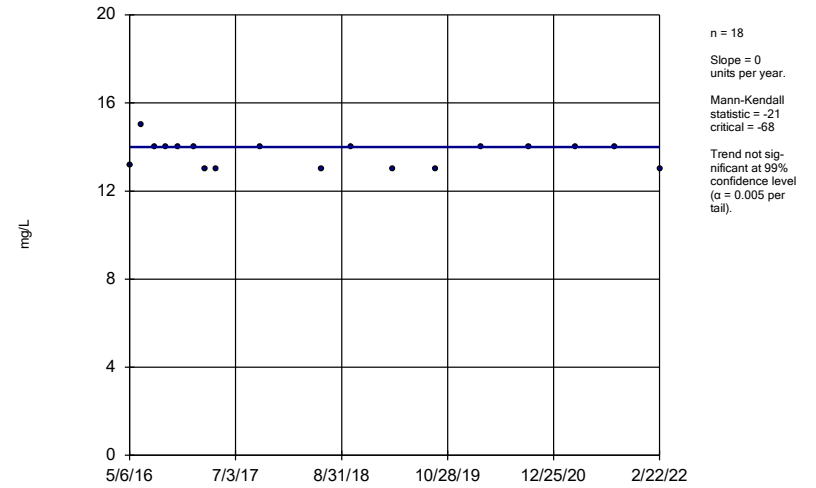
Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)



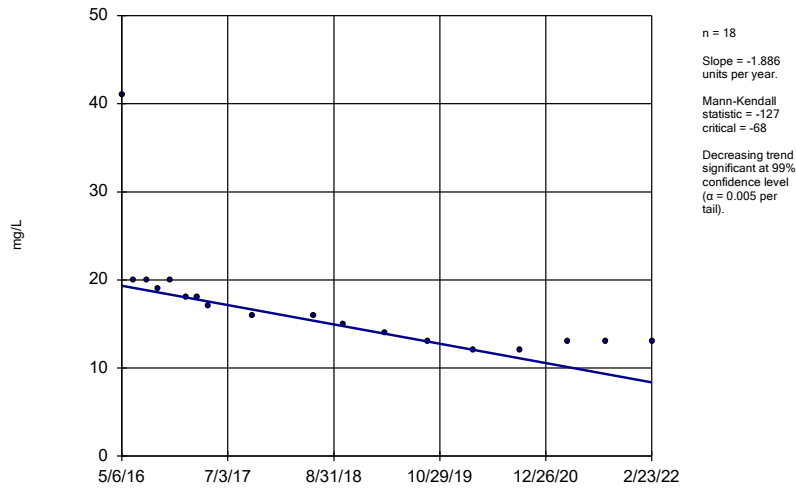
Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-1



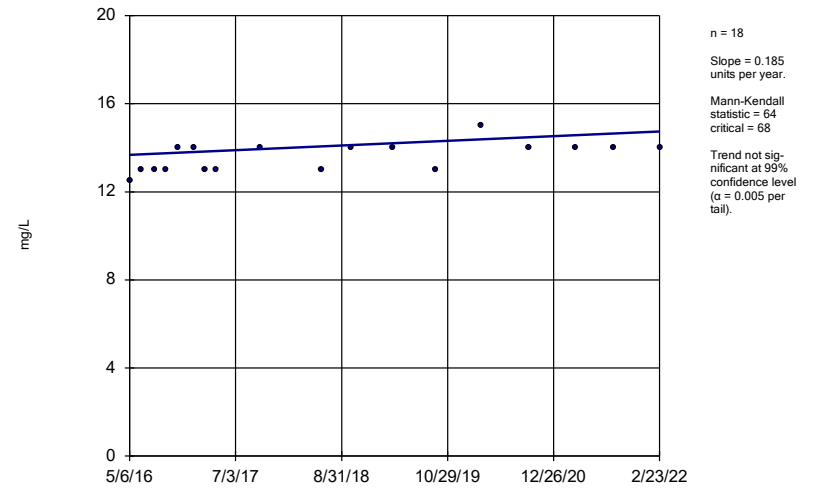
Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-2



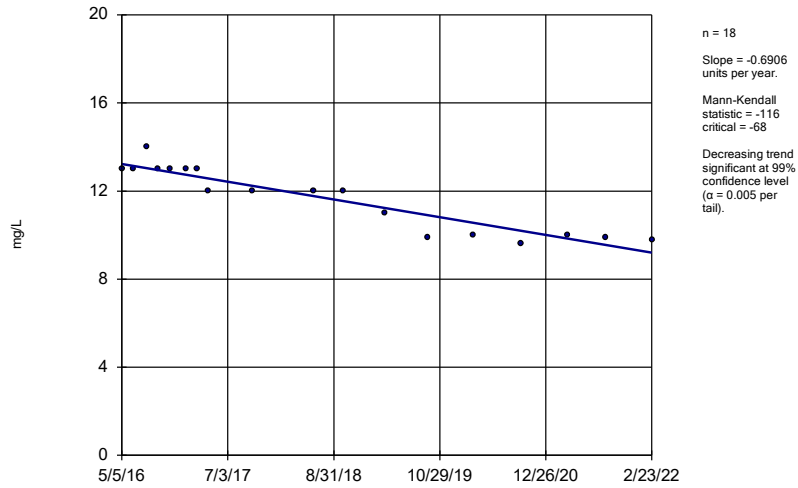
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-3



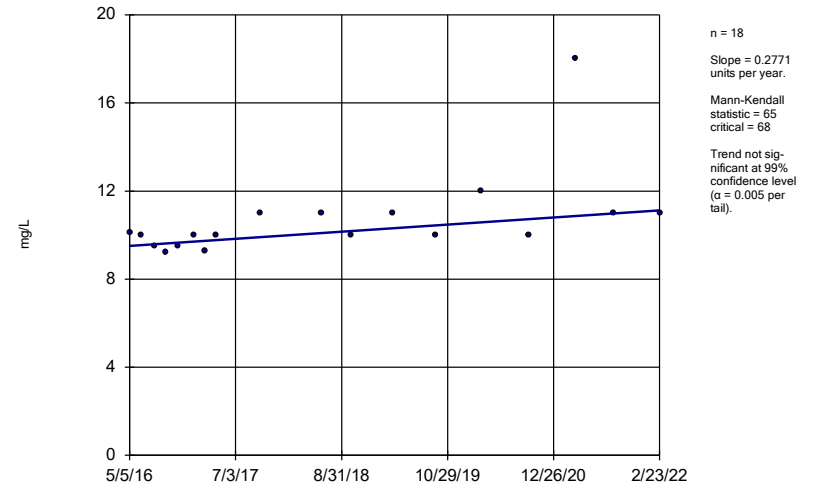
Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-7



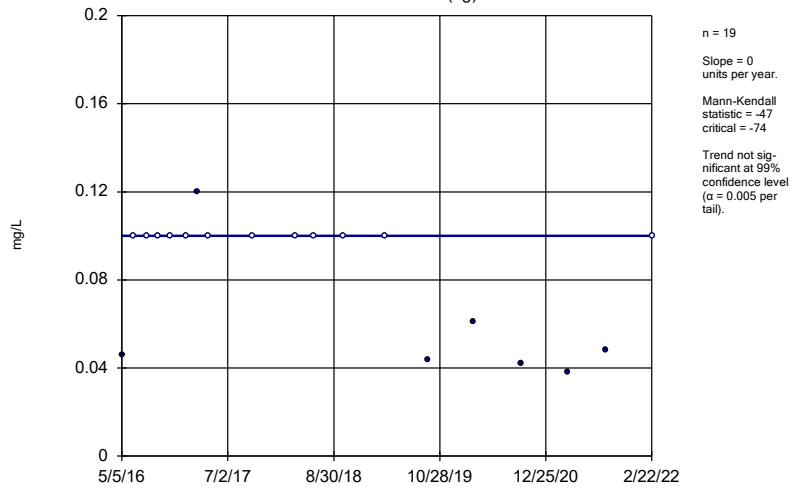
Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-8



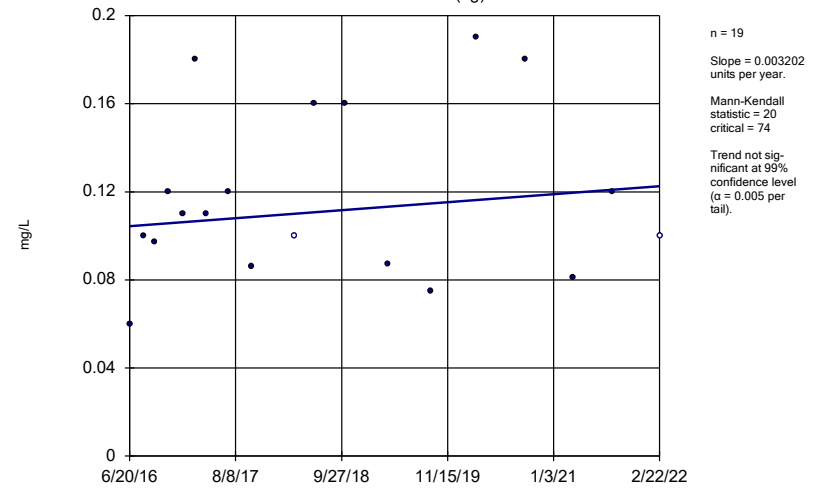
Constituent: Chloride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-10 (bg)



Constituent: Fluoride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

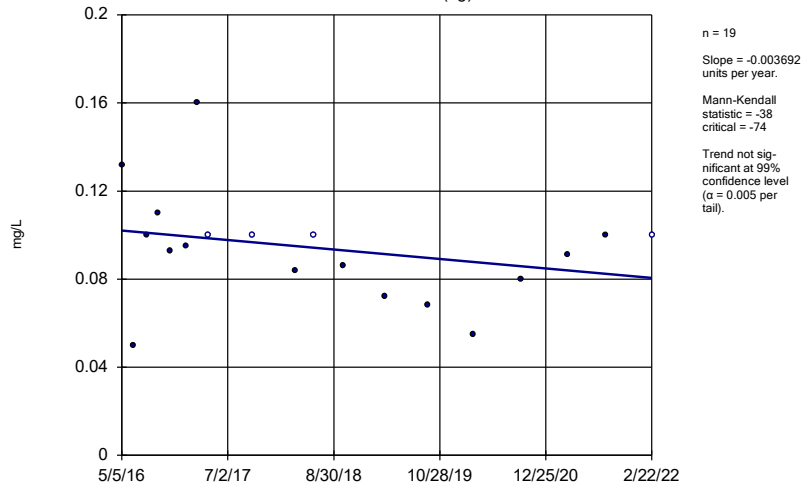
Sen's Slope Estimator
MGWA-11 (bg)



Constituent: Fluoride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

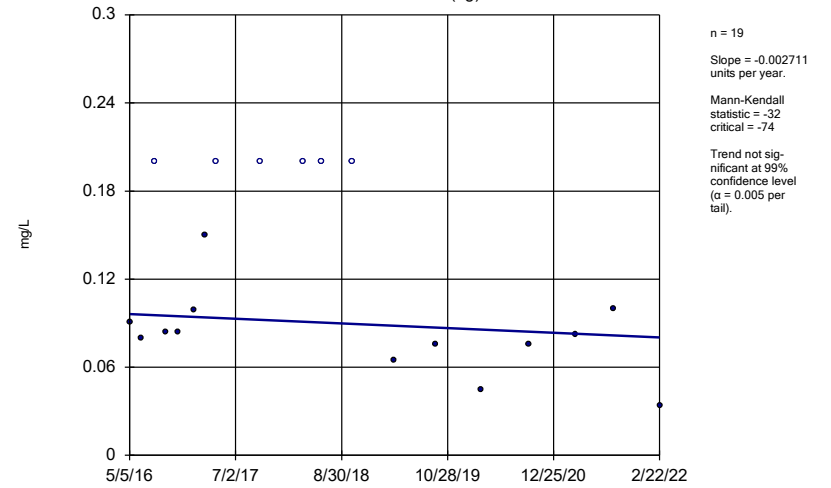
MGWA-5 (bg)



Constituent: Fluoride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

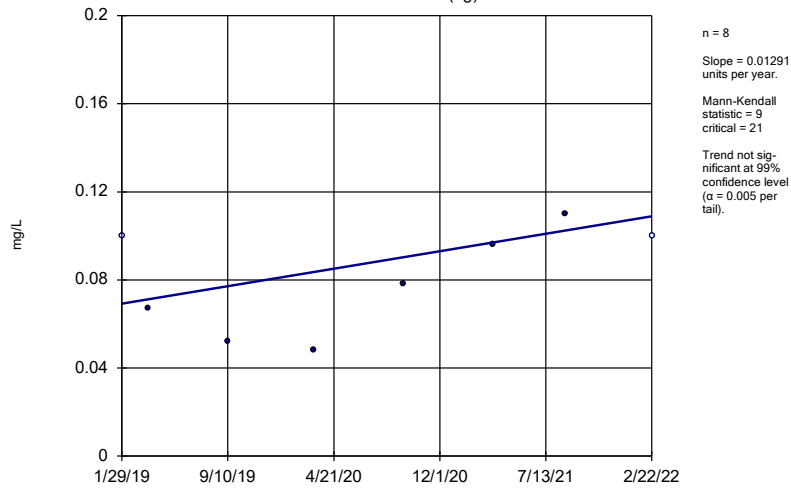
MGWA-6 (bg)



Constituent: Fluoride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

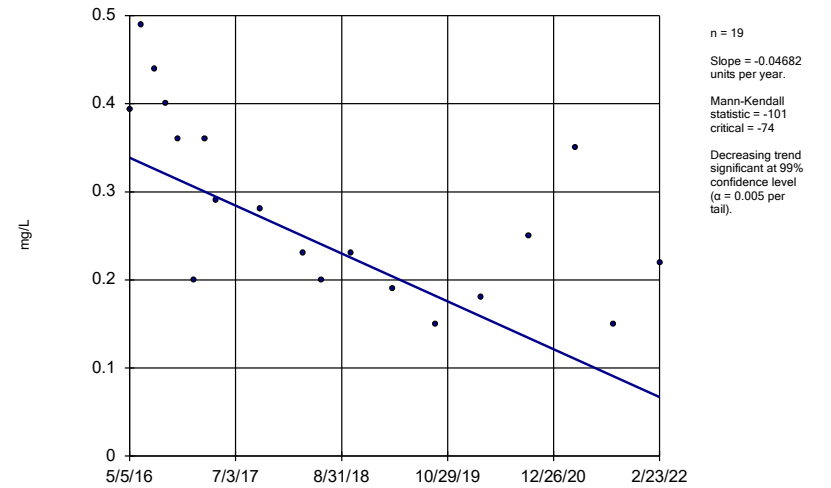
MGWA-6A (bg)



Constituent: Fluoride Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

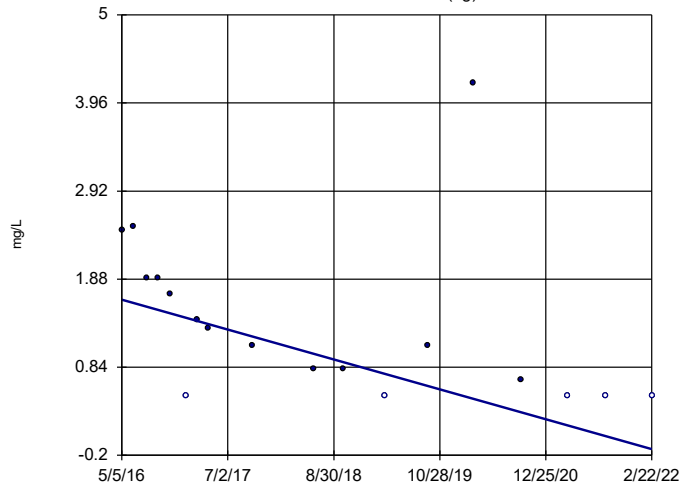
Sen's Slope Estimator

MGWC-7



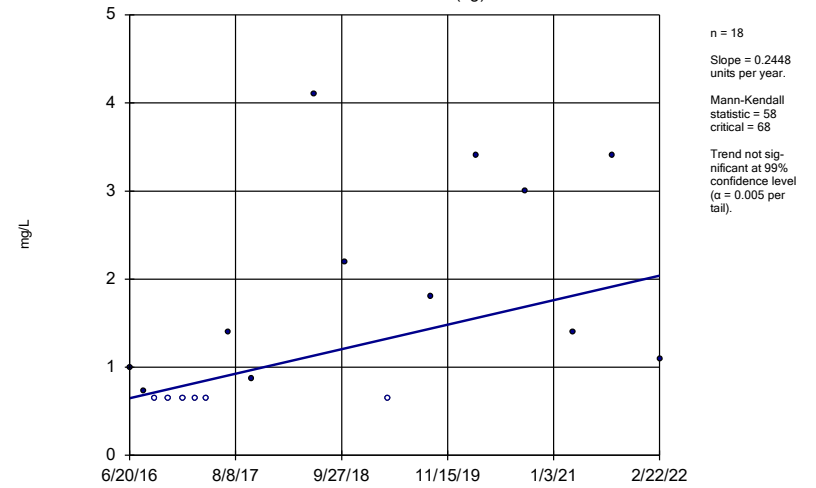
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-10 (bg)



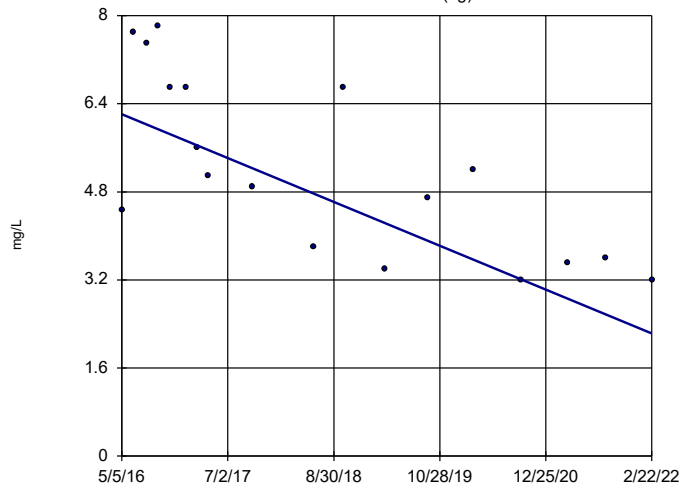
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-11 (bg)



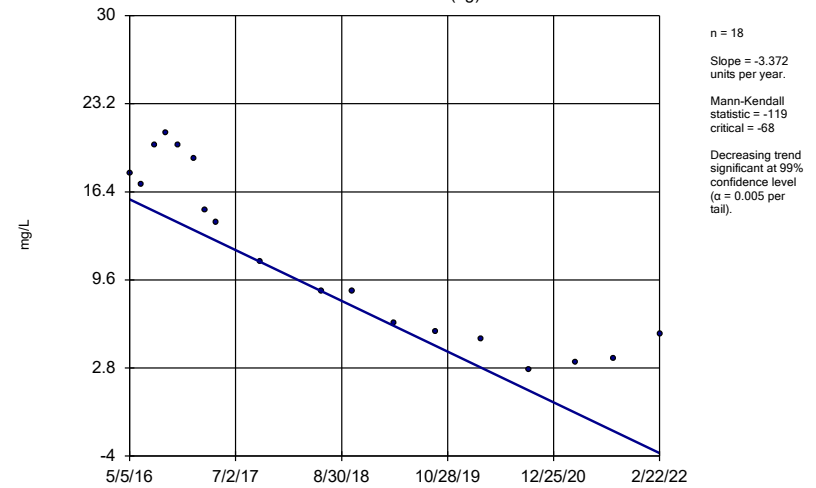
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-5 (bg)



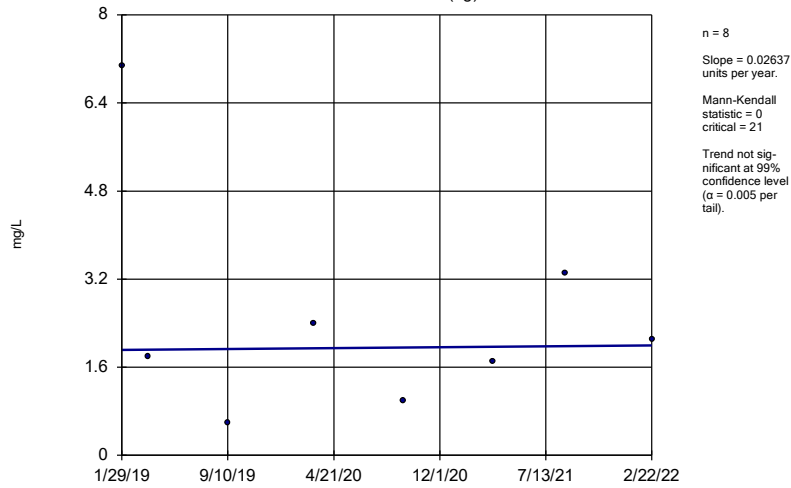
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-6 (bg)



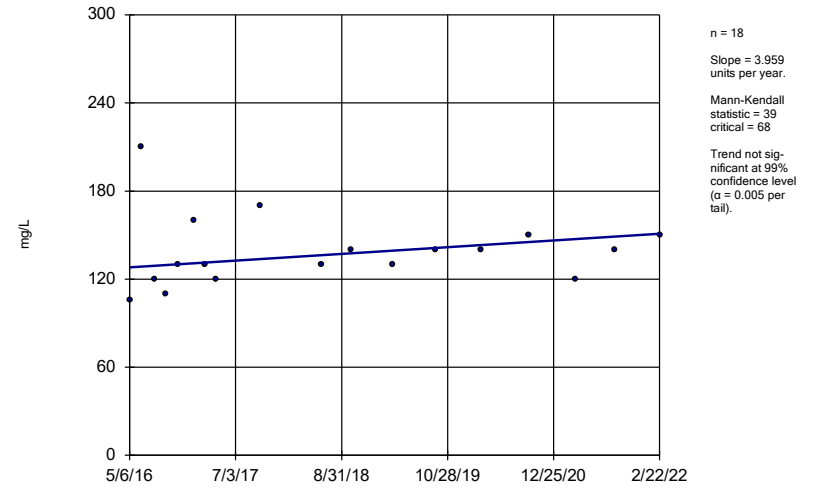
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-6A (bg)



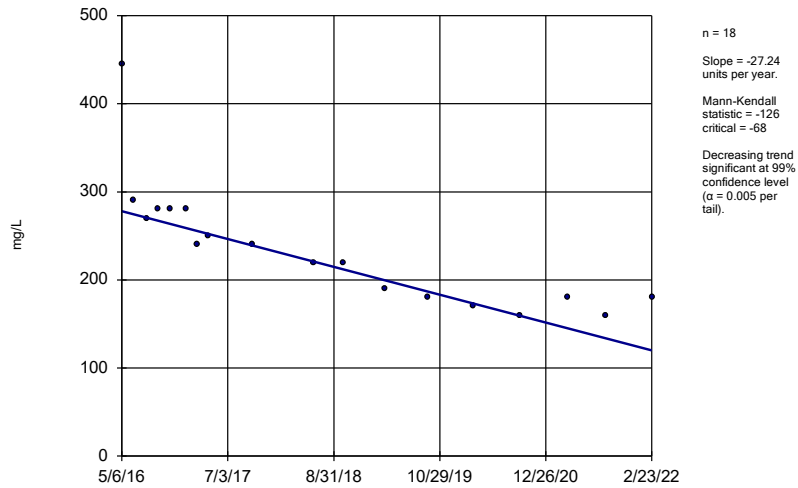
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-1



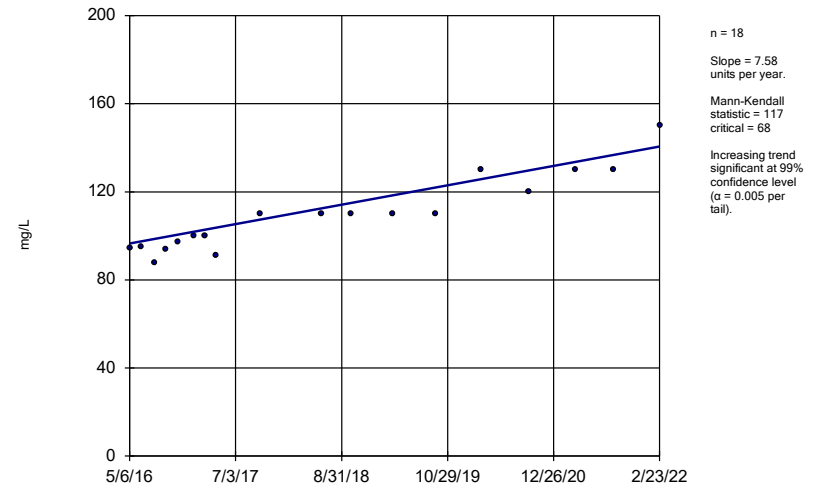
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-2



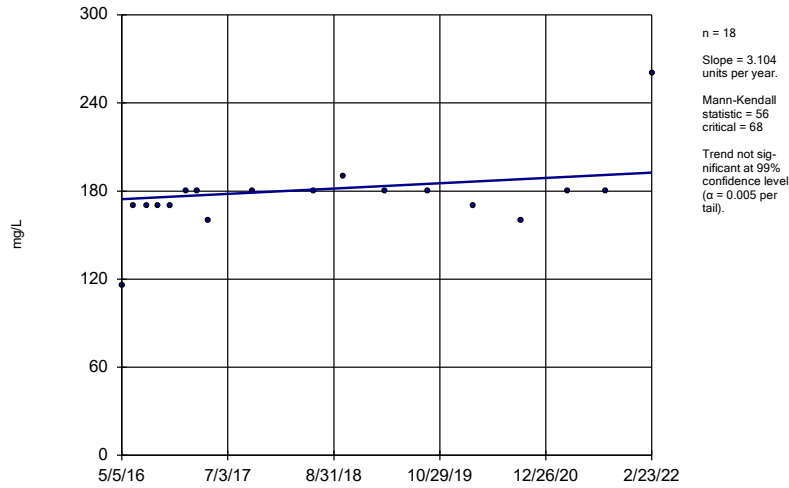
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-3



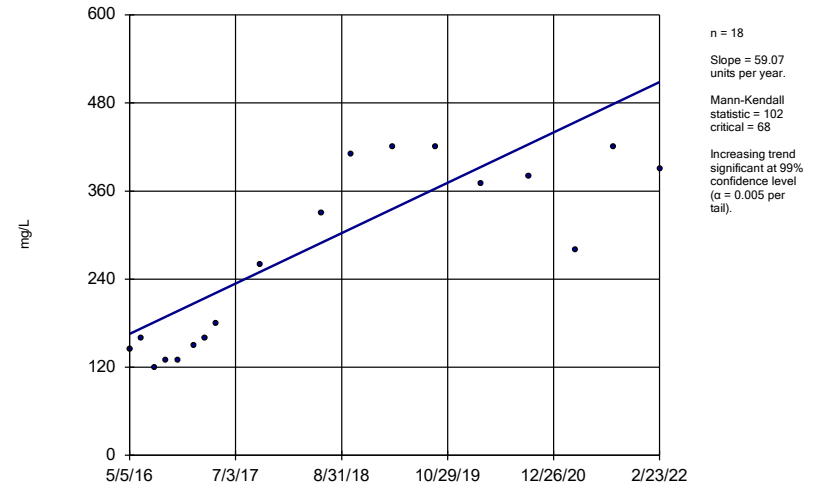
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-7



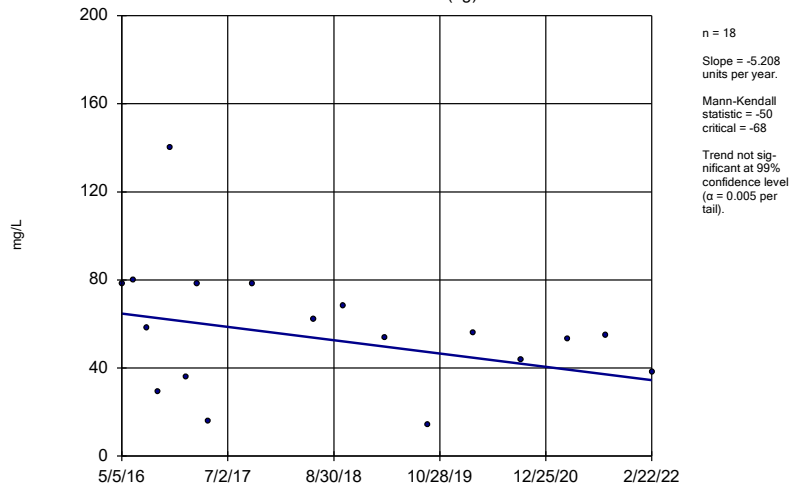
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-8



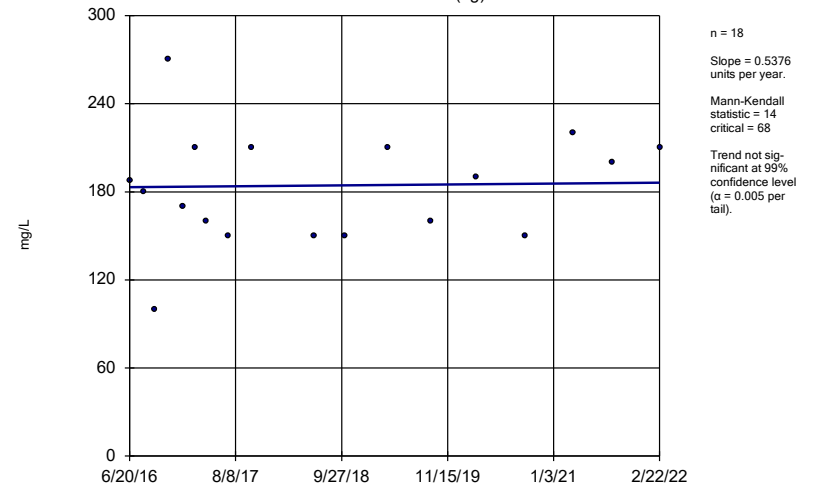
Constituent: Sulfate Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-10 (bg)



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

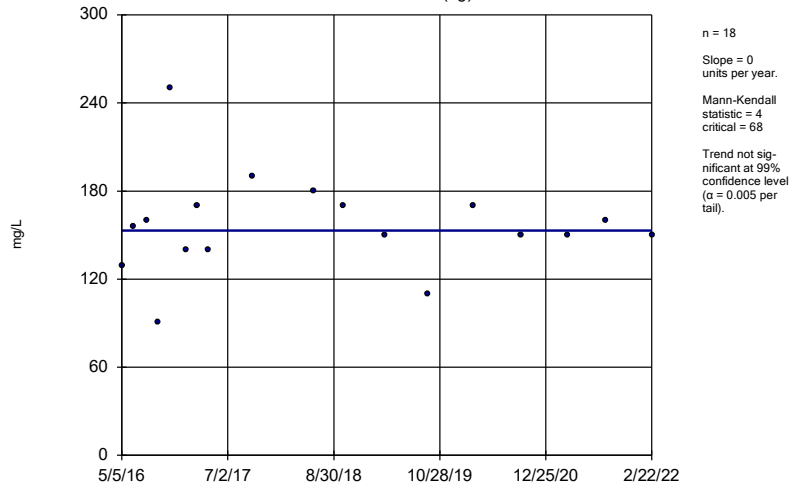
Sen's Slope Estimator
MGWA-11 (bg)



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

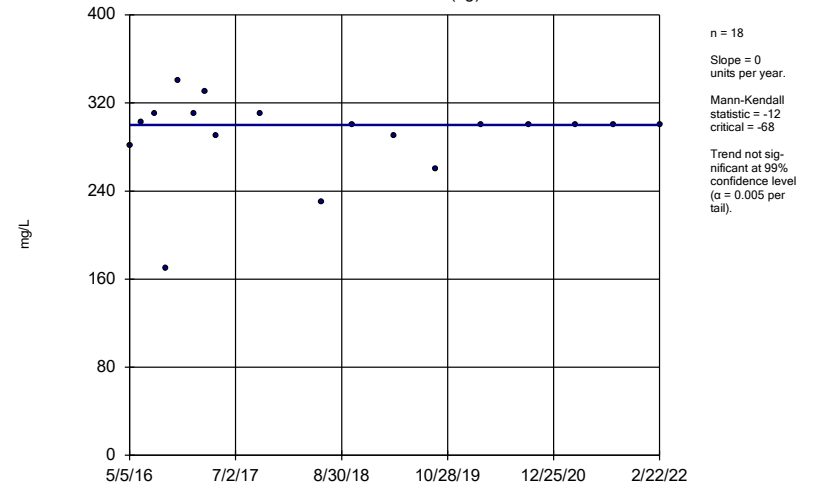
MGWA-5 (bg)



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

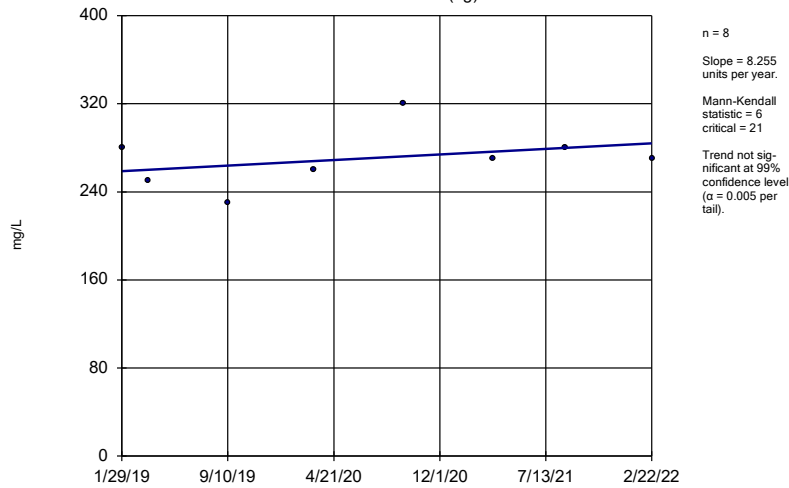
MGWA-6 (bg)



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

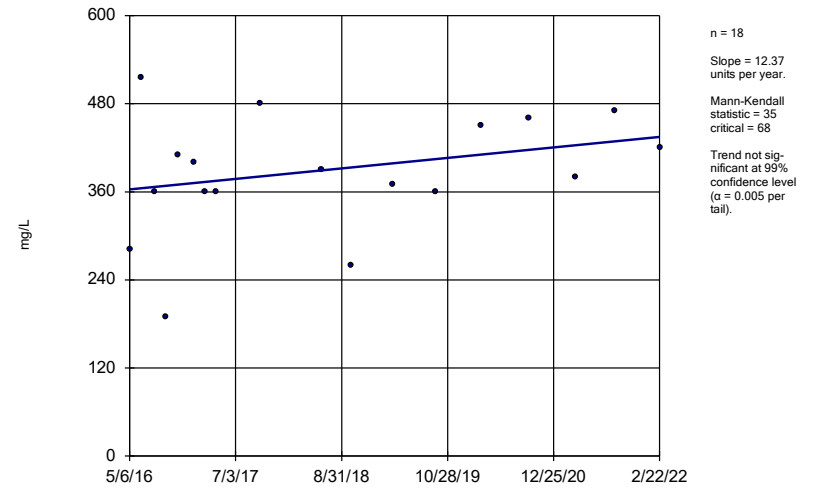
MGWA-6A (bg)



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

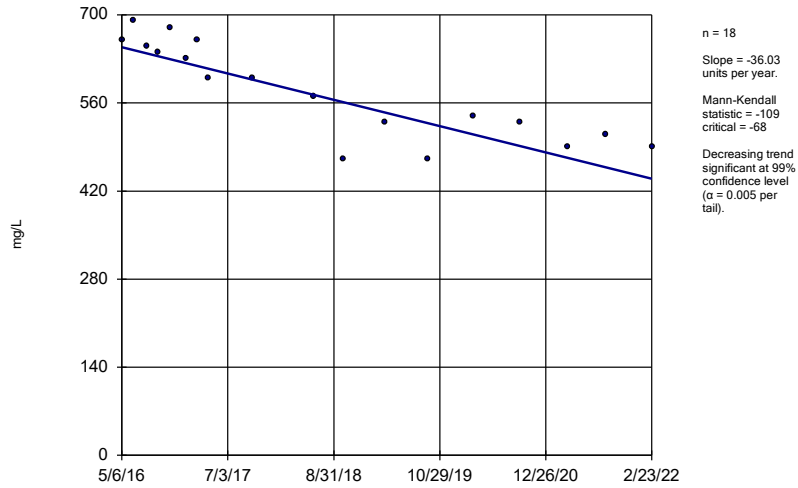
Sen's Slope Estimator

MGWC-1



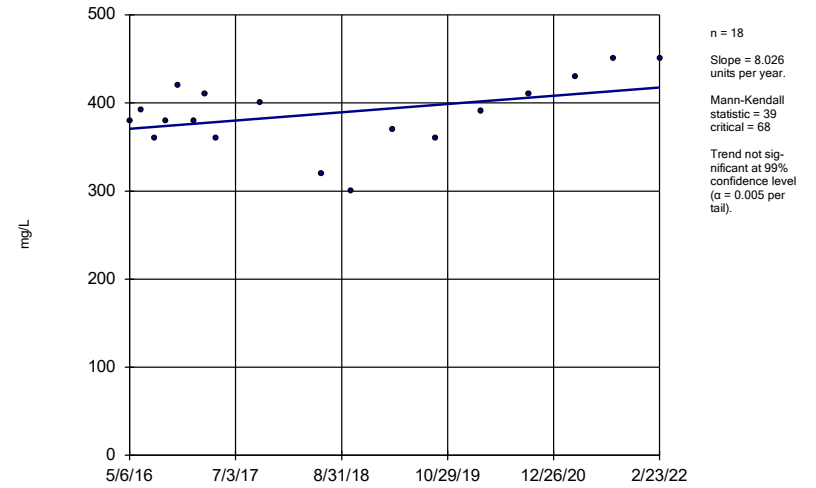
Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-2



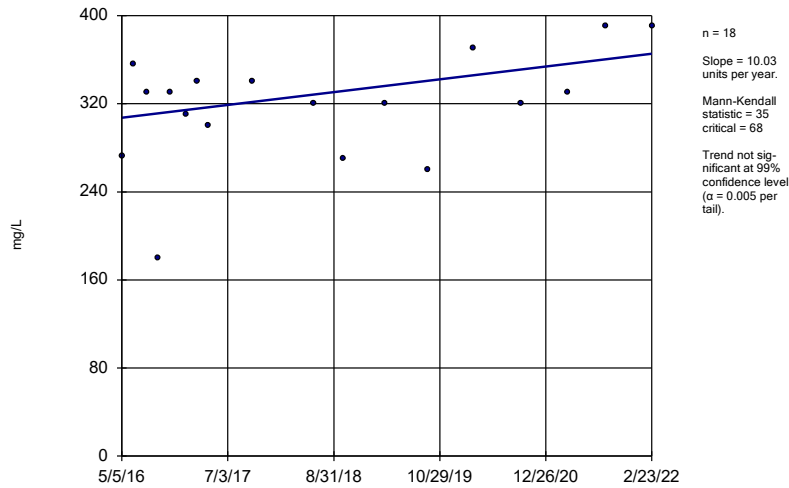
Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-3



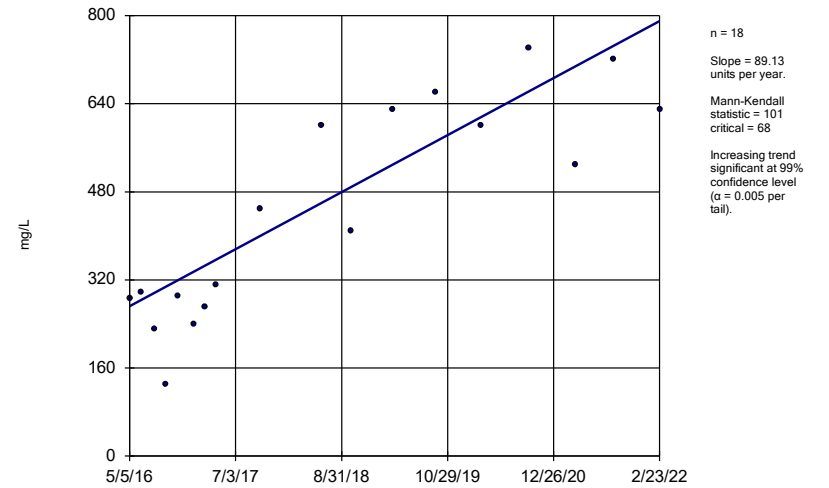
Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-7



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-8



Constituent: TDS Analysis Run 5/23/2022 4:37 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE F.

Upper Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 4:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	71	n/a	n/a	90.14	n/a	n/a	0.0262	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.014	n/a	n/a	n/a	n/a	81	n/a	n/a	35.8	n/a	n/a	0.01569	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a	89	n/a	n/a	0	n/a	n/a	0.01041	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	79	n/a	n/a	93.67	n/a	n/a	0.01738	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	89	n/a	n/a	98.88	n/a	n/a	0.01041	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	n/a	79	n/a	n/a	70.89	n/a	n/a	0.01738	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	89	n/a	n/a	74.16	n/a	n/a	0.01041	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.141	n/a	n/a	n/a	n/a	90	0.5681	0.2949	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	84	n/a	n/a	30.95	n/a	n/a	0.01345	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	71	n/a	n/a	92.96	n/a	n/a	0.0262	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	89	n/a	n/a	29.21	n/a	n/a	0.01041	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	79	n/a	n/a	96.2	n/a	n/a	0.01738	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	n/a	79	n/a	n/a	60.76	n/a	n/a	0.01738	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	59	n/a	n/a	89.83	n/a	n/a	0.04849	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	79	n/a	n/a	81.01	n/a	n/a	0.01738	NP Inter(NDs)

FIGURE G.

PLANT MCINTOSH AP 1 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.014	0.014
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		1.14	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates background is higher than MCL or CCR-Rule*

**GWPS = Groundwater Protection Standard*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

FIGURE H.

Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 6/2/2022, 11:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-7	0.01018	0.007454	0.006	Yes	20	0.008815	0.002397	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.01653	0.007613	0.006	Yes	20	0.01207	0.007847	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.112	0.04	Yes	20	0.1211	0.02015	0	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 6/2/2022, 11:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	16	0.0019	0.0004	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	16	0.001894	0.000425	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	16	0.001998	0.0000075	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002888	0.001978	0.014	No	20	0.002433	0.0008013	0	None	No	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001111	0.0006611	0.014	No	20	0.00098	0.0003666	30	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.014	No	20	0.0009045	0.0002067	80	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001658	0.001369	0.014	No	20	0.001492	0.0003034	5	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008456	0.000518	0.014	No	20	0.0008245	0.0002843	35	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.014	No	20	0.0009025	0.0002008	75	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.11	0.096	2	No	20	0.1072	0.01679	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06567	0.04922	2	No	20	0.05745	0.01448	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-2	0.05445	0.04909	2	No	20	0.05177	0.004721	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1553	0.14	2	No	20	0.1477	0.0134	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.01	2	No	20	0.01295	0.006858	5	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03885	0.03307	2	No	20	0.03607	0.005348	0	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	18	0.002371	0.0005468	94.44	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	18	0.002378	0.0005162	94.44	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001266	0.0006815	0.004	No	18	0.001323	0.0007309	16.67	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	20	0.002165	0.0008213	85	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.00318	0.001313	0.005	No	20	0.002444	0.001915	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	20	0.002386	0.0005076	95	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.001201	0.0005164	0.005	No	20	0.001461	0.00113	30	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	18	0.002089	0.0003771	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	18	0.003567	0.006354	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	18	0.002072	0.0003064	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	18	0.002056	0.0002357	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	18	0.00205	0.0003569	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	18	0.002061	0.0002593	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No	20	0.001681	0.001049	60	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No	20	0.002333	0.0005581	90	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.00333	0.002554	0.006	No	20	0.002942	0.000684	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.006	No	20	0.000881	0.0007174	15	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.01018	0.007454	0.006	Yes	20	0.008815	0.002397	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.01653	0.007613	0.006	Yes	20	0.01207	0.007847	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.665	1.256	5	No	21	1.46	0.3715	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.7283	0.4259	5	No	20	0.5771	0.2662	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.732	0.4444	5	No	20	0.5882	0.2533	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.627	1.335	5	No	21	1.481	0.2642	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.288	0.9211	5	No	20	1.104	0.3229	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	2.018	1.422	5	No	20	1.72	0.524	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2402	0.1449	4	No	19	0.1925	0.0814	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2538	0.1938	4	No	19	0.2238	0.05123	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.1094	0.07245	4	No	19	0.09747	0.03011	36.84	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MGWC-3	0.11	0.082	4	No	19	0.09974	0.03667	31.58	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3423	0.2223	4	No	19	0.2823	0.1025	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.11	0.084	4	No	19	0.09868	0.02762	15.79	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	16	0.0009438	0.000225	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	16	0.0009056	0.0002587	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-8	0.001	0.00022	0.015	No	16	0.0009513	0.000195	93.75	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01246	0.01027	0.04	No	20	0.01137	0.001925	5	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02169	0.01585	0.04	No	20	0.01877	0.00515	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.006782	0.005138	0.04	No	20	0.006094	0.001801	5	None	ln(x)	0.01	Param.
Lithium (mg/L)	MGWC-3	0.01342	0.0113	0.04	No	20	0.01236	0.00186	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.112	0.04	Yes	20	0.1211	0.02015	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.03863	0.02708	0.04	No	20	0.03286	0.01016	0	None	No	0.01	Param.

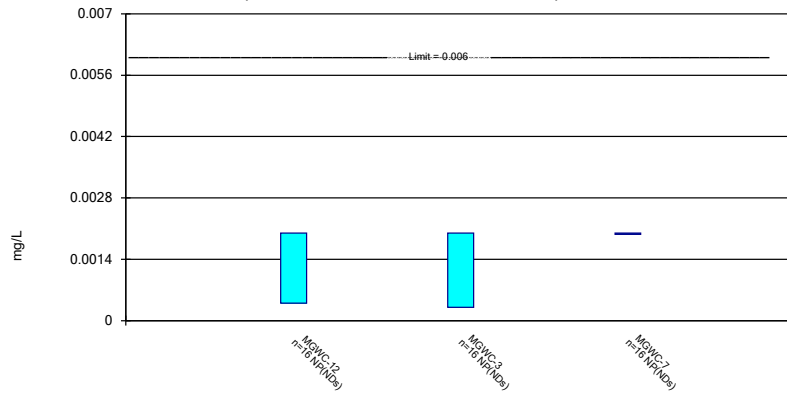
Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 6/2/2022, 11:56 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	18	0.0001867	0.00003886	88.89	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	18	0.0001877	0.00003609	88.89	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	18	0.0001928	0.00003064	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	18	0.0001933	0.00002828	94.44	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00014	0.002	No	19	0.0004135	0.0009031	42.11	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.0029	0.0012	0.1	No	18	0.004547	0.00577	22.22	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No	18	0.01126	0.006218	72.22	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	18	0.01436	0.002708	94.44	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	18	0.01437	0.002663	94.44	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-1	0.005	0.0005	0.05	No	14	0.004679	0.001203	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-12	0.005	0.00027	0.05	No	14	0.004662	0.001264	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-2	0.005	0.00045	0.05	No	14	0.004675	0.001216	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-3	0.005	0.00044	0.05	No	14	0.004674	0.001219	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-7	0.005	0.00026	0.05	No	14	0.004661	0.001267	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-8	0.005	0.00038	0.05	No	14	0.003813	0.002011	71.43	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00016	0.002	No	18	0.0007669	0.0003893	72.22	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	18	0.0009122	0.0002563	88.89	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	18	0.0009561	0.0001862	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	18	0.0009183	0.0002404	88.89	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002481	0.000136	0.002	No	18	0.0003994	0.000342	22.22	Kaplan-Meier	ln(x)	0.01	Param.

Non-Parametric Confidence Interval

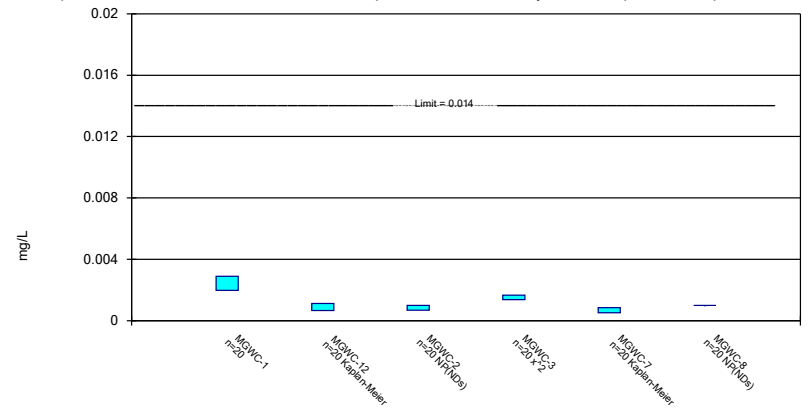
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

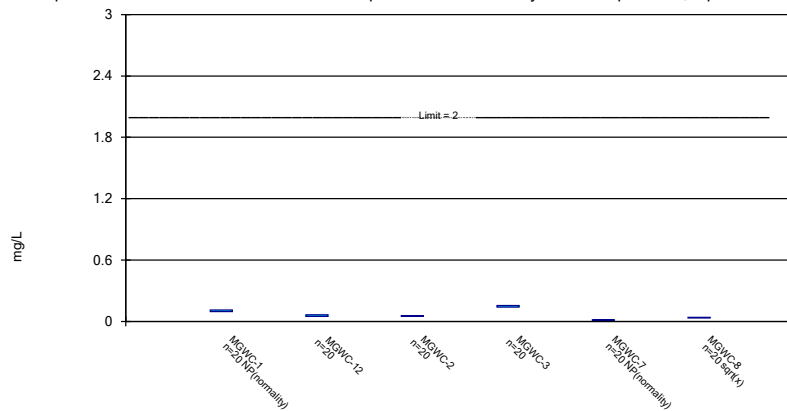
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

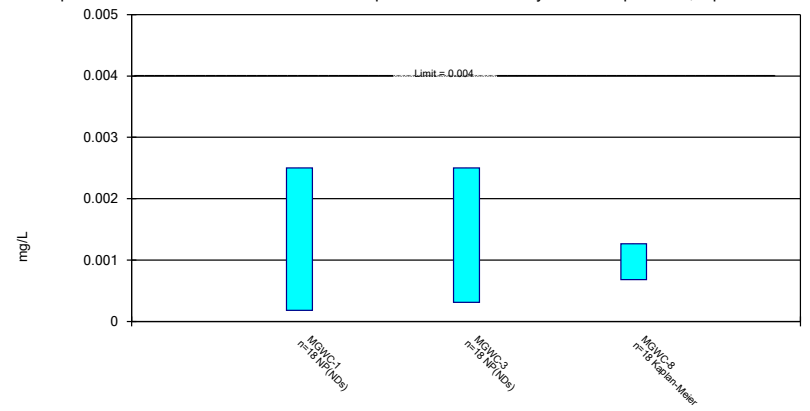
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

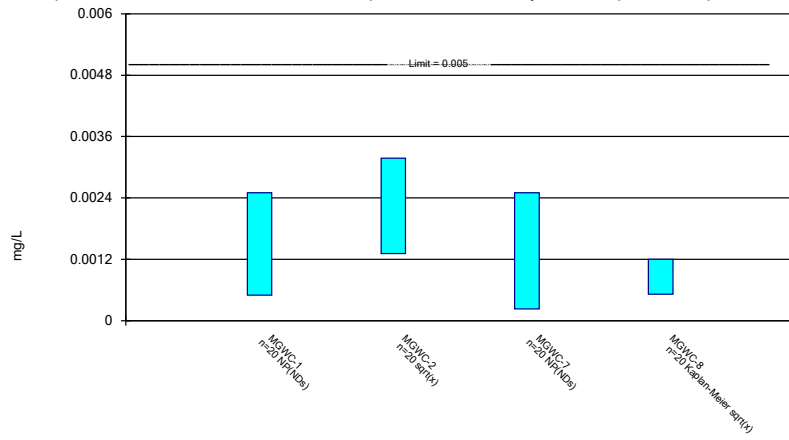
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

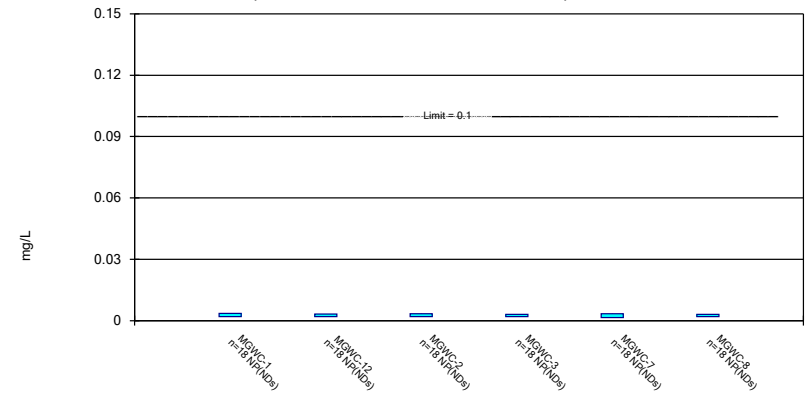
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

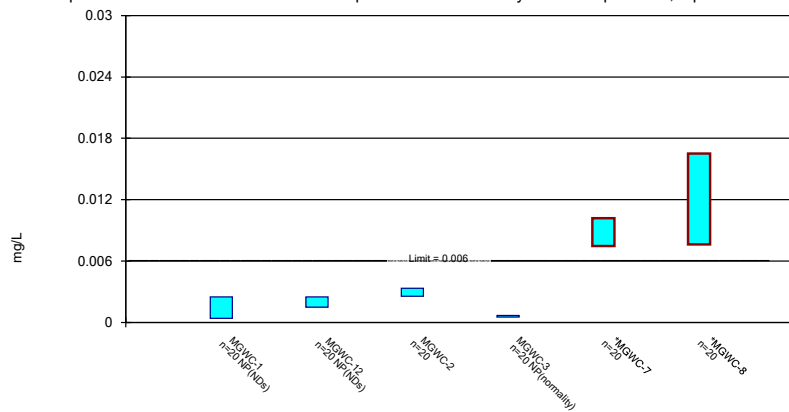
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

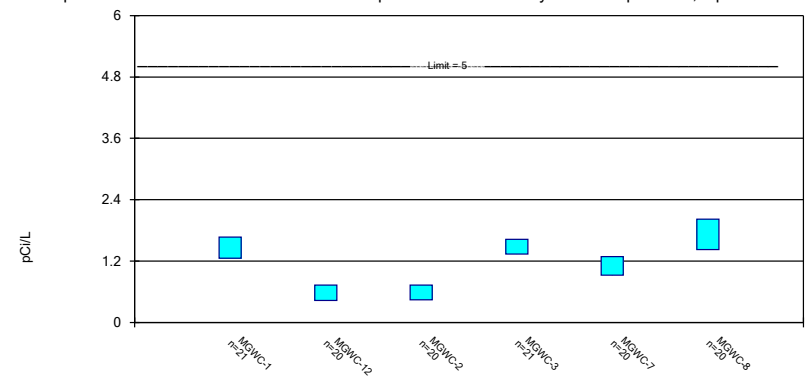
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric Confidence Interval

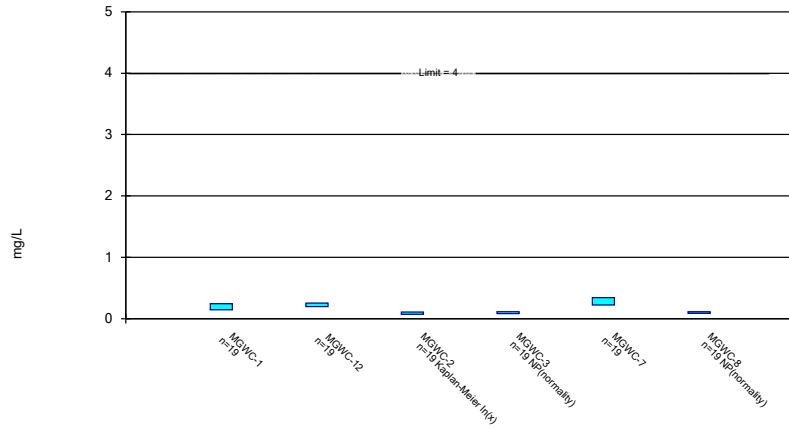
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

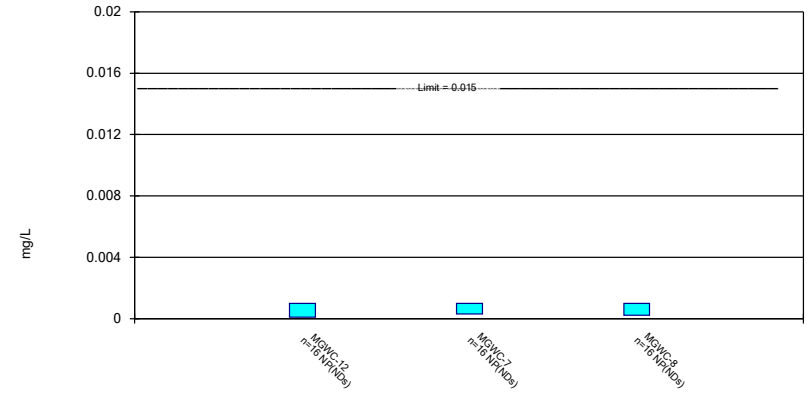
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

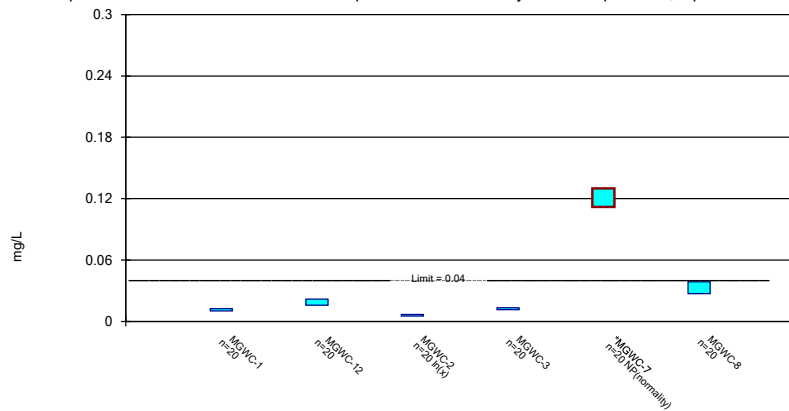
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

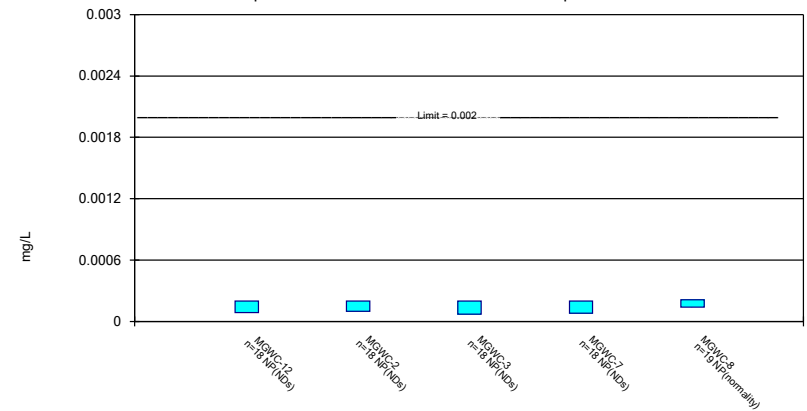
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

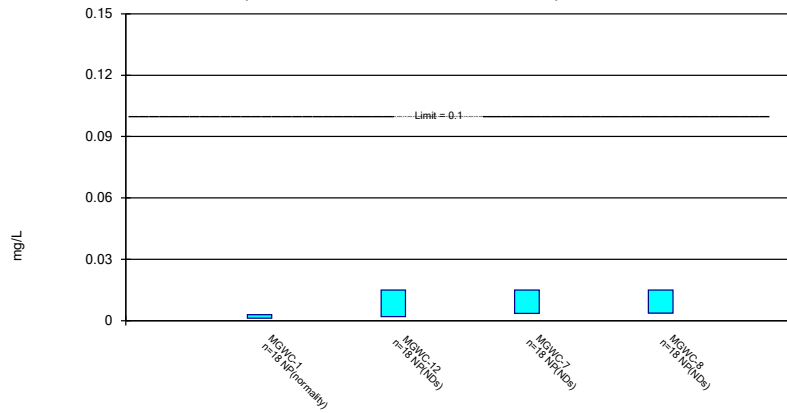
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 6/2/2022 11:54 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

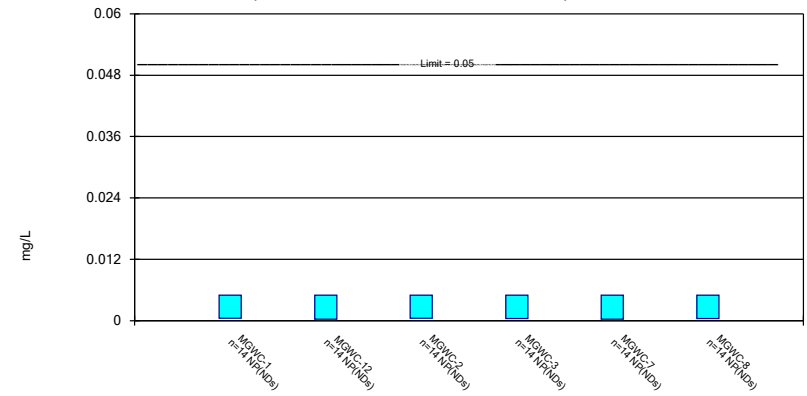
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

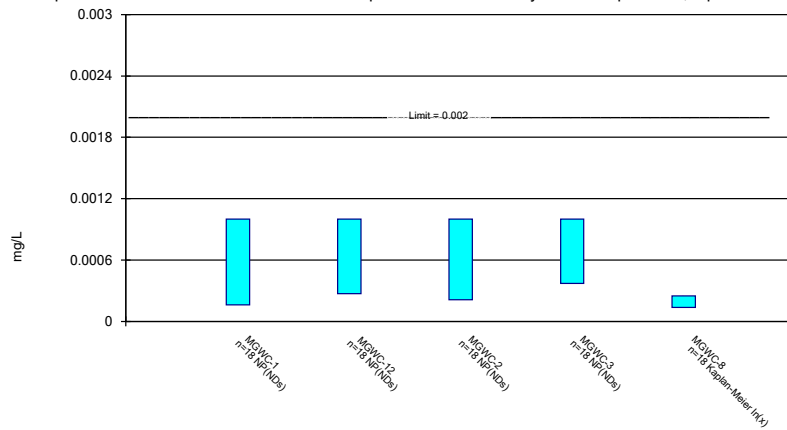
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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: Thallium Analysis Run 6/2/2022 11:54 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-3	MGWC-7
5/5/2016			0.00197 (J)
5/6/2016		<0.002	
6/21/2016	0.0004 (J)	0.0003 (J)	<0.002
8/15/2016			<0.002
8/16/2016	<0.002	<0.002	
9/28/2016			<0.002
9/29/2016	<0.002	<0.002	
11/16/2016	<0.002	<0.002	<0.002
1/17/2017		<0.002	<0.002
1/18/2017	<0.002		
3/2/2017	<0.002	<0.002	<0.002
4/18/2017		<0.002	<0.002
4/25/2017	<0.002		
7/13/2017	<0.002		
3/29/2018	<0.002		<0.002
3/30/2018		<0.002	
1/29/2019	<0.002	<0.002	<0.002
1/28/2020	<0.002		<0.002
1/29/2020		<0.002	
3/10/2020	<0.002	<0.002	<0.002
9/16/2020	<0.002		
9/17/2020		<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002
8/24/2021		<0.002	
8/25/2021	<0.002		<0.002
2/22/2022	<0.002		
2/23/2022		<0.002	<0.002
Mean	0.0019	0.001894	0.001998
Std. Dev.	0.0004	0.000425	7.5E-06
Upper Lim.	0.002	0.002	0.002
Lower Lim.	0.0004	0.0003	0.00197

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.00143 (J)	<0.001
5/6/2016	0.00299 (J)		<0.001	0.00154 (J)		
6/21/2016	0.0047 (J)	0.0015 (J)	<0.001	0.0016 (J)	0.0009 (J)	<0.001
8/15/2016					0.0012 (J)	<0.001
8/16/2016	0.003	0.00082 (J)	<0.001	0.0017		
9/28/2016	0.0036				0.00084 (J)	<0.001
9/29/2016		0.0019	<0.001	0.0013		
11/16/2016	0.003	0.0017	0.00068 (J)	0.0014	<0.001	<0.001
1/17/2017				0.00056 (J)	<0.001	<0.001
1/18/2017		0.00096 (J)	<0.001			
1/19/2017	0.0024					
3/2/2017	0.0027	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.001
4/18/2017	0.0024			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017			<0.001			
4/25/2017		<0.001				
7/13/2017		0.00047 (J)				
3/29/2018	0.0023	0.00053 (J)			0.00066 (J)	
3/30/2018			<0.001	0.0017		<0.001
6/12/2018		0.00063 (J)				
6/13/2018	0.0021		<0.001	0.0015	<0.001	<0.001
10/10/2018	0.0024	0.00098 (J)	<0.001	0.0016	<0.001	<0.001
1/29/2019	0.00255	<0.001	<0.001	0.00143	<0.001	<0.001
3/26/2019	0.002	0.00079 (J)	<0.001	0.0012 (J)	<0.001	<0.001
9/10/2019	0.0018	0.0011	0.00036 (J)	0.0017	0.00074 (J)	0.00056 (J)
1/28/2020		0.00051 (J)			0.00046 (J)	
1/29/2020	0.0021		0.0004 (J)	0.0017		0.00047 (J)
3/10/2020	0.0019	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020		<0.001	<0.001			
9/17/2020	0.002			0.0015	0.00045 (J)	<0.001
3/24/2021	0.0024	<0.001	<0.001	0.0018	0.00046 (J)	0.00099 (J)
8/24/2021			<0.001	0.0014		
8/25/2021	0.00092 (J)	<0.001			0.00055 (J)	<0.001
2/22/2022	0.0014	0.00089 (J)				
2/23/2022			<0.001	0.0016	0.0004 (J)	0.00044 (J)
Mean	0.002433	0.00098	0.0009045	0.001492	0.0008245	0.0009025
Std. Dev.	0.0008013	0.0003666	0.0002067	0.0003034	0.0002843	0.0002008
Upper Lim.	0.002888	0.001111	0.001	0.001658	0.0008456	0.001
Lower Lim.	0.001978	0.0006611	0.00068	0.001369	0.000518	0.00099

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.039	0.0364
5/6/2016	0.11		0.0605	0.151		
6/21/2016	0.165	0.0439	0.0613	0.174	0.0152	0.0386
8/15/2016					0.015	0.03
8/16/2016	0.094	0.041	0.052	0.13		
9/28/2016	0.1				0.014	0.034
9/29/2016		0.052	0.053	0.14		
11/16/2016	0.096	0.044	0.056	0.14	0.013	0.034
1/17/2017				0.16	0.014	0.038
1/18/2017		0.056	0.06			
1/19/2017	0.12					
3/2/2017	0.097	0.04	0.056	0.15	0.013	0.037
4/18/2017	0.092			0.14	0.011	0.04
4/19/2017			0.051			
4/25/2017		0.042				
7/13/2017		0.043				
3/29/2018	0.095	0.061			0.01	
3/30/2018			0.049	0.13		0.041
6/12/2018		0.063				
6/13/2018	0.096		0.05	0.14	0.0098	0.038
10/10/2018	0.095	0.071	0.046	0.13	0.011	0.035
1/29/2019	0.107	0.06	0.0496	0.138	<0.0025	0.0344
3/26/2019	0.096	0.06	0.048	0.13	0.0086	0.032
9/10/2019	0.11	0.073	0.053	0.15	0.012	0.035
1/28/2020		0.069			0.012	
1/29/2020	0.11		0.051	0.15		0.033
3/10/2020	0.13	0.056	0.049	0.15	0.013	0.036
9/16/2020		0.1	0.048			
9/17/2020	0.11			0.16	0.0091 (J)	0.028
3/24/2021	0.1	0.056	0.049	0.16	0.011	0.054
8/24/2021			0.047	0.16		
8/25/2021	0.11	0.051			0.013	0.031
2/22/2022	0.11	0.067				
2/23/2022			0.046	0.17	0.014	0.036
Mean	0.1072	0.05745	0.05177	0.1477	0.01295	0.03607
Std. Dev.	0.01679	0.01448	0.004721	0.0134	0.006858	0.005348
Upper Lim.	0.11	0.06567	0.05445	0.1553	0.014	0.03885
Lower Lim.	0.096	0.04922	0.04909	0.14	0.01	0.03307

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-3	MGWC-8
5/5/2016			<0.0025
5/6/2016	<0.0025	<0.0025	
6/21/2016	<0.0025	<0.0025	0.0004 (J)
8/15/2016			0.00053 (J)
8/16/2016	<0.0025	<0.0025	
9/28/2016	<0.0025		0.00049 (J)
9/29/2016		<0.0025	
11/16/2016	<0.0025	<0.0025	0.0004 (J)
1/17/2017		<0.0025	0.00084 (J)
1/19/2017	<0.0025		
3/2/2017	<0.0025	<0.0025	0.00068 (J)
4/18/2017	<0.0025	<0.0025	0.00067 (J)
3/29/2018	<0.0025		
3/30/2018		<0.0025	0.0015 (J)
6/13/2018	<0.0025	<0.0025	0.0012 (J)
10/10/2018	<0.0025	<0.0025	0.0016 (J)
1/29/2019	<0.0025	<0.0025	<0.0025
1/29/2020	0.00018 (J)	0.00031 (J)	0.0019
3/10/2020	<0.0025	<0.0025	0.0013 (J)
9/17/2020	<0.0025	<0.0025	0.0019 (J)
3/24/2021	<0.0025	<0.0025	<0.0025
8/24/2021		<0.0025	
8/25/2021	<0.0025		0.0015 (J)
2/22/2022	<0.0025		
2/23/2022		<0.0025	0.0014 (J)
Mean	0.002371	0.002378	0.001323
Std. Dev.	0.0005468	0.0005162	0.0007309
Upper Lim.	0.0025	0.0025	0.001266
Lower Lim.	0.00018	0.00031	0.0006815

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-2	MGWC-7	MGWC-8
5/5/2016			<0.0025	0.000784 (J)
5/6/2016	0.000126 (J)	0.00166		
6/21/2016	0.0005 (J)	0.0008 (J)	<0.0025	0.0003 (J)
8/15/2016			<0.0025	<0.0025
8/16/2016	<0.0025	0.0034		
9/28/2016	<0.0025		<0.0025	<0.0025
9/29/2016		0.0027		
11/16/2016	<0.0025	0.0022 (J)	<0.0025	<0.0025
1/17/2017			<0.0025	<0.0025
1/18/2017		0.008		
1/19/2017	<0.0025			
3/2/2017	<0.0025	0.005	<0.0025	<0.0025
4/18/2017	<0.0025		<0.0025	0.00044 (J)
4/19/2017		0.0011 (J)		
3/29/2018	<0.0025		<0.0025	
3/30/2018		0.0016 (J)		0.00058 (J)
6/13/2018	<0.0025	0.0016 (J)	<0.0025	0.00076 (J)
10/10/2018	<0.0025	0.001 (J)	<0.0025	0.00035 (J)
1/29/2019	<0.0025	0.00315	<0.0025	<0.0025
3/26/2019	<0.0025	0.0019 (J)	<0.0025	0.0005 (J)
9/10/2019	0.00017 (J)	0.0011	<0.0025	0.00079 (J)
1/28/2020			<0.0025	
1/29/2020	<0.0025	0.0054		0.0009 (J)
3/10/2020	<0.0025	0.0011 (J)	<0.0025	0.0011 (J)
9/16/2020		0.00053 (J)		
9/17/2020	<0.0025		0.00023 (J)	0.00072 (J)
3/24/2021	<0.0025	0.0022 (J)	<0.0025	0.001 (J)
8/24/2021		0.00054 (J)		
8/25/2021	<0.0025		<0.0025	0.0046
2/22/2022	<0.0025			
2/23/2022		0.0039	<0.0025	0.0014 (J)
Mean	0.002165	0.002444	0.002386	0.001461
Std. Dev.	0.0008213	0.001915	0.0005076	0.00113
Upper Lim.	0.0025	0.00318	0.0025	0.001201
Lower Lim.	0.0005	0.001313	0.00023	0.0005164

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					<0.002	<0.002
5/6/2016	<0.002		<0.002	<0.002		
6/21/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/15/2016					<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002	<0.002		
9/28/2016	<0.002				<0.002	<0.002
9/29/2016		<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017				<0.002	<0.002	<0.002
1/18/2017		<0.002	<0.002			
1/19/2017	<0.002					
3/2/2017	0.0036	0.0032	0.0033	0.003	0.0034	0.0031
4/18/2017	<0.002			<0.002	<0.002	<0.002
4/19/2017			<0.002			
4/25/2017		<0.002				
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002			<0.002	
3/30/2018			<0.002	<0.002		<0.002
6/12/2018		<0.002				
6/13/2018	<0.002		<0.002	<0.002	<0.002	<0.002
10/10/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020		<0.002			0.0015 (J)	
1/29/2020	<0.002		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020		0.029	<0.002			
9/17/2020	<0.002			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021			<0.002	<0.002		
8/25/2021	<0.002	<0.002			<0.002	<0.002
2/22/2022	<0.002	<0.002				
2/23/2022			<0.002	<0.002	<0.002	<0.002
Mean	0.002089	0.003567	0.002072	0.002056	0.00205	0.002061
Std. Dev.	0.0003771	0.006354	0.0003064	0.0002357	0.0003569	0.0002593
Upper Lim.	0.0036	0.0032	0.0033	0.003	0.0034	0.0031
Lower Lim.	0.002	0.002	0.002	0.002	0.0015	0.002

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.0036 (J)	0.00359 (J)
5/6/2016	<0.0025		0.00311 (J)	<0.0025		
6/21/2016	0.0012 (J)	<0.0025	0.0031 (J)	0.0006 (J)	0.0097 (J)	0.0033 (J)
8/15/2016					0.0098	0.0038
8/16/2016	0.00047 (J)	<0.0025	0.0034	0.00064 (J)		
9/28/2016	0.00058 (J)				0.0095	0.0043
9/29/2016		<0.0025	0.0032	0.00054 (J)		
11/16/2016	<0.0025	<0.0025	0.0032	0.00041 (J)	0.0094	0.004
1/17/2017				0.00051 (J)	0.0099	0.0051
1/18/2017		<0.0025	0.0032			
1/19/2017	0.0004 (J)					
3/2/2017	<0.0025	<0.0025	0.0042	0.00064 (J)	0.013	0.0064
4/18/2017	<0.0025			0.00057 (J)	0.0086	0.005
4/19/2017			0.0035			
4/25/2017		<0.0025				
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025			0.0088	
3/30/2018			0.0037	0.00068 (J)		0.015
6/12/2018		<0.0025				
6/13/2018	<0.0025		0.0035	0.00048 (J)	0.0093	0.014
10/10/2018	<0.0025	<0.0025	0.0034	0.00063 (J)	0.012	0.018
1/29/2019	<0.0025	<0.0025	0.00293	<0.0025	0.0103	0.0159
3/26/2019	<0.0025	<0.0025	0.003	<0.0025	0.009	0.02
9/10/2019	0.00032 (J)	0.00016 (J)	0.0027	0.00065	0.011	0.019
1/28/2020		<0.0025			0.008	
1/29/2020	0.00027 (J)		0.003	0.00067		0.025
3/10/2020	<0.0025	<0.0025	0.0024 (J)	0.0005 (J)	0.0081	0.017
9/16/2020		0.0015 (J)	0.002 (J)			
9/17/2020	0.0002 (J)			0.00053 (J)	0.0098	0.024
3/24/2021	<0.0025	<0.0025	0.0019 (J)	0.00053 (J)	0.0063	0.002 (J)
8/24/2021			0.0018 (J)	0.00034 (J)		
8/25/2021	0.00018 (J)	<0.0025			0.0032	0.021
2/22/2022	<0.0025	<0.0025				
2/23/2022			0.0016 (J)	0.0012 (J)	0.007	0.015
Mean	0.001681	0.002333	0.002942	0.000881	0.008815	0.01207
Std. Dev.	0.001049	0.0005581	0.000684	0.0007174	0.002397	0.007847
Upper Lim.	0.0025	0.0025	0.00333	0.00068	0.01018	0.01653
Lower Lim.	0.0004	0.0015	0.002554	0.00051	0.007454	0.007613

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.75	1.21
5/6/2016	1.07		0.633	1.41		
6/21/2016	2.01	0.292 (U)	1.19 (U)	1.71	1.01	0.895 (U)
8/15/2016					1.3	1.64
8/16/2016	1.12	0.232 (U)	0.516	1.75		
9/28/2016	1.09				1.06	2.17
9/29/2016		1.11	0.665	1.43		
11/16/2016	1.58	0.798	0.694	1.9	0.855	1.49
1/17/2017				1.9	1.59	1.75
1/18/2017		0.302 (U)	0.688			
1/19/2017	1.64					
3/2/2017	1.08	0.437	0.484	1.37	1.4	1.03
4/18/2017	1.23			1.42	0.684	1.83
4/19/2017			0.599			
4/25/2017		0.391				
7/13/2017		0.47				
3/29/2018	1.21	0.736			0.822	
3/30/2018			0.677	1.43		2.15
6/12/2018		0.438				
6/13/2018	1.09		0.272 (U)	1.27	0.716	1.51
10/10/2018	1.95	0.371	0.336	1.54	1.51	2.72
1/29/2019	1.11	0.639	0.719	1.34	1.7	1.93
3/26/2019	1	0.607	0.41 (U)	1.25	0.784	1.79
9/10/2019	1.26	0.939	0.548	1.6	0.958	1.78
1/28/2020		0.465			1.38	
1/29/2020	1.39		0.0985 (U)	1.44		1.61
3/10/2020	1.4	0.34 (U)	0.589	1.32	0.903	1.95
9/16/2020		1.09	1.11			
9/17/2020	1.79			0.666 (U)	1.28	1.56
12/8/2020	1.87			1.65		
3/24/2021	1.81	0.434 (U)	0.625	1.58	1.2	0.636
8/24/2021			0.313 (U)	1.65		
8/25/2021	2.12	0.563			0.767	2.13
2/22/2022	1.85	0.888				
2/23/2022			0.598	1.47	1.42	2.62
Mean	1.46	0.5771	0.5882	1.481	1.104	1.72
Std. Dev.	0.3715	0.2662	0.2533	0.2642	0.3229	0.524
Upper Lim.	1.665	0.7283	0.732	1.627	1.288	2.018
Lower Lim.	1.256	0.4259	0.4444	1.335	0.9211	1.422

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.394	0.103 (J)
5/6/2016	0.28 (J)		0.088 (J)	0.086 (J)		
6/21/2016	0.36	0.14 (J)	0.19 (J)	0.23 (J)	0.49	0.1 (J)
8/15/2016					0.44	0.11 (J)
8/16/2016	0.27	0.29	0.087 (J)	<0.2		
9/28/2016	0.26				0.4	0.1 (J)
9/29/2016		0.26	<0.2	0.082 (J)		
11/16/2016	0.24	0.25	<0.2	0.087 (J)	0.36	0.091 (J)
1/17/2017				0.086 (J)	0.2	<0.2
1/18/2017		0.26	<0.2			
1/19/2017	0.22					
3/2/2017	0.27	0.28	0.15 (J)	0.15 (J)	0.36	0.16 (J)
4/18/2017	0.2			<0.2	0.29	<0.2
4/19/2017			<0.2			
4/25/2017		0.25				
7/13/2017		0.21				
10/10/2017	0.18 (J)	0.22	<0.2	<0.2	0.28	<0.2
3/29/2018	0.16 (J)	0.23			0.23	
3/30/2018			<0.2	<0.2		0.088 (J)
6/12/2018		0.23				
6/13/2018	0.14 (J)		<0.2	<0.2	0.2	0.15 (J)
10/10/2018	0.17 (J)	0.25	0.085 (J)	<0.2	0.23	0.11 (J)
3/26/2019	0.16	0.22	0.076 (J)	0.072 (J)	0.19 (J)	0.088 (J)
9/10/2019	0.098 (J)	0.2	0.07 (J)	0.073 (J)	0.15	0.083 (J)
3/10/2020	0.086 (J)	0.15	0.05 (J)	0.058 (J)	0.18	0.084 (J)
9/16/2020		0.26	0.076 (J)			
9/17/2020	0.15			0.083 (J)	0.25	0.11
3/24/2021	0.27	0.27	0.11	0.092 (J)	0.35	0.11
8/24/2021			0.095 (J)	0.11		
8/25/2021	0.097 (J)	0.19			0.15	0.038 (J)
2/22/2022	0.047 (J)	0.093 (J)				
2/23/2022			0.075 (J)	0.086 (J)	0.22	0.05 (J)
Mean	0.1925	0.2238	0.09747	0.09974	0.2823	0.09868
Std. Dev.	0.0814	0.05123	0.03011	0.03667	0.1025	0.02762
Upper Lim.	0.2402	0.2538	0.1094	0.11	0.3423	0.11
Lower Lim.	0.1449	0.1938	0.07245	0.082	0.2223	0.084

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-7	MGWC-8
5/5/2016		<0.001	<0.001
6/21/2016	0.0001 (J)	0.0003 (J)	<0.001
8/15/2016		<0.001	<0.001
8/16/2016	<0.001		
9/28/2016		<0.001	<0.001
9/29/2016	<0.001		
11/16/2016	<0.001	<0.001	<0.001
1/17/2017		<0.001	<0.001
1/18/2017	<0.001		
3/2/2017	<0.001	<0.001	<0.001
4/18/2017		<0.001	<0.001
4/25/2017	<0.001		
7/13/2017	<0.001		
3/29/2018	<0.001	<0.001	
3/30/2018			<0.001
1/29/2019	<0.001	<0.001	<0.001
1/28/2020	<0.001	<0.001	
1/29/2020			<0.001
3/10/2020	<0.001	<0.001	<0.001
9/16/2020	<0.001		
9/17/2020		<0.001	<0.001
3/24/2021	<0.001	<0.001	<0.001
8/25/2021	<0.001	0.00019 (J)	0.00022 (J)
2/22/2022	<0.001		
2/23/2022		<0.001	<0.001
Mean	0.0009438	0.0009056	0.0009513
Std. Dev.	0.000225	0.0002587	0.000195
Upper Lim.	0.001	0.001	0.001
Lower Lim.	0.0001	0.0003	0.00022

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.0586	0.0252 (J)
5/6/2016	0.0128 (J)		<0.025	0.0113 (J)		
6/21/2016	0.0102 (J)	0.0112 (J)	0.0047 (J)	0.0103 (J)	0.122	0.0228 (J)
8/15/2016					0.12	0.026
8/16/2016	0.012	0.014	0.0043 (J)	0.01		
9/28/2016	0.012				0.12	0.026
9/29/2016		0.017	0.0048 (J)	0.01		
11/16/2016	0.013	0.016	0.0058	0.014	0.13	0.031
1/17/2017				0.014	0.14	0.032
1/18/2017		0.015	0.0051			
1/19/2017	0.011					
3/2/2017	0.013	0.015	0.0061	0.013	0.13	0.031
4/18/2017	0.0097			0.01	0.11	0.023
4/19/2017			0.0042 (J)			
4/25/2017		0.013				
7/13/2017		0.014				
3/29/2018	0.017 (J)	0.032 (J)			0.17 (J)	
3/30/2018			0.008 (J)	0.017 (J)		0.058 (J)
6/12/2018		0.019				
6/13/2018	0.0094		0.0054	0.011	0.12	0.035
10/10/2018	0.011	0.027	0.0055	0.013	0.13	0.046
1/29/2019	0.0109	0.0172	0.00537	0.0106	0.112	0.0361
3/26/2019	0.01	0.02	0.0051	0.012	0.12	0.043
9/10/2019	0.012	0.023	0.0074	0.015	0.11	0.042
1/28/2020		0.022			0.13	
1/29/2020	0.0096		0.0059	0.012		0.037
3/10/2020	<0.025	0.018	0.0068	0.014	0.11	0.028
9/16/2020		0.025	0.0055			
9/17/2020	0.0086			0.012	0.11	0.039
3/24/2021	0.013	0.018	0.0066	0.013	0.13	0.011
8/24/2021			0.0062	0.012		
8/25/2021	0.0096	0.017			0.12	0.037
2/22/2022	0.01	0.022				
2/23/2022			0.0066	0.013	0.13	0.028
Mean	0.01137	0.01877	0.006094	0.01236	0.1211	0.03286
Std. Dev.	0.001925	0.00515	0.001801	0.00186	0.02015	0.01016
Upper Lim.	0.01246	0.02169	0.006782	0.01342	0.13	0.03863
Lower Lim.	0.01027	0.01585	0.005138	0.0113	0.112	0.02708

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0002	<0.0002
5/6/2016		<0.0002	<0.0002		
6/21/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/15/2016				<0.0002	0.00015 (J)
8/16/2016	<0.0002	7.8E-05 (J)	<0.0002		
9/28/2016				<0.0002	<0.0002
9/29/2016	<0.0002	<0.0002	<0.0002		
11/16/2016	8.6E-05 (J)	0.0001 (J)	7E-05 (J)	8E-05 (J)	0.00021
1/17/2017			<0.0002	<0.0002	7.6E-05 (J)
1/18/2017	<0.0002	<0.0002			
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017			<0.0002	<0.0002	0.00018 (J)
4/19/2017		<0.0002			
4/25/2017	<0.0002				
7/13/2017	<0.0002				
3/29/2018	7.4E-05 (J)			<0.0002	
3/30/2018		<0.0002	<0.0002		0.00013 (J)
6/12/2018	<0.0002				
6/13/2018		<0.0002	<0.0002	<0.0002	0.00074
10/10/2018	<0.0002	<0.0002	<0.0002	<0.0002	0.00013 (J)
1/29/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002			<0.0002	
1/29/2020		<0.0002	<0.0002		0.00012 (J)
3/10/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002			
9/17/2020			<0.0002	<0.0002	0.00014 (J)
3/24/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/24/2021		<0.0002	<0.0002		
8/25/2021	<0.0002			<0.0002	0.0041
10/26/2021					<0.0002
2/22/2022	<0.0002				
2/23/2022		<0.0002	<0.0002	<0.0002	0.00028
Mean	0.0001867	0.0001877	0.0001928	0.0001933	0.0004135
Std. Dev.	3.886E-05	3.609E-05	3.064E-05	2.828E-05	0.0009031
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.00021
Lower Lim.	8.6E-05	0.0001	7E-05	8E-05	0.00014

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-7	MGWC-8
5/5/2016			0.00351 (J)	<0.015
5/6/2016	0.0021 (J)			
6/21/2016	0.002 (J)	0.002 (J)	<0.015	<0.015
8/15/2016			<0.015	<0.015
8/16/2016	0.0019 (J)	0.0012 (J)		
9/28/2016	0.0018 (J)		<0.015	<0.015
9/29/2016		0.0014 (J)		
11/16/2016	<0.015	<0.015	<0.015	<0.015
1/17/2017			<0.015	<0.015
1/18/2017		<0.015		
1/19/2017	0.0011 (J)			
3/2/2017	0.0012 (J)	<0.015	<0.015	<0.015
4/18/2017	0.0013 (J)		<0.015	0.0037 (J)
4/25/2017		<0.015		
7/13/2017		<0.015		
3/29/2018	0.0017 (J)	<0.015	<0.015	
3/30/2018				<0.015
6/12/2018		<0.015		
6/13/2018	0.00087 (J)		<0.015	<0.015
10/10/2018	<0.015	<0.015	<0.015	<0.015
1/29/2019	<0.015	<0.015	<0.015	<0.015
1/28/2020		<0.015	<0.015	
1/29/2020	0.0015 (J)			<0.015
3/10/2020	<0.015	<0.015	<0.015	<0.015
9/16/2020		0.0024 (J)		
9/17/2020	0.0012 (J)		<0.015	<0.015
3/24/2021	0.0029 (J)	<0.015	<0.015	<0.015
8/25/2021	0.00088 (J)	<0.015	<0.015	<0.015
2/22/2022	0.0014 (J)	0.00064 (J)		
2/23/2022			<0.015	<0.015
Mean	0.004547	0.01126	0.01436	0.01437
Std. Dev.	0.00577	0.006218	0.002708	0.002663
Upper Lim.	0.0029	0.015	0.015	0.015
Lower Lim.	0.0012	0.002	0.00351	0.0037

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					<0.005	<0.005
5/6/2016	<0.005		<0.005	<0.005		
6/21/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/15/2016					<0.005	0.00033 (J)
8/16/2016	<0.005	<0.005	<0.005	<0.005		
9/28/2016	<0.005				<0.005	0.00038 (J)
9/29/2016		<0.005	<0.005	<0.005		
11/16/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/17/2017				<0.005	<0.005	<0.005
1/18/2017		<0.005	<0.005			
1/19/2017	<0.005					
3/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2017	<0.005			<0.005	<0.005	0.0024
4/19/2017			<0.005			
4/25/2017		<0.005				
7/13/2017		<0.005				
3/29/2018	0.0005 (J)	0.00027 (J)			0.00026 (J)	
3/30/2018			0.00045 (J)	0.00044 (J)		0.00027 (J)
6/12/2018		<0.005				
6/13/2018	<0.005		<0.005	<0.005	<0.005	<0.005
10/10/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/29/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/28/2020		<0.005			<0.005	
1/29/2020	<0.005		<0.005	<0.005		<0.005
2/22/2022	<0.005	<0.005				
2/23/2022			<0.005	<0.005	<0.005	<0.005
Mean	0.004679	0.004662	0.004675	0.004674	0.004661	0.003813
Std. Dev.	0.001203	0.001264	0.001216	0.001219	0.001267	0.002011
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0005	0.00027	0.00045	0.00044	0.00026	0.00038

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 6/2/2022 11:56 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-8
5/5/2016					<0.001
5/6/2016	<0.001		<0.001	<0.001	
6/21/2016	9E-05 (J)	<0.001	<0.001	<0.001	0.0001 (J)
8/15/2016					0.00016 (J)
8/16/2016	<0.001	<0.001	<0.001	<0.001	
9/28/2016	<0.001				0.00014 (J)
9/29/2016		<0.001	<0.001	<0.001	
11/16/2016	<0.001	<0.001	<0.001	<0.001	9E-05 (J)
1/17/2017				<0.001	0.00016 (J)
1/18/2017		<0.001	<0.001		
1/19/2017	<0.001				
3/2/2017	<0.001	<0.001	<0.001	<0.001	0.00018 (J)
4/18/2017	9.5E-05 (J)			<0.001	0.00019 (J)
4/19/2017			<0.001		
4/25/2017		<0.001			
7/13/2017		<0.001			
3/29/2018	0.00014 (J)	<0.001			
3/30/2018			<0.001	<0.001	0.00027 (J)
6/12/2018		<0.001			
6/13/2018	<0.001		<0.001	<0.001	0.00027 (J)
10/10/2018	<0.001	<0.001	<0.001	<0.001	0.00025 (J)
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020		<0.001			
1/29/2020	0.00032 (J)		0.00021 (J)	0.00037 (J)	0.00042 (J)
3/10/2020	<0.001	0.00015 (J)	<0.001	0.00016 (J)	0.00025 (J)
9/16/2020		0.00027 (J)	<0.001		
9/17/2020	0.00016 (J)			<0.001	0.00031 (J)
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021			<0.001	<0.001	
8/25/2021	<0.001	<0.001			0.0004 (J)
2/22/2022	<0.001	<0.001			
2/23/2022			<0.001	<0.001	<0.001
Mean	0.0007669	0.0009122	0.0009561	0.0009183	0.0003994
Std. Dev.	0.0003893	0.0002563	0.0001862	0.0002404	0.000342
Upper Lim.	0.001	0.001	0.001	0.001	0.0002481
Lower Lim.	0.00016	0.00027	0.00021	0.00037	0.000136

FIGURE I.

Appendix IV Trend Tests - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 5:06 PM

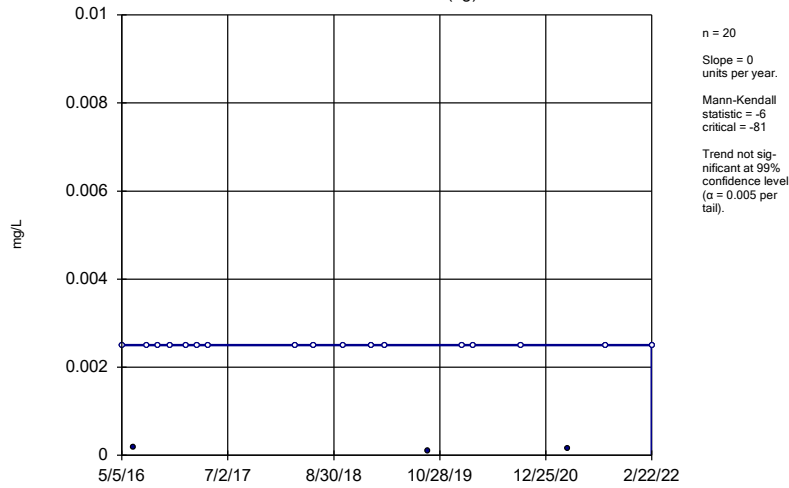
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-8	0.003692	111	81	Yes	20	0	n/a	n/a	0.01	NP

Appendix IV Trend Tests - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/23/2022, 5:06 PM

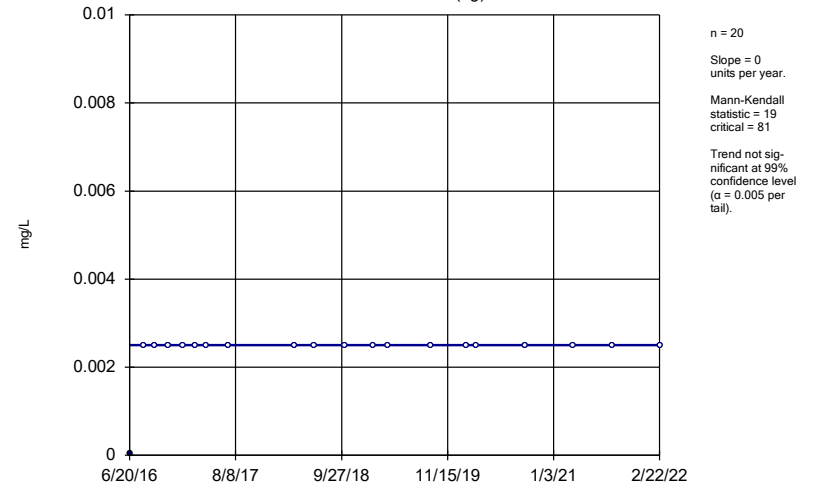
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	MGWA-10 (bg)	0	-6	-81	No	20	85	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-11 (bg)	0	19	81	No	20	95	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-5 (bg)	0	17	81	No	20	95	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-6 (bg)	0	4	81	No	20	45	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWA-6A (bg)	0.00005762	3	25	No	9	22.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWC-7	-0.0004386	-47	-81	No	20	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	MGWC-8	0.003692	111	81	Yes	20	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-10 (bg)	0.00007562	17	81	No	20	5	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-11 (bg)	0.0007894	27	81	No	20	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-5 (bg)	0.0003923	43	81	No	20	5	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-6 (bg)	0	7	81	No	20	95	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWA-6A (bg)	-0.0009798	-24	-25	No	9	55.56	n/a	n/a	0.01	NP
Lithium (mg/L)	MGWC-7	0	-1	-81	No	20	0	n/a	n/a	0.01	NP

Sen's Slope Estimator MGWA-10 (bg)



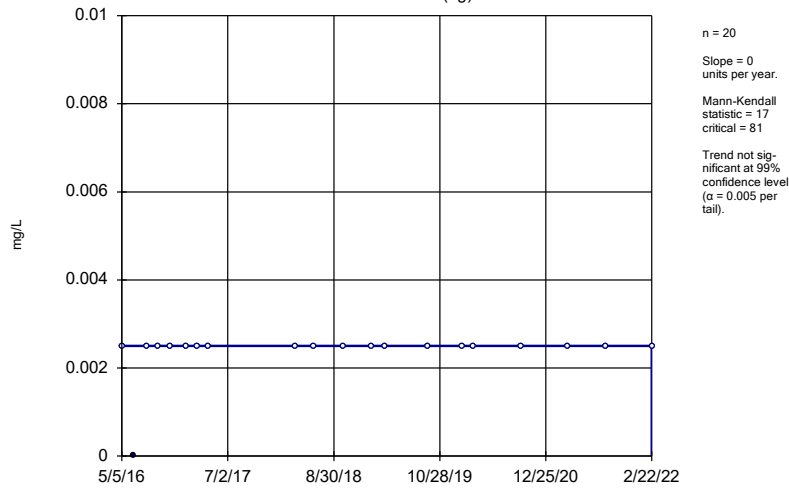
Constituent: Cobalt Analysis Run 5/23/2022 5:05 PM View: Appendix IV - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-11 (bg)



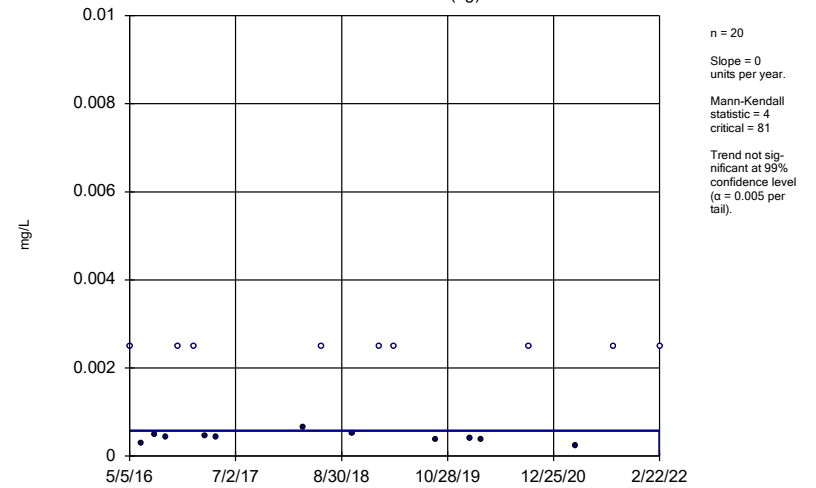
Constituent: Cobalt Analysis Run 5/23/2022 5:05 PM View: Appendix IV - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-5 (bg)



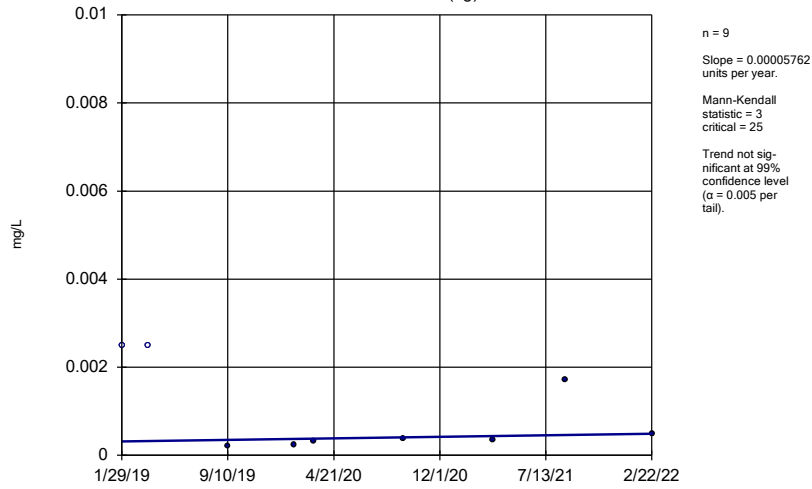
Constituent: Cobalt Analysis Run 5/23/2022 5:05 PM View: Appendix IV - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWA-6 (bg)



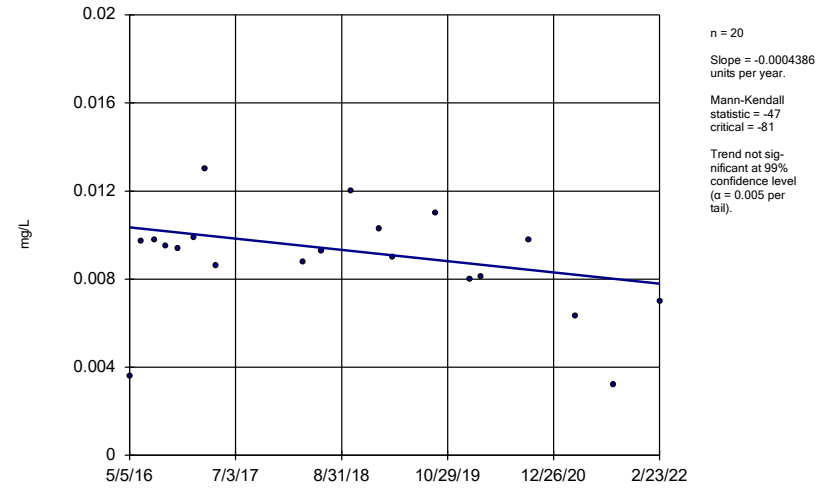
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)



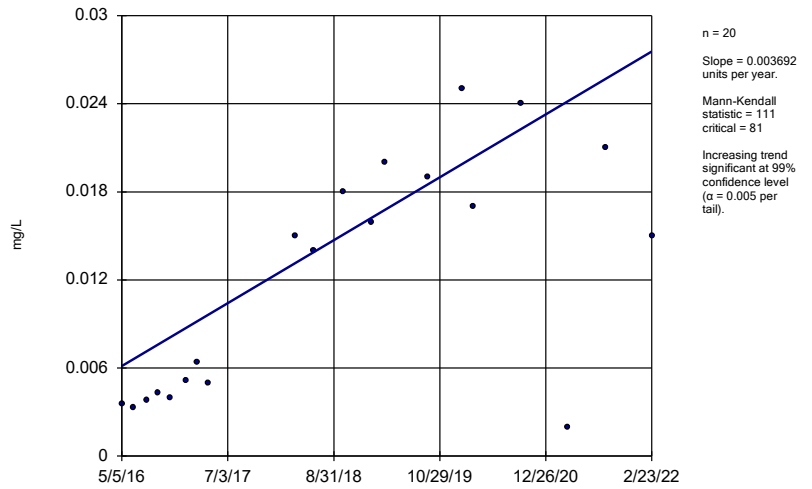
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-7



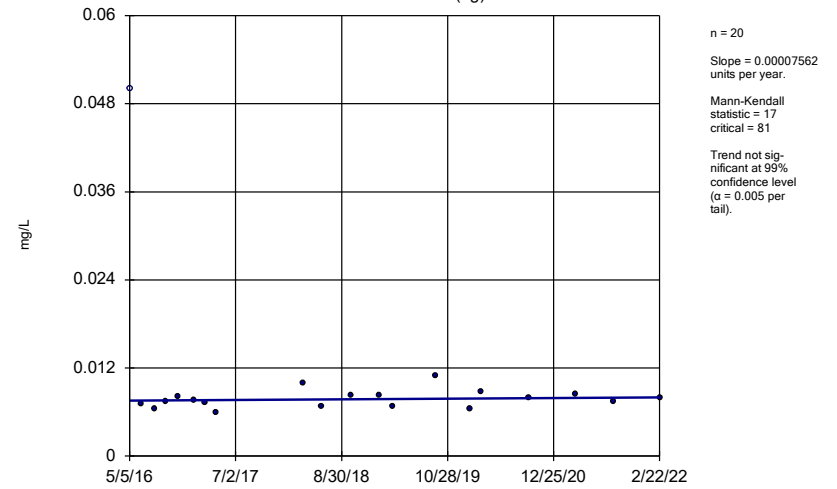
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-8



Constituent: Cobalt Analysis Run 5/23/2022 5:05 PM View: Appendix IV - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

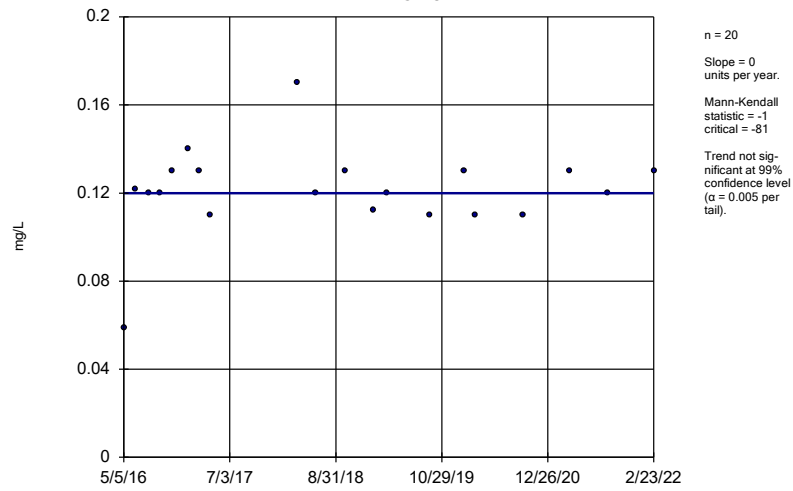
Sen's Slope Estimator
MGWA-10 (bg)



Constituent: Lithium Analysis Run 5/23/2022 5:05 PM View: Appendix IV - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWC-7



Constituent: Lithium Analysis Run 5/23/2022 5:05 PM View: Appendix IV - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



**ATLANTIC COAST
CONSULTING, INC.**

Roswell, GA
1150 Northmeadow Parkway
Suite 100
Roswell, GA 30076
Phone: 770.594.5998

Savannah, GA
7 East Congress Street
Suite 801
Savannah, GA 31401
Phone: 912.236.3471

Knoxville, TN
8848 Cedars Springs Lane
Suite 202
Knoxville, TN 37923
Phone: 865.531.9143