



Plant McIntosh Ash Pond 1
Permit No. 051-011D(CCR)
Effingham County

**2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT**



**ATLANTIC COAST
CONSULTING, INC.**

CERTIFICATION

This 2020 Annual 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 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).

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SUMMARY

This summary of the 2020 Annual Groundwater Monitoring and Corrective Action Report provides the groundwater monitoring and corrective action program status through December 2020 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 U.S. Environmental Protection Agency (USEPA) coal combustion residual (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 is in the process of closure by removal.



Plant McIntosh and AP-1

The groundwater monitoring system is comprised of four upgradient and six downgradient wells installed during 2015-2016 to meet federal and state monitoring requirements. An additional upgradient well was installed in 2019. 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 respective 2018 and 2019 Annual Groundwater Monitoring and Corrective Action Reports. During the 2020 annual reporting period, the Site remained in assessment monitoring.

During the 2020 reporting period, ACC conducted groundwater sampling events in January, March, and September. Groundwater samples were submitted to Eurofins TestAmerica, Inc. (Eurofins), for analysis. Per the CCR rule, groundwater results for March and September 2020 data were evaluated in accordance with the certified statistical methods. That

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

evaluation showed statistically significant values of Appendix III² and Appendix IV³ parameters in wells provided in the table below.

Appendix III Parameter	March 2020	September 2020
Boron	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Calcium	MGWC-1	None
Chloride	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Fluoride	None	MGWC-7, MGWC-12
pH	None	MGWC-8, MGWC-12
Sulfate	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
TDS	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8	MGWC-1, MGWC-2, MGWC-3, MGWC-8
Appendix IV Parameter ⁴	March 2020	September 2020
Cobalt	<i>Federal and State: MGWC-7 State only: MGWC-2, MGWC-8</i>	<i>Federal and State: MGWC-7 State only: MGWC-2, MGWC-8</i>
Lithium	<i>Federal and State: MGWC-7</i>	<i>Federal and State: MGWC-7</i>

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from January through December 2020, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to the website and provided to 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

⁴ A state statistically significant level (SSL) related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, or the calculated background interwell prediction limit. A federal SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, the USEPA RSL, if no MCL is available, or the calculated background interwell prediction limit.

TABLE OF CONTENTS

Section	Page No.
1.0 INTRODUCTION	1
1.1 Site Description and Background	1
1.2 Regional Geology and Hydrogeologic Setting	1
1.3 Groundwater Monitoring System and CCR Unit Description	1
2.0 GROUNDWATER MONITORING ACTIVITIES	2
2.1 Monitoring Well Installation and Maintenance	2
2.2 Assessment Monitoring	2
3.0 SAMPLE METHODOLOGY & ANALYSIS	2
3.1 Groundwater Flow Direction, Gradient, and Velocity	2
3.2 Groundwater Sampling	3
3.3 Laboratory Analyses	4
3.4 Quality Assurance and Quality Control	4
4.0 STATISTICAL ANALYSIS	4
4.1 Statistical Analysis Methods	5
4.1.1 Appendix III Statistical Methods	5
4.1.2 Appendix IV Statistical Methods	5
4.2 Statistical Analysis Results	6
4.2.1 First Semiannual Appendix III Statistical Results	6
4.2.2 First Semiannual Appendix IV Statistical Results	6
4.2.3 Second Semiannual Appendix III Statistical Results	6
4.2.4 Second Semiannual Appendix IV Statistical Results	6
5.0 MONITORING PROGRAM STATUS	7
6.0 CONCLUSIONS & FUTURE ACTIONS	7
7.0 REFERENCES	7

Tables

- Table 1A – Groundwater Monitoring Network Well Construction Details
- Table 1B – Piezometer Construction Details
- Table 2 – Groundwater Sampling Event Summary
- Table 3 – Summary of Groundwater Elevations
- Table 4A – Horizontal Groundwater Flow Velocity Calculations – January 2020
- Table 4B – Horizontal Groundwater Flow Velocity Calculations – March 2020
- Table 4C – Horizontal Groundwater Flow Velocity Calculations – September 2020
- Table 5A – Summary of Groundwater Analytical Data – January 2020
- Table 5B – Summary of Groundwater Analytical Data – March 2020
- Table 5C – Summary of Groundwater Analytical Data – September 2020
- Table 6 – Statistical Method Summary
- Table 7 – Summary of Background Levels and Groundwater Protection Standards

Figures

- Figure 1 – Site Location Map
- Figure 2 – Well Location Map
- Figure 3 – Potentiometric Contour Map – January 2020
- Figure 4 – Potentiometric Contour Map – March 2020
- Figure 5 – Potentiometric Contour Map – September 2020

Appendices

- Appendix A – Laboratory Analytical and Field Sampling Reports
- Appendix B – Monitoring Well and Piezometer Survey Data
- Appendix C – Statistical Analysis Report

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] Part 257, Subpart D) and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, ACC has prepared this *2020 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at AP-1. To specify groundwater monitoring requirements, EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D. For ease of reference, the US EPA CCR rules are cited within this report.

A permit application to comply with 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 [EPD Permit No. 051-11D(CCR)], 40 CFR § 257.90 through 257.91 and § 257.93 through 257.95 of the Federal CCR rule, and the EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

This report documents activities completed for the groundwater monitoring program through the 2020 calendar year in accordance with 40 CFR § 257.90(e). This report includes results of the initial assessment and the first and second semiannual assessment monitoring events conducted in January, March, and September 2020, respectively, for AP-1.

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.

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 Units within the uppermost aquifer. Figure 2, Well Location Map, shows the monitoring well locations. Wells were located 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 during 2020 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 2 in January, March, and September 2020.

2.1 Monitoring Well Installation and Maintenance

There were no changes to the groundwater monitoring system during the annual reporting period; the network remained the same as in the 2019 (previous) reporting year and is shown in Figure 2. 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 semiannual sampling is included in Appendix A, Laboratory Analytical and Field Sampling Reports.

The Site monitoring network wells and piezometers were re-surveyed for top of casing elevations and horizontal location in June 2020 to confirm the top of casing elevations. A data sheet surveyed by a Georgia Registered Land Surveyor (RLS) is provided in Appendix B, Monitoring Well and Piezometer Survey Data. The new survey data are incorporated into this report's applicable tables and figures. Additionally, a memorandum was prepared to update and modify well construction details based on the updated survey data and included updated boring and well construction logs for the entire AP-1 well network. The *September 2020 Well Installation Addendum* was submitted to EPD in September 2020 and included the RLS certified data.

2.2 Assessment Monitoring

Based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, GPC 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 IV parameters in January 2020 as the initial assessment monitoring event. Monitoring wells were sampled for Appendix III and detected Appendix IV parameters in March and September 2020 as the first and second semiannual assessment monitoring events, respectively. Samples were collected from the monitoring network shown on Figure 2. A summary of groundwater sampling events completed during the annual reporting period is provided in Table 2, Groundwater Sample Event Summary. Due to anomalous results for radium reported during the September 2020 event, analyses for MGWA-6, MGWC-1, and MGWC-3 were resampled in December 2020. Results of sampling activities are presented 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 maps provided in Figures 3, 4, and 5, Potentiometric Contour Map – January, March, and September 2020, respectively. The general direction of groundwater flow across AP-1 is toward the east but shifts to the southeast and northeast in the northern portion of AP-1. The groundwater flow patterns observed during the 2020 monitoring events 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 Tables 4A, 4B, and 4C, Horizontal Groundwater Flow Velocity Calculations – January, March, and September 2020, respectively. The calculated flow velocities ranged from 0.038 and 0.046 feet per day for the three events.

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 SESD Operating Procedure for Field Equipment Cleaning and Decontamination as a guide.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) during well purging prior to sampling. Turbidity was measured using a LaMotte 2020we or 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
- ± 10% or 0.2 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 10 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' Pittsburgh, Pennsylvania laboratory 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 three groundwater monitoring events in 2020. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A. Samples were analyzed for Appendix IV parameters detected above the laboratory method detection limit (MDL) during the January 2020 event in accordance with 40 CFR § 257.95(b). The only parameter not detected above the laboratory MDL during the January 2020 event was selenium.

Analytical data collected during 2020 monitoring events are summarized in Tables 5A, 5B, and 5C, Summary of Groundwater Analytical Data – January, March, and September 2020, respectively.

Due to anomalous results for radium reported during the September 2020 event, analyses for MGWA-6, MGWC-1, and MGWC-3 were resampled in December 2020. The resample results are included in Appendix A and summarized in Table 5C.

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 one set of QA/QC samples 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 spikes/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). A summary of the data validation is included in Appendix A.

Values followed by a "J" flag 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.

4.0 STATISTICAL ANALYSIS

Groundwater monitoring data collected during March and September 2020 semiannual assessment monitoring events were statistically analyzed by Groundwater Stats Consulting, LLC (GSC) pursuant to 40 CFR § 257.95 following the 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 C, Statistical Analysis Report. 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 USEPA regulations and guidance as recommended in the USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 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 re-sample 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

Constituents detected during the initial annual Appendix IV sampling event (January 2020) were sampled during the March and September 2020 semiannual sampling events. 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 both the state and federal 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, an SSL exceedance is identified.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in 40 CFR § 257.95(h)(1-3), the GWPS is:

- (1) The maximum contaminant level (MCL) established under 40 CFR § 141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i). Cobalt 0.006 mg/L;
 - (ii). Lead 0.015 mg/L;
 - (iii). Lithium 0.040 mg/L; and
 - (iv). Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

USEPA's updated GWPS have not yet been incorporated under Georgia EPD's CCR Rule. The Georgia EPD CCR Rule GWPS is:

- (1) The federally established MCL.
- (2) Where an MCL has not been established, the background concentration.

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

Following the above federal and state 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 at each monitoring well and the GWPS established under State and Federal rules.

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. Selenium was not detected during the initial assessment event conducted in January 2020 and, therefore, no sampling or statistical analysis was required for this parameter. Additional details are presented in the Statistical Analysis Report provided in Appendix C.

4.2 Statistical Analysis Results

4.2.1 First Semiannual Appendix III Statistical Results

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

4.2.2 First Semiannual Appendix IV Statistical Results

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

AP-1 (Federal CCR Rule):

- Cobalt: MGWC-7
- Lithium: MGWC-7

AP-1 (Georgia EPD CCR Rule)

- Cobalt: MGWC-2, MGWC-7, and MGWC-8
- Lithium: MGWC-7

The March 2020 statistical evaluation results are consistent with the 2019 reporting year statistical results.

4.2.3 Second Semiannual Appendix III Statistical Results

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

4.2.4 Second Semiannual Appendix IV Statistical Results

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

AP-1 (Federal CCR Rule):

- Cobalt: MGWC-7
- Lithium: MGWC-7

AP-1 (Georgia EPD CCR Rule)

- Cobalt: MGWC-2, MGWC-7, and MGWC-8
- Lithium: MGWC-7

The September 2020 statistical evaluation results are consistent with the 2019 reporting year statistical results.

5.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), GPC implemented assessment monitoring in May 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the Site during the sampling events conducted in March and September 2020. An 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 CONCLUSIONS & FUTURE ACTIONS

This *2020 Annual Groundwater Monitoring and Corrective Action Report* for GPC's Plant McIntosh AP-1 was prepared to fulfill the requirements of USEPA'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), GPC 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 initial assessment monitoring event was completed during the last week of January 2021 and will be followed by a semiannual assessment monitoring event scheduled for March 2021.

7.0 REFERENCES

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TABLES

Table 1A
Groundwater Monitoring Network Well Construction Details

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD)	Purpose
MGWC-1	11/10/2015	856813.23	964287.35	56.08	9.15	45.78	19.45	Downgradient
MGWC-2	11/11/2015	856400.69	963958.38	37.36	11.18	27.06	21.48	Downgradient
MGWC-3	11/11/2015	856033.79	963658.28	38.74	13.91	28.44	24.21	Downgradient
MGWA-5	11/12/2015	855860.82	962763.17	63.09	1.27	52.79	11.57	Upgradient
MGWA-6	11/12/2015	856527.73	963130.08	41.93	19.15	31.63	29.45	Upgradient
MGWA-6A	01/16/2019	856520.82	963113.65	39.67	20.09	29.40	30.36	Upgradient
MGWC-7	11/13/2015	857417.68	964007.53	42.29	12.11	31.99	22.41	Downgradient
MGWC-8	11/10/2015	857177.10	964141.67	52.56	10.05	42.26	20.35	Downgradient
MGWA-10	11/17/2015	855934.25	961406.49	53.09	11.98	42.79	22.28	Upgradient
MGWA-11	05/27/2016	855985.31	962070.22	55.81	9.10	45.61	19.30	Upgradient
MGWC-12	05/26/2016	855545.67	963110.24	52.90	11.20	42.70	21.40	Downgradient

Notes:

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

**Table 1B
 Piezometer Construction Details**

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

Notes:

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

Table 2
Groundwater Sampling Event Summary

Well	Hydraulic Location	Jan. 28-29, 2020	Mar. 9-10, 2020	Sept. 16-17, 2020	Dec. 7-8, 2020
Purpose of Sampling Event		Initial Assessment	Semiannual Assessment	Semiannual Assessment	Verification
MGWC-1	Downgradient	X	X	X	X
MGWC-2	Downgradient	X	X	X	--
MGWC-3	Downgradient	X	X	X	X
MGWA-5	Upgradient	X	X	X	--
MGWA-6	Upgradient	X	X	X	X
MGWA-6A	Upgradient	X	X	X	--
MGWC-7	Downgradient	X	X	X	--
MGWC-8	Downgradient	X	X	X	--
MGWA-10	Upgradient	X	X	X	--
MGWA-11	Upgradient	X	X	X	--
MGWC-12	Downgradient	X	X	X	--

Notes:

1. X indicates sampled was collected.
2. Initial Assessment Event included all Appendix IV analytes.
3. Semiannual Assessment Event Appendix III and Detected Appendix IV.
4. -- = Not sampled.

Table 3
Summary of Groundwater Elevations

Well ID	Top of Casing Elevation (NAVD)	Jan. 29, 2020 Groundwater Elevation (NAVD)	Mar. 9, 2020 Groundwater Elevation (NAVD)	Sept. 14, 2020 Groundwater Elevation (NAVD)
MGWC-1	65.23	27.91	27.53	26.95
MGWC-2	48.54	28.52	28.83	27.35
MGWC-3	52.65	35.39	35.64	33.23
MGWC-4	64.33	39.09	39.53	37.26
MGWA-5	64.36	42.48	43.16	40.41
MGWA-6	61.08	41.38	42.42	38.61
MGWA-6A	59.76	41.43	42.46	38.67
MGWC-7	54.40	33.91	35.17	32.42
MGWC-8	62.61	32.20	32.36	30.95
MGWA-9	59.29	38.90	40.68	37.07
MGWA-10	65.07	48.53	49.65	46.85
MGWA-11	64.91	44.85	45.80	43.01
MGWC-12	64.10	39.22	39.67	37.38
PZ-13	40.91	23.90	24.26	23.24
PZ-14	47.11	30.05	30.41	28.97
PZ-15	42.37	23.85	24.22	23.21
PZ-16	54.71	22.30	22.58	22.48
PZ-17	57.51	27.00	27.20	27.11
PZ-18	53.48	34.82	36.88	33.19
MGWC-19	53.98	32.49	33.45	31.19
MGWC-20	51.56	29.96	30.86	29.60
MGWC-21	62.65	31.26	31.73	29.95
MGWC-22	47.53	30.44	30.71	28.95
MGWC-23	57.47	24.26	24.43	24.14
MGWA-24	60.53	41.96	43.31	39.73

Notes:

1. NAVD indicates feet North American Vertical Datum of 1988.
2. Depths to water measured January 29, March 9, and September 14, 2020.
3. Wells resurveyed June 2020.

Table 4A
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS
January 2020

Equation

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

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

Values Used in Calculation

Value	Source
K = 3.4E-04 cm/sec 0.96 ft/day	See note 1.
dh/dl ₁ = 0.0088 unitless dh/dl ₂ = 0.010 unitless dh/dl ₃ = 0.0082 unitless dh/dl _{avg} = 0.0090 unitless	Hydraulic gradient from MGWA-10 to PZ-15 MGWA-6 to PZ-16 MGWA-9 to PZ-17 Average of dh/dl _{1,2,3}
P _e = 0.20 unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{0.0087}{0.20}$$

$$v = 0.043 \text{ ft/day, or } 16 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Southern Company Services, Inc. (2002)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 4B
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS
March 2020

Equation

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

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

Values Used in Calculation

Value	Source
K = 3.4E-04 cm/sec 0.96 ft/day	See note 1.
dh/dl ₁ = 0.0091 unitless dh/dl ₂ = 0.010 unitless dh/dl ₃ = 0.0092 unitless dh/dl _{avg} = 0.0096 unitless	Hydraulic gradient from MGWA-10 to PZ-15 MGWA-6 to PZ-16 MGWA-9 to PZ-17 Average of dh/dl _{1,2,3}
P _e = 0.20 unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{0.0092}{0.20}$$

$$v = 0.046 \text{ ft/day, or } 17 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Southern Company Services, Inc. (2002)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 4C
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS
September 2020

Equation

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

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

Values Used in Calculation

Value	Source
K = 3.4E-04 cm/sec 0.96 ft/day	See note 1.
dh/dl ₁ = 0.0085 unitless dh/dl ₂ = 0.0085 unitless dh/dl ₃ = 0.0068 unitless dh/dl _{avg} = 0.0079 unitless	Hydraulic gradient from MGWA-10 to PZ-15 MGWA-6 to PZ-16 MGWA-9 to PZ-17 Average of dh/dl _{1,2,3}
P _e = 0.20 unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{0.0076}{0.20}$$

$$v = 0.038 \text{ ft/day, or } 14 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Southern Company Services, Inc. (2002)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 5A
Plant McIntosh Ash Pond 1
Summary of Groundwater Analytical Data
January 2020

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3
		1/28/2020	1/28/2020	1/28/2020	1/28/2020	1/28/2020	1/29/2020	1/29/2020	1/29/2020
APPENDIX IV	Antimony	<0.00038	<0.00038	<0.00038	0.00049 J	<0.00038	<0.00038	<0.00038	<0.00038
	Arsenic	0.00036 J	0.0063	0.0028	<0.00031	0.0014	0.0021	0.00040 J	0.0017
	Barium	0.034	0.034	0.037	0.025	0.13	0.11	0.051	0.15
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	0.00040 J	0.00018 J	<0.00018	0.00031 J
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.0054	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	0.0044	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	<0.00013	0.00041 J	0.00024 J	<0.00013	<0.00013	0.00027 J	0.0030	0.00067
	Lead	0.00018 J	<0.00013	<0.00013	<0.00013	0.00016 J	<0.00013	<0.00013	<0.00013
	Lithium	0.0093	<0.0034	<0.0034	0.0064	0.026	0.0096	0.0059	0.012
	Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Molybdenum	0.00095 J	<0.00061	0.0014 J	0.00064 J	0.00085 J	0.0015 J	<0.00061	<0.00061
	Radium (226 + 228)	0.0677 U	0.374 U	0.0609 U	0.322 U	0.528	1.39	0.0985 U	1.44
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
Thallium	<0.00015	0.00027 J	<0.00015	<0.00015	0.00033 J	0.00032 J	0.00021 J	0.00037 J	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). 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. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
6. Appendix IV = parameters evaluated during Assessment Monitoring.
7. Fluoride not analyzed in initial assessment event; added to all wells during semiannual monitoring event.

Table 5A
Plant McIntosh Ash Pond 1
Summary of Groundwater Analytical Data
January 2020

Substance	Well ID			
	MGWC-7	MGWC-8	MGWC-12	
	1/28/2020	1/29/2020	1/28/2020	
APPENDIX IV	Antimony	<0.00038	<0.00038	<0.00038
	Arsenic	0.00046 J	0.00047 J	0.00051 J
	Barium	0.012	0.033	0.069
	Beryllium	<0.00018	0.0019	<0.00018
	Cadmium	<0.00022	0.00090 J	<0.00022
	Chromium	0.0015 J	<0.0015	<0.0015
	Cobalt	0.0080	0.025	<0.00013
	Lead	<0.00013	<0.00013	<0.00013
	Lithium	0.13	0.037	0.022
	Mercury	<0.00010	0.00012 J	<0.00010
	Molybdenum	<0.00061	<0.00061	<0.00061
	Radium (226 + 228)	1.38	1.61	0.465
	Selenium	<0.0015	<0.0015	<0.0015
Thallium	<0.00015	0.00042 J	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). 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. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
6. Appendix IV = parameters evaluated during Assessment Monitoring.
7. Fluoride not analyzed in initial assessment event; added to all wells during semiannual monitoring event.

Table 5B
Plant McIntosh Ash Pond 1
Summary of Groundwater Analytical Data
March 2020

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3
		3/10/2020	3/10/2020	3/10/2020	3/9/2020	3/9/2020	3/10/2020	3/10/2020	3/10/2020
APPENDIX III	Boron	<0.039	0.051 J	<0.039	0.045 J	<0.039	1.9	2.3	1.3
	Calcium	29	100	90	4.0	32	120	110	110
	Chloride	5.4	5.1	4.0	7.4	4.5	14	12	15
	Fluoride	0.055 J	0.045 J	0.048 J	0.061 J	0.19	0.086 J	0.050 J	0.058 J
	pH	7.30	7.00	7.04	5.46	7.58	7.11	7.30	6.87
	Sulfate	5.2	5.0	2.4	4.2	3.4	140	170	130
	TDS	170	300	260	56	190	450	540	390
APPENDIX IV	Antimony	<0.00038	<0.00038	<0.00038	<0.00038	<0.00038	<0.0019	<0.00038	<0.00038
	Arsenic	0.00031 J	0.0093	0.0029	<0.00031	0.00073 J	0.0019	<0.0016	<0.0016
	Barium	0.043	0.031	0.035	0.023	0.094	0.13	0.049	0.15
	Beryllium	<0.00018	<0.00018	<0.00018	0.00045 J	0.00018 J	<0.00091	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	0.00023 J	<0.00022	<0.0011	0.0011 J	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	0.0042	<0.0015	<0.0077	<0.0015	<0.0015
	Cobalt	<0.00013	0.00038 J	0.00032 J	<0.00013	<0.00013	<0.00067	0.0024 J	0.00050 J
	Fluoride	0.055 J	0.045 J	0.048 J	0.061 J	0.19	0.086 J	0.050 J	0.058 J
	Lead	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00064	<0.00013	<0.00013
	Lithium	0.011	<0.0034	<0.0034	0.0088	0.017	<0.017	0.0068	0.014
	Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Molybdenum	0.00093 J	<0.00061	0.0012 J	<0.00061	0.0012 J	<0.0031	<0.00061	<0.00061
	Radium (226 + 228)	0.0594 U	0.410 U	0.528	0.761	0.00483	1.40	0.589	1.32
Thallium	0.00015 J	0.00019 J	<0.00015	0.00058 J	0.00036 J	<0.00074	<0.00015	0.00016 J	

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. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5B
Plant McIntosh Ash Pond 1
Summary of Groundwater Analytical Data
March 2020

Substance		Well ID		
		MGWC-7	MGWC-8	MGWC-12
		3/10/2020	3/10/2020	3/10/2020
APPENDIX III	Boron	1.4	4.0	<0.039
	Calcium	55	100	30
	Chloride	10	12	4.1
	Fluoride	0.18	0.084 J	0.15
	pH	6.54	5.50	7.53
	Sulfate	170	370	7.8
	TDS	370	600	170
APPENDIX IV	Antimony	<0.00038	<0.00038	<0.00038
	Arsenic	<0.0016	<0.0016	<0.00031
	Barium	0.013	0.036	0.056
	Beryllium	<0.00018	0.0013 J	<0.00018
	Cadmium	<0.00022	0.0011 J	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015
	Cobalt	0.0081	0.017	<0.00013
	Fluoride	0.18	0.084 J	0.15
	Lead	<0.00013	<0.00013	<0.00013
	Lithium	0.11	0.028	0.018
	Mercury	<0.00010	<0.00010	<0.00010
	Molybdenum	<0.00061	<0.00061	<0.00061
	Radium (226 + 228)	0.903	1.95	0.340 U
Thallium	<0.00015	0.00025 J	0.00015 J	

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. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5C
Plant McIntosh Ash Pond 1
Summary of Groundwater Analytical Data
September 2020

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-1
		9/16/2020	9/16/2020	12/7/2020	9/16/2020	9/16/2020	9/16/2020	9/17/2020	12/8/2020
APPENDIX III	Boron	<0.039	0.041 J	--	0.040 J	<0.039	0.045 J	1.8	--
	Calcium	28	100	--	93	6.8	30	110	--
	Chloride	5.2	4.3	--	3.7	7.0	4.6	14	--
	Fluoride	0.080 J	0.076 J	--	0.078 J	0.042 J	0.18	0.15	--
	pH	7.38	6.98	7.20	6.89	6.37	7.89	6.95	7.41
	Sulfate	3.2	2.7	--	1.0	0.69 J	3.0	150	--
	TDS	150	300	--	320	44	150	460	--
APPENDIX IV	Antimony	<0.00038	<0.00038	--	<0.00038	0.00098 J	0.0011 J	<0.00038	--
	Arsenic	0.00035 J	0.0089	--	0.011	<0.00031	0.00069 J	0.0020	--
	Barium	0.037	0.028	--	0.034	0.025	0.078	0.11	--
	Beryllium	<0.00018	<0.00018	--	<0.00018	<0.00018	<0.00018	<0.00018	--
	Cadmium	<0.00022	<0.00022	--	<0.00022	<0.00022	<0.00022	<0.00022	--
	Chromium	<0.0015	<0.0015	--	<0.0015	0.0039	<0.0015	<0.0015	--
	Cobalt	<0.00013	<0.00013	--	0.00038 J	<0.00013	<0.00013	0.00020 J	--
	Fluoride	0.080 J	0.076 J	--	0.078 J	0.042 J	0.18	0.15	--
	Lead	<0.00013	<0.00013	--	<0.00013	<0.00013	<0.00013	<0.00013	--
	Lithium	0.0094	<0.0034	--	<0.0034	0.0079	0.014	0.0086	--
	Mercury	<0.00013	<0.00013	--	<0.00013	<0.00013	<0.00013	<0.00013	--
	Molybdenum	0.00079 J	<0.00061	--	0.0014 J	0.0022 J	0.0019 J	0.0012 J	--
	Radium (226 + 228)	0.821	-0.0651 U	0.979	1.13	0.969	0.583	1.79	1.87
Thallium	0.00018 J	0.00021 J	--	<0.00015	<0.00015	0.00041 J	0.00016 J	--	

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.
- U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
- Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
- indicates parameter not analyzed during resample/reanalysis.
- Radium reanalysis results for September MGWA-6, MGWC-1, and MGWC-3 samples.

Table 5C
Plant McIntosh Ash Pond 1
Summary of Groundwater Analytical Data
September 2020

Substance		Well ID					
		MGWC-2	MGWC-3	MGWC-3	MGWC-7	MGWC-8	MGWC-12
		9/16/2020	9/17/2020	12/8/2020	9/17/2020	9/17/2020	9/16/2020
APPENDIX III	Boron	2.1	1.2	--	1.4	4.4	<0.039
	Calcium	110	110	--	48	100	25
	Chloride	12	14	--	9.6	10	5.1
	Fluoride	0.076 J	0.083 J	--	0.25	0.11	0.26
	pH	7.16	6.68	7.04	6.39	5.22	11.03
	Sulfate	160	120	--	160	380	4.4
	TDS	530	410	--	320	740	190
APPENDIX IV	Antimony	<0.00038	<0.00038	--	<0.00038	<0.00038	<0.00038
	Arsenic	<0.00031	0.0015	--	0.00045 J	<0.00031	<0.00031
	Barium	0.048	0.16	--	0.0091 J	0.028	0.10
	Beryllium	<0.00018	<0.00018	--	<0.00018	0.0019 J	<0.00018
	Cadmium	0.00053 J	<0.00022	--	0.00023 J	0.00072 J	<0.00022
	Chromium	<0.0015	<0.0015	--	<0.0015	<0.0015	0.029
	Cobalt	0.0020 J	0.00053 J	--	0.0098	0.024	0.0015 J
	Fluoride	0.076 J	0.083 J	--	0.25	0.11	0.26
	Lead	<0.00013	<0.00013	--	<0.00013	<0.00013	<0.00013
	Lithium	0.0055	0.012	--	0.11	0.039	0.025
	Mercury	<0.00013	<0.00013	--	<0.00013	0.00014 J	<0.00013
	Molybdenum	<0.00061	<0.00061	--	<0.00061	<0.00061	0.0024 J
	Radium (226 + 228)	1.11	0.666 U	1.65	1.28	1.56	1.09
Thallium	<0.00015	<0.00015	--	<0.00015	0.00031 J	0.00027 J	

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. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
8. -- indicates parameter not analyzed during resample/reanalysis.
9. Radium reanalysis results for September MGWA-6, MGWC-1, and MGWC-3 samples.

Table 6
Statistical Method Summary

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 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

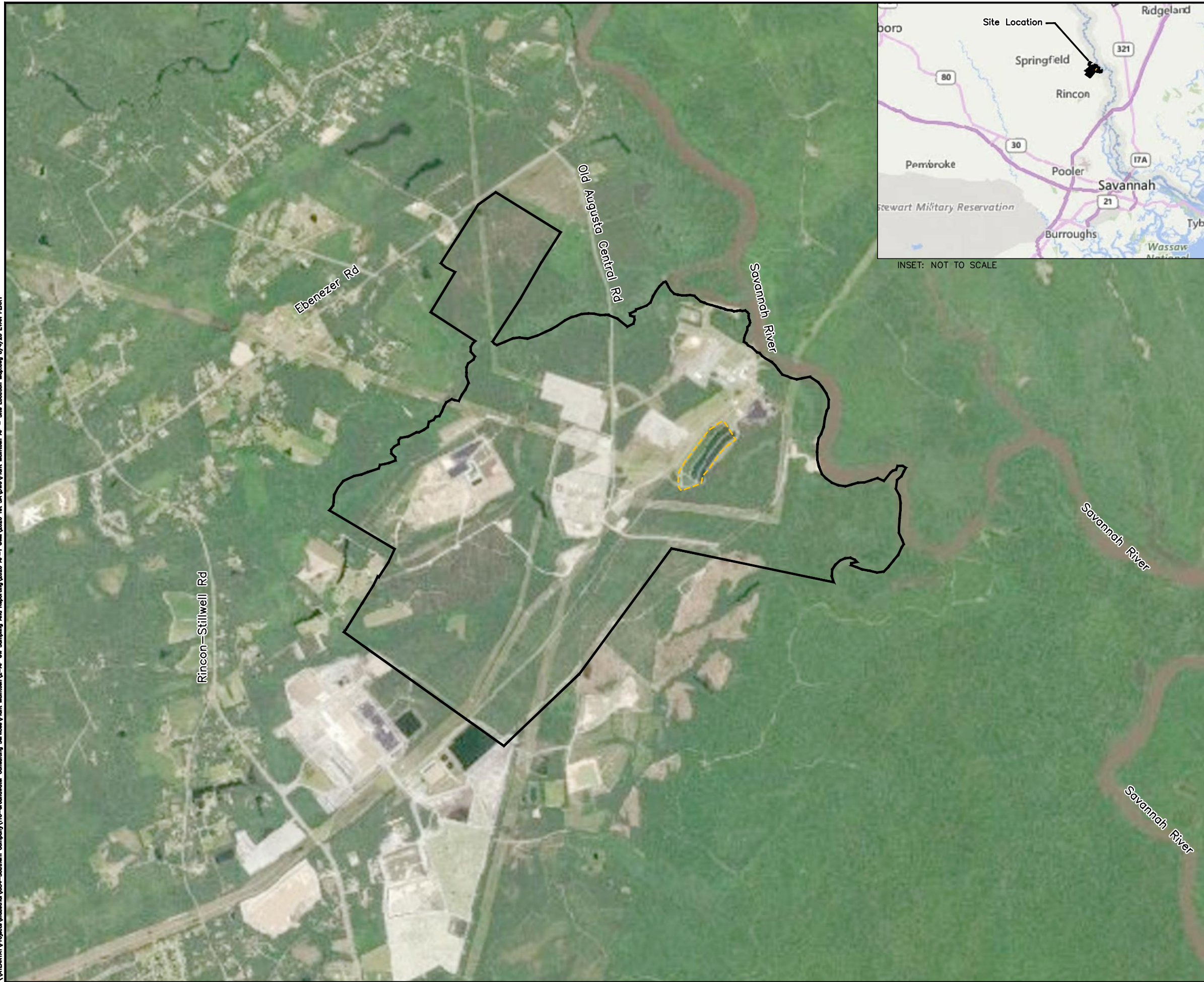
Constituent	Site Background	Federal GWPS	State GWPS
Antimony	0.002	0.006	0.006
Arsenic	0.035	0.035	0.035
Barium	0.13	2	2
Beryllium	0.0025	0.004	0.004
Cadmium	0.0025	0.005	0.005
Chromium	0.0063	0.1	0.1
Cobalt	0.0025	0.006	0.0025
Fluoride	0.19	4	4
Lead	0.001	0.015	0.001
Lithium	0.03	0.04	0.03
Mercury	0.0002	0.002	0.002
Molybdenum	0.015	0.1	0.015
Radium (226+228)	1.1	5	5
Selenium	0.005	0.05	0.05
Thallium	0.001	0.002	0.002

Notes:

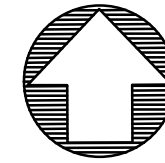
1. Site Background = Tolerance limits calculated from pooled upgradient well data.
2. Federal GWPS = Groundwater protection standard, per 257.95(h)(1-3).
3. State GWPS = Groundwater protection standard, per Georgia EPD Rule 391-3-4-.10(6)(a).
4. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter.
5. GWPS shown on table apply to both March and September events.

FIGURES

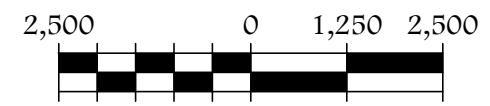
\\ATLANTA\Projects\Inland\110-Southern Company\110-Groundwater Consulting Services\Plant McIntosh\2-ap-1 GW Sampling And Reporting\2020 AP-1 GWA\2020 1st SA DWG\Plant McIntosh AP - Site Location Map.dwg 8/4/20 EVAN PERRY



INSET: NOT TO SCALE



ATLANTIC COAST CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE AP-1 BOUNDARY

PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH

SITE LOCATION MAP

PROJECT NO. IO54-110

January 2021

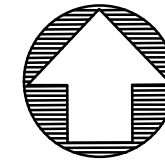
DRAWN BY: MM

FIGURE:

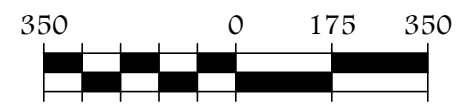
CHECKED BY: EP

1

\\ATLANTA\Projects\Inland\110-Southern Company\110-Groundwater Consulting Services\Plant McIntosh\2-up of Sampling And Reporting\2020 AP-1 GWA\2020 1st SA\DWG\Plant McIntosh AP - Well Location Map.dwg 8/4/20 EVAN PERRY



ATLANTIC COAST
CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

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

PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH
ASH POND 1

WELL LOCATION MAP

PROJECT NO. I054-110

January 2021

DRAWN BY: MM

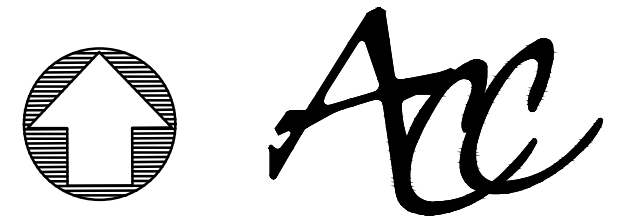
FIGURE:

CHECKED BY: EP

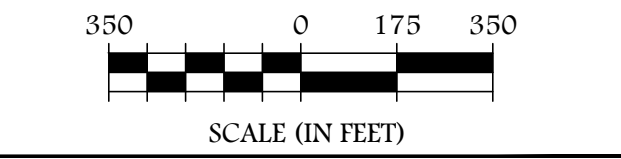
Plant McIntosh
Ash Pond 1
January 2020 Sampling Event

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	65.23	37.32	27.91
MGWC-2	37.36	48.54	20.02	28.52
MGWC-3	38.74	52.65	17.26	35.39
MGWC-4	67.35	64.33	25.24	39.09
MGWA-5	63.09	64.36	21.88	42.48
MGWA-6	41.93	61.08	19.70	41.38
MGWA-6A	39.70	59.76	18.33	41.43
MGWC-7	42.29	54.40	20.49	33.91
MGWC-8	52.56	62.61	30.41	32.20
MGWA-9	43.05	59.29	20.39	38.90
MGWA-10	53.09	65.07	16.54	48.53
MGWA-11	55.81	64.91	20.06	44.85
MGWC-12	52.90	64.10	24.88	39.22
PZ-13	26.76	40.91	17.01	23.90
PZ-14	41.50	47.11	17.06	30.05
PZ-15	28.87	42.37	18.52	23.85
PZ-16	42.39	54.71	32.41	22.30
PZ-17	45.12	57.51	30.51	27.00
PZ-18	41.70	53.48	18.66	34.82
MGWC-19	72.70	53.98	21.49	32.49
MGWC-20	54.77	51.56	21.60	29.96
MGWC-21	82.68	62.65	31.39	31.26
MGWC-22	67.56	47.53	17.09	30.44
MGWC-23	42.90	57.47	33.21	24.26
MGWA-24	47.00	60.53	18.57	41.96

Notes:
 Depths to water measured within a 24-hour period on January 29, 2020.
 Wells resurveyed June 2020.
 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.



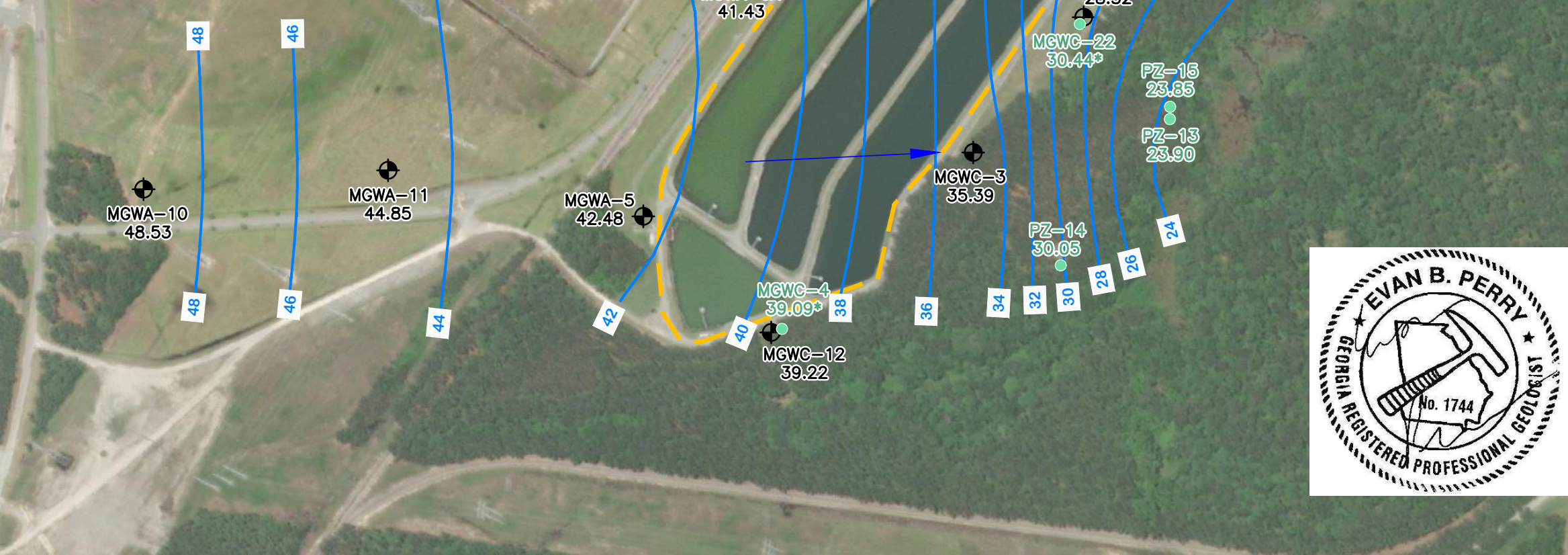
ATLANTIC COAST CONSULTING, INC.




SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 27.38 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 27.15 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION



PROJECT



GEORGIA POWER COMPANY
 PLANT McINTOSH
 ASH POND 1

**POTENTIOMETRIC CONTOUR MAP
 JANUARY 2020**

PROJECT NO. I054-110 JULY 2020

DRAWN BY:	JB	FIGURE:	3
CHECKED BY:	MM		

F:\Industrial\09-Southern Company\10-Drumwater Consulting Services\Plant McIntosh\2-AP Off Sampling And Reporting\2020 AP-1 GWA\2020 1st SA\GWA\Plant McIntosh AP - January 2020 Map (revised).img 1/7/21 MATT MALONE

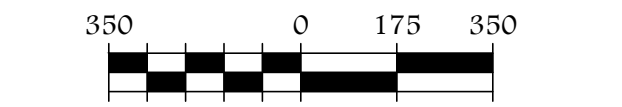
Summary of Groundwater Elevations
Plant McIntosh
Ash Pond 1
March 2020 Sampling Event

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	65.23	37.70	27.53
MGWC-2	37.36	48.54	19.71	28.83
MGWC-3	38.74	52.65	17.01	35.64
MGWC-4	67.35	64.33	24.80	39.53
MGWA-5	63.09	64.36	21.20	43.16
MGWA-6	41.93	61.08	18.66	42.42
MGWA-6A	39.70	59.76	17.30	42.46
MGWC-7	42.29	54.40	19.23	35.17
MGWC-8	52.56	62.61	30.25	32.36
MGWA-9	43.05	59.29	18.61	40.68
MGWA-10	53.09	65.07	15.42	49.65
MGWA-11	55.81	64.91	19.11	45.80
MGWC-12	52.90	64.10	24.43	39.67
PZ-13	26.76	40.91	16.65	24.26
PZ-14	41.50	47.11	16.70	30.41
PZ-15	28.87	42.37	18.15	24.22
PZ-16	42.39	54.71	32.13	22.58
PZ-17	45.12	57.51	30.31	27.20
PZ-18	41.70	53.48	16.60	36.88
MGWC-19	72.70	53.98	20.53	33.45*
MGWC-20	54.77	51.56	20.70	30.86
MGWC-21	82.68	62.65	30.92	31.73*
MGWC-22	67.56	47.53	16.82	28.83
MGWC-23	42.90	57.47	33.04	24.43
MGWC-24	47.00	60.53	17.22	43.31

Notes:
 Depths to water measured within a 24-hour period on March 9, 2020.
 Wells resurveyed June 2020.
 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.

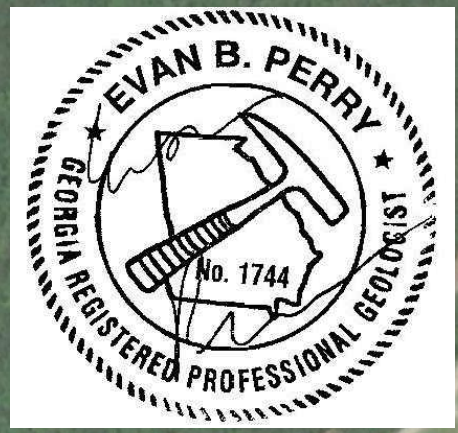
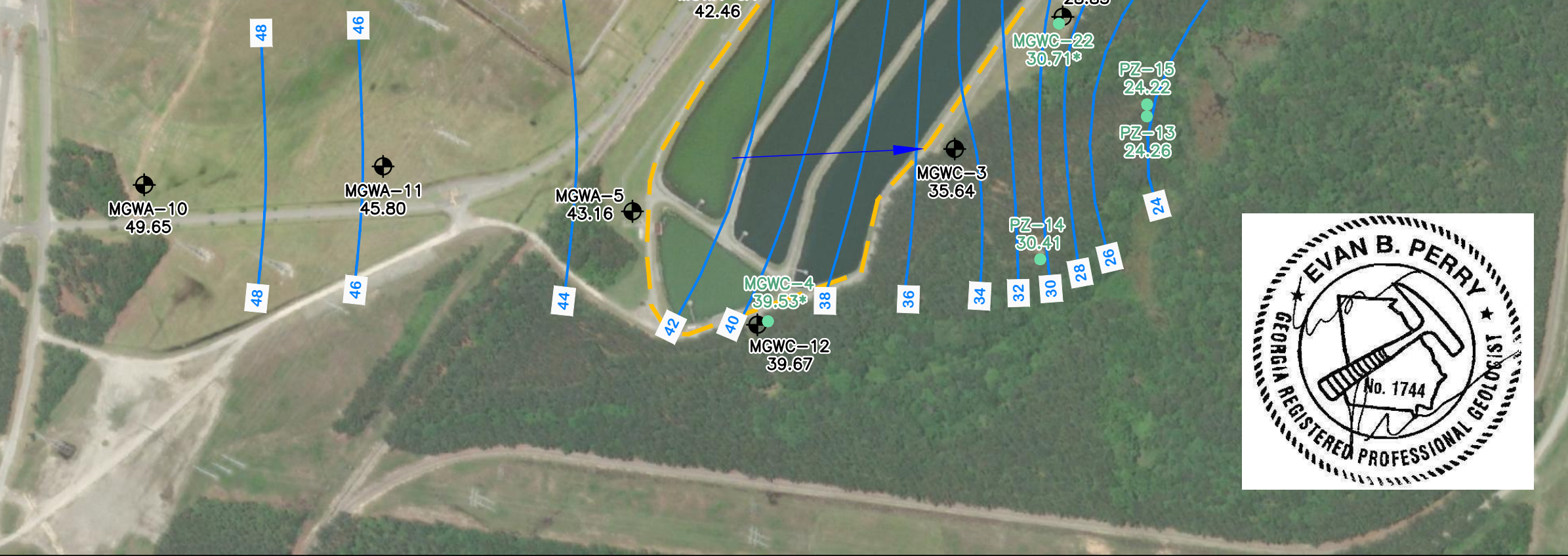


SCALE (IN FEET)


LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 27.38 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 27.15 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

\\ATLANTA\Projects\Industry\Sub-Southern Company\110-Groundwater Consulting Services\Plant McIntosh\2-ap-01 Sampling And Reporting\2020 AP-1 GW\2020 1st SA\DWG\Plant McIntosh AP - March 2020 Map.dwg 8/4/20 EVAN PERRY



PROJECT



GEORGIA POWER COMPANY
 PLANT McINTOSH
 ASH POND 1

POTENTIOMETRIC CONTOUR MAP
 MARCH 2020

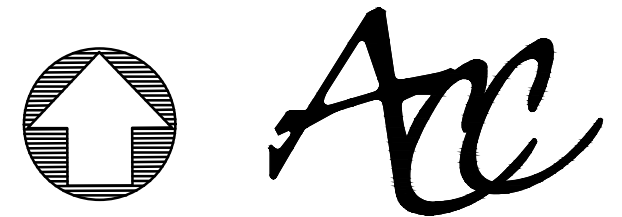
PROJECT NO. I054-110 January 2021

DRAWN BY:	RW	FIGURE:	4
CHECKED BY:	MM		

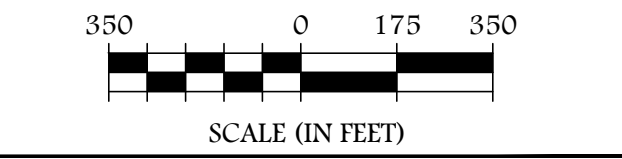
Summary of Groundwater Elevations
Plant McIntosh
Ash Pond 1
September 2020 Sampling Event

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	65.23	38.28	26.95
MGWC-2	37.36	48.54	21.19	27.35
MGWC-3	38.74	52.65	19.42	33.23
MGWC-4	67.35	64.33	27.07	37.26
MGWA-5	63.09	64.36	23.95	40.41
MGWA-6	41.93	61.08	22.47	38.61
MGWA-6A	39.67	59.76	21.09	38.67
MGWC-7	42.29	54.40	21.98	32.42
MGWC-8	52.56	62.61	31.66	30.95
MGWA-9	43.05	59.29	22.22	37.07
MGWA-10	53.09	65.07	18.22	46.85
MGWA-11	55.81	64.91	21.90	43.01
MGWC-12	52.90	64.10	26.72	37.38
PZ-13	26.76	40.91	17.67	23.24
PZ-14	41.50	47.11	18.14	28.97
PZ-15	28.87	42.37	19.16	23.21
PZ-16	42.39	54.71	32.23	22.48
PZ-17	45.12	57.51	30.40	27.11
PZ-18	41.70	53.48	20.29	33.19
MGWC-19	72.70	53.98	22.79	31.19*
MGWC-20	54.77	51.56	21.96	29.60
MGWC-21	82.68	62.65	32.70	29.95*
MGWC-22	67.56	47.53	18.58	28.95*
MGWC-23	42.90	57.47	33.33	24.14
MGWA-24	47.00	60.53	20.80	39.73

Notes:
 Depths to water measured within a 24-hour period on September 14, 2020.
 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.

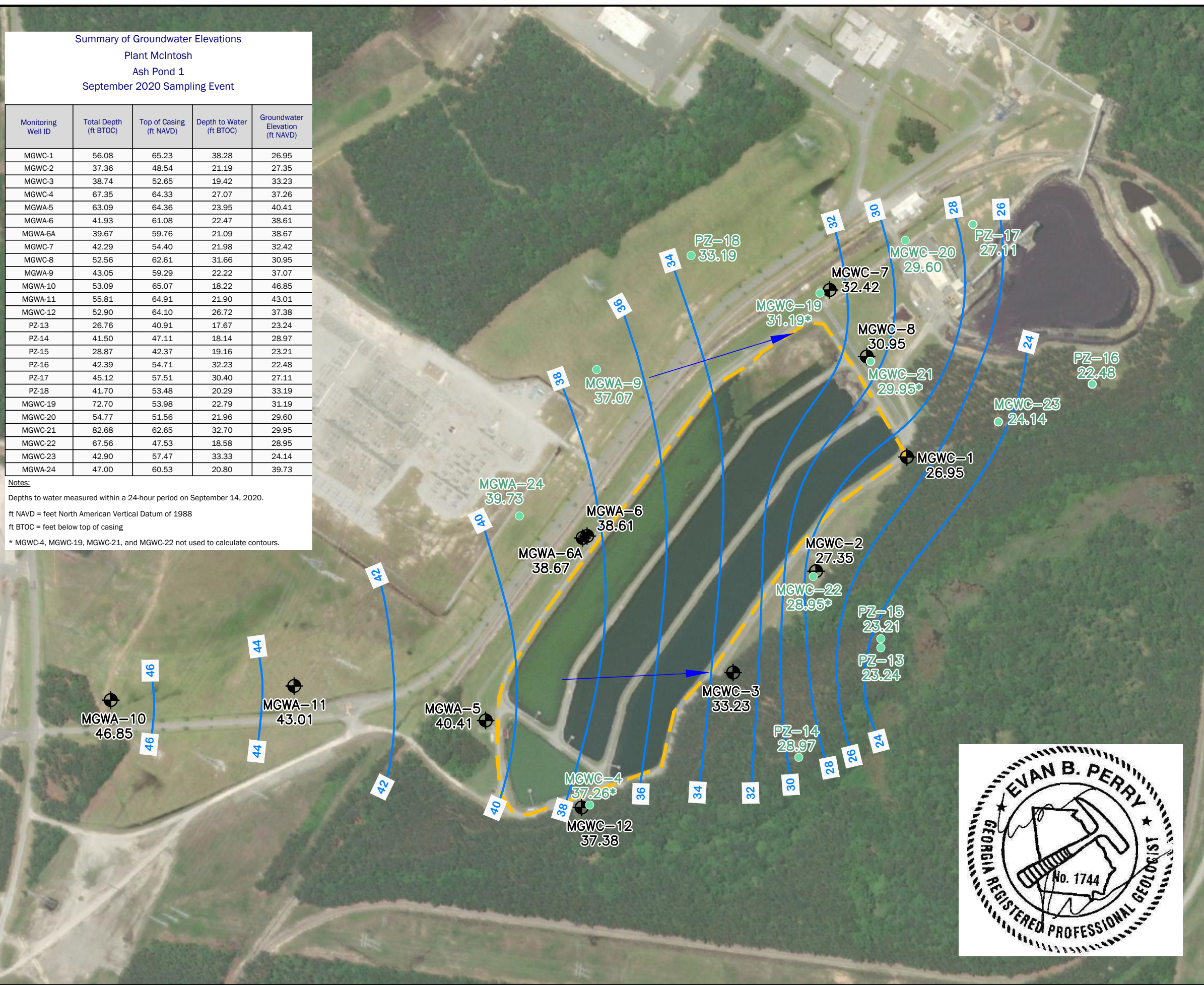


SCALE (IN FEET)


LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 26.95 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 27.11 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

F:\Industrial\09-Southern Company\10-Drumwater Consulting Services\Plant McIntosh\2-AP Off Sampling And Reporting\2020 AP-1 GWA\2020 2nd SA\DWG\Plant McIntosh AP - September 2020 Map.dwg 1/7/21 MATT MALONE



PROJECT



GEORGIA POWER COMPANY
PLANT McINTOSH
ASH POND 1

POTENTIOMETRIC CONTOUR MAP
SEPTEMBER 2020

PROJECT NO. I054-110 JANUARY 2021

DRAWN BY:	RW	FIGURE:
CHECKED BY:	MM	

5

APPENDICES



APPENDIX A

Laboratory Analytical and Field Sampling Reports

July 16, 2020

Southern Company | Environmental Solutions
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308
Attn: Kristen Jurinko

Dear Kristen:

The purpose of this letter is to address the change in the reporting limit of Boron from 0.05 mg/L to 0.08 mg/L when Southern Company plants were transitioned to analysis of samples by the Eurofins TestAmerica laboratory in Pittsburgh.

The method detection limit (MDL) is a statistical representation of the 99% confidence level that an analyte concentration is greater than zero. Not long ago the EPA Method Update Rule modified the procedure by which laboratories must determine MDLs. The Eurofins TestAmerica Pittsburgh laboratory along with many other accredited laboratories adopted the new procedure as part of its requirements to obtain state certifications. The process requires a period of data collection and method blank evaluation. The MDL values are calculated from statistical variations of low level standards prepared and analyzed over a series of days and instruments or they are based on historic levels of the analyte in the blank; whichever is greater.

The reporting limit (RL) for an analyte is always above the MDL and reflects concentrations where the laboratory controls precision and bias because the RL is used as a censoring level for quantifying result data. A standard with the analytes at the reporting limit is analyzed as part of the method and must recover within 70-130% of the known value. The procedural changes in the Method Update Rule resulted in changes to MDLs and therefore RLs in some cases. MDL and Reporting Limits (RL) are reviewed annually and updated when necessary. The variability in instrumentation, method procedural steps, native background, historical requirements, and general laboratory processes can cause MDL's and RL's to be different from year to year and lab to lab.

In the specific case of boron the procedures used to determine the MDL and subsequently the RL resulted in the RL value of 0.08 mg/L. Data reported at this value meet the referenced method quality criteria; and, the RL is comparable to that at other laboratories using similar criteria.

Please let me know if you have any additional questions.

Sincerely,



Deborah L. Lowe
Laboratory Director

ANALYTICAL REPORT

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

Laboratory Job ID: 180-101629-1

Client Project/Site: CCR - Plant McIntosh Ash Pond 1

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
2/13/2020 7:51:53 AM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	11
QC Sample Results	15
QC Association Summary	18
Chain of Custody	20
Receipt Checklists	23

Case Narrative

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

Job ID: 180-101629-1

Job ID: 180-101629-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-101629-1**

Comments

No additional comments.

Receipt

The samples were received on 1/29/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 3.9° C.

Metals

Methods 6020, 6020A, 6020B: The low level initial calibration verification (ICVL) associated with batch 180-306471 recovered above the upper control limit for cadmium. The samples associated with this ICVL were non-detects for the affected analytes; therefore, the data have been reported.

Methods 6020A, 6020B: The method blank for preparation batch 180-306211 and analytical batch 180-306471 contained nickel above the reporting limit (RL). Associated samples were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Methods 6020, 6020A, 6020B: The continuing calibration verification (CCV) associated with batch 180-306471 recovered above the upper control limit for beryllium. The samples associated with this CCV were non-detects or less than the RL for the affected analytes; therefore, the data have been reported.

Methods 6020, 6020A, 6020B: The continuing calibration verification (CCV) associated with batch 180-306471 recovered above the upper control limit for beryllium. The samples associated with this CCV were non-detects or less than the RL for the affected analytes; therefore, the data have been reported.

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-101629-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-101629-1

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20 *
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	01-31-20 *
Wisconsin	State	998027800	08-31-20

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



Sample Summary

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

Job ID: 180-101629-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-101629-1	MGWA-10	Water	01/28/20 13:10	01/29/20 09:00	
180-101629-2	MGWA-11	Water	01/28/20 13:45	01/29/20 09:00	
180-101629-3	MGWA-6	Water	01/28/20 14:40	01/29/20 09:00	
180-101629-4	MGWA-5	Water	01/28/20 15:27	01/29/20 09:00	
180-101629-5	MGWA-6A	Water	01/28/20 15:40	01/29/20 09:00	
180-101629-6	MGWC-12	Water	01/28/20 16:52	01/29/20 09:00	
180-101629-7	MGWC-7	Water	01/28/20 17:05	01/29/20 09:00	

Method Summary

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

Job ID: 180-101629-1

Method	Method Description	Protocol	Laboratory
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	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

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

Laboratory References:

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



Lab Chronicle

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

Job ID: 180-101629-1

Client Sample ID: MGWA-10

Date Collected: 01/28/20 13:10

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-1

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 21:58	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 16:36	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:28	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 13:10	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-11

Date Collected: 01/28/20 13:45

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-2

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 22:23	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 16:53	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:29	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 13:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Date Collected: 01/28/20 14:40

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-3

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 22:28	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 16:55	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:32	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 14:40	FDS	TAL PIT
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101629-1

Client Sample ID: MGWA-5

Lab Sample ID: 180-101629-4

Date Collected: 01/28/20 15:27

Matrix: Water

Date Received: 01/29/20 09:00

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 22:33	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 16:58	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:32	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 15:27	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-101629-5

Date Collected: 01/28/20 15:40

Matrix: Water

Date Received: 01/29/20 09:00

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 22:38	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 17:00	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:33	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 15:40	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-12

Lab Sample ID: 180-101629-6

Date Collected: 01/28/20 16:52

Matrix: Water

Date Received: 01/29/20 09:00

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 22:53	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 17:03	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:34	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 16:52	FDS	TAL PIT
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101629-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-101629-7

Date Collected: 01/28/20 17:05

Matrix: Water

Date Received: 01/29/20 09:00

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	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306857	02/11/20 22:58	WTR	TAL PIT
Instrument ID: M										
Total Recoverable	Prep	3005A			50 mL	50 mL	306211	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			306471	02/07/20 17:05	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	306302	02/06/20 13:56	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			306601	02/10/20 14:35	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/28/20 17:05	FDS	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

NAM = Nicole Marfisi

RJR = Ron Rosenbaum

Batch Type: Analysis

FDS = Sampler Field

NAM = Nicole Marfisi

RSK = Robert Kurtz

WTR = Bill Reinheimer

Client Sample Results

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

Job ID: 180-101629-1

Client Sample ID: MGWA-10

Lab Sample ID: 180-101629-1

Date Collected: 01/28/20 13:10

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 16:36	1
Barium	0.025		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 16:36	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 16:36	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 16:36	1
Chromium	0.0044		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 16:36	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 16:36	1
Molybdenum	0.00064	J	0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 16:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 16:36	1
Antimony	0.00049	J	0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 16:36	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 16:36	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 16:36	1
Lithium	0.0064		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 21:58	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	5.78				SU			01/28/20 13:10	1

Client Sample ID: MGWA-11

Lab Sample ID: 180-101629-2

Date Collected: 01/28/20 13:45

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0014		0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 16:53	1
Barium	0.13		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 16:53	1
Beryllium	0.00040	J ^	0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 16:53	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 16:53	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 16:53	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 16:53	1
Molybdenum	0.00085	J	0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 16:53	1
Lead	0.00016	J B	0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 16:53	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 16:53	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 16:53	1
Thallium	0.00033	J B	0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 16:53	1
Lithium	0.026		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 22:23	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:29	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.40				SU			01/28/20 13:45	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-1

Client Sample ID: MGWA-6

Lab Sample ID: 180-101629-3

Date Collected: 01/28/20 14:40

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0063		0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 16:55	1
Barium	0.034		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 16:55	1
Beryllium	<0.00018	^	0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 16:55	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 16:55	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 16:55	1
Cobalt	0.00041	J	0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 16:55	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 16:55	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 16:55	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 16:55	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 16:55	1
Thallium	0.00027	J B	0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 16:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 22:28	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.17				SU			01/28/20 14:40	1

Client Sample ID: MGWA-5

Lab Sample ID: 180-101629-4

Date Collected: 01/28/20 15:27

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00036	J	0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 16:58	1
Barium	0.034		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 16:58	1
Beryllium	<0.00018	^	0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 16:58	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 16:58	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 16:58	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 16:58	1
Molybdenum	0.00095	J	0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 16:58	1
Lead	0.00018	J B	0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 16:58	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 16:58	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 16:58	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 16:58	1
Lithium	0.0093		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 22:33	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.46				SU			01/28/20 15:27	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-1

Client Sample ID: MGWA-6A

Lab Sample ID: 180-101629-5

Date Collected: 01/28/20 15:40

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0028		0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 17:00	1
Barium	0.037		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 17:00	1
Beryllium	<0.00018	^	0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 17:00	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 17:00	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 17:00	1
Cobalt	0.00024	J	0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 17:00	1
Molybdenum	0.0014	J	0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 17:00	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 17:00	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 17:00	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 17:00	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 17:00	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 22:38	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.36				SU			01/28/20 15:40	1

Client Sample ID: MGWC-12

Lab Sample ID: 180-101629-6

Date Collected: 01/28/20 16:52

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00051	J	0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 17:03	1
Barium	0.069		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 17:03	1
Beryllium	<0.00018	^	0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 17:03	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 17:03	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 17:03	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 17:03	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 17:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 17:03	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 17:03	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 17:03	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 17:03	1
Lithium	0.022		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 22:53	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.25				SU			01/28/20 16:52	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-101629-7

Date Collected: 01/28/20 17:05

Matrix: Water

Date Received: 01/29/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	J	0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 17:05	1
Barium	0.012		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 17:05	1
Beryllium	<0.00018	^	0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 17:05	1
Cadmium	<0.00022	^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 17:05	1
Chromium	0.0015	J	0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 17:05	1
Cobalt	0.0080		0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 17:05	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 17:05	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 17:05	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 17:05	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 17:05	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 17:05	1
Lithium	0.13		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 22:58	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	6.61				SU			01/28/20 17:05	1

QC Sample Results

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

Job ID: 180-101629-1

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

Lab Sample ID: MB 180-306211/1-A
Matrix: Water
Analysis Batch: 306471

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/06/20 08:00	02/07/20 16:16	1
Barium	<0.0016		0.010	0.0016	mg/L		02/06/20 08:00	02/07/20 16:16	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/06/20 08:00	02/07/20 16:16	1
Cadmium	0.000254	J ^	0.0010	0.00022	mg/L		02/06/20 08:00	02/07/20 16:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/06/20 08:00	02/07/20 16:16	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/06/20 08:00	02/07/20 16:16	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/06/20 08:00	02/07/20 16:16	1
Lead	0.000295	J	0.0010	0.00013	mg/L		02/06/20 08:00	02/07/20 16:16	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/06/20 08:00	02/07/20 16:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/06/20 08:00	02/07/20 16:16	1
Thallium	0.000429	J	0.0010	0.00015	mg/L		02/06/20 08:00	02/07/20 16:16	1

Lab Sample ID: MB 180-306211/1-A
Matrix: Water
Analysis Batch: 306857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0034		0.0050	0.0034	mg/L		02/06/20 08:00	02/11/20 21:24	1

Lab Sample ID: LCS 180-306211/2-A
Matrix: Water
Analysis Batch: 306471

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.976		mg/L		98	80 - 120
Barium	1.00	1.03		mg/L		103	80 - 120
Beryllium	0.500	0.509		mg/L		102	80 - 120
Cadmium	0.500	0.510	^	mg/L		102	80 - 120
Chromium	0.500	0.521		mg/L		104	80 - 120
Cobalt	0.500	0.457		mg/L		91	80 - 120
Molybdenum	0.500	0.502		mg/L		100	80 - 120
Lead	0.500	0.502		mg/L		100	80 - 120
Antimony	0.250	0.244		mg/L		98	80 - 120
Selenium	1.00	0.923		mg/L		92	80 - 120
Thallium	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: LCS 180-306211/2-A
Matrix: Water
Analysis Batch: 306857

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.527		mg/L		105	80 - 120

Lab Sample ID: 180-101629-1 MS
Matrix: Water
Analysis Batch: 306471

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.00031		1.00	0.976		mg/L		98	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-101629-1

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

Lab Sample ID: 180-101629-1 MS
Matrix: Water
Analysis Batch: 306471

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	0.025		1.00	1.04		mg/L		102	75 - 125
Beryllium	<0.00018		0.500	0.515	^	mg/L		103	75 - 125
Cadmium	<0.00022	^	0.500	0.512	^	mg/L		102	75 - 125
Chromium	0.0044		0.500	0.525		mg/L		104	75 - 125
Cobalt	<0.00013		0.500	0.444		mg/L		89	75 - 125
Molybdenum	0.00064	J	0.500	0.500		mg/L		100	75 - 125
Lead	<0.00013		0.500	0.493		mg/L		99	75 - 125
Antimony	0.00049	J	0.250	0.244		mg/L		97	75 - 125
Selenium	<0.0015		1.00	0.918		mg/L		92	75 - 125
Thallium	<0.00015		1.00	1.02		mg/L		102	75 - 125

Lab Sample ID: 180-101629-1 MS
Matrix: Water
Analysis Batch: 306857

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Lithium	0.0064		0.500	0.549		mg/L		108	75 - 125

Lab Sample ID: 180-101629-1 MSD
Matrix: Water
Analysis Batch: 306471

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	<0.00031		1.00	0.970		mg/L		97	75 - 125	1	20
Barium	0.025		1.00	1.03		mg/L		100	75 - 125	1	20
Beryllium	<0.00018		0.500	0.534	^	mg/L		107	75 - 125	4	20
Cadmium	<0.00022	^	0.500	0.510	^	mg/L		102	75 - 125	0	20
Chromium	0.0044		0.500	0.533		mg/L		106	75 - 125	1	20
Cobalt	<0.00013		0.500	0.452		mg/L		90	75 - 125	2	20
Molybdenum	0.00064	J	0.500	0.509		mg/L		102	75 - 125	2	20
Lead	<0.00013		0.500	0.497		mg/L		99	75 - 125	1	20
Antimony	0.00049	J	0.250	0.241		mg/L		96	75 - 125	1	20
Selenium	<0.0015		1.00	0.921		mg/L		92	75 - 125	0	20
Thallium	<0.00015		1.00	1.05		mg/L		105	75 - 125	3	20

Lab Sample ID: 180-101629-1 MSD
Matrix: Water
Analysis Batch: 306857

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 306211

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Lithium	0.0064		0.500	0.550		mg/L		109	75 - 125	0	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-306302/1-A
Matrix: Water
Analysis Batch: 306601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 306302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/06/20 13:56	02/10/20 14:16	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-101629-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: LCS 180-306302/2-A
Matrix: Water
Analysis Batch: 306601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 306302
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.00237		mg/L		95	80 - 120

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- 13

QC Association Summary

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

Job ID: 180-101629-1

Metals

Prep Batch: 306211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total Recoverable	Water	3005A	
180-101629-2	MGWA-11	Total Recoverable	Water	3005A	
180-101629-3	MGWA-6	Total Recoverable	Water	3005A	
180-101629-4	MGWA-5	Total Recoverable	Water	3005A	
180-101629-5	MGWA-6A	Total Recoverable	Water	3005A	
180-101629-6	MGWC-12	Total Recoverable	Water	3005A	
180-101629-7	MGWC-7	Total Recoverable	Water	3005A	
MB 180-306211/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-306211/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-101629-1 MS	MGWA-10	Total Recoverable	Water	3005A	
180-101629-1 MSD	MGWA-10	Total Recoverable	Water	3005A	

Prep Batch: 306302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total/NA	Water	7470A	
180-101629-2	MGWA-11	Total/NA	Water	7470A	
180-101629-3	MGWA-6	Total/NA	Water	7470A	
180-101629-4	MGWA-5	Total/NA	Water	7470A	
180-101629-5	MGWA-6A	Total/NA	Water	7470A	
180-101629-6	MGWC-12	Total/NA	Water	7470A	
180-101629-7	MGWC-7	Total/NA	Water	7470A	
MB 180-306302/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-306302/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 306471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total Recoverable	Water	EPA 6020B	306211
180-101629-2	MGWA-11	Total Recoverable	Water	EPA 6020B	306211
180-101629-3	MGWA-6	Total Recoverable	Water	EPA 6020B	306211
180-101629-4	MGWA-5	Total Recoverable	Water	EPA 6020B	306211
180-101629-5	MGWA-6A	Total Recoverable	Water	EPA 6020B	306211
180-101629-6	MGWC-12	Total Recoverable	Water	EPA 6020B	306211
180-101629-7	MGWC-7	Total Recoverable	Water	EPA 6020B	306211
MB 180-306211/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	306211
LCS 180-306211/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	306211
180-101629-1 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	306211
180-101629-1 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	306211

Analysis Batch: 306601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total/NA	Water	EPA 7470A	306302
180-101629-2	MGWA-11	Total/NA	Water	EPA 7470A	306302
180-101629-3	MGWA-6	Total/NA	Water	EPA 7470A	306302
180-101629-4	MGWA-5	Total/NA	Water	EPA 7470A	306302
180-101629-5	MGWA-6A	Total/NA	Water	EPA 7470A	306302
180-101629-6	MGWC-12	Total/NA	Water	EPA 7470A	306302
180-101629-7	MGWC-7	Total/NA	Water	EPA 7470A	306302
MB 180-306302/1-A	Method Blank	Total/NA	Water	EPA 7470A	306302
LCS 180-306302/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	306302

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QC Association Summary

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

Job ID: 180-101629-1

Metals

Analysis Batch: 306857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total Recoverable	Water	EPA 6020B	306211
180-101629-2	MGWA-11	Total Recoverable	Water	EPA 6020B	306211
180-101629-3	MGWA-6	Total Recoverable	Water	EPA 6020B	306211
180-101629-4	MGWA-5	Total Recoverable	Water	EPA 6020B	306211
180-101629-5	MGWA-6A	Total Recoverable	Water	EPA 6020B	306211
180-101629-6	MGWC-12	Total Recoverable	Water	EPA 6020B	306211
180-101629-7	MGWC-7	Total Recoverable	Water	EPA 6020B	306211
MB 180-306211/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	306211
LCS 180-306211/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	306211
180-101629-1 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	306211
180-101629-1 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	306211

Field Service / Mobile Lab


Analysis Batch: 305709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total/NA	Water	Field Sampling	
180-101629-2	MGWA-11	Total/NA	Water	Field Sampling	
180-101629-3	MGWA-6	Total/NA	Water	Field Sampling	
180-101629-4	MGWA-5	Total/NA	Water	Field Sampling	
180-101629-5	MGWA-6A	Total/NA	Water	Field Sampling	
180-101629-6	MGWC-12	Total/NA	Water	Field Sampling	
180-101629-7	MGWC-7	Total/NA	Water	Field Sampling	

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

Chain of Custody Record

Client Information Client Contact: Ms. Lauren Petty Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State: AL, Zip: 35291 Phone: 205-992-5417(Tel) Email: Impetty@southernco.com Project Name: CCR - Plant McIntosh Ash Pond 1 Site: Georgia		Lab PM: Bortol, Veronica E-Mail: veronica.bortol@testamericainc.com Phone: 404-592-0094 Carrier Tracking No(s): COC No: 180-57786-11316.1 Page 1 of 1 Job #					
Due Date Requested: TAT Requested (days): Standard PO #: SCS10382606 WO #: Project #: 18019956 SSOW#:		Analysis Requested 9315 Ra226, 9320 Ra228 6020B, 7470A Pb, Li, Mo, Se, Tl, Hg Bi, Hs, Ba, Bc, Cd, Co, U					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastliq, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Preservation Code	Special Instructions/Note:
MGWA-10	1/28/20	1310	G	Water	N	X	2 Coolers
MGWA-11	1/28/20	1345	G	Water	N	X	1 COC
MGWA-6	1/28/20	1440	G	Water	N	X	
MGWA-5	1/28/20	1527	G	Water	N	X	
MGWA-6A	1/28/20	1540	G	Water	N	X	
MGWC-12	1/28/20	1652	G	Water			
MGWC-7	1/28/20	1705	G	Water			
				Water			
				Water			
				Water			
				Water			


 180-101629 Chain of Custody

Special Instructions/Note:

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:

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____
 Relinquished by: *Lauren Petty* Date: 1/28/20 1800 Company: GEI
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks:



eurofins

ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER

1375 PEACHTREE ST NE
ATLANTA, GA 30309
UNITED STATES US

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 983-8222 REF: DEPT: (INV) PO:

SHIP DATE: 28-JAN-20
ACT WGT: 34.60 LB
CAD: 6894819/SSEFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY



180-101629 Waybill

WED - 29 JAN 10:30A
PRIORITY OVERNIGHT

2 of 2
MPS# 7799 5446 5142
Met# 7799 5446 5131

XH AGCA

15238
PA-US PIT



Uncorrected temp
Thermometer ID

CF Initials

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

97 1 A 10:30

ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER

1375 PEACHTREE ST NE
ATLANTA, GA 30309
UNITED STATES US

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

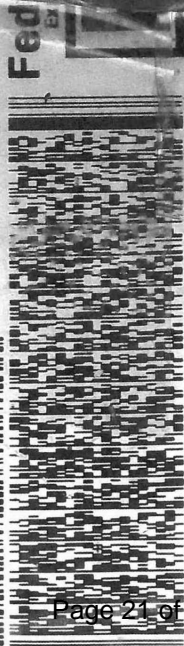
PITTSBURGH PA 15238

(412) 983-8222 REF: DEPT: (INV) PO:

SHIP DATE: 28-JAN-20
ACT WGT: 34.60 LB
CAD: 6894819/SSEFE2021
DIMS: 21x14x14 IN

RT 97
FZ

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10:30 A
01:20

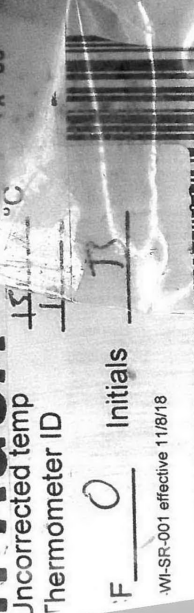


WED - 29 JAN 10:30A
PRIORITY OVERNIGHT

1 of 2
MPS# 7799 5446 5131
MASTER #

XH AGCA

15238
PA-US PIT



Uncorrected temp
Thermometer ID

CF Initials

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

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13

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Bortol, Veronica	Carrier Tracking No(s): 180-384063.1
Client Contact: Shipping/Receiving		E-Mail: veronica.bortol@testamericainc.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		State of Origin: Georgia	Job #: 180-101629-1
Address: 13715 Rider Trail North,		Accreditations Required (See note):	
City: Earth City	Due Date Requested: 2/10/2020	Analysis Requested 9320_Ra226/PreSep_0 Standard Target List 9315_Ra226/PreSep_21 (MOD) Copy Analyses Ra226Ra228_GFPc	
State, Zip: MO, 63045	TAT Requested (days):		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: CCR - Plant McIntosh Ash Pond 1	Project #: 18019956		
Site: Southern McIntosh Ash Pond 1	SSOW#:	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: 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)	
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:	
MGWA-10 (180-101629-1)	Sample Date: 1/28/20	Sample Time: 13:10 Eastern	Matrix: Water
MGWA-11 (180-101629-2)	Sample Date: 1/28/20	Sample Time: 13:45 Eastern	Matrix: Water
MGWA-6 (180-101629-3)	Sample Date: 1/28/20	Sample Time: 14:40 Eastern	Matrix: Water
MGWA-5 (180-101629-4)	Sample Date: 1/28/20	Sample Time: 15:27 Eastern	Matrix: Water
MGWA-6A (180-101629-5)	Sample Date: 1/28/20	Sample Time: 15:40 Eastern	Matrix: Water
MGWC-12 (180-101629-6)	Sample Date: 1/28/20	Sample Time: 16:52 Eastern	Matrix: Water
MGWC-7 (180-101629-7)	Sample Date: 1/28/20	Sample Time: 17:05 Eastern	Matrix: Water
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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/matrix, being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.		Total Number of Containers: 1	
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) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>	Date/Time: 3/1/20 7:00	Received by: <i>[Signature]</i>	Date/Time: 2/10/20 8:45
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Company: <i>FTM</i>	Company: <i>GTASTC</i>
Cooler Temperature(s) °C and Other Remarks:		Company:	Company:



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-101629-1

Login Number: 101629

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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

Laboratory Job ID: 180-101629-2

Client Project/Site: CCR - Plant McIntosh Ash Pond 1

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
2/27/2020 2:59:16 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

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results through
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www.testamericainc.com

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	7
Method Summary	8
Lab Chronicle	9
Client Sample Results	12
QC Sample Results	17
QC Association Summary	19
Chain of Custody	20
Receipt Checklists	22

Case Narrative

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

Job ID: 180-101629-2

Job ID: 180-101629-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-101629-2

Comments

No additional comments.

Receipt

The samples were received on 1/29/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 3.9° C.

RAD

Methods 903.0, 9315: Radium-226 Prep Batch 160-459066

Any 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-10 (180-101629-1), MGWA-11 (180-101629-2), MGWA-6 (180-101629-3), MGWA-5 (180-101629-4), MGWA-6A (180-101629-5), MGWC-12 (180-101629-6), MGWC-7 (180-101629-7), (LCS 160-459066/1-A), (LCSD 160-459066/2-A) and (MB 160-459066/21-A)

Methods 904.0, 9320: Ra-228 Prep Batch 160-459068

Any 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-10 (180-101629-1), MGWA-11 (180-101629-2), MGWA-6 (180-101629-3), MGWA-5 (180-101629-4), MGWA-6A (180-101629-5), MGWC-12 (180-101629-6), MGWC-7 (180-101629-7), (LCS 160-459068/1-A), (LCSD 160-459068/2-A) and (MB 160-459068/21-A)

Method PrecSep_0: Radium 228 Prep Batch 160-459068:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-101629-1), MGWA-11 (180-101629-2), MGWA-6 (180-101629-3), MGWA-5 (180-101629-4), MGWA-6A (180-101629-5), MGWC-12 (180-101629-6) and MGWC-7 (180-101629-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-459066:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-101629-1), MGWA-11 (180-101629-2), MGWA-6 (180-101629-3), MGWA-5 (180-101629-4), MGWA-6A (180-101629-5), MGWC-12 (180-101629-6) and MGWC-7 (180-101629-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-101629-2

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.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-101629-2

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20 *
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

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



Accreditation/Certification Summary

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

Job ID: 180-101629-2

Laboratory: Eurofins TestAmerica, 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
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20 *
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

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

Sample Summary

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

Job ID: 180-101629-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-101629-1	MGWA-10	Water	01/28/20 13:10	01/29/20 09:00	
180-101629-2	MGWA-11	Water	01/28/20 13:45	01/29/20 09:00	
180-101629-3	MGWA-6	Water	01/28/20 14:40	01/29/20 09:00	
180-101629-4	MGWA-5	Water	01/28/20 15:27	01/29/20 09:00	
180-101629-5	MGWA-6A	Water	01/28/20 15:40	01/29/20 09:00	
180-101629-6	MGWC-12	Water	01/28/20 16:52	01/29/20 09:00	
180-101629-7	MGWC-7	Water	01/28/20 17:05	01/29/20 09:00	

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

Method Summary

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

Job ID: 180-101629-2

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 TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Lab Chronicle

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

Job ID: 180-101629-2

Client Sample ID: MGWA-10

Lab Sample ID: 180-101629-1

Date Collected: 01/28/20 13:10

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.25 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.25 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:40	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-11

Lab Sample ID: 180-101629-2

Date Collected: 01/28/20 13:45

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.67 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.67 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:40	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Lab Sample ID: 180-101629-3

Date Collected: 01/28/20 14:40

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.10 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.10 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:40	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-5

Lab Sample ID: 180-101629-4

Date Collected: 01/28/20 15:27

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.11 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101629-2

Client Sample ID: MGWA-5

Lab Sample ID: 180-101629-4

Date Collected: 01/28/20 15:27

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.11 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:40	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-101629-5

Date Collected: 01/28/20 15:40

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.43 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.43 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:40	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-12

Lab Sample ID: 180-101629-6

Date Collected: 01/28/20 16:52

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.68 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.68 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-7

Lab Sample ID: 180-101629-7

Date Collected: 01/28/20 17:05

Matrix: Water

Date Received: 01/29/20 09:00

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			1000.94 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.94 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101629-2

Client Sample ID: MGWC-7

Lab Sample ID: 180-101629-7

Date Collected: 01/28/20 17:05

Matrix: Water

Date Received: 01/29/20 09:00

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			461744	02/26/20 06:55	SMP	TAL SL

Laboratory References:

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

Analyst References:

Lab: TAL SL

Batch Type: Prep

RBR = Rachael Ratcliff

Batch Type: Analysis

AJD = Audra DeMariano

CJQ = Caleb Quinn

SMP = Siobhan Perry

Client Sample Results

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

Job ID: 180-101629-2

Client Sample ID: MGWA-10

Lab Sample ID: 180-101629-1

Date Collected: 01/28/20 13:10

Matrix: Water

Date Received: 01/29/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.300		0.0977	0.101	1.00	0.0923	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0225	U	0.217	0.217	1.00	0.386	pCi/L	02/03/20 10:05	02/13/20 16:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					02/03/20 10:05	02/13/20 16:40	1
Y Carrier	84.1		40 - 110					02/03/20 10:05	02/13/20 16:40	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	0.322	U	0.238	0.239	5.00	0.386	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWA-11

Lab Sample ID: 180-101629-2

Date Collected: 01/28/20 13:45

Matrix: Water

Date Received: 01/29/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.124		0.0739	0.0747	1.00	0.0959	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.404	U	0.270	0.273	1.00	0.418	pCi/L	02/03/20 10:05	02/13/20 16:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					02/03/20 10:05	02/13/20 16:40	1
Y Carrier	86.4		40 - 110					02/03/20 10:05	02/13/20 16:40	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-2

Client Sample ID: MGWA-11

Lab Sample ID: 180-101629-2

Date Collected: 01/28/20 13:45

Matrix: Water

Date Received: 01/29/20 09:00

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	0.528		0.280	0.283	5.00	0.418	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWA-6

Lab Sample ID: 180-101629-3

Date Collected: 01/28/20 14:40

Matrix: Water

Date Received: 01/29/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.245		0.109	0.111	1.00	0.137	pCi/L	02/03/20 09:38	02/25/20 11:36	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	95.5		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.129	U	0.304	0.304	1.00	0.518	pCi/L	02/03/20 10:05	02/13/20 16:40	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	95.5		40 - 110					02/03/20 10:05	02/13/20 16:40	1
Y Carrier	86.7		40 - 110					02/03/20 10:05	02/13/20 16:40	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	0.374	U	0.323	0.324	5.00	0.518	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWA-5

Lab Sample ID: 180-101629-4

Date Collected: 01/28/20 15:27

Matrix: Water

Date Received: 01/29/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0321	U	0.0406	0.0407	1.00	0.100	pCi/L	02/03/20 09:38	02/25/20 11:36	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	96.4		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-2

Client Sample ID: MGWA-5

Date Collected: 01/28/20 15:27

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-4

Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0997	U	0.256	0.256	1.00	0.441	pCi/L	02/03/20 10:05	02/13/20 16:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.4		40 - 110					02/03/20 10:05	02/13/20 16:40	1
Y Carrier	86.0		40 - 110					02/03/20 10:05	02/13/20 16:40	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	0.0677	U	0.259	0.259	5.00	0.441	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWA-6A

Date Collected: 01/28/20 15:40

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-5

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	0.162		0.0860	0.0872	1.00	0.110	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.101	U	0.251	0.251	1.00	0.462	pCi/L	02/03/20 10:05	02/13/20 16:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					02/03/20 10:05	02/13/20 16:40	1
Y Carrier	83.7		40 - 110					02/03/20 10:05	02/13/20 16:40	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	0.0609	U	0.265	0.266	5.00	0.462	pCi/L		02/26/20 06:55	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-2

Client Sample ID: MGWC-12

Date Collected: 01/28/20 16:52

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-6

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	0.253		0.105	0.107	1.00	0.126	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.212	U	0.240	0.241	1.00	0.394	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	86.7		40 - 110					02/03/20 10:05	02/13/20 16:41	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	0.465		0.262	0.264	5.00	0.394	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWC-7

Date Collected: 01/28/20 17:05

Date Received: 01/29/20 09:00

Lab Sample ID: 180-101629-7

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	0.884		0.160	0.178	1.00	0.101	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.500		0.284	0.287	1.00	0.427	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	83.4		40 - 110					02/03/20 10:05	02/13/20 16:41	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101629-2

Client Sample ID: MGWC-7

Lab Sample ID: 180-101629-7

Date Collected: 01/28/20 17:05

Matrix: Water

Date Received: 01/29/20 09:00

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	1.38		0.326	0.338	5.00	0.427	pCi/L		02/26/20 06:55	1

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QC Sample Results

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

Job ID: 180-101629-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-459066/21-A
Matrix: Water
Analysis Batch: 461713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 459066

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01010	U	0.0400	0.0400	1.00	0.0898	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	100		40 - 110		02/03/20 09:38	02/25/20 13:28	1			

Lab Sample ID: LCS 160-459066/1-A
Matrix: Water
Analysis Batch: 461713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 459066

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.638		1.00	1.00	0.0891	pCi/L	85	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	98.8		40 - 110						

Lab Sample ID: LCSD 160-459066/2-A
Matrix: Water
Analysis Batch: 461713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 459066

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	9.990		1.04	1.00	0.0885	pCi/L	88	75 - 125	0.17	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	96.7		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-459068/21-A
Matrix: Water
Analysis Batch: 460292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 459068

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.008800	U	0.233	0.233	1.00	0.417	pCi/L	02/03/20 10:05	02/13/20 16:31	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	100		40 - 110		02/03/20 10:05	02/13/20 16:31	1			
Y Carrier	86.0		40 - 110		02/03/20 10:05	02/13/20 16:31	1			

QC Sample Results

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

Job ID: 180-101629-2

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

Lab Sample ID: LCS 160-459068/1-A
Matrix: Water
Analysis Batch: 460260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 459068

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.11	9.085		1.07	1.00	0.368	pCi/L	100	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.8		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: LCSD 160-459068/2-A
Matrix: Water
Analysis Batch: 460260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 459068

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	9.11	8.490		1.02	1.00	0.385	pCi/L	93	75 - 125	0.28	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	96.7		40 - 110
Y Carrier	85.2		40 - 110



QC Association Summary

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

Job ID: 180-101629-2

Rad

Prep Batch: 459066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total/NA	Water	PrecSep-21	
180-101629-2	MGWA-11	Total/NA	Water	PrecSep-21	
180-101629-3	MGWA-6	Total/NA	Water	PrecSep-21	
180-101629-4	MGWA-5	Total/NA	Water	PrecSep-21	
180-101629-5	MGWA-6A	Total/NA	Water	PrecSep-21	
180-101629-6	MGWC-12	Total/NA	Water	PrecSep-21	
180-101629-7	MGWC-7	Total/NA	Water	PrecSep-21	
MB 160-459066/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-459066/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-459066/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 459068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101629-1	MGWA-10	Total/NA	Water	PrecSep_0	
180-101629-2	MGWA-11	Total/NA	Water	PrecSep_0	
180-101629-3	MGWA-6	Total/NA	Water	PrecSep_0	
180-101629-4	MGWA-5	Total/NA	Water	PrecSep_0	
180-101629-5	MGWA-6A	Total/NA	Water	PrecSep_0	
180-101629-6	MGWC-12	Total/NA	Water	PrecSep_0	
180-101629-7	MGWC-7	Total/NA	Water	PrecSep_0	
MB 160-459068/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-459068/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-459068/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

<p>Client Information</p> <p>Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State: AL, Zip: 35291 Phone: 205-992-5417(Tel) Email: Impetty@southernco.com</p> <p>Project Name: CCR - Plant McIntosh Ash Pond 1 Site: Georgia</p>	<p>Sampler: L. Coker, J. Bash Lab PM: Bortol, Veronica Phone: 404-592-0094 E-Mail: veronica.bortol@testamericainc.com</p> <p>Carrier Tracking No(s): COC No: 180-57786-11316.1 Page: 1 of 1 Job #:</p>	<p>Analysis Requested</p> <p>Due Date Requested: TAT Requested (days): Standard PO #: SCS10382606 WO #: Project #: 18019956 SSOW#:</p>																																																																																																																																																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:20%;">Sample Identification</th> <th style="width:10%;">Sample Date</th> <th style="width:10%;">Sample Time</th> <th style="width:10%;">Sample Type (C=Comp, G=grab)</th> <th style="width:10%;">Matrix (W=water, S=solid, O=wastliq, BT=Tissue, A=Air)</th> <th style="width:10%;">Field Filtered Sample (Yes or No)</th> <th style="width:10%;">9315 Ra226, 9320 Ra228</th> <th style="width:10%;">6020B, 7470A</th> <th style="width:10%;">Ph, Li, Mo, Se, Tl, Hg</th> <th style="width:10%;">Analysis Requested</th> <th style="width:10%;">Preservation Codes:</th> <th style="width:20%;">Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>MGWA-10</td> <td>1/28/20</td> <td>1310</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td>X</td> <td></td> <td></td> <td>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 L - EDTA Z - other (specify)</td> <td>2 Coolers 1 COC</td> </tr> <tr> <td>MGWA-11</td> <td>1/28/20</td> <td>1345</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MGWA-6</td> <td>1/28/20</td> <td>1440</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MGWA-5</td> <td>1/28/20</td> <td>1527</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MGWA-6A</td> <td>1/28/20</td> <td>1540</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MGWC-12</td> <td>1/28/20</td> <td>1652</td> <td>G</td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MGWC-7</td> <td>1/28/20</td> <td>1705</td> <td>G</td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastliq, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	9315 Ra226, 9320 Ra228	6020B, 7470A	Ph, Li, Mo, Se, Tl, Hg	Analysis Requested	Preservation Codes:	Special Instructions/Note:	MGWA-10	1/28/20	1310	G	Water	N	X	X			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 L - EDTA Z - other (specify)	2 Coolers 1 COC	MGWA-11	1/28/20	1345	G	Water	N	X	X					MGWA-6	1/28/20	1440	G	Water	N	X	X					MGWA-5	1/28/20	1527	G	Water	N	X	X					MGWA-6A	1/28/20	1540	G	Water	N	X	X					MGWC-12	1/28/20	1652	G	Water								MGWC-7	1/28/20	1705	G	Water												Water												Water												Water												Water							
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MGWA-10	1/28/20	1310	G	Water	N	X	X			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 L - EDTA Z - other (specify)	2 Coolers 1 COC																																																																																																																																							
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MGWA-6	1/28/20	1440	G	Water	N	X	X																																																																																																																																											
MGWA-5	1/28/20	1527	G	Water	N	X	X																																																																																																																																											
MGWA-6A	1/28/20	1540	G	Water	N	X	X																																																																																																																																											
MGWC-12	1/28/20	1652	G	Water																																																																																																																																														
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<p>Possible Hazard Identification <input checked="" 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 Deliverable Requested: I, II, III, IV, Other (specify) Empty Kit Relinquished by: Relinquished by: <i>Lambert</i> Relinquished by: Relinquished by:</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:</p>																																																																																																																																																		
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: 180-101629 Chain of Custody</p>																																																																																																																																																		
<p>Received by: <i>Deluke Watson</i> Date/Time: 1-29-20 Company: <i>EPACITY</i> Received by: Date/Time: 9:00 Company: Received by: Date/Time: Company: Cooler Temperature(s) °C and Other Remarks:</p>																																																																																																																																																		

eurofins

ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER

1375 PEACHTREE ST NE
ATLANTA, GA 30309
UNITED STATES US

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 983-8222 REF: DEPT: (INV) PO:

SHIP DATE: 28-JAN-20
ACT WGT: 34.60 LB
CAD: 6894819/SSEFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY



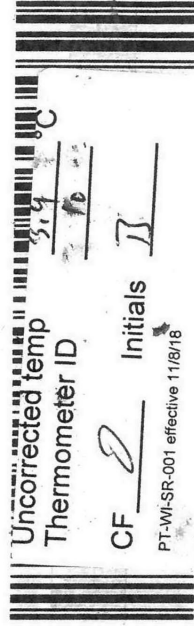
180-101629 Waybill

WED - 29 JAN 10:30A
PRIORITY OVERNIGHT

2 of 2
MPS# 7799 5446 5142
Metr# 7799 5446 5131

XH AGCA

15238
PA-US PIT



Uncorrected temp
Thermometer ID

CF Initials

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

97 1 A 10:30

ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER

1375 PEACHTREE ST NE
ATLANTA, GA 30309
UNITED STATES US

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

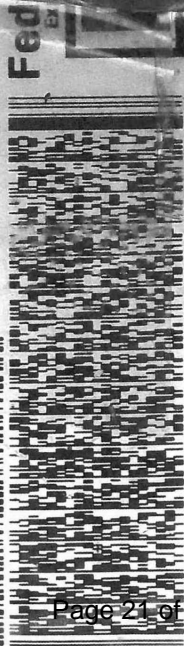
PITTSBURGH PA 15238

(412) 983-8222 REF: DEPT: (INV) PO:

SHIP DATE: 28-JAN-20
ACT WGT: 34.60 LB
CAD: 6894819/SSEFE2021
DIMS: 21x14x14 IN

RT 97
FZ

1
10:30 A
01:20

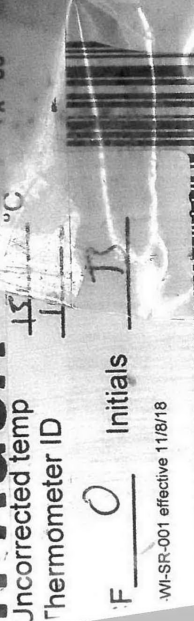


WED - 29 JAN 10:30A
PRIORITY OVERNIGHT

1 of 2
MPS# 7799 5446 5131
MASTER #

XH AGCA

15238
PA-US PIT



Uncorrected temp
Thermometer ID

CF Initials

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

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-101629-2

Login Number: 101629

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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: 180-101629-2

Login Number: 101629

List Number: 2

Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 02/01/20 09:57 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.	False	
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?	False	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-101629-2

Login Number: 101629

List Number: 3

Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 02/01/20 09:58 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.	False	
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?	False	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

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

Laboratory Job ID: 180-101686-1

Client Project/Site: CCR - Plant McIntosh Ash Pond 1

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
2/25/2020 7:35:36 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

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

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

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	11
QC Sample Results	16
QC Association Summary	18
Chain of Custody	20
Receipt Checklists	25

Case Narrative

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

Job ID: 180-101686-1

Job ID: 180-101686-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-101686-1

Comments

No additional comments.

Receipt

The samples were received on 1/30/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.1° C, 10.3° C and 11.8° C.

Metals

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

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- 2
- 3
- 4
- 5
- 6
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Definitions/Glossary

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

Job ID: 180-101686-1

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.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-101686-1

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20 *
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

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



Sample Summary

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

Job ID: 180-101686-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-101686-1	MGWC-1	Water	01/29/20 10:10	01/30/20 09:00	
180-101686-2	MGWC-3	Water	01/29/20 10:20	01/30/20 09:00	
180-101686-3	MGWC-2	Water	01/29/20 12:00	01/30/20 09:00	
180-101686-4	MGWC-8	Water	01/29/20 13:45	01/30/20 09:00	
180-101686-5	AP-DUP-01	Water	01/29/20 00:00	01/30/20 09:00	
180-101686-6	AP-DUP-02	Water	01/29/20 00:00	01/30/20 09:00	
180-101686-7	AP-FB-01	Water	01/29/20 14:40	01/30/20 09:00	
180-101686-8	AP-FB-02	Water	01/29/20 14:45	01/30/20 09:00	
180-101686-9	AP-FERB-01	Water	01/29/20 14:50	01/30/20 09:00	
180-101686-10	AP-FERB-02	Water	01/29/20 14:55	01/30/20 09:00	



Method Summary

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

Job ID: 180-101686-1

Method	Method Description	Protocol	Laboratory
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	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

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

Laboratory References:

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



Lab Chronicle

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

Job ID: 180-101686-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-101686-1

Date Collected: 01/29/20 10:10

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 15:47	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:23	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/29/20 10:10	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-101686-2

Date Collected: 01/29/20 10:20

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 15:59	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:24	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/29/20 10:20	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-2

Lab Sample ID: 180-101686-3

Date Collected: 01/29/20 12:00

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:02	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:25	NAM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			305709	01/29/20 12:00	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-101686-4

Date Collected: 01/29/20 13:45

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:09	RSK	TAL PIT
Instrument ID: NEMO										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101686-1

Client Sample ID: MGWC-8

Lab Sample ID: 180-101686-4

Date Collected: 01/29/20 13:45

Matrix: Water

Date Received: 01/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:26	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	Field Sampling		1			305709	01/29/20 13:45	FDS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-101686-5

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:11	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:27	NAM	TAL PIT
		Instrument ID: HGZ								

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-101686-6

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:14	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:28	NAM	TAL PIT
		Instrument ID: HGZ								

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:16	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:31	NAM	TAL PIT
		Instrument ID: HGZ								

Lab Chronicle

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

Job ID: 180-101686-1

Client Sample ID: AP-FB-02

Date Collected: 01/29/20 14:45

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101686-8

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:19	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:32	NAM	TAL PIT
Instrument ID: HGZ										

Client Sample ID: AP-FERB-01

Date Collected: 01/29/20 14:50

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101686-9

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:21	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:33	NAM	TAL PIT
Instrument ID: HGZ										

Client Sample ID: AP-FERB-02

Date Collected: 01/29/20 14:55

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101686-10

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	307659	02/20/20 09:59	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			307853	02/21/20 16:24	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	307534	02/19/20 12:04	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			307605	02/19/20 16:34	NAM	TAL PIT
Instrument ID: HGZ										

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

NAM = Nicole Marfisi

Batch Type: Analysis

FDS = Sampler Field

NAM = Nicole Marfisi

RSK = Robert Kurtz

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-101686-1

Date Collected: 01/29/20 10:10

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 15:47	1
Barium	0.11		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 15:47	1
Beryllium	0.00018	J	0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 15:47	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 15:47	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 15:47	1
Cobalt	0.00027	J	0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 15:47	1
Molybdenum	0.0015	J	0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 15:47	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 15:47	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 15:47	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 15:47	1
Thallium	0.00032	J	0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 15:47	1
Lithium	0.0096		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 15:47	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:23	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.19				SU			01/29/20 10:10	1

Client Sample ID: MGWC-3

Lab Sample ID: 180-101686-2

Date Collected: 01/29/20 10:20

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0017		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 15:59	1
Barium	0.15		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 15:59	1
Beryllium	0.00031	J	0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 15:59	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 15:59	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 15:59	1
Cobalt	0.00067		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 15:59	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 15:59	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 15:59	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 15:59	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 15:59	1
Thallium	0.00037	J	0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 15:59	1
Lithium	0.012		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 15:59	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	6.68				SU			01/29/20 10:20	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-1

Client Sample ID: MGWC-2

Lab Sample ID: 180-101686-3

Date Collected: 01/29/20 12:00

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00040	J	0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:02	1
Barium	0.051		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:02	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:02	1
Cadmium	0.0054		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:02	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:02	1
Cobalt	0.0030		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:02	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:02	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:02	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:02	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:02	1
Thallium	0.00021	J	0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:02	1
Lithium	0.0059		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:02	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	7.30				SU			01/29/20 12:00	1

Client Sample ID: MGWC-8

Lab Sample ID: 180-101686-4

Date Collected: 01/29/20 13:45

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00047	J	0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:09	1
Barium	0.033		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:09	1
Beryllium	0.0019		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:09	1
Cadmium	0.00090	J	0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:09	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:09	1
Cobalt	0.025		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:09	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:09	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:09	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:09	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:09	1
Thallium	0.00042	J	0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:09	1
Lithium	0.037		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:09	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J	0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH by SM4500-H B	5.76				SU			01/29/20 13:45	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-1

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-101686-5

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:11	1
Barium	0.10		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:11	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:11	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:11	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:11	1
Cobalt	0.00022	J	0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:11	1
Molybdenum	0.0013	J	0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:11	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:11	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:11	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:11	1
Thallium	0.00018	J	0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:11	1
Lithium	0.0094		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:11	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:27	1

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-101686-6

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:14	1
Barium	0.16		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:14	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:14	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:14	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:14	1
Cobalt	0.00070		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:14	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:14	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:14	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:14	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:14	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:14	1
Lithium	0.012		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:14	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:28	1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:16	1
Barium	<0.0016		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:16	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:16	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:16	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:16	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:16	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:16	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:16	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:31	1

Client Sample ID: AP-FB-02

Lab Sample ID: 180-101686-8

Date Collected: 01/29/20 14:45

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:19	1
Barium	<0.0016		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:19	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:19	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:19	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:19	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:19	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:19	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:19	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:19	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:19	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:32	1

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-101686-9

Date Collected: 01/29/20 14:50

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:21	1
Barium	<0.0016		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:21	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:21	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:21	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:21	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:21	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:21	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:21	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-1

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-101686-9

Date Collected: 01/29/20 14:50

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00015		0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:21	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:21	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:33	1

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-101686-10

Date Collected: 01/29/20 14:55

Matrix: Water

Date Received: 01/30/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 16:24	1
Barium	<0.0016		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 16:24	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 16:24	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 16:24	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 16:24	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 16:24	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 16:24	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 16:24	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 16:24	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 16:24	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 16:24	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 16:24	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:34	1

QC Sample Results

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

Job ID: 180-101686-1

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

Lab Sample ID: MB 180-307659/1-A
Matrix: Water
Analysis Batch: 307853

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 307659

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/20/20 09:59	02/21/20 15:42	1
Barium	<0.0016		0.010	0.0016	mg/L		02/20/20 09:59	02/21/20 15:42	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/20/20 09:59	02/21/20 15:42	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/20/20 09:59	02/21/20 15:42	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/20/20 09:59	02/21/20 15:42	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/20/20 09:59	02/21/20 15:42	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/20/20 09:59	02/21/20 15:42	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/20/20 09:59	02/21/20 15:42	1
Antimony	<0.00038		0.0020	0.00038	mg/L		02/20/20 09:59	02/21/20 15:42	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/20/20 09:59	02/21/20 15:42	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/20/20 09:59	02/21/20 15:42	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/20/20 09:59	02/21/20 15:42	1

Lab Sample ID: LCS 180-307659/2-A
Matrix: Water
Analysis Batch: 307853

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 307659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1.00	1.06		mg/L		106	80 - 120
Barium	1.00	1.00		mg/L		100	80 - 120
Beryllium	0.500	0.524		mg/L		105	80 - 120
Cadmium	0.500	0.535		mg/L		107	80 - 120
Chromium	0.500	0.512		mg/L		102	80 - 120
Cobalt	0.500	0.519		mg/L		104	80 - 120
Molybdenum	0.500	0.484		mg/L		97	80 - 120
Lead	0.500	0.490		mg/L		98	80 - 120
Antimony	0.250	0.244		mg/L		97	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Thallium	1.00	1.04		mg/L		104	80 - 120
Lithium	0.500	0.452		mg/L		90	80 - 120

Lab Sample ID: 180-101686-1 MS
Matrix: Water
Analysis Batch: 307853

Client Sample ID: MGWC-1
Prep Type: Total Recoverable
Prep Batch: 307659

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0021		1.00	1.10		mg/L		109	75 - 125
Barium	0.11		1.00	1.11		mg/L		100	75 - 125
Beryllium	0.00018	J	0.500	0.515		mg/L		103	75 - 125
Cadmium	<0.00022		0.500	0.530		mg/L		106	75 - 125
Chromium	<0.0015		0.500	0.517		mg/L		103	75 - 125
Cobalt	0.00027	J	0.500	0.523		mg/L		104	75 - 125
Molybdenum	0.0015	J	0.500	0.491		mg/L		98	75 - 125
Lead	<0.00013		0.500	0.503		mg/L		101	75 - 125
Antimony	<0.00038		0.250	0.243		mg/L		97	75 - 125
Selenium	<0.0015		1.00	1.02		mg/L		102	75 - 125
Thallium	0.00032	J	1.00	1.04		mg/L		104	75 - 125
Lithium	0.0096		0.500	0.474		mg/L		93	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-101686-1

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

Lab Sample ID: 180-101686-1 MSD
Matrix: Water
Analysis Batch: 307853

Client Sample ID: MGWC-1
Prep Type: Total Recoverable
Prep Batch: 307659

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Arsenic	0.0021		1.00	1.13		mg/L		112	75 - 125	3	20
Barium	0.11		1.00	1.16		mg/L		105	75 - 125	4	20
Beryllium	0.00018	J	0.500	0.547		mg/L		109	75 - 125	6	20
Cadmium	<0.00022		0.500	0.548		mg/L		110	75 - 125	3	20
Chromium	<0.0015		0.500	0.531		mg/L		106	75 - 125	2	20
Cobalt	0.00027	J	0.500	0.543		mg/L		109	75 - 125	4	20
Molybdenum	0.0015	J	0.500	0.503		mg/L		100	75 - 125	3	20
Lead	<0.00013		0.500	0.516		mg/L		103	75 - 125	3	20
Antimony	<0.00038		0.250	0.253		mg/L		101	75 - 125	4	20
Selenium	<0.0015		1.00	1.07		mg/L		107	75 - 125	5	20
Thallium	0.00032	J	1.00	1.06		mg/L		106	75 - 125	1	20
Lithium	0.0096		0.500	0.475		mg/L		93	75 - 125	0	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-307534/1-A
Matrix: Water
Analysis Batch: 307605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307534

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00010		0.00020	0.00010	mg/L		02/19/20 12:04	02/19/20 16:11	1

Lab Sample ID: LCS 180-307534/2-A
Matrix: Water
Analysis Batch: 307605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307534

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
Mercury	0.00250	0.00231		mg/L		92	80 - 120	

Lab Sample ID: 180-101686-10 MS
Matrix: Water
Analysis Batch: 307605

Client Sample ID: AP-FERB-02
Prep Type: Total/NA
Prep Batch: 307534

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Mercury	<0.00010		0.00100	0.000888		mg/L		89	75 - 125	

Lab Sample ID: 180-101686-10 MSD
Matrix: Water
Analysis Batch: 307605

Client Sample ID: AP-FERB-02
Prep Type: Total/NA
Prep Batch: 307534

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Mercury	<0.00010		0.00100	0.000970		mg/L		97	75 - 125	9	20

Eurofins TestAmerica, Pittsburgh

QC Association Summary

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

Job ID: 180-101686-1

Metals

Prep Batch: 307534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total/NA	Water	7470A	
180-101686-2	MGWC-3	Total/NA	Water	7470A	
180-101686-3	MGWC-2	Total/NA	Water	7470A	
180-101686-4	MGWC-8	Total/NA	Water	7470A	
180-101686-5	AP-DUP-01	Total/NA	Water	7470A	
180-101686-6	AP-DUP-02	Total/NA	Water	7470A	
180-101686-7	AP-FB-01	Total/NA	Water	7470A	
180-101686-8	AP-FB-02	Total/NA	Water	7470A	
180-101686-9	AP-FERB-01	Total/NA	Water	7470A	
180-101686-10	AP-FERB-02	Total/NA	Water	7470A	
MB 180-307534/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-307534/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-101686-10 MS	AP-FERB-02	Total/NA	Water	7470A	
180-101686-10 MSD	AP-FERB-02	Total/NA	Water	7470A	

Analysis Batch: 307605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total/NA	Water	EPA 7470A	307534
180-101686-2	MGWC-3	Total/NA	Water	EPA 7470A	307534
180-101686-3	MGWC-2	Total/NA	Water	EPA 7470A	307534
180-101686-4	MGWC-8	Total/NA	Water	EPA 7470A	307534
180-101686-5	AP-DUP-01	Total/NA	Water	EPA 7470A	307534
180-101686-6	AP-DUP-02	Total/NA	Water	EPA 7470A	307534
180-101686-7	AP-FB-01	Total/NA	Water	EPA 7470A	307534
180-101686-8	AP-FB-02	Total/NA	Water	EPA 7470A	307534
180-101686-9	AP-FERB-01	Total/NA	Water	EPA 7470A	307534
180-101686-10	AP-FERB-02	Total/NA	Water	EPA 7470A	307534
MB 180-307534/1-A	Method Blank	Total/NA	Water	EPA 7470A	307534
LCS 180-307534/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	307534
180-101686-10 MS	AP-FERB-02	Total/NA	Water	EPA 7470A	307534
180-101686-10 MSD	AP-FERB-02	Total/NA	Water	EPA 7470A	307534

Prep Batch: 307659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total Recoverable	Water	3005A	
180-101686-2	MGWC-3	Total Recoverable	Water	3005A	
180-101686-3	MGWC-2	Total Recoverable	Water	3005A	
180-101686-4	MGWC-8	Total Recoverable	Water	3005A	
180-101686-5	AP-DUP-01	Total Recoverable	Water	3005A	
180-101686-6	AP-DUP-02	Total Recoverable	Water	3005A	
180-101686-7	AP-FB-01	Total Recoverable	Water	3005A	
180-101686-8	AP-FB-02	Total Recoverable	Water	3005A	
180-101686-9	AP-FERB-01	Total Recoverable	Water	3005A	
180-101686-10	AP-FERB-02	Total Recoverable	Water	3005A	
MB 180-307659/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-307659/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-101686-1 MS	MGWC-1	Total Recoverable	Water	3005A	
180-101686-1 MSD	MGWC-1	Total Recoverable	Water	3005A	

QC Association Summary

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

Job ID: 180-101686-1

Metals


Analysis Batch: 307853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total Recoverable	Water	EPA 6020B	307659
180-101686-2	MGWC-3	Total Recoverable	Water	EPA 6020B	307659
180-101686-3	MGWC-2	Total Recoverable	Water	EPA 6020B	307659
180-101686-4	MGWC-8	Total Recoverable	Water	EPA 6020B	307659
180-101686-5	AP-DUP-01	Total Recoverable	Water	EPA 6020B	307659
180-101686-6	AP-DUP-02	Total Recoverable	Water	EPA 6020B	307659
180-101686-7	AP-FB-01	Total Recoverable	Water	EPA 6020B	307659
180-101686-8	AP-FB-02	Total Recoverable	Water	EPA 6020B	307659
180-101686-9	AP-FERB-01	Total Recoverable	Water	EPA 6020B	307659
180-101686-10	AP-FERB-02	Total Recoverable	Water	EPA 6020B	307659
MB 180-307659/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	307659
LCS 180-307659/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	307659
180-101686-1 MS	MGWC-1	Total Recoverable	Water	EPA 6020B	307659
180-101686-1 MSD	MGWC-1	Total Recoverable	Water	EPA 6020B	307659

Field Service / Mobile Lab

Analysis Batch: 305709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total/NA	Water	Field Sampling	
180-101686-2	MGWC-3	Total/NA	Water	Field Sampling	
180-101686-3	MGWC-2	Total/NA	Water	Field Sampling	
180-101686-4	MGWC-8	Total/NA	Water	Field Sampling	

Client Information		Sampler: <u>1-Coker, J. Bash</u>		Lab PM: <u>Bortol, Veronica</u>		Carrier Tracking No(s):		COC No: <u>180-57786-11316.2</u>	
Client Contact: <u>Ms. Lauren Petty</u>		Phone: <u>404-592-0094</u>		E-Mail: <u>veronica.bortol@testamericainc.com</u>		Page: <u>1</u>		Page of <u>1</u>	
Company: <u>Southern Company</u>		Address: <u>PO BOX 2641 GSC8</u>		City: <u>Birmingham</u>		State, Zip: <u>AL, 35291</u>		Job #:	
Phone: <u>205-992-5417(Tel)</u>		PO #: <u>SCS10382606</u>		TAT Requested (days): <u>Standard</u>		Due Date Requested:		Analysis Requested	
Email: <u>Impetty@southernco.com</u>		WO #: <u>18019956</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Project Name: <u>CCR - Plant McIntosh Ash Pond 1</u>		SSOW#: <u>18019956</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: <u>Georgia</u>		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
<u>MGWC-1</u>		<u>Water</u>		<u>1/29/20</u>		<u>1010</u>		<u>G</u>	
<u>MGWC-3</u>		<u>Water</u>		<u>1/29/20</u>		<u>1020</u>		<u>G</u>	
<u>MGWC-2</u>		<u>Water</u>		<u>1/29/20</u>		<u>1200</u>		<u>G</u>	
<u>MGWC-8</u>		<u>Water</u>		<u>1/29/20</u>		<u>1345</u>		<u>G</u>	
<u>AP-DUP-01</u>		<u>Water</u>		<u>1/29/20</u>		<u>1440</u>		<u>G</u>	
<u>AP-DUP-02</u>		<u>Water</u>		<u>1/29/20</u>		<u>1445</u>		<u>G</u>	
<u>AP-FB-01</u>		<u>Water</u>		<u>1/29/20</u>		<u>1450</u>		<u>G</u>	
<u>AP-FB-02</u>		<u>Water</u>		<u>1/29/20</u>		<u>1455</u>		<u>G</u>	
Possible Hazard Identification		Field Filtered Sample (Yes or No)		Field Filtered Sample (Yes or No)		Field Filtered Sample (Yes or No)		Field Filtered Sample (Yes or No)	
<input checked="" type="checkbox"/> Non-Hazard		<input type="checkbox"/> Irritant		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological		<input type="checkbox"/> Poison B	
<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological		<input type="checkbox"/> Poison B	
<input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Sample Disposal (A fee may be assessed)		<input type="checkbox"/> Return To Client		<input checked="" type="checkbox"/> Disposal E.		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>Amber</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>Amber</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>Amber</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Custody Seals Intact:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Custody Seal No.:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>1</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Special Instructions/Note:		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	
<u>metals: Sb, As, Ba, Be, Cd, Co, Pb, V, Mo, Se, Ti, Hg, Cr</u>		<u>9315-R224, 9320-R228, 9020B, 7470A</u>		<u>X</u>		<u>X</u>		<u>X</u>	
<u>3 cooler total</u>		<u>180-101686 Chain of Custody</u>		<u>180-101686 Chain of Custody</u>		<u>180-101686 Chain of Custody</u>		<u>180-101686 Chain of Custody</u>	
Barcode:		Method of Shipment:		Method of Shipment:		Method of Shipment:		Method of Shipment:	
		<u>Express</u>		<u>Express</u>		<u>Express</u>		<u>Express</u>	
Received by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>Amber</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Received by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>Amber</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Received by:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>Amber</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	
Cooler Temperature(s) °C and Other Remarks:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<u>9100</u>		<u>1/29/20 1700</u>		<u>1/29/20 1700</u>		<u>1700</u>		<u>1700</u>	



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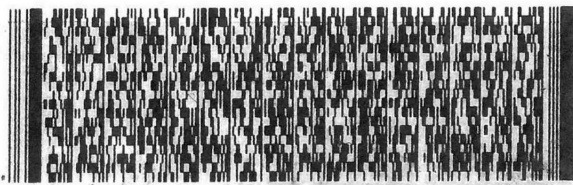


PT-WI-SR-001 effective 11/8/18
 Uncorrected temp _____
 Thermometer ID _____
 Initials _____
 CF _____
 2.1 °C

PA-US
 PIT
 15238

XH AGCA

1 of 3
 TRK# 3900 2058 7633
 # MASTER #
 THU - 30 JAN 10:30A
 PRIORITY OVERNIGHT



PITTSBURGH PA 15238
 REF: (412) 983-0222
 DEPT:

10
 VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

ORIGIN ID: SAVA (770) 912-0703
 LAUREN COKER
 1375 PEACHTREE ST NE
 ATLANTA, GA 30309
 UNITED STATES US
 SHIP DATE: 29JAN20
 ACTWGT: 43.10 LB
 CAD: 6994919/SSFE2021
 DIMS: 24x13x14 IN
 BILL THIRD PARTY



180-101686 VWaybill

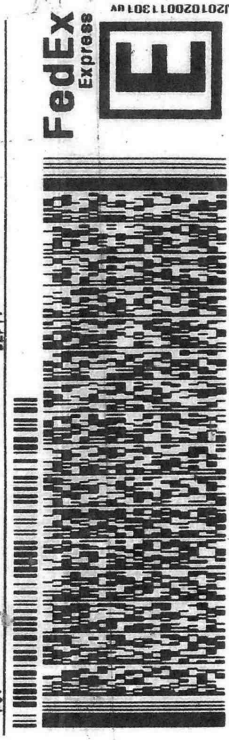
ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER
1375 PEACHTREE ST NE
ATLANTA, GA 30309
UNITED STATES US

SHIP DATE: 28JAN20
ACTWT: 28.60 LB
CAD: 6994819/SSFE2C
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 968-6222 REF: 0201



THU - 30 JAN 10:30A
PRIORITY OVERNIGHT

3 of 3
MFS# 3900 2058 7655
Mstr# 3900 2058 7633

XH AGCA

15238
PA-US PIT

Uncorrected temp Thermometer ID
CF 0 N.L.C Initials B
PT-WI-SR-001 effective 11/8/18

SHIP DATE: 28JAN20
ACTWT: 28.60 LB
CAD: 6994819/SSFE2C
DIMS: 24x13x14 IN
BILL THIRD PARTY

DR BORTOT

PITTSBURGH PA 15238



THU - 30 JAN 10:30A
PRIORITY OVERNIGHT

2 of 3
MFS# 3900 2058 7644
Mstr# 3900 2058 7633

XH AGCA

15238
PA-US PIT

Uncorrected temp Thermometer ID
CF 0 N.L.C Initials B
PT-WI-SR-001 effective 11/8/18



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Bortol, Veronica	Carrier Tracking No(s): 180-383988-1
Client Contact: Shipping/Receiving		E-Mail: veronica.bortol@testamericainc.com	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Job #: 180-101686-1	
Address: 13715 Rider Trail North,		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4.5 L - EDTA Z - other (specify) Other:	
City: Earth City		Analysis Requested:	
State, Zip: MO., 63045		Total Number of containers	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Field Filtered Sample (Yes or No)	
Email:		Perform MS/MSD (Yes or No)	
Project Name: CCR - Plant McIntosh Ash Pond 1		9320_Ra228/PreSep_0 Standard Target List	
Site: Southern McIntosh Ash Pond 1		9315_Ra226/PreSep_21 (MOD) Copy Analyses	
Project #: 18019956		Ra226Ra228_GFPc	
SSOW #:		Special Instructions/Note:	
Sample Identification - Client ID (Lab ID)			
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=BIOSUR, AS=AV)
1/29/20	10:10 Eastern		Water
1/29/20	10:20 Eastern		Water
1/29/20	12:00 Eastern		Water
1/29/20	13:45 Eastern		Water
1/29/20	Eastern		Water
1/29/20	Eastern		Water
1/29/20	Eastern		Water
1/29/20	14:40 Eastern		Water
1/29/20	14:45 Eastern		Water
1/29/20	14:50 Eastern		Water
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>			
Possible Hazard Identification			
Unconfirmed			
Deliverable Requested: I, II, III, IV, Other (specify)			
Primary Deliverable Rank: 2			
Date: _____ Time: _____			
Empty Kit Relinquished by: _____			
Relinquished by: _____ Date: 1/30/20 17:00			
Relinquished by: _____ Date: _____			
Relinquished by: _____ Date: _____			
Custody Seals Intact: _____			
Custody Seal No.: _____			
Cooler Temperature(s) °C and Other Remarks: _____			
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			
Date: _____ Time: _____			
Received by: _____ Date: 1/30/20 9:10			
Company: PTAPAK			
Received by: _____ Date: _____			
Company: STASTZ			
Received by: _____ Date: _____			
Company: _____			

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking No(s):								
Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Bortot, Veronica E-Mail: veronica.bortot@lestamericainc.com	180-383988-2 Page: Page 2 of 2 Job #: 180-101686-1								
Due Date Requested: 2/11/2020 TAT Requested (days): PO #: WO #: Project #: 18019956 SOW#:		State of Origin: Georgia Accreditations Required (See note): Analysis Requested									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=TISSUE, A=AIR)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320 Ra228/PrecSep_0 Standard Target List	9315 Ra226/PrecSep_21 (MOD) Copy Analyses	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:
AP-FERB-02 (180-101686-10)	1/29/20	14:55 Eastern		Water	X	X	X	X		1	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the labo											
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: 1/30/20 17:00 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:											
Method of Shipment: _____ Received by: _____ Date/Time: 1/30/20 9:10 Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks:											



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-101686-1

Login Number: 101686

List Number: 1

Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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.	False	Thermal preservation not required.
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	

ANALYTICAL REPORT

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

Laboratory Job ID: 180-101686-2

Client Project/Site: CCR - Plant McIntosh Ash Pond 1

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
2/26/2020 12:41:19 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

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www.testamericainc.com

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	7
Method Summary	8
Lab Chronicle	9
Client Sample Results	13
QC Sample Results	19
QC Association Summary	21
Chain of Custody	22
Receipt Checklists	25

Case Narrative

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

Job ID: 180-101686-2

Job ID: 180-101686-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-101686-2

Comments

No additional comments.

Receipt

The samples were received on 1/30/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.1° C, 10.3° C and 11.8° C.

RAD

Methods 903.0, 9315: Radium-226 Prep Batch 160-459066

Any 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.

MGWC-1 (180-101686-1), MGWC-3 (180-101686-2), MGWC-2 (180-101686-3), MGWC-8 (180-101686-4), AP-DUP-01 (180-101686-5), AP-DUP-02 (180-101686-6), AP-FB-01 (180-101686-7), AP-FB-02 (180-101686-8), AP-FERB-01 (180-101686-9), AP-FERB-02 (180-101686-10), (LCS 160-459066/1-A), (LCSD 160-459066/2-A) and (MB 160-459066/21-A)

Methods 904.0, 9320: Ra-228 Prep Batch 160-459068

Any 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.

MGWC-1 (180-101686-1), MGWC-3 (180-101686-2), MGWC-2 (180-101686-3), MGWC-8 (180-101686-4), AP-DUP-01 (180-101686-5), AP-DUP-02 (180-101686-6), AP-FB-01 (180-101686-7), AP-FB-02 (180-101686-8), AP-FERB-01 (180-101686-9), AP-FERB-02 (180-101686-10), (LCS 160-459068/1-A), (LCSD 160-459068/2-A) and (MB 160-459068/21-A)

Method PrecSep_0: Radium 228 Prep Batch 160-459068:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWC-1 (180-101686-1), MGWC-3 (180-101686-2), MGWC-2 (180-101686-3), MGWC-8 (180-101686-4), AP-DUP-01 (180-101686-5), AP-DUP-02 (180-101686-6), AP-FB-01 (180-101686-7), AP-FB-02 (180-101686-8), AP-FERB-01 (180-101686-9) and AP-FERB-02 (180-101686-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-459066:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWC-1 (180-101686-1), MGWC-3 (180-101686-2), MGWC-2 (180-101686-3), MGWC-8 (180-101686-4), AP-DUP-01 (180-101686-5), AP-DUP-02 (180-101686-6), AP-FB-01 (180-101686-7), AP-FB-02 (180-101686-8), AP-FERB-01 (180-101686-9) and AP-FERB-02 (180-101686-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-101686-2

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.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-101686-2

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20 *
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

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



Accreditation/Certification Summary

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

Job ID: 180-101686-2

Laboratory: Eurofins TestAmerica, 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
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20 *
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

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

Sample Summary

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

Job ID: 180-101686-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-101686-1	MGWC-1	Water	01/29/20 10:10	01/30/20 09:00	
180-101686-2	MGWC-3	Water	01/29/20 10:20	01/30/20 09:00	
180-101686-3	MGWC-2	Water	01/29/20 12:00	01/30/20 09:00	
180-101686-4	MGWC-8	Water	01/29/20 13:45	01/30/20 09:00	
180-101686-5	AP-DUP-01	Water	01/29/20 00:00	01/30/20 09:00	
180-101686-6	AP-DUP-02	Water	01/29/20 00:00	01/30/20 09:00	
180-101686-7	AP-FB-01	Water	01/29/20 14:40	01/30/20 09:00	
180-101686-8	AP-FB-02	Water	01/29/20 14:45	01/30/20 09:00	
180-101686-9	AP-FERB-01	Water	01/29/20 14:50	01/30/20 09:00	
180-101686-10	AP-FERB-02	Water	01/29/20 14:55	01/30/20 09:00	



Method Summary

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

Job ID: 180-101686-2

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 TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Lab Chronicle

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

Job ID: 180-101686-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-101686-1

Date Collected: 01/29/20 10:10

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.80 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.80 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-101686-2

Date Collected: 01/29/20 10:20

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.73 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:36	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.73 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-2

Lab Sample ID: 180-101686-3

Date Collected: 01/29/20 12:00

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.33 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:37	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.33 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-101686-4

Date Collected: 01/29/20 13:45

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.20 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 11:37	AJD	TAL SL
Instrument ID: GFPCBLUE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101686-2

Client Sample ID: MGWC-8

Lab Sample ID: 180-101686-4

Date Collected: 01/29/20 13:45

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.20 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-101686-5

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.59 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 13:28	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.59 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-101686-6

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.84 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 13:28	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.84 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:41	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.21 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 13:28	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.21 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:42	CJQ	TAL SL
Instrument ID: GFPCORANGE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101686-2

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

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			461744	02/26/20 06:55	SMP	TAL SL

Client Sample ID: AP-FB-02

Lab Sample ID: 180-101686-8

Date Collected: 01/29/20 14:45

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.05 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 13:28	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.05 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460260	02/13/20 16:42	CJQ	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-101686-9

Date Collected: 01/29/20 14:50

Matrix: Water

Date Received: 01/30/20 09:00

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			1000.96 mL	1.0 g	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 13:28	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.96 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460292	02/13/20 16:30	CJQ	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-101686-10

Date Collected: 01/29/20 14:55

Matrix: Water

Date Received: 01/30/20 09:00

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	459066	02/03/20 09:38	RBR	TAL SL
Total/NA	Analysis	9315		1			461713	02/25/20 13:28	AJD	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.34 mL	1.0 g	459068	02/03/20 10:05	RBR	TAL SL
Total/NA	Analysis	9320		1			460292	02/13/20 16:30	CJQ	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			461744	02/26/20 06:55	SMP	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

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

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-101686-2

Analyst References:

Lab: TAL SL

Batch Type: Prep

RBR = Rachael Ratcliff

Batch Type: Analysis

AJD = Audra DeMariano

CJQ = Caleb Quinn

SMP = Siobhan Perry

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Client Sample Results

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

Job ID: 180-101686-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-101686-1

Date Collected: 01/29/20 10:10

Matrix: Water

Date Received: 01/30/20 09:00

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		0.186	0.215	1.00	0.117	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	U	0.246	0.247	1.00	0.410	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	83.0		40 - 110					02/03/20 10:05	02/13/20 16:41	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	1.39		0.308	0.327	5.00	0.410	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWC-3

Lab Sample ID: 180-101686-2

Date Collected: 01/29/20 10:20

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.04		0.182	0.205	1.00	0.126	pCi/L	02/03/20 09:38	02/25/20 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/03/20 09:38	02/25/20 11:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.404		0.250	0.253	1.00	0.380	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	84.9		40 - 110					02/03/20 10:05	02/13/20 16:41	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-2

Client Sample ID: MGWC-3

Lab Sample ID: 180-101686-2

Date Collected: 01/29/20 10:20

Matrix: Water

Date Received: 01/30/20 09:00

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	1.44		0.309	0.326	5.00	0.380	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWC-2

Lab Sample ID: 180-101686-3

Date Collected: 01/29/20 12:00

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175		0.0920	0.0934	1.00	0.119	pCi/L	02/03/20 09:38	02/25/20 11:37	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	94.2		40 - 110					02/03/20 09:38	02/25/20 11:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0769	U	0.217	0.217	1.00	0.405	pCi/L	02/03/20 10:05	02/13/20 16:41	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	94.2		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	86.0		40 - 110					02/03/20 10:05	02/13/20 16:41	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	0.0985	U	0.236	0.236	5.00	0.405	pCi/L		02/26/20 06:55	1

Client Sample ID: MGWC-8

Lab Sample ID: 180-101686-4

Date Collected: 01/29/20 13:45

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.920		0.178	0.196	1.00	0.136	pCi/L	02/03/20 09:38	02/25/20 11:37	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	90.9		40 - 110					02/03/20 09:38	02/25/20 11:37	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-2

Client Sample ID: MGWC-8

Date Collected: 01/29/20 13:45

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101686-4

Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.688		0.306	0.312	1.00	0.438	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	84.1		40 - 110					02/03/20 10:05	02/13/20 16:41	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	1.61		0.354	0.368	5.00	0.438	pCi/L		02/26/20 06:55	1

Client Sample ID: AP-DUP-01

Date Collected: 01/29/20 00:00

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101686-5

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	1.16		0.184	0.212	1.00	0.108	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.6		40 - 110					02/03/20 09:38	02/25/20 13:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.173	U	0.200	0.200	1.00	0.397	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.6		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	83.7		40 - 110					02/03/20 10:05	02/13/20 16:41	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	0.989		0.272	0.291	5.00	0.397	pCi/L		02/26/20 06:55	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-2

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-101686-6

Date Collected: 01/29/20 00:00

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.999		0.172	0.194	1.00	0.107	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.0		40 - 110					02/03/20 09:38	02/25/20 13:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.219	U	0.243	0.243	1.00	0.398	pCi/L	02/03/20 10:05	02/13/20 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.0		40 - 110					02/03/20 10:05	02/13/20 16:41	1
Y Carrier	83.7		40 - 110					02/03/20 10:05	02/13/20 16:41	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	1.22		0.298	0.311	5.00	0.398	pCi/L		02/26/20 06:55	1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00699	U	0.0497	0.0497	1.00	0.0979	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/03/20 09:38	02/25/20 13:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0464	U	0.204	0.204	1.00	0.376	pCi/L	02/03/20 10:05	02/13/20 16:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/03/20 10:05	02/13/20 16:42	1
Y Carrier	84.5		40 - 110					02/03/20 10:05	02/13/20 16:42	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-2

Client Sample ID: AP-FB-01

Lab Sample ID: 180-101686-7

Date Collected: 01/29/20 14:40

Matrix: Water

Date Received: 01/30/20 09:00

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	-0.0394	U	0.210	0.210	5.00	0.376	pCi/L		02/26/20 06:55	1

Client Sample ID: AP-FB-02

Lab Sample ID: 180-101686-8

Date Collected: 01/29/20 14:45

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0686	U	0.0581	0.0584	1.00	0.138	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.1		40 - 110					02/03/20 09:38	02/25/20 13:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0567	U	0.203	0.203	1.00	0.378	pCi/L	02/03/20 10:05	02/13/20 16:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.1		40 - 110					02/03/20 10:05	02/13/20 16:42	1
Y Carrier	87.1		40 - 110					02/03/20 10:05	02/13/20 16:42	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	-0.125	U	0.211	0.211	5.00	0.378	pCi/L		02/26/20 06:55	1

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-101686-9

Date Collected: 01/29/20 14:50

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00573	U	0.0441	0.0441	1.00	0.0889	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					02/03/20 09:38	02/25/20 13:28	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-101686-2

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-101686-9

Date Collected: 01/29/20 14:50

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0317	U	0.211	0.211	1.00	0.373	pCi/L	02/03/20 10:05	02/13/20 16:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					02/03/20 10:05	02/13/20 16:30	1
Y Carrier	87.9		40 - 110					02/03/20 10:05	02/13/20 16:30	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	0.0375	U	0.216	0.216	5.00	0.373	pCi/L		02/26/20 06:55	1

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-101686-10

Date Collected: 01/29/20 14:55

Matrix: Water

Date Received: 01/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0214	U	0.0351	0.0352	1.00	0.0899	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		40 - 110					02/03/20 09:38	02/25/20 13:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.160	U	0.220	0.221	1.00	0.423	pCi/L	02/03/20 10:05	02/13/20 16:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		40 - 110					02/03/20 10:05	02/13/20 16:30	1
Y Carrier	85.6		40 - 110					02/03/20 10:05	02/13/20 16:30	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	-0.181	U	0.223	0.224	5.00	0.423	pCi/L		02/26/20 06:55	1

QC Sample Results

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

Job ID: 180-101686-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-459066/21-A
Matrix: Water
Analysis Batch: 461713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 459066

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01010	U	0.0400	0.0400	1.00	0.0898	pCi/L	02/03/20 09:38	02/25/20 13:28	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	100		40 - 110			02/03/20 09:38	02/25/20 13:28	1		

Lab Sample ID: LCS 160-459066/1-A
Matrix: Water
Analysis Batch: 461713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 459066

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.638		1.00	1.00	0.0891	pCi/L	85	75 - 125
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	98.8		40 - 110						

Lab Sample ID: LCSD 160-459066/2-A
Matrix: Water
Analysis Batch: 461713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 459066

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	9.990		1.04	1.00	0.0885	pCi/L	88	75 - 125	0.17	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier									
Ba Carrier	96.7		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-459068/21-A
Matrix: Water
Analysis Batch: 460292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 459068

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.008800	U	0.233	0.233	1.00	0.417	pCi/L	02/03/20 10:05	02/13/20 16:31	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	100		40 - 110			02/03/20 10:05	02/13/20 16:31	1		
Y Carrier	86.0		40 - 110			02/03/20 10:05	02/13/20 16:31	1		

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-101686-2

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

Lab Sample ID: LCS 160-459068/1-A
Matrix: Water
Analysis Batch: 460260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 459068

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.11	9.085		1.07	1.00	0.368	pCi/L	100	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.8		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: LCSD 160-459068/2-A
Matrix: Water
Analysis Batch: 460260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 459068

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	9.11	8.490		1.02	1.00	0.385	pCi/L	93	75 - 125	0.28	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	96.7		40 - 110
Y Carrier	85.2		40 - 110

QC Association Summary

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

Job ID: 180-101686-2

Rad

Prep Batch: 459066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total/NA	Water	PrecSep-21	
180-101686-2	MGWC-3	Total/NA	Water	PrecSep-21	
180-101686-3	MGWC-2	Total/NA	Water	PrecSep-21	
180-101686-4	MGWC-8	Total/NA	Water	PrecSep-21	
180-101686-5	AP-DUP-01	Total/NA	Water	PrecSep-21	
180-101686-6	AP-DUP-02	Total/NA	Water	PrecSep-21	
180-101686-7	AP-FB-01	Total/NA	Water	PrecSep-21	
180-101686-8	AP-FB-02	Total/NA	Water	PrecSep-21	
180-101686-9	AP-FERB-01	Total/NA	Water	PrecSep-21	
180-101686-10	AP-FERB-02	Total/NA	Water	PrecSep-21	
MB 160-459066/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-459066/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-459066/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 459068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101686-1	MGWC-1	Total/NA	Water	PrecSep_0	
180-101686-2	MGWC-3	Total/NA	Water	PrecSep_0	
180-101686-3	MGWC-2	Total/NA	Water	PrecSep_0	
180-101686-4	MGWC-8	Total/NA	Water	PrecSep_0	
180-101686-5	AP-DUP-01	Total/NA	Water	PrecSep_0	
180-101686-6	AP-DUP-02	Total/NA	Water	PrecSep_0	
180-101686-7	AP-FB-01	Total/NA	Water	PrecSep_0	
180-101686-8	AP-FB-02	Total/NA	Water	PrecSep_0	
180-101686-9	AP-FERB-01	Total/NA	Water	PrecSep_0	
180-101686-10	AP-FERB-02	Total/NA	Water	PrecSep_0	
MB 160-459068/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-459068/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-459068/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

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

Chain of Custody Record

681-Atlanta



Environment Testing
 TestAmerica

Client Information Sampler: <u>L. Coker, J. Bash</u> Client Contact: <u>Ms. Lauren Petty</u> Phone: <u>404-592-0094</u> Lab PM: <u>Bortol, Veronica</u> Carrier Tracking No(s): <u>180-57786-11316.2</u>		COC No: Page: <u>1 of 1</u> Job #:				
Company: <u>Southern Company</u> Address: <u>PO BOX 2641 GSC8</u> City: <u>Birmingham</u> State, Zip: <u>AL, 35291</u> Phone: <u>205-992-5417(Tel)</u> Email: <u>Impetty@southernco.com</u>		Analysis Requested: TAT Requested (days): <u>Standard</u> PO #: <u>SCS10382606</u> WO #: <u>9315-R224, 9320-R228</u> Project #: <u>18019956</u> SSOW#:				
Project Name: <u>CCR - Plant McIntosh Ash Pond 1</u> Site: <u>Georgia</u>		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: 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)				
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Special Instructions/Note:
MGWC-1	1/29/20	1010	G	Water	N	metals: Sb, As
MGWC-3	1/29/20	1020	G	Water	N	Ba, Be, Cd, Co, Pb
MGWC-2	1/29/20	1200	G	Water	N	V, Mo, Se, Ti, Hg
MGWC-8	1/29/20	1345	G	Water	N	Cr
AP-DUP-01	1/29/20	—	G	Water	N	3 cooler total
AP-DUP-02	1/29/20	—	G	Water	N	
AP-FB-01	1/29/20	1440	G	Water	N	
AP-FB-02	1/29/20	1445	G	Water	N	
AP-FERB-01	1/29/20	1450	G	Water	N	
AP-FERB-02	1/29/20	1455	G	Water	N	
Total Number of Containers:						
Special Instructions/Note: metals: Sb, As Ba, Be, Cd, Co, Pb V, Mo, Se, Ti, Hg Cr 3 cooler total						
Barcode:						
Sample Disposal (A fee may be assessed) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal E. Special Instructions/QC Requirements:						
Method of Shipment:						
Received by: <u>Amber</u> Date/Time: <u>1/29/20 1700</u> Company: <u>GEI</u>						
Relinquished by: <u>Amber</u> Date/Time: <u>1/30-20</u> Company: <u>ETA</u>						
Relinquished by: <u>Amber</u> Date/Time: <u>9:00</u> Company:						
Relinquished by: Date/Time: Company:						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks:						



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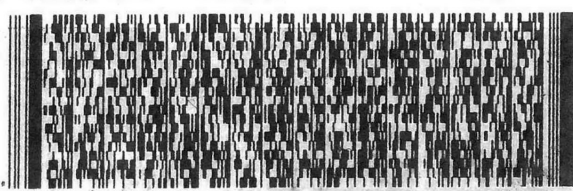


PT-WI-SR-001 effective 11/8/18
 Uncorrected temp 2,1 °C
 Thermometer ID 10
 Initials JS
 CF

XH AGCA

15238 PA-US PIT

1 of 3
 TRK# 3900 2058 7633
 # MASTER #
 THU - 30 JAN 10:30A
 PRIORITY OVERNIGHT



PITTSBURGH PA 15238
 REF: (412) 983-0222
 DEPT:

10
 VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

ORIGIN ID: SAVA (770) 912-0703
 LAUREN COKER
 1375 PEACHTREE ST NE
 ATLANTA, GA 30309
 UNITED STATES US
 SHIP DATE: 29JAN20
 ACTWGT: 43.10 LB
 CAD: 6994919/SSFE2021
 DIMS: 24x13x14 IN
 BILL THIRD PARTY



180-101686 VWaybill

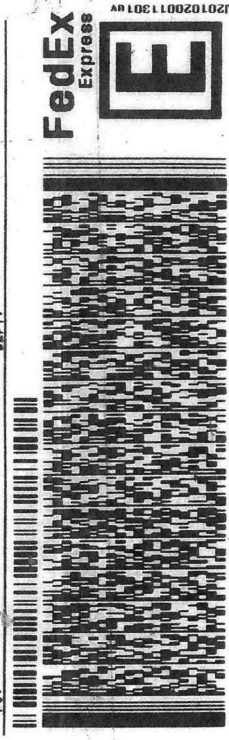
ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER
1375 PEACHTREE ST NE
ATLANTA, GA 30309
UNITED STATES US

SHIP DATE: 28JAN20
ACTWT: 28.60 LB
CAD: 6994819/SSFE2C
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 968-6222 REF: 0201



THU - 30 JAN 10:30A
PRIORITY OVERNIGHT

3 of 3
MFS# 3900 2058 7655
Mstr# 3900 2058 7633

XH AGCA

15238
PA-US PIT

Uncorrected temp
Thermometer ID
CF 0 N.L.C Initials B
PT-WI-SR-001 effective 11/8/18



2-0203
SHIP DATE: 28JAN20
ACTWT: 28.60 LB
CAD: 6994819/SSFE2C
DIMS: 24x13x14 IN
BILL THIRD PARTY

DR
ICA
BORTOT

PITTSBURGH PA 15238

FedEx Express



THU - 30 JAN 10:30A
PRIORITY OVERNIGHT

15238
PA-US

2 of 3
MFS# 3900 2058 7644
Mstr# 3900 2058 7633

XH AGCA

Uncorrected temp
Thermometer ID
CF 0 N.L.C Initials B
PT-WI-SR-001 effective 11/8/18



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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-101686-2

Login Number: 101686

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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.	False	Thermal preservation not required.
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: 180-101686-2

Login Number: 101686

List Number: 2

Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 01/31/20 11:10 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.	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?	False	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



LEVEL 2A LABORATORY DATA VALIDATIONS

McIntosh Ash Pond 1

Scan Event

January 2020

Georgia Power Company – McIntosh Ash Pond 1

Quality Control Review of Analytical Data – January 2020

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh and St. Louis for groundwater samples collected at McIntosh AP1 between January 28, 2020 and January 29, 2020. 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 180-101691 was revised by the laboratory to provide method blank data.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected 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), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program 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 (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, with the exceptions of Thallium and combined Radium on MGWC-1 (180-101686-1) as described in the qualifications section below.

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 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

U: The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. 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 MGWC-1 (180-101686-1) and AP-DUP-01 (180-101686-5) were qualified as estimated (J) for Thallium and combined Radium as the field relative percent difference (RPD) exceeded QC criteria (56.00% and 33.71%, respectively above the limit of 25).

- Certain Lead and/or Thallium results in SDG 180-101629 were qualified as non-detect (U) 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 RL, the method detection limit (MDL) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled between January 28, 2020 and January 29, 2020 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

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – January 2020

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses	
						Metals (6020B, 7470A)	Radium-226/-228 (9315, 9320)
101629	MGWA-10	1/28/2020	180-101629-1	GW		X	X
101629	MGWA-11	1/28/2020	180-101629-2	GW		X	X
101629	MGWA-6	1/28/2020	180-101629-3	GW		X	X
101629	MGWA-5	1/28/2020	180-101629-4	GW		X	X
101629	MGWA-6A	1/28/2020	180-101629-5	GW		X	X
101629	MGWC-12	1/28/2020	180-101629-6	GW		X	X
101629	MGWC-7	1/28/2020	180-101629-7	GW		X	X
101686	MGWC-1	1/29/2020	180-101686-1	GW		X	X
101686	MGWC-3	1/29/2020	180-101686-2	GW		X	X
101686	MGWC-2	1/29/2020	180-101686-3	GW		X	X
101686	MGWC-8	1/29/2020	180-101686-4	GW		X	X
101686	AP-DUP-01	1/29/2020	180-101686-5	GW	FD (MGWC-1)	X	X
101686	AP-DUP-02	1/29/2020	180-101686-6	GW	FD (MGWC-3)	X	X
101686	AP-FB-01	1/29/2020	180-101686-7	WQ	FB	X	X
101686	AP-FB-02	1/29/2020	180-101686-8	WQ	FB	X	X
101686	AP-FERB-01	1/29/2020	180-101686-9	WQ	EB	X	X
101686	AP-FERB-02	1/29/2020	180-101686-10	WQ	EB	X	X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 2

Georgia Power Company – McIntosh AP1

Qualifier Summary Table – January 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
101686	MGWC-1	Thallium			J	RPD exceeds field goal
101686	AP-DUP-01	Thallium			J	RPD exceeds field goal
101686	MGWC-1	Radium combined			J	RPD exceeds field goal
101686	AP-DUP-01	Radium combined			J	RPD exceeds field goal
101629	MGWA-11	Lead		0.00016	U	Blank detection
101629	MGWA-11	Thallium		0.00033	U	Blank detection
101629	MGWA-5	Lead		0.00018	U	Blank detection
101629	MGWA-6	Thallium		0.00027	U	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
U – Non-Detect Result

ANALYTICAL REPORT

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

Laboratory Job ID: 180-101691-1

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

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
2/14/2020 10:43:23 AM
Jill Colussy, Project Manager I
(412)963-2444
jill.colussy@testamericainc.com

Designee for

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

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

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

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	9
QC Sample Results	10
QC Association Summary	11
Chain of Custody	12
Receipt Checklists	13

Case Narrative

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

Job ID: 180-101691-1

Job ID: 180-101691-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-101691-1 RE

Note

This report has been revised to include the method blank.

Receipt

The samples were received on 1/30/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.1° C, 10.3° C and 11.8° C.

Metals

The continuing calibration verification (CCV) associated with batch 180-306922 recovered above the upper control limit for boron. The samples associated with this CCV were non-detects or less than the RL for the affected analytes; therefore, the data have been reported.



Definitions/Glossary

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

Job ID: 180-101691-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-101691-1

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20 *
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	01-31-20 *
Wisconsin	State	998027800	08-31-20

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

Sample Summary

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

Job ID: 180-101691-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-101691-1	MGWC-23	Water	01/29/20 12:25	01/30/20 09:00	
180-101691-2	MGWC-21	Water	01/29/20 14:05	01/30/20 09:00	

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Method Summary

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

Job ID: 180-101691-1

Method	Method Description	Protocol	Laboratory
EPA 6020	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 TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Lab Chronicle

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

Job ID: 180-101691-1

Client Sample ID: MGWC-23

Lab Sample ID: 180-101691-1

Date Collected: 01/29/20 12:25

Matrix: Water

Date Received: 01/30/20 09:00

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	306214	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			306922	02/12/20 17:29	RSK	TAL PIT
Instrument ID: NEMO										

Client Sample ID: MGWC-21

Lab Sample ID: 180-101691-2

Date Collected: 01/29/20 14:05

Matrix: Water

Date Received: 01/30/20 09:00

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	306214	02/06/20 08:00	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			306922	02/12/20 17:32	RSK	TAL PIT
Instrument ID: NEMO										

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

RJR = Ron Rosenbaum

Batch Type: Analysis

RSK = Robert Kurtz

Client Sample Results

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

Job ID: 180-101691-1

Client Sample ID: MGWC-23

Date Collected: 01/29/20 12:25

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101691-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.085		0.080	0.039	mg/L		02/06/20 08:00	02/12/20 17:29	1

Client Sample ID: MGWC-21

Date Collected: 01/29/20 14:05

Date Received: 01/30/20 09:00

Lab Sample ID: 180-101691-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.046	J	0.080	0.039	mg/L		02/06/20 08:00	02/12/20 17:32	1

QC Sample Results

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

Job ID: 180-101691-1

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-306214/1-A
Matrix: Water
Analysis Batch: 306922

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 306214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039	^	0.080	0.039	mg/L		02/06/20 08:00	02/12/20 16:43	1

Lab Sample ID: LCS 180-306214/2-A
Matrix: Water
Analysis Batch: 306922

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 306214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.25	1.16		mg/L		93	80 - 120



QC Association Summary

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

Job ID: 180-101691-1

Metals

Prep Batch: 306214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101691-1	MGWC-23	Total Recoverable	Water	3005A	
180-101691-2	MGWC-21	Total Recoverable	Water	3005A	
MB 180-306214/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-306214/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 306922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-101691-1	MGWC-23	Total Recoverable	Water	EPA 6020	306214
180-101691-2	MGWC-21	Total Recoverable	Water	EPA 6020	306214
MB 180-306214/1-A	Method Blank	Total Recoverable	Water	EPA 6020	306214
LCS 180-306214/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	306214

<p>Client Information Client Contact: Ms. Lauren Petty Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State: AL, Zip: 35291 Phone: 205-992-5417 (Tel) Email: Impetty@southernco.com Project Name: CCR - Plant McIntosh Ash Pond 1 Site: Georgia</p>		<p>Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com</p>	<p>Carrier Tracking No(s): Lab No: 180-57786-11316.1 Page 1 of 1 Job #:</p>					
<p>Sampler: L. Coker, J. Bash Phone: 404-592-0094</p>	<p>Due Date Requested: TAT Requested (days): Standard PO #: SCS10382606 WO #: Project #: 18019956 SSOW#:</p>							
<p>Sample Identification</p>	<p>Sample Date</p>	<p>Sample Time</p>	<p>Sample Type (C=Comp, G=grab)</p>	<p>Matrix (W=water, S=solid, O=water/oil, BT=Tissue, AS=Air)</p>	<p>Field Filtered Sample (Yes or No)</p>	<p>Preservation Code</p>	<p>Analysis Requested</p>	<p>Special Instructions/Note:</p>
MGWC-23	1/29/20	1225	G	Water	N	X	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: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - HZSO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	Total Number of Containers: _____ Sample for Boron only 3 coolers Total
MGWC-21	1/29/20	1405	G	Water	N	X		
				Water				
				Water				
				Water				
				Water				
				Water				
				Water				
				Water				
				Water				
				Water				
				Water				
<p>Possible Hazard Identification <input checked="" 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 Deliverable Requested: I, II, III, IV, Other (specify)</p>							<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>	
<p>Empty Kit Relinquished by: _____ Date: _____ Relinquished by: <i>Amber</i> Date/Time: 1/29/20 1700 Company: GEI Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____</p>							<p>Method of Shipment: _____ Date/Time: 1-30-20 Received by: <i>Michelle Watson</i> Company: <i>ETA</i> Relinquished by: _____ Date/Time: 9:00 Received by: _____ Date/Time: _____ Company: _____</p>	
<p>Custody Seals Intact: _____ Delta Yes Delta No _____ Custody Seal No.: _____</p>							<p>Cooler Temperature(s) °C and Other Remarks: _____</p>	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-101691-1

Login Number: 101691

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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.	False	Thermal preservation not required.
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	

Product Name: Low-Flow System

Date: 2020-01-29 13:52:32

Project Information:

Operator Name J.Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 47.26 ft

Pump placement from TOC 1 ft

Well Information:

Well ID MGWC-8
Well diameter 2 in
Well Total Depth 52.56 ft
Screen Length 10 ft
Depth to Water 30 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.3009414 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 6.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:25:36	2100.66	20.13	5.75	957.02	2.00	30.51	0.42	78.03
Last 5	13:30:36	2400.66	20.25	5.82	955.47	1.75	30.51	0.33	67.13
Last 5	13:35:36	2700.66	20.35	5.71	957.87	0.15	30.51	0.39	76.17
Last 5	13:40:36	3000.66	20.48	5.74	954.22	0.59	30.51	0.39	71.68
Last 5	13:45:36	3300.66	20.48	5.76	962.81	0.58	30.51	0.30	69.39
Variance 0			0.10	-0.11	2.40			0.06	9.04
Variance 1			0.13	0.03	-3.64			-0.00	-4.49
Variance 2			0.00	0.02	8.59			-0.09	-2.29

Notes

Sampled at 1345

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 15:27:26

Project Information:

Operator Name J.Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 57 ft

Pump placement from TOC 2.5 ft

Well Information:

Well ID MGWA-5
Well diameter 2 in
Well Total Depth 63.09 ft
Screen Length 10 ft
Depth to Water 22.51 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3444151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	15:03:36	900.03	20.48	7.51	262.60	0.73	22.59	0.88	51.58
Last 5	15:08:36	1200.02	20.22	7.51	262.26	1.00	22.60	0.82	50.73
Last 5	15:13:36	1500.03	20.12	7.49	262.51	1.05	22.61	0.76	49.75
Last 5	15:18:36	1800.03	20.16	7.48	264.03	0.97	22.62	0.71	47.30
Last 5	15:23:36	2100.02	20.26	7.46	264.16	1.23	22.63	0.70	44.20
Variance 0			-0.10	-0.02	0.25			-0.06	-0.98
Variance 1			0.04	-0.01	1.52			-0.06	-2.45
Variance 2			0.09	-0.01	0.13			-0.01	-3.10

Notes

Sampled at 1525

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 14:38:38

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 37 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-6
Well diameter 2 in
Well Total Depth 42.20 ft
Screen Length 10 ft
Depth to Water 19.70 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Stabilization									
Last 5	14:16:48	1200.02	20.08	7.21	536.75	0.69	19.85	0.22	42.24
Last 5	14:21:48	1500.02	20.03	7.21	535.33	1.06	19.90	0.19	44.91
Last 5	14:26:48	1800.02	19.96	7.19	536.54	0.33	19.90	0.17	38.47
Last 5	14:31:48	2100.02	20.12	7.17	536.19	0.45	19.90	0.15	26.49
Last 5	14:36:48	2400.02	19.94	7.17	535.61	0.56	19.90	0.14	21.03
Variance 0			-0.08	-0.02	1.21			-0.02	-6.43
Variance 1			0.16	-0.02	-0.35			-0.01	-11.98
Variance 2			-0.18	-0.00	-0.58			-0.02	-5.46

Notes

Sampled at 1440

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 15:28:23

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 37 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-6A
Well diameter 2 in
Well Total Depth 42.58 ft
Screen Length 10 ft
Depth to Water 18.33 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.24 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	15:06:36	600.02	19.09	7.31	505.38	2.10	18.90	0.40	-119.18
Last 5	15:11:36	900.02	19.36	7.35	492.37	1.06	19.03	0.30	-126.03
Last 5	15:16:36	1200.02	19.46	7.36	488.95	1.34	19.21	0.22	-130.38
Last 5	15:21:38	1502.02	19.58	7.36	491.91	2.01	19.31	0.19	-134.46
Last 5	15:26:38	1802.02	19.78	7.36	482.14	1.98	19.35	0.17	-133.25
Variance 0			0.10	0.01	-3.42			-0.08	-4.36
Variance 1			0.13	0.00	2.96			-0.03	-4.08
Variance 2			0.19	0.00	-9.77			-0.02	1.22

Notes

Sampled at 1540

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 13:04:14

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 47 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-10
Well diameter 2 in
Well Total Depth 53.07 ft
Screen Length 10 ft
Depth to Water 16.54 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2997809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 33.6 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	12:42:00	900.02	20.28	5.95	73.20	0.27	18.69	2.38	91.79
Last 5	12:47:00	1200.02	20.47	5.88	71.92	0.18	18.93	2.21	88.89
Last 5	12:52:00	1500.02	20.43	5.83	69.93	0.88	19.06	2.03	87.77
Last 5	12:57:00	1800.02	20.24	5.80	69.79	0.78	19.12	1.97	86.55
Last 5	13:02:00	2100.02	20.29	5.78	69.44	0.96	9.34	1.90	86.31
Variance 0			-0.05	-0.04	-1.98			-0.18	-1.13
Variance 1			-0.18	-0.04	-0.14			-0.06	-1.21
Variance 2			0.05	-0.02	-0.35			-0.07	-0.24

Notes

Sampled at 1310

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 13:39:36

Project Information:

Operator Name J.Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 55 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-11
Well diameter 2 in
Well Total Depth 56.64 ft
Screen Length 10 ft
Depth to Water 20.21 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:16:52	900.33	19.69	7.26	325.13	0.30	20.28	0.34	-86.26
Last 5	13:21:52	1200.33	19.81	7.32	324.17	0.21	20.30	0.28	-92.60
Last 5	13:26:52	1500.33	19.95	7.35	326.30	0.32	20.31	0.24	-95.17
Last 5	13:31:52	1800.33	20.12	7.38	324.70	0.34	20.32	0.22	-97.34
Last 5	13:36:52	2100.33	20.16	7.40	325.94	0.29	20.33	0.24	-98.92
Variance 0			0.14	0.03	2.13			-0.04	-2.57
Variance 1			0.17	0.03	-1.60			-0.02	-2.17
Variance 2			0.04	0.02	1.23			0.01	-1.58

Notes

Sampled 1340

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-29 10:05:43

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 50 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWC-1
Well diameter 2 in
Well Total Depth 56.20 ft
Screen Length 10 ft
Depth to Water 37.32 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 19.56 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	09:37:35	600.02	18.84	7.14	562.71	2.76	38.59	1.07	26.39
Last 5	09:42:35	900.02	19.16	7.17	632.41	2.33	38.60	0.77	20.66
Last 5	09:47:35	1200.02	19.41	7.18	638.70	1.67	38.85	0.58	17.56
Last 5	09:52:35	1500.02	19.45	7.18	635.53	1.48	38.90	0.69	15.60
Last 5	09:57:35	1800.02	19.54	7.19	640.40	1.47	38.95	0.64	15.52
Variance 0			0.25	0.01	6.29			-0.19	-3.10
Variance 1			0.05	0.00	-3.17			0.12	-1.96
Variance 2			0.09	0.01	4.87			-0.05	-0.08

Notes

Sampled at 1010 AP-DUP-01 taken here

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-29 12:07:15

Project Information:

Operator Name J.Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 32.06 ft

Pump placement from TOC 1.5 ft

Well Information:

Well ID MGWC-2
Well diameter 2 in
Well Total Depth 37.36 ft
Screen Length 10 ft
Depth to Water 20 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2330973 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.08 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0%		+/- 10%	+/- 0
Last 5	11:39:45	900.91	19.23	7.23	810.06	1.98	20.77	0.27	7.18
Last 5	11:44:45	1200.91	19.84	7.25	800.98	1.80	20.87	0.23	1.86
Last 5	11:49:45	1500.92	19.82	7.27	798.97	1.94	20.85	0.20	-0.56
Last 5	11:54:45	1800.91	19.65	7.29	803.09	1.83	20.88	0.22	-1.88
Last 5	11:59:45	2100.92	19.46	7.30	798.93	1.61	20.89	0.24	-1.88
Variance 0			-0.02	0.02	-2.01			-0.02	-2.42
Variance 1			-0.17	0.01	4.12			0.02	-1.32
Variance 2			-0.19	0.02	-4.15			0.02	0.00

Notes

Sampled at 1200

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-29 10:31:27

Project Information:

Operator Name J.Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 33.44 ft

Pump placement from TOC 1.5 ft

Well Information:

Well ID MGWC-3
Well diameter 2 in
Well Total Depth 38.74 ft
Screen Length 10 ft
Depth to Water 17 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2392569 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:55:40	900.03	17.42	6.53	606.66	1.21	17.57	0.34	18.45
Last 5	10:00:40	1199.99	17.85	6.59	606.12	1.35	17.59	0.28	13.94
Last 5	10:10:40	1799.98	18.30	6.65	606.60	0.38	17.60	0.22	9.99
Last 5	10:15:40	2099.98	18.71	6.67	608.32	1.53	17.63	0.21	9.50
Last 5	10:20:40	2399.98	18.82	6.68	607.80	1.71	17.65	0.20	9.34
Variance 0			0.45	0.06	0.48			-0.06	-3.95
Variance 1			0.41	0.02	1.72			-0.02	-0.49
Variance 2			0.11	0.02	-0.52			-0.01	-0.16

Notes

Sampled at 1020

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 16:58:32

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MGWC-7
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 20.49 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.72 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	16:34:36	1800.02	20.92	6.43	523.99	0.31	21.00	0.18	25.22
Last 5	16:39:36	2100.02	20.97	6.49	530.70	0.25	21.00	0.15	21.97
Last 5	16:44:36	2400.02	20.89	6.57	532.88	0.41	21.00	0.15	16.47
Last 5	16:49:36	2700.02	20.66	6.61	532.56	0.62	21.03	0.15	16.09
Last 5	16:54:36	3000.02	20.67	6.61	536.64	0.55	21.05	0.15	16.41
Variance 0			-0.08	0.09	2.18			-0.01	-5.51
Variance 1			-0.23	0.03	-0.32			-0.00	-0.38
Variance 2			0.02	0.01	4.08			-0.00	0.32

Notes

Sampled at 1705

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-28 16:51:13

Project Information:

Operator Name J.Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 47.70 ft

Pump placement from TOC 2.5 ft

Well Information:

Well ID MGWC-12
Well diameter 2 in
Well Total Depth 52.90 ft
Screen Length 10 ft
Depth to Water 25 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.3029053 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:29:01	1200.02	19.19	7.35	315.03	2.20	25.37	0.78	-125.52
Last 5	16:34:01	1500.02	19.26	7.27	312.80	1.72	25.40	0.34	-124.19
Last 5	16:39:02	1800.97	19.32	7.26	302.84	1.49	25.40	0.26	-125.77
Last 5	16:44:03	2101.97	19.37	7.25	297.19	1.45	25.42	0.29	-125.99
Last 5	16:49:03	2401.97	19.38	7.25	291.04	1.01	25.42	0.22	-126.90
Variance 0			0.07	-0.02	-9.97			-0.09	-1.59
Variance 1			0.05	-0.01	-5.64			0.03	-0.22
Variance 2			0.00	-0.00	-6.15			-0.07	-0.91

Notes

Sampled at 1650

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-29 14:00:06

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 77 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWC-21
Well diameter 2 in
Well Total Depth 82.68 ft
Screen Length 10 ft
Depth to Water 31.39 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4336836 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 41.88 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	13:32:16	600.02	20.07	7.56	283.75	1.59	33.85	0.34	-119.69
Last 5	13:37:16	900.02	20.17	7.59	285.90	1.12	34.12	0.27	-120.55
Last 5	13:42:16	1200.02	20.12	7.67	294.15	1.08	34.70	0.22	-110.85
Last 5	13:47:16	1500.02	20.06	7.73	291.90	0.68	34.82	0.19	-96.80
Last 5	13:52:16	1800.02	20.04	7.75	291.02	0.71	34.88	0.16	-94.31
Variance 0			-0.05	0.08	8.25			-0.05	9.70
Variance 1			-0.05	0.06	-2.25			-0.03	14.05
Variance 2			-0.02	0.03	-0.88			-0.03	2.49

Notes

Sampled at 1405

Grab Samples

Product Name: Low-Flow System

Date: 2020-01-29 12:33:45

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 37 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWC-23
Well diameter 2 in
Well Total Depth 43.33 ft
Screen Length 10 ft
Depth to Water 33.21 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.68 in
Total Volume Pumped 9.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 10%	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Stabilization									
Last 5	11:54:05	2700.11	18.73	7.33	439.42	0.41	34.03	1.02	-48.48
Last 5	11:59:05	3000.05	18.69	7.34	527.56	0.57	34.05	1.17	-46.70
Last 5	12:04:05	3300.02	18.68	7.32	529.75	0.35	34.08	0.84	-44.88
Last 5	12:09:05	3600.02	18.66	7.42	526.55	0.21	34.10	0.72	-47.85
Last 5	12:14:05	3900.02	18.74	7.42	525.08	0.34	34.10	0.71	-46.26
Variance 0			-0.01	-0.02	2.19			-0.33	1.82
Variance 1			-0.02	0.10	-3.19			-0.13	-2.97
Variance 2			0.09	-0.01	-1.47			-0.01	1.59

Notes

Sampled at 1225

Grab Samples

ANALYTICAL REPORT

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

Laboratory Job ID: 180-103433-1

Client Project/Site: CCR - Plant McIntosh Ash Pond 1
Revision: 3

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
5/19/2020 8:58:25 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

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

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

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	15
QC Sample Results	27
QC Association Summary	32
Chain of Custody	36
Receipt Checklists	47

Case Narrative

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

Job ID: 180-103433-1

Job ID: 180-103433-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Revised Job Narrative 180-103433-1

051920 Revised Report to remove pH analyzed in the lab at client request; this report replaces the report previously issued on 040820.

Revised : to include job 180-103435

Revision: to reanalyze metals samples 9 and 11

Comments

No additional comments.

Receipt

The samples were received on 3/11/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.4° C, 3.7° C, 4.9° C and 17.3° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-DUP-01 (180-103435-10). The container labels list MGWC-2, while the COC lists AP-DUP-01.

GC Semi VOA

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

Metals

Method 6020B: The following samples were diluted due to the nature of the sample matrix: MGWC-3 (180-103435-5), MGWC-7 (180-103435-6), MGWC-2 (180-103435-7), MGWC-8 (180-103435-8), MGWC-1 (180-103435-9), AP-DUP-01 (180-103435-10) and AP-DUP-02 (180-103435-11). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or 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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-103433-1

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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-103433-1

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20



Sample Summary

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

Job ID: 180-103433-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-103433-1	MGWA-11	Water	03/09/20 17:00	03/11/20 09:00	
180-103433-2	MGWA-10	Water	03/09/20 17:05	03/11/20 09:00	
180-103435-1	MGWA-5	Water	03/10/20 09:45	03/11/20 09:00	
180-103435-2	MGWA-6	Water	03/10/20 11:15	03/11/20 09:00	
180-103435-3	MGWA-6A	Water	03/10/20 10:00	03/11/20 09:00	
180-103435-4	MGWC-12	Water	03/10/20 10:45	03/11/20 09:00	
180-103435-5	MGWC-3	Water	03/10/20 10:55	03/11/20 09:00	
180-103435-6	MGWC-7	Water	03/10/20 12:40	03/11/20 09:00	
180-103435-7	MGWC-2	Water	03/10/20 12:00	03/11/20 09:00	
180-103435-8	MGWC-8	Water	03/10/20 13:05	03/11/20 09:00	
180-103435-9	MGWC-1	Water	03/10/20 15:00	03/11/20 09:00	
180-103435-10	AP-DUP-01	Water	03/10/20 00:00	03/11/20 09:00	
180-103435-11	AP-DUP-02	Water	03/10/20 00:00	03/11/20 09:00	
180-103435-12	AP-FB-01	Water	03/10/20 12:50	03/11/20 09:00	
180-103435-13	AP-FB-02	Water	03/10/20 12:55	03/11/20 09:00	
180-103435-14	AP-FERB-01	Water	03/10/20 13:00	03/11/20 09:00	
180-103435-15	AP-FERB-02	Water	03/10/20 13:05	03/11/20 09:00	

Method Summary

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

Job ID: 180-103433-1

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
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 TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: MGWA-11

Lab Sample ID: 180-103433-1

Date Collected: 03/09/20 17:00

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHIC2100A		1			310538	03/20/20 16:31	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 13:58	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 16:41	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310061	03/16/20 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 15:50	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: MGWA-10

Lab Sample ID: 180-103433-2

Date Collected: 03/09/20 17:05

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHIC2100A		1			310538	03/20/20 16:47	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:10	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 16:54	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310061	03/16/20 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 15:51	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: MGWA-5

Lab Sample ID: 180-103435-1

Date Collected: 03/10/20 09:45

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 17:13	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:22	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 17:06	RSK	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: MGWA-5

Lab Sample ID: 180-103435-1

Date Collected: 03/10/20 09:45

Matrix: Water

Date Received: 03/11/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:09	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: MGWA-6

Lab Sample ID: 180-103435-2

Date Collected: 03/10/20 11:15

Matrix: Water

Date Received: 03/11/20 09:00

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			310689	03/21/20 17:29	SAC	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310808	03/22/20 14:25	WTR	TAL PIT
		Instrument ID: NEMO								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310945	03/23/20 17:09	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:10	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: MGWA-6A

Lab Sample ID: 180-103435-3

Date Collected: 03/10/20 10:00

Matrix: Water

Date Received: 03/11/20 09:00

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			310689	03/21/20 17:45	SAC	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310808	03/22/20 14:27	WTR	TAL PIT
		Instrument ID: NEMO								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310945	03/23/20 17:11	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:11	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

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Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: MGWC-12

Lab Sample ID: 180-103435-4

Date Collected: 03/10/20 10:45

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 18:01	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:30	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 17:14	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:12	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 18:48	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:32	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		5			310945	03/23/20 17:16	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:13	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: MGWC-7

Lab Sample ID: 180-103435-6

Date Collected: 03/10/20 12:40

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 20:51	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:35	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		5			310945	03/23/20 17:19	RSK	TAL PIT

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Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-103435-6

Date Collected: 03/10/20 12:40

Matrix: Water

Date Received: 03/11/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:14	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: MGWC-2

Lab Sample ID: 180-103435-7

Date Collected: 03/10/20 12:00

Matrix: Water

Date Received: 03/11/20 09:00

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			310689	03/21/20 21:07	SAC	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310808	03/22/20 14:37	WTR	TAL PIT
		Instrument ID: NEMO								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		5			310945	03/23/20 17:21	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:15	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: MGWC-8

Lab Sample ID: 180-103435-8

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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			310689	03/21/20 21:38	SAC	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Analysis	EPA 300.0 R2.1		5			310689	03/21/20 21:54	SAC	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310808	03/22/20 14:40	WTR	TAL PIT
		Instrument ID: NEMO								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		5			310945	03/23/20 17:24	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:18	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

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Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-103435-9

Date Collected: 03/10/20 15:00

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 23:13	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		5			312060	04/03/20 12:27	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:19	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-103435-10

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 22:10	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:50	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		5			310945	03/23/20 17:29	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:20	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-103435-11

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 23:29	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		5			312060	04/03/20 12:29	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:21	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

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Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 20:03	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:55	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 17:39	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:22	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: AP-FB-02

Lab Sample ID: 180-103435-13

Date Collected: 03/10/20 12:55

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 20:19	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 14:57	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 17:41	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			310256	03/17/20 17:23	NAM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-103435-14

Date Collected: 03/10/20 13:00

Matrix: Water

Date Received: 03/11/20 09:00

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 Instrument ID: CHICS2100B		1			310689	03/21/20 20:35	SAC	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310808	03/22/20 15:00	WTR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			310945	03/23/20 17:44	RSK	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-103433-1

Client Sample ID: AP-FERB-01

Date Collected: 03/10/20 13:00

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103435-14

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	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:24	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: AP-FERB-02

Date Collected: 03/10/20 13:05

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103435-15

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			310688	03/21/20 23:34	SAC	TAL PIT
		Instrument ID: CHIC2100A								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310808	03/22/20 15:02	WTR	TAL PIT
		Instrument ID: NEMO								
Total Recoverable	Prep	3005A			50 mL	50 mL	310194	03/17/20 11:48	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			310945	03/23/20 17:46	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	310196	03/17/20 11:55	NAM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			310256	03/17/20 17:25	NAM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	309763	03/12/20 12:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

NAM = Nicole Marfisi

RJR = Ron Rosenbaum

Batch Type: Analysis

AVS = Abbey Smith

MJH = Matthew Hartman

NAM = Nicole Marfisi

RSK = Robert Kurtz

SAC = Shawn Clemente

WTR = Bill Reinheimer

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWA-11

Lab Sample ID: 180-103433-1

Date Collected: 03/09/20 17:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		1.0	0.32	mg/L			03/20/20 16:31	1
Fluoride	0.19		0.10	0.026	mg/L			03/20/20 16:31	1
Sulfate	3.4		1.0	0.38	mg/L			03/20/20 16:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 13:58	1
Arsenic	0.00073	J	0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 16:41	1
Barium	0.094		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 13:58	1
Beryllium	0.00018	J B	0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 13:58	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 16:41	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 13:58	1
Calcium	32		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 16:41	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 13:58	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 13:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 13:58	1
Lithium	0.017		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 13:58	1
Molybdenum	0.0012	J	0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 13:58	1
Thallium	0.00036	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 13:58	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/16/20 12:05	03/17/20 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWA-10

Lab Sample ID: 180-103433-2

Date Collected: 03/09/20 17:05

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		1.0	0.32	mg/L			03/20/20 16:47	1
Fluoride	0.061	J	0.10	0.026	mg/L			03/20/20 16:47	1
Sulfate	4.2		1.0	0.38	mg/L			03/20/20 16:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:10	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 16:54	1
Barium	0.023		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:10	1
Beryllium	0.00045	J B	0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:10	1
Boron	0.045	J	0.080	0.039	mg/L		03/17/20 11:48	03/23/20 16:54	1
Cadmium	0.00023	J	0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:10	1
Calcium	4.0		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 16:54	1
Chromium	0.0042		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:10	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:10	1
Lithium	0.0088		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:10	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWA-10

Lab Sample ID: 180-103433-2

Date Collected: 03/09/20 17:05

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:10	1
Thallium	0.00058	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:10	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/16/20 12:05	03/17/20 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWA-5

Lab Sample ID: 180-103435-1

Date Collected: 03/10/20 09:45

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.32	mg/L			03/21/20 17:13	1
Fluoride	0.055	J	0.10	0.026	mg/L			03/21/20 17:13	1
Sulfate	5.2		1.0	0.38	mg/L			03/21/20 17:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:22	1
Arsenic	0.00031	J	0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:06	1
Barium	0.043		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:22	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:22	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:06	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:22	1
Calcium	29		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:06	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:22	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:22	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:22	1
Lithium	0.011		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:22	1
Molybdenum	0.00093	J	0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:22	1
Thallium	0.00015	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:22	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWA-6

Lab Sample ID: 180-103435-2

Date Collected: 03/10/20 11:15

Matrix: Water

Date Received: 03/11/20 09:00

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	0.32	mg/L			03/21/20 17:29	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWA-6

Lab Sample ID: 180-103435-2

Date Collected: 03/10/20 11:15

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.045	J	0.10	0.026	mg/L			03/21/20 17:29	1
Sulfate	5.0		1.0	0.38	mg/L			03/21/20 17:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:25	1
Arsenic	0.0093		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:09	1
Barium	0.031		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:25	1
Boron	0.051	J	0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:09	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:25	1
Calcium	100		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:09	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:25	1
Cobalt	0.00038	J	0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:25	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:25	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:25	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:25	1
Thallium	0.00019	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:25	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWA-6A

Lab Sample ID: 180-103435-3

Date Collected: 03/10/20 10:00

Matrix: Water

Date Received: 03/11/20 09:00

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	0.32	mg/L			03/21/20 17:45	1
Fluoride	0.048	J	0.10	0.026	mg/L			03/21/20 17:45	1
Sulfate	2.4		1.0	0.38	mg/L			03/21/20 17:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:27	1
Arsenic	0.0029		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:11	1
Barium	0.035		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:27	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:27	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:11	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:27	1
Calcium	90		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:11	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:27	1
Cobalt	0.00032	J	0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:27	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:27	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:27	1
Molybdenum	0.0012	J	0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:27	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWA-6A

Lab Sample ID: 180-103435-3

Date Collected: 03/10/20 10:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:27	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	260		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWC-12

Lab Sample ID: 180-103435-4

Date Collected: 03/10/20 10:45

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.32	mg/L			03/21/20 18:01	1
Fluoride	0.15		0.10	0.026	mg/L			03/21/20 18:01	1
Sulfate	7.8		1.0	0.38	mg/L			03/21/20 18:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:30	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:14	1
Barium	0.056		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:30	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:30	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:14	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:30	1
Calcium	30		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:14	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:30	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:30	1
Lithium	0.018		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:30	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:30	1
Thallium	0.00015	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		1.0	0.32	mg/L			03/21/20 18:48	1
Fluoride	0.058	J	0.10	0.026	mg/L			03/21/20 18:48	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	130		1.0	0.38	mg/L			03/21/20 18:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:32	1
Arsenic	<0.0016		0.0050	0.0016	mg/L		03/17/20 11:48	03/23/20 17:16	5
Barium	0.15		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:32	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:32	1
Boron	1.3		0.40	0.19	mg/L		03/17/20 11:48	03/23/20 17:16	5
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:32	1
Calcium	110		2.5	0.64	mg/L		03/17/20 11:48	03/23/20 17:16	5
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:32	1
Cobalt	0.00050	J	0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:32	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:32	1
Lithium	0.014		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:32	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:32	1
Thallium	0.00016	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:32	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	390		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWC-7

Lab Sample ID: 180-103435-6

Date Collected: 03/10/20 12:40

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.32	mg/L			03/21/20 20:51	1
Fluoride	0.18		0.10	0.026	mg/L			03/21/20 20:51	1
Sulfate	170		1.0	0.38	mg/L			03/21/20 20:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:35	1
Arsenic	<0.0016		0.0050	0.0016	mg/L		03/17/20 11:48	03/23/20 17:19	5
Barium	0.013		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:35	1
Boron	1.4		0.40	0.19	mg/L		03/17/20 11:48	03/23/20 17:19	5
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:35	1
Calcium	55		2.5	0.64	mg/L		03/17/20 11:48	03/23/20 17:19	5
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:35	1
Cobalt	0.0081		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:35	1
Lithium	0.11		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:35	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:35	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-103435-6

Date Collected: 03/10/20 12:40

Matrix: Water

Date Received: 03/11/20 09:00

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWC-2

Lab Sample ID: 180-103435-7

Date Collected: 03/10/20 12:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			03/21/20 21:07	1
Fluoride	0.050	J	0.10	0.026	mg/L			03/21/20 21:07	1
Sulfate	170		1.0	0.38	mg/L			03/21/20 21:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:37	1
Arsenic	<0.0016		0.0050	0.0016	mg/L		03/17/20 11:48	03/23/20 17:21	5
Barium	0.049		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:37	1
Boron	2.3		0.40	0.19	mg/L		03/17/20 11:48	03/23/20 17:21	5
Cadmium	0.0011	J	0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:37	1
Calcium	110		2.5	0.64	mg/L		03/17/20 11:48	03/23/20 17:21	5
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:37	1
Cobalt	0.0024	J	0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:37	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:37	1
Lithium	0.0068		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:37	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:37	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:37	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	540		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWC-8

Lab Sample ID: 180-103435-8

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			03/21/20 21:38	1
Fluoride	0.084	J	0.10	0.026	mg/L			03/21/20 21:38	1
Sulfate	370		5.0	1.9	mg/L			03/21/20 21:54	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWC-8

Lab Sample ID: 180-103435-8

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:40	1
Arsenic	<0.0016		0.0050	0.0016	mg/L		03/17/20 11:48	03/23/20 17:24	5
Barium	0.036		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:40	1
Beryllium	0.0013	J B	0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:40	1
Boron	4.0		0.40	0.19	mg/L		03/17/20 11:48	03/23/20 17:24	5
Cadmium	0.0011	J	0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:40	1
Calcium	100		2.5	0.64	mg/L		03/17/20 11:48	03/23/20 17:24	5
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:40	1
Cobalt	0.017		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:40	1
Lithium	0.028		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:40	1
Thallium	0.00025	J B	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:40	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	600		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: MGWC-1

Lab Sample ID: 180-103435-9

Date Collected: 03/10/20 15:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.32	mg/L			03/21/20 23:13	1
Fluoride	0.086	J	0.10	0.026	mg/L			03/21/20 23:13	1
Sulfate	140		1.0	0.38	mg/L			03/21/20 23:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0019		0.010	0.0019	mg/L		03/17/20 11:48	04/03/20 12:27	5
Arsenic	0.0019		0.0050	0.0016	mg/L		03/17/20 11:48	04/03/20 12:27	5
Barium	0.13		0.050	0.0080	mg/L		03/17/20 11:48	04/03/20 12:27	5
Beryllium	<0.00091		0.013	0.00091	mg/L		03/17/20 11:48	04/03/20 12:27	5
Boron	1.9		0.40	0.19	mg/L		03/17/20 11:48	04/03/20 12:27	5
Cadmium	<0.0011		0.013	0.0011	mg/L		03/17/20 11:48	04/03/20 12:27	5
Calcium	120		2.5	0.64	mg/L		03/17/20 11:48	04/03/20 12:27	5
Chromium	<0.0077		0.010	0.0077	mg/L		03/17/20 11:48	04/03/20 12:27	5
Cobalt	<0.00067		0.013	0.00067	mg/L		03/17/20 11:48	04/03/20 12:27	5
Lead	<0.00064		0.0050	0.00064	mg/L		03/17/20 11:48	04/03/20 12:27	5
Lithium	<0.017		0.025	0.017	mg/L		03/17/20 11:48	04/03/20 12:27	5
Molybdenum	<0.0031		0.075	0.0031	mg/L		03/17/20 11:48	04/03/20 12:27	5
Thallium	<0.00074		0.0050	0.00074	mg/L		03/17/20 11:48	04/03/20 12:27	5

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:19	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-103435-9

Date Collected: 03/10/20 15:00

Matrix: Water

Date Received: 03/11/20 09:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-103435-10

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.32	mg/L			03/21/20 22:10	1
Fluoride	0.059	J	0.10	0.026	mg/L			03/21/20 22:10	1
Sulfate	180		1.0	0.38	mg/L			03/21/20 22:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:50	1
Arsenic	<0.0016		0.0050	0.0016	mg/L		03/17/20 11:48	03/23/20 17:29	5
Barium	0.049		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:50	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:50	1
Boron	2.3		0.40	0.19	mg/L		03/17/20 11:48	03/23/20 17:29	5
Cadmium	0.00097	J	0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:50	1
Calcium	110		2.5	0.64	mg/L		03/17/20 11:48	03/23/20 17:29	5
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:50	1
Cobalt	0.0025		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:50	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:50	1
Lithium	0.0068		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:50	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:50	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:50	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	520		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-103435-11

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.32	mg/L			03/21/20 23:29	1
Fluoride	0.093	J	0.10	0.026	mg/L			03/21/20 23:29	1
Sulfate	150		1.0	0.38	mg/L			03/21/20 23:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0019		0.010	0.0019	mg/L		03/17/20 11:48	04/03/20 12:29	5
Arsenic	0.0027		0.0050	0.0016	mg/L		03/17/20 11:48	04/03/20 12:29	5
Barium	0.13		0.050	0.0080	mg/L		03/17/20 11:48	04/03/20 12:29	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-103435-11

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00091		0.013	0.00091	mg/L		03/17/20 11:48	04/03/20 12:29	5
Boron	1.9		0.40	0.19	mg/L		03/17/20 11:48	04/03/20 12:29	5
Cadmium	<0.0011		0.013	0.0011	mg/L		03/17/20 11:48	04/03/20 12:29	5
Calcium	120		2.5	0.64	mg/L		03/17/20 11:48	04/03/20 12:29	5
Chromium	<0.0077		0.010	0.0077	mg/L		03/17/20 11:48	04/03/20 12:29	5
Cobalt	<0.00067		0.013	0.00067	mg/L		03/17/20 11:48	04/03/20 12:29	5
Lead	<0.00064		0.0050	0.00064	mg/L		03/17/20 11:48	04/03/20 12:29	5
Lithium	<0.017		0.025	0.017	mg/L		03/17/20 11:48	04/03/20 12:29	5
Molybdenum	<0.0031		0.075	0.0031	mg/L		03/17/20 11:48	04/03/20 12:29	5
Thallium	<0.00074		0.0050	0.00074	mg/L		03/17/20 11:48	04/03/20 12:29	5

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/21/20 20:03	1
Fluoride	<0.026		0.10	0.026	mg/L			03/21/20 20:03	1
Sulfate	2.6		1.0	0.38	mg/L			03/21/20 20:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:55	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:39	1
Barium	<0.0016		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:55	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:55	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:39	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:55	1
Calcium	<0.13		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:39	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:55	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:55	1
Lead	0.00024	J	0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:55	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:55	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:55	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:22	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: AP-FB-02

Lab Sample ID: 180-103435-13

Date Collected: 03/10/20 12:55

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/21/20 20:19	1
Fluoride	<0.026		0.10	0.026	mg/L			03/21/20 20:19	1
Sulfate	1.2		1.0	0.38	mg/L			03/21/20 20:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 14:57	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:41	1
Barium	<0.0016		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 14:57	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 14:57	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:41	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 14:57	1
Calcium	<0.13		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:41	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 14:57	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 14:57	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 14:57	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 14:57	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 14:57	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 14:57	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-103435-14

Date Collected: 03/10/20 13:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/21/20 20:35	1
Fluoride	<0.026		0.10	0.026	mg/L			03/21/20 20:35	1
Sulfate	0.72 J		1.0	0.38	mg/L			03/21/20 20:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 15:00	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:44	1
Barium	<0.0016		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 15:00	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-103435-14

Date Collected: 03/10/20 13:00

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 15:00	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 15:00	1
Calcium	<0.13		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 15:00	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 15:00	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 15:00	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 15:00	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 15:00	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 15:00	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/12/20 12:25	1

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-103435-15

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/21/20 23:34	1
Fluoride	<0.026		0.10	0.026	mg/L			03/21/20 23:34	1
Sulfate	1.9		1.0	0.38	mg/L			03/21/20 23:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 15:02	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 17:46	1
Barium	<0.0016		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 15:02	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 15:02	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 17:46	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 15:02	1
Calcium	<0.13		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 17:46	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 15:02	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 15:02	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 15:02	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 15:02	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 15:02	1
Thallium	<0.00015		0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 15:02	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:25	1

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Client Sample Results

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

Job ID: 180-103433-1

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-103435-15

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/12/20 12:25	1

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

QC Sample Results

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

Job ID: 180-103433-1

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

Lab Sample ID: MB 180-310538/51
Matrix: Water
Analysis Batch: 310538

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/20/20 22:05	1
Fluoride	<0.026		0.10	0.026	mg/L			03/20/20 22:05	1
Sulfate	<0.38		1.0	0.38	mg/L			03/20/20 22:05	1

Lab Sample ID: MB 180-310538/6
Matrix: Water
Analysis Batch: 310538

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/20/20 07:29	1
Fluoride	<0.026		0.10	0.026	mg/L			03/20/20 07:29	1
Sulfate	<0.38		1.0	0.38	mg/L			03/20/20 07:29	1

Lab Sample ID: LCS 180-310538/5
Matrix: Water
Analysis Batch: 310538

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	50.3		mg/L		101	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Sulfate	50.0	51.7		mg/L		103	90 - 110

Lab Sample ID: LCS 180-310538/50
Matrix: Water
Analysis Batch: 310538

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	51.4		mg/L		103	90 - 110
Fluoride	2.50	2.61		mg/L		104	90 - 110
Sulfate	50.0	53.4		mg/L		107	90 - 110

Lab Sample ID: MB 180-310688/6
Matrix: Water
Analysis Batch: 310688

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/21/20 15:48	1
Fluoride	<0.026		0.10	0.026	mg/L			03/21/20 15:48	1
Sulfate	<0.38		1.0	0.38	mg/L			03/21/20 15:48	1

Lab Sample ID: LCS 180-310688/5
Matrix: Water
Analysis Batch: 310688

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	48.6		mg/L		97	90 - 110
Fluoride	2.50	2.51		mg/L		100	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

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QC Sample Results

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

Job ID: 180-103433-1

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

Lab Sample ID: MB 180-310689/6
Matrix: Water
Analysis Batch: 310689

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			03/21/20 15:55	1
Fluoride	<0.026		0.10	0.026	mg/L			03/21/20 15:55	1
Sulfate	<0.38		1.0	0.38	mg/L			03/21/20 15:55	1

Lab Sample ID: LCS 180-310689/5
Matrix: Water
Analysis Batch: 310689

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	48.8		mg/L		98	90 - 110
Fluoride	2.50	2.38		mg/L		95	90 - 110
Sulfate	50.0	48.1		mg/L		96	90 - 110

Lab Sample ID: 180-103435-3 MS
Matrix: Water
Analysis Batch: 310689

Client Sample ID: MGWA-6A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0		25.0	28.0		mg/L		96	80 - 120
Fluoride	0.048	J	1.25	1.26		mg/L		97	80 - 120
Sulfate	2.4		25.0	26.3		mg/L		96	80 - 120

Lab Sample ID: 180-103435-3 MSD
Matrix: Water
Analysis Batch: 310689

Client Sample ID: MGWA-6A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.0		25.0	27.1		mg/L		93	80 - 120	3	20
Fluoride	0.048	J	1.25	1.22		mg/L		93	80 - 120	3	20
Sulfate	2.4		25.0	24.7		mg/L		89	80 - 120	6	20

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

Lab Sample ID: MB 180-310194/1-A
Matrix: Water
Analysis Batch: 310808

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		03/17/20 11:48	03/22/20 13:53	1
Barium	<0.0016		0.010	0.0016	mg/L		03/17/20 11:48	03/22/20 13:53	1
Beryllium	0.000183	J	0.0025	0.00018	mg/L		03/17/20 11:48	03/22/20 13:53	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		03/17/20 11:48	03/22/20 13:53	1
Calcium	<0.13		0.50	0.13	mg/L		03/17/20 11:48	03/22/20 13:53	1
Chromium	<0.0015		0.0020	0.0015	mg/L		03/17/20 11:48	03/22/20 13:53	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		03/17/20 11:48	03/22/20 13:53	1
Lead	<0.00013		0.0010	0.00013	mg/L		03/17/20 11:48	03/22/20 13:53	1
Lithium	<0.0034		0.0050	0.0034	mg/L		03/17/20 11:48	03/22/20 13:53	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		03/17/20 11:48	03/22/20 13:53	1
Thallium	0.000349	J	0.0010	0.00015	mg/L		03/17/20 11:48	03/22/20 13:53	1

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QC Sample Results

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

Job ID: 180-103433-1

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

Lab Sample ID: MB 180-310194/1-A
Matrix: Water
Analysis Batch: 310945

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		03/17/20 11:48	03/23/20 16:36	1
Boron	<0.039		0.080	0.039	mg/L		03/17/20 11:48	03/23/20 16:36	1
Calcium	<0.13		0.50	0.13	mg/L		03/17/20 11:48	03/23/20 16:36	1

Lab Sample ID: LCS 180-310194/2-A
Matrix: Water
Analysis Batch: 310808

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.250	0.232		mg/L		93	80 - 120
Barium	1.00	0.960		mg/L		96	80 - 120
Beryllium	0.500	0.499		mg/L		100	80 - 120
Cadmium	0.500	0.490		mg/L		98	80 - 120
Chromium	0.500	0.472		mg/L		94	80 - 120
Cobalt	0.500	0.479		mg/L		96	80 - 120
Lead	0.500	0.472		mg/L		94	80 - 120
Lithium	0.500	0.459		mg/L		92	80 - 120
Molybdenum	0.500	0.488		mg/L		98	80 - 120
Thallium	1.00	0.992		mg/L		99	80 - 120

Lab Sample ID: LCS 180-310194/2-A
Matrix: Water
Analysis Batch: 310945

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1.00	0.994		mg/L		99	80 - 120
Boron	1.25	1.13		mg/L		90	80 - 120
Calcium	25.0	25.3		mg/L		101	80 - 120

Lab Sample ID: 180-103433-1 MS
Matrix: Water
Analysis Batch: 310808

Client Sample ID: MGWA-11
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.00038		0.250	0.230		mg/L		92	75 - 125
Barium	0.094		1.00	1.08		mg/L		99	75 - 125
Beryllium	0.00018	J B	0.500	0.512		mg/L		102	75 - 125
Cadmium	<0.00022		0.500	0.513		mg/L		103	75 - 125
Chromium	<0.0015		0.500	0.495		mg/L		99	75 - 125
Cobalt	<0.00013		0.500	0.485		mg/L		97	75 - 125
Lead	<0.00013		0.500	0.484		mg/L		97	75 - 125
Lithium	0.017		0.500	0.471		mg/L		91	75 - 125
Molybdenum	0.0012	J	0.500	0.498		mg/L		99	75 - 125
Thallium	0.00036	J B	1.00	0.997		mg/L		100	75 - 125

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QC Sample Results

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

Job ID: 180-103433-1

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

Lab Sample ID: 180-103433-1 MS
Matrix: Water
Analysis Batch: 310945

Client Sample ID: MGWA-11
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.00073	J	1.00	0.975		mg/L		97	75 - 125
Boron	<0.039		1.25	1.11		mg/L		89	75 - 125
Calcium	32		25.0	56.0		mg/L		98	75 - 125

Lab Sample ID: 180-103433-1 MSD
Matrix: Water
Analysis Batch: 310808

Client Sample ID: MGWA-11
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.00038		0.250	0.238		mg/L		95	75 - 125	3	20
Barium	0.094		1.00	1.08		mg/L		99	75 - 125	0	20
Beryllium	0.00018	J B	0.500	0.517		mg/L		103	75 - 125	1	20
Cadmium	<0.00022		0.500	0.518		mg/L		104	75 - 125	1	20
Chromium	<0.0015		0.500	0.493		mg/L		99	75 - 125	0	20
Cobalt	<0.00013		0.500	0.493		mg/L		99	75 - 125	2	20
Lead	<0.00013		0.500	0.495		mg/L		99	75 - 125	2	20
Lithium	0.017		0.500	0.474		mg/L		92	75 - 125	1	20
Molybdenum	0.0012	J	0.500	0.505		mg/L		101	75 - 125	1	20
Thallium	0.00036	J B	1.00	1.03		mg/L		103	75 - 125	3	20

Lab Sample ID: 180-103433-1 MSD
Matrix: Water
Analysis Batch: 310945

Client Sample ID: MGWA-11
Prep Type: Total Recoverable
Prep Batch: 310194

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.00073	J	1.00	0.997		mg/L		100	75 - 125	2	20
Boron	<0.039		1.25	1.20		mg/L		96	75 - 125	7	20
Calcium	32		25.0	56.6		mg/L		100	75 - 125	1	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-310061/1-A
Matrix: Water
Analysis Batch: 310256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310061

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/16/20 12:05	03/17/20 15:36	1

Lab Sample ID: LCS 180-310061/2-A
Matrix: Water
Analysis Batch: 310256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.00210		mg/L		84	80 - 120

QC Sample Results

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

Job ID: 180-103433-1

Method: EPA 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 180-310196/1-A
Matrix: Water
Analysis Batch: 310256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/17/20 11:55	03/17/20 17:00	1

Lab Sample ID: LCS 180-310196/2-A
Matrix: Water
Analysis Batch: 310256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310196
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.00260		mg/L		104	80 - 120

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

Lab Sample ID: MB 180-309763/2
Matrix: Water
Analysis Batch: 309763

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			03/12/20 12:25	1

Lab Sample ID: LCS 180-309763/1
Matrix: Water
Analysis Batch: 309763

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	661	674		mg/L		102	80 - 120

Lab Sample ID: 180-103435-4 DU
Matrix: Water
Analysis Batch: 309763

Client Sample ID: MGWC-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	170		175		mg/L		0.6	10

Lab Sample ID: 180-103435-6 DU
Matrix: Water
Analysis Batch: 309763

Client Sample ID: MGWC-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	370		354		mg/L		5	10

QC Association Summary

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

Job ID: 180-103433-1

HPLC/IC

Analysis Batch: 310538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total/NA	Water	EPA 300.0 R2.1	
180-103433-2	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
MB 180-310538/51	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-310538/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-310538/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-310538/50	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 310688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103435-15	AP-FERB-02	Total/NA	Water	EPA 300.0 R2.1	
MB 180-310688/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-310688/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 310689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103435-1	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-103435-2	MGWA-6	Total/NA	Water	EPA 300.0 R2.1	
180-103435-3	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-103435-4	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-103435-5	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
180-103435-6	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-103435-7	MGWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-103435-8	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-103435-8	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-103435-9	MGWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-103435-10	AP-DUP-01	Total/NA	Water	EPA 300.0 R2.1	
180-103435-11	AP-DUP-02	Total/NA	Water	EPA 300.0 R2.1	
180-103435-12	AP-FB-01	Total/NA	Water	EPA 300.0 R2.1	
180-103435-13	AP-FB-02	Total/NA	Water	EPA 300.0 R2.1	
180-103435-14	AP-FERB-01	Total/NA	Water	EPA 300.0 R2.1	
MB 180-310689/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-310689/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-103435-3 MS	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-103435-3 MSD	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 310061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total/NA	Water	7470A	
180-103433-2	MGWA-10	Total/NA	Water	7470A	
MB 180-310061/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-310061/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 310194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total Recoverable	Water	3005A	
180-103433-2	MGWA-10	Total Recoverable	Water	3005A	
180-103435-1	MGWA-5	Total Recoverable	Water	3005A	
180-103435-2	MGWA-6	Total Recoverable	Water	3005A	
180-103435-3	MGWA-6A	Total Recoverable	Water	3005A	

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QC Association Summary

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

Job ID: 180-103433-1

Metals (Continued)

Prep Batch: 310194 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103435-4	MGWC-12	Total Recoverable	Water	3005A	
180-103435-5	MGWC-3	Total Recoverable	Water	3005A	
180-103435-6	MGWC-7	Total Recoverable	Water	3005A	
180-103435-7	MGWC-2	Total Recoverable	Water	3005A	
180-103435-8	MGWC-8	Total Recoverable	Water	3005A	
180-103435-9	MGWC-1	Total Recoverable	Water	3005A	
180-103435-10	AP-DUP-01	Total Recoverable	Water	3005A	
180-103435-11	AP-DUP-02	Total Recoverable	Water	3005A	
180-103435-12	AP-FB-01	Total Recoverable	Water	3005A	
180-103435-13	AP-FB-02	Total Recoverable	Water	3005A	
180-103435-14	AP-FERB-01	Total Recoverable	Water	3005A	
180-103435-15	AP-FERB-02	Total Recoverable	Water	3005A	
MB 180-310194/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-310194/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-103433-1 MS	MGWA-11	Total Recoverable	Water	3005A	
180-103433-1 MSD	MGWA-11	Total Recoverable	Water	3005A	

Prep Batch: 310196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103435-1	MGWA-5	Total/NA	Water	7470A	
180-103435-2	MGWA-6	Total/NA	Water	7470A	
180-103435-3	MGWA-6A	Total/NA	Water	7470A	
180-103435-4	MGWC-12	Total/NA	Water	7470A	
180-103435-5	MGWC-3	Total/NA	Water	7470A	
180-103435-6	MGWC-7	Total/NA	Water	7470A	
180-103435-7	MGWC-2	Total/NA	Water	7470A	
180-103435-8	MGWC-8	Total/NA	Water	7470A	
180-103435-9	MGWC-1	Total/NA	Water	7470A	
180-103435-10	AP-DUP-01	Total/NA	Water	7470A	
180-103435-11	AP-DUP-02	Total/NA	Water	7470A	
180-103435-12	AP-FB-01	Total/NA	Water	7470A	
180-103435-13	AP-FB-02	Total/NA	Water	7470A	
180-103435-14	AP-FERB-01	Total/NA	Water	7470A	
180-103435-15	AP-FERB-02	Total/NA	Water	7470A	
MB 180-310196/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-310196/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 310256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total/NA	Water	EPA 7470A	310061
180-103433-2	MGWA-10	Total/NA	Water	EPA 7470A	310061
180-103435-1	MGWA-5	Total/NA	Water	EPA 7470A	310196
180-103435-2	MGWA-6	Total/NA	Water	EPA 7470A	310196
180-103435-3	MGWA-6A	Total/NA	Water	EPA 7470A	310196
180-103435-4	MGWC-12	Total/NA	Water	EPA 7470A	310196
180-103435-5	MGWC-3	Total/NA	Water	EPA 7470A	310196
180-103435-6	MGWC-7	Total/NA	Water	EPA 7470A	310196
180-103435-7	MGWC-2	Total/NA	Water	EPA 7470A	310196
180-103435-8	MGWC-8	Total/NA	Water	EPA 7470A	310196
180-103435-9	MGWC-1	Total/NA	Water	EPA 7470A	310196
180-103435-10	AP-DUP-01	Total/NA	Water	EPA 7470A	310196

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QC Association Summary

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

Job ID: 180-103433-1

Metals (Continued)

Analysis Batch: 310256 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103435-11	AP-DUP-02	Total/NA	Water	EPA 7470A	310196
180-103435-12	AP-FB-01	Total/NA	Water	EPA 7470A	310196
180-103435-13	AP-FB-02	Total/NA	Water	EPA 7470A	310196
180-103435-14	AP-FERB-01	Total/NA	Water	EPA 7470A	310196
180-103435-15	AP-FERB-02	Total/NA	Water	EPA 7470A	310196
MB 180-310061/1-A	Method Blank	Total/NA	Water	EPA 7470A	310061
MB 180-310196/1-A	Method Blank	Total/NA	Water	EPA 7470A	310196
LCS 180-310061/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	310061
LCS 180-310196/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	310196

Analysis Batch: 310808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total Recoverable	Water	EPA 6020B	310194
180-103433-2	MGWA-10	Total Recoverable	Water	EPA 6020B	310194
180-103435-1	MGWA-5	Total Recoverable	Water	EPA 6020B	310194
180-103435-2	MGWA-6	Total Recoverable	Water	EPA 6020B	310194
180-103435-3	MGWA-6A	Total Recoverable	Water	EPA 6020B	310194
180-103435-4	MGWC-12	Total Recoverable	Water	EPA 6020B	310194
180-103435-5	MGWC-3	Total Recoverable	Water	EPA 6020B	310194
180-103435-6	MGWC-7	Total Recoverable	Water	EPA 6020B	310194
180-103435-7	MGWC-2	Total Recoverable	Water	EPA 6020B	310194
180-103435-8	MGWC-8	Total Recoverable	Water	EPA 6020B	310194
180-103435-10	AP-DUP-01	Total Recoverable	Water	EPA 6020B	310194
180-103435-12	AP-FB-01	Total Recoverable	Water	EPA 6020B	310194
180-103435-13	AP-FB-02	Total Recoverable	Water	EPA 6020B	310194
180-103435-14	AP-FERB-01	Total Recoverable	Water	EPA 6020B	310194
180-103435-15	AP-FERB-02	Total Recoverable	Water	EPA 6020B	310194
MB 180-310194/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	310194
LCS 180-310194/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	310194
180-103433-1 MS	MGWA-11	Total Recoverable	Water	EPA 6020B	310194
180-103433-1 MSD	MGWA-11	Total Recoverable	Water	EPA 6020B	310194

Analysis Batch: 310945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total Recoverable	Water	EPA 6020B	310194
180-103433-2	MGWA-10	Total Recoverable	Water	EPA 6020B	310194
180-103435-1	MGWA-5	Total Recoverable	Water	EPA 6020B	310194
180-103435-2	MGWA-6	Total Recoverable	Water	EPA 6020B	310194
180-103435-3	MGWA-6A	Total Recoverable	Water	EPA 6020B	310194
180-103435-4	MGWC-12	Total Recoverable	Water	EPA 6020B	310194
180-103435-5	MGWC-3	Total Recoverable	Water	EPA 6020B	310194
180-103435-6	MGWC-7	Total Recoverable	Water	EPA 6020B	310194
180-103435-7	MGWC-2	Total Recoverable	Water	EPA 6020B	310194
180-103435-8	MGWC-8	Total Recoverable	Water	EPA 6020B	310194
180-103435-10	AP-DUP-01	Total Recoverable	Water	EPA 6020B	310194
180-103435-12	AP-FB-01	Total Recoverable	Water	EPA 6020B	310194
180-103435-13	AP-FB-02	Total Recoverable	Water	EPA 6020B	310194
180-103435-14	AP-FERB-01	Total Recoverable	Water	EPA 6020B	310194
180-103435-15	AP-FERB-02	Total Recoverable	Water	EPA 6020B	310194
MB 180-310194/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	310194
LCS 180-310194/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	310194

Eurofins TestAmerica, Pittsburgh

QC Association Summary

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

Job ID: 180-103433-1

Metals (Continued)

Analysis Batch: 310945 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1 MS	MGWA-11	Total Recoverable	Water	EPA 6020B	310194
180-103433-1 MSD	MGWA-11	Total Recoverable	Water	EPA 6020B	310194

Analysis Batch: 312060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103435-9	MGWC-1	Total Recoverable	Water	EPA 6020B	310194
180-103435-11	AP-DUP-02	Total Recoverable	Water	EPA 6020B	310194

General Chemistry

Analysis Batch: 309763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total/NA	Water	SM 2540C	
180-103433-2	MGWA-10	Total/NA	Water	SM 2540C	
180-103435-1	MGWA-5	Total/NA	Water	SM 2540C	
180-103435-2	MGWA-6	Total/NA	Water	SM 2540C	
180-103435-3	MGWA-6A	Total/NA	Water	SM 2540C	
180-103435-4	MGWC-12	Total/NA	Water	SM 2540C	
180-103435-5	MGWC-3	Total/NA	Water	SM 2540C	
180-103435-6	MGWC-7	Total/NA	Water	SM 2540C	
180-103435-7	MGWC-2	Total/NA	Water	SM 2540C	
180-103435-8	MGWC-8	Total/NA	Water	SM 2540C	
180-103435-9	MGWC-1	Total/NA	Water	SM 2540C	
180-103435-10	AP-DUP-01	Total/NA	Water	SM 2540C	
180-103435-11	AP-DUP-02	Total/NA	Water	SM 2540C	
180-103435-12	AP-FB-01	Total/NA	Water	SM 2540C	
180-103435-13	AP-FB-02	Total/NA	Water	SM 2540C	
180-103435-14	AP-FERB-01	Total/NA	Water	SM 2540C	
180-103435-15	AP-FERB-02	Total/NA	Water	SM 2540C	
MB 180-309763/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-309763/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-103435-4 DU	MGWC-12	Total/NA	Water	SM 2540C	
180-103435-6 DU	MGWC-7	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information		Sampler: Lab PM		Carrier Tracking No(s):	
Client Contact: Lauren Petty		Bortot, Veronica		COC No: 180-54264-10410.1	
Company: Southern Company Services, Inc.		E-Mail: veronica.bortot@testamericainc.com		Page: 1 of 1	
Address: 3535 Colonnade Parkway		Phone: 404-592-0094		Job #:	
City: Birmingham		TAT Requested (days): Standard		Preservation Codes:	
State, Zip: GA, 30309		PO #: SCS10347656		A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Phone: 205-992-5417(Tel)		WO #:		Other:	
Email: Impetty@southernco.com		Project #: 18019956		Total Number of containers	
Project Name: CCR - Plant McIntosh Ash Pond 1		SSOW#:		Special Instructions/Note:	
Site: Georgia				Analyze App III, Rad 226 and App IV except NOT Selenium, App III	


Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 - B, Ca : plus As, B, Cd, Co, Li (detected App IV elements)	2540C, Calcd, 300, Chloride Sulfate, Fluoride, pH TDS	D	N
MGWA-1	3/9/20	1700	G	Water	W	N	X	X	X	X
MGWA-10	3/9/20	1705	G	Water	W	N	X	X	X	X
				Water						
				Water						

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input checked="" type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab
<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>Lumpkin</i>	Date: 3/9/20 1830	Received by: <i>Jessie Watson</i>	Date/Time: 3-11-20
Relinquished by:	Date/Time:	Received by:	Date/Time: 9:00
Relinquished by:	Date/Time:	Received by:	Date/Time:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	



Client Information		Lab PM Bortol, Veronica	Carrier Tracking No(s): 180-57786-11316.2	COC No: 180-57786-11316.2
Client Contact: Ms. Lauren Petty		E-Mail: veronica.bortol@testamericainc.com	Page: 1 of 2	Page: 1 of 2
Company: Southern Company		Due Date Requested:	Job #:	
Address: PO BOX 2641 GSC8 Birmingham State, Zip: AL, 35291		TAT Requested (days):	Analysis Requested	
Phone: 205-992-5417(Tel)		PO #: SCS10382606	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: 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)	
Email: lpetty@southernco.com		WO #:	Total Number of Containers	
Project Name: CCR - Plant McIntosh Ash Pond 1		Project #: 18019956	Special Instructions/Note:	
Site: Georgia		SSOW#:	3 Analyze App11 Radium 226, 228 and App11 EXCEPT Selenium	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wash/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	D	N	Z	Special Instructions/Note
MGWA-5	3/10/20	0945	6	Water	X	X	X	X	
MGWA-6		1115		Water					
MGWA-6A		1000		Water					
M6WC-12		1045		Water					
M6WC-3		1055		Water					
M6W0-7		1240		Water					
M6WC-2		1200		Water					
M6WC-8		1305		Water					
M6WC-1		1500		Water					
AP-DUP-01				Water					
AP-DUP-02				Water					



180-103435 Chain of Custody

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:

Empty Kit Relinquished by:		Date:	
Relinquished by: <i>Amber</i>	Date/Time: 3/10/20 0920	Company: GEI	Received by: <i>Melanie Watson</i>
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	

Chain of Custody Record

Client Information		Lab PM: Bortol, Veronica		Carrier Tracking No(s):		COC No:		
Client Contact: Lauren Petty		Phone: 4045920094		E-Mail: veronica.bortol@testamericainc.com		Page: 2 of 2		
Company: Southern Company		Address: PO BOX 2641 GSC8 Birmingham State, Zip: AL, 35291		Due Date Requested:		Job #:		
Phone: 205-992-5417(Tel)		PO #: SCS10347656		TAT Requested (days): Rush		Preservation Codes:		
Email: Impetty@southernco.com		WO #:		Perform MS/MSD (Yes or No)		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: CCR - Plant McIntosh		Project #: 4885956 18019954		Field Filtered Sample (Yes or No)		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: Plant McIntosh		SSOW#:		Total Number of containers		Special Instructions/Note:		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, AA=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note:
AP-FB-01	3/16/20	1250	G	W	M	X	9315-Ka226, 9320-Ka228	3 Analyze App III
AP-FB-02	↓	1255	↓	↓	M	X	6020-B, Ca + detected HPIV	3 Radium 226, 228
AP-FERB-01	↓	1300	↓	↓	M	X	2540C-Calc, 300-C1, S, FT, PH, TDS	3 App IV, EXCEPT
AP-FERB-02	↓	1305	↓	↓	M	X		3 Selenium

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

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:

Empty Kit Relinquished by: _____ Date: _____ Time: _____
 Relinquished by: _____ Date/Time: 3/16/20 1920 Company: GEL
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: 5-11-20 Company: EPA, H
 Received by: _____ Date/Time: 9:00 Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:

Client Information		Sampler: Lab PM: Bortot, Veronica		Carrier Tracking No(s):		COC No: 180-57786-11316.2	
Client Contact: Ms. Lauren Petty		Phone: E-Mail: veronica.bortot@testamericainc.com		Page: 1 of 2		Job #:	
Company: Southern Company		Due Date Requested:		Analysis Requested		Preservation Codes:	
Address: PO BOX 2641 GSC8		TAT Requested (days):		Field Filtered Sample (Yes or No)		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:	
City: Birmingham		PO #:		D N		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: AL, 35291		SCS:10382606		X X		Total Number of Containers:	
Phone: 205-992-5417(Tel)		WO #:		X X		3	
Email: Impetty@southernco.com		Project #:		X X		Special Instructions/Note:	
Project Name: CCR - Plant McIntosh Ash Pond 1		18019956		X X		Analyze App III Radium 226, 228 and App IV EXCEPT Selenium	
Site: Georgia		SSOW#:		X X		Barcode: 180-103435 Chain of Custody	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wash/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	D	N
MGWA-5	3/10/20	0945	6	Water		X	X
MGWA-6		1115		Water			
MGWA-6A		1000		Water			
MGWC-12		1045		Water			
MGWC-3		1055		Water			
MGWC-7		1240		Water			
MGWC-2		1200		Water			
MGWC-8		1305		Water			
MGWC-1		1500		Water			
AP-DUP-01				Water			
AP-DUP-02				Water			
Possible Hazard Identification <input checked="" 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 Deliverable Requested: I, II, III, IV, Other (specify)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>Lauren</i>		Date/Time: 3/10/20 0920		Company: GEI		Received by: <i>Melanie Watson</i>	
Relinquished by:		Date/Time:		Company:		Received by: <i>FAPIA</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



Chain of Custody Record

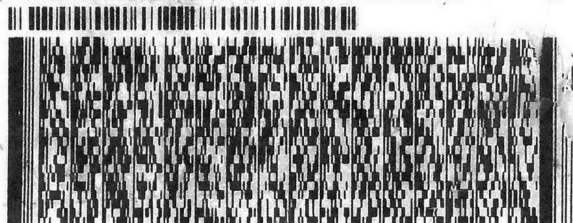
Client Information		Lab PM: Bortot, Veronica		Carrier Tracking No(s):	
Client Contact: Lauren Petty		Phone: 4045920094		E-Mail: veronica.bortot@testamericainc.com	
Company: Southern Company		Address: PO BOX 2641 GSC8		City: Birmingham	
State, Zip: AL, 35291		Phone: 205-992-5417(Tel)		Email: Impetty@southernco.com	
Project Name: CCR - Plant McIntosh		Site: Ash Pond		Project #: 44845050-18019954	
Site: Plant McIntosh		SSOW#:		WO #:	
Due Date Requested:		TAT Requested (days):		Rush	
PO #:		SCS10347656		WO #:	
Sample Identification		Sample Date		Sample Time	
AP-FB-01	3/16/20	1250	G	W	
AP-FB-02		1255			
AP-FERB-01		1300			
AP-FERB-02		1305			
Sample Type (C=comp, G=grab)		Sample Time		Matrix (W=water, S=solid, O=water/oil, BT=tissue, A=air)	
Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Analysis Requested		Total Number of Containers		Special Instructions/Note:	
935-PA226, 9320-PA228		X		X	
6020-B, Ca + dehydrated APP IV		X		X	
2540C-Calc, 300-cl, s, f, P, H, T, D S		X		X	
Preservation Codes:		M - Hexane		N - None	
A - HCL		O - AsNaO2		P - Na2O4S	
B - NaOH		Q - NaHSO4		R - Na2SO3	
C - Zn Acetate		S - H2SO4		T - TSP Dodecahydrate	
D - Nitric Acid		U - Acetone		V - MCAA	
E - NaHSO4		W - pH 4-5		Z - other (specify)	
F - MeOH		Other:			
G - Amchlor					
H - Ascorbic Acid					
I - Ice					
J - DI Water					
K - EDTA					
L - EDA					
Special Instructions/Note:		3 Analyze App III		3 Radium 226, 228	
		3 App IV, EXCEPT		3 Selenium	
Possible Hazard Identification		Poison B		Skin Irritant	
Deliverable Requested: I, II, III, IV, Other (specify)		Flammable		Radiological	
Empty Kit Relinquished by:		Date:		Time:	
Relinquished by: [Signature]		3/10/20		1920	
Relinquished by:		Date/Time:		Company: GEL	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
Δ Yes Δ No					

- 1
- 2
- 3
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- 12
- 13



SA
 EUROFIN
 301 ALPHA DR.
 RIDC PARK
 PITTSBURGH PA 15238

(412) 963-7068
 REF: SOUTHERN



WED - 11 MAR 3:00P
 STANDARD OVERNIGHT

TRK# 1516 9323 1447
 0201

NA AGCA

15238
 PA-US PIT

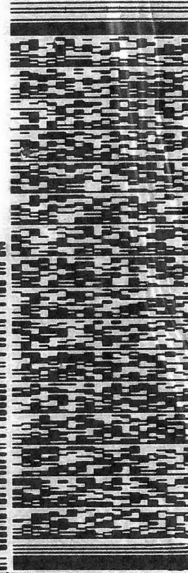
Uncorrected temp 3.7 °C
 Thermometer ID 17
 CF Ø Initials JS
 PT-WI-SR-001 effective 11/8/18

SHIP DATE: 10MAR20
ACTWGT: 32.80 LB
CAD: 6994919/SSFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY

IGIN ID: SAVA (412) 963-2435
RONICA BORTOT
E CHEERS 5 BEFORE BILL
1 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
REF: (412) 963-8222
INVT
P.O.

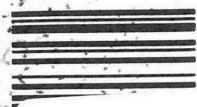


WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

3 of 5
MPS# 3910 1405 5900
Mstr# 3910 1405 5885

XH AGCA

15238
PA-US
PIT



Uncorrected temp
Thermometer ID
CF 0 Initials JS

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

SHIP DATE: 10MAR20
ACTWGT: 32.80 LB
CAD: 6994919/SSFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY

ORIGIN ID: SAVA (412)
VERONICA BORTOT
SEE CHEERS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH
(412) 963-8222
INVT
P.O.

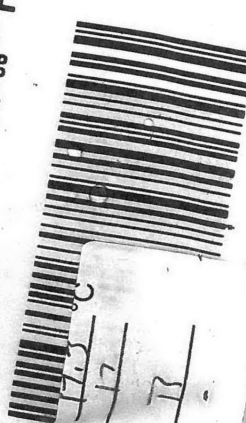


WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

4 of 5
MPS# 3910 1405 5
Mstr# 3910 1405 58E

XH AGI

PA-US



Uncorrected temp
Thermometer ID
CF 0 M J Initials JS

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

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 ETP: 13
 17-0-1076
 PO: SP: 100: V
 313265215-84
 313265215-84
 313265215-84

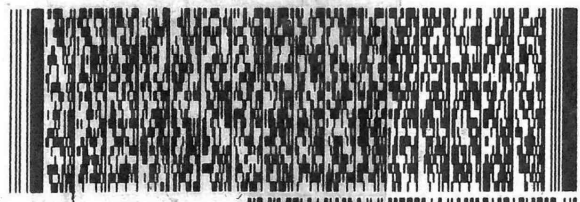


PT-WI-SR-001 effective 11/8/18
 CF
 Initials JS
 Thermometer ID 3.4
 Uncorrected temp 17

15238
 PA-US
 PIT

XH AGCA

MPS# 3910 1405 5896
 Mat# 3910 1405 5885
 0263
 0201
 WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT
 2 of 5



12010200113011v

PITTSBURGH PA 15238

to VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

ORIGIN ID: SAVVA (412) 963-2435
 VERONICA BORTOT
 SEE CHECKS 5 BEFORE BILL
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US
 SHIP DATE: 10MAR20
 ACTWGT: 44.70 LB
 CAD: 6984919/SSFE2021
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

Part 15238 XP 01/21 55A12/61E07E48:2951 # JNF

Part # 156299469407E46

SHIP DATE: 10MAR20
ACTWT: 32.80 LB
CAD: 6994619/SSFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY

ORIGIN ID: SAVA (412) 963-2435
VERONICA BORTOT
SEE CHECKS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
REF: (412) 863-8222
DEPT: 4

SHIP BY
ACTWT:
CAD: 69
DIMS: 21x14x14 IN
BILL TH

963-2435

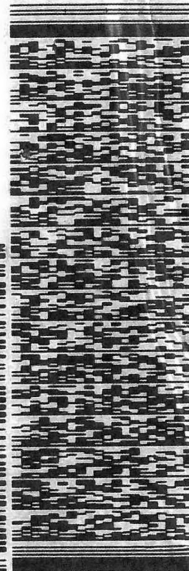
BILL

ORIGIN ID: SAVA (412)
VERONICA BORTOT
SEE CHECKS 5 BEFORE I
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

TO VERONICA BO
TEST AMERIC
301 ALPHA DP

PITTSBURGH
(412) 863-8222
DEPT: 4

PA 15238
REF: (412) 863-8222
DEPT: 4

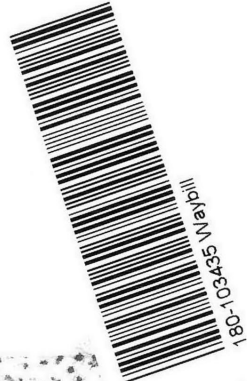


WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

MPS# 3910 1405 5900
Mstr# 3910 1405 5885
0263 0201

XH AGCA

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PA-US
PIT

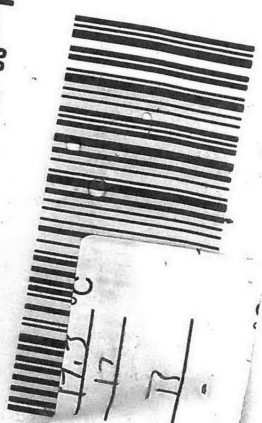


Uncorrected temp
Thermometer ID
CF 0 Initials B
PT-WI-SR-001 effective 11/8/18

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PRIORITY OV

MPS# 3910 1405 5
Mstr# 3910 1405 588
0263 0201

XH AGI



Uncorrected temp
Thermometer ID
CF 0 M J Initials B
PT-WI-SR-001 effective 11/8/18

PA-US

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14834698398 PD:SP:100.Y
 EFP: 13
110-1076
 313265215-81
 3/17 3/17 3/17
 3/17 3/17 3/17

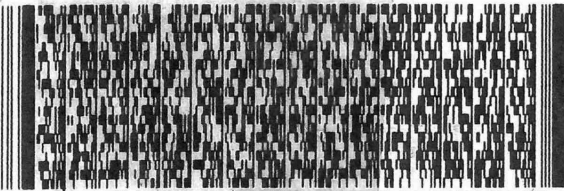


PT-WI-SR-001 effective 11/8/18
 CF. 0
 Initials JS
 Thermometer ID 317
 Uncorrected temp 3.4

PA-US
 15238
 PIT

XH AGCA

MPS# 3910 1405 5896
 Met# 3910 1405 5886
 0263
 0201
 WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT



TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR
 PITTSBURGH PA 15238
 REF: (412) 963-2435
 INVT: (412) 963-0222
 PO:

ORIGIN ID:SAVA (412) 963-2435
 VERONICA BORTOT
 SEE CHECKS 5 BEFORE BILL
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US
 SHIP DATE: 10MAR20
 ACTWGT: 44.70 LB
 CAD: 6994919/SSFE2021
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

Part # 15625465832/5610/FEA46

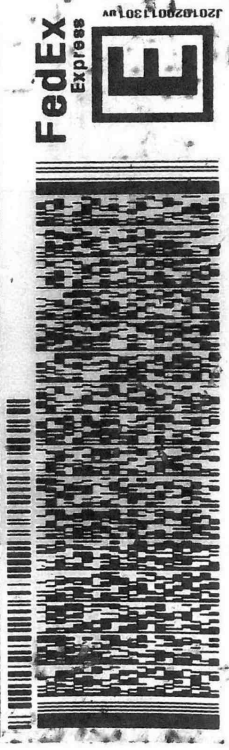
VERONICA BORTOT
 SEE CHEERS 5 BEFORE BILL
 301 ALPHA DR PA 15238
 PITTSBURGH, PA
 UNITED STATES US

SHIP DATE: 10MAR20
 ACTWT: 42.90 LB
 CAD: 6994919/55FE2021
 DIMS: 20x13x15 IN
 BILL THIRD PARTY

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

PITTSBURGH PA 15238

REF: (412) 983-6222



WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT

5 of 5
 MPS# 3910 1405 5922
 Metr# 3910 1405 5885

XH AGCA

15238
 PA-US PIT

Uncorrected temp 18.4 °C
 Thermometer ID M12C
 CF 0 Initials JB

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

ORIGIN ID: SAVA (412) 963-2435
 VERONICA BORTOT
 SEE CHEERS 5 BEFORE BILL
 301 ALPHA DR PA 15238
 PITTSBURGH, PA
 UNITED STATES US

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

PITTSBURGH PA 15238

REF: (412) 983-6222



WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT

1 of 5
 TRM# 3910 1405
 0201
 ## MASTER ##

XH AC

15238
 PA-US PIT

Uncorrected ten
 Thermometer IC

CF 0 Initials II

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

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-103433-1

Login Number: 103433

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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: 180-103433-1

Login Number: 103435

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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.	False	ONE WITH RADS NOT ON ICE
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 TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-103433-2

Client Project/Site: CCR - Plant McIntosh Ash Pond 1

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:

4/15/2020 2:59:49 PM

Veronica Bortot, Senior Project Manager
(412)963-2435

veronica.bortot@testamericainc.com

Designee for

Shali Brown, Project Manager II
(615)301-5031

shali.brown@testamericainc.com

LINKS

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results through

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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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	5
Certification Summary	6
Sample Summary	8
Method Summary	9
Lab Chronicle	10
Client Sample Results	16
QC Sample Results	27
QC Association Summary	29
Chain of Custody	30
Receipt Checklists	42

Case Narrative

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

Job ID: 180-103433-2

Job ID: 180-103433-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-103433-2

Comments

No additional comments.

Receipt

The samples were received on 3/11/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.4° C, 3.7° C, 4.9° C and 17.3° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-DUP-01 (180-103435-10). The container labels list MGWC-2, while the COC lists AP-DUP-01.

RAD

Method 9315: Radium-226 Prep Batch 160-464489

The following samples have a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

MGWA-10 (180-103433-2)

Methods 903.0, 9315: Ra-226 Prep Batch 160-464489

Any 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-11 (180-103433-1), MGWA-10 (180-103433-2), MGWA-5 (180-103435-1), MGWA-6 (180-103435-2), MGWA-6A (180-103435-3), MGWC-12 (180-103435-4), MGWC-3 (180-103435-5), MGWC-7 (180-103435-6), MGWC-2 (180-103435-7), MGWC-8 (180-103435-8), MGWC-1 (180-103435-9), AP-DUP-01 (180-103435-10), AP-DUP-02 (180-103435-11), AP-FB-01 (180-103435-12), AP-FB-02 (180-103435-13), AP-FERB-01 (180-103435-14), AP-FERB-02 (180-103435-15), (LCS 160-464489/1-A), (LCSD 160-464489/2-A) and (MB 160-464489/23-A)

Method 9320: Radium-228 Prep Batch 160-464492

The following samples have a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

MGWA-10 (180-103433-2)

Methods 904.0, 9320: Ra-228 Prep Batch 160-464492

Any 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.

Case Narrative

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

Job ID: 180-103433-2

Job ID: 180-103433-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

MGWA-11 (180-103433-1), MGWA-10 (180-103433-2), MGWA-5 (180-103435-1), MGWA-6 (180-103435-2), MGWA-6A (180-103435-3), MGWC-12 (180-103435-4), MGWC-3 (180-103435-5), MGWC-7 (180-103435-6), MGWC-2 (180-103435-7), MGWC-8 (180-103435-8), MGWC-1 (180-103435-9), AP-DUP-01 (180-103435-10), AP-DUP-02 (180-103435-11), AP-FB-01 (180-103435-12), AP-FB-02 (180-103435-13), AP-FERB-01 (180-103435-14), AP-FERB-02 (180-103435-15), (LCS 160-464492/1-A), (LCSD 160-464492/2-A) and (MB 160-464492/23-A)

Method PrecSep_0: Radium-228 Prep Batch 160-464492:

The barium carrier recovery is outside the upper control limit (110%) for the following samples: MGWA-11 (180-103433-1), MGWA-10 (180-103433-2) and AP-FERB-01 (180-103435-14). The samples were re-heated to dry on a hot plate at high temp for one hour to ensure very little water molecules could contribute to a high bias of the carrier recovery. The QC samples associated with the batch have acceptable carrier recovery indicating the possibility of matrix interference.

A native barium result was applied to the sample (180-103433-1) which brought the recovery below the 110% limit. The barium recovery is now 89%.

CJQ 4/13/20 7:11

Method PrecSep-21: Radium-226 Prep Batch 160-464489:

The barium carrier recovery is outside the upper control limit (110%) for the following samples: MGWA-11 (180-103433-1), MGWA-10 (180-103433-2) and AP-FERB-01 (180-103435-14). The samples were re-heated to dry on a hot plate at high temp for one hour to ensure very little water molecules could contribute to a high bias of the carrier recovery. The QC samples associated with the batch have acceptable carrier recovery indicating the possibility of matrix interference.

A native barium result was applied to the sample (180-103433-1) which brought the recovery below the 110% limit. The barium recovery is now 88%.

CJQ 4/13/20 07:04

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-103433-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

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

Job ID: 180-103433-2

Laboratory: Eurofins TestAmerica, 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	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20 *
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

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



Accreditation/Certification Summary

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

Job ID: 180-103433-2

Laboratory: Eurofins TestAmerica, 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
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Sample Summary

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

Job ID: 180-103433-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-103433-1	MGWA-11	Water	03/09/20 17:00	03/11/20 09:00	
180-103433-2	MGWA-10	Water	03/09/20 17:05	03/11/20 09:00	
180-103435-1	MGWA-5	Water	03/10/20 09:45	03/11/20 09:00	
180-103435-2	MGWA-6	Water	03/10/20 11:15	03/11/20 09:00	
180-103435-3	MGWA-6A	Water	03/10/20 10:00	03/11/20 09:00	
180-103435-4	MGWC-12	Water	03/10/20 10:45	03/11/20 09:00	
180-103435-5	MGWC-3	Water	03/10/20 10:55	03/11/20 09:00	
180-103435-6	MGWC-7	Water	03/10/20 12:40	03/11/20 09:00	
180-103435-7	MGWC-2	Water	03/10/20 12:00	03/11/20 09:00	
180-103435-8	MGWC-8	Water	03/10/20 13:05	03/11/20 09:00	
180-103435-9	MGWC-1	Water	03/10/20 15:00	03/11/20 09:00	
180-103435-10	AP-DUP-01	Water	03/10/20 00:00	03/11/20 09:00	
180-103435-11	AP-DUP-02	Water	03/10/20 00:00	03/11/20 09:00	
180-103435-12	AP-FB-01	Water	03/10/20 12:50	03/11/20 09:00	
180-103435-13	AP-FB-02	Water	03/10/20 12:55	03/11/20 09:00	
180-103435-14	AP-FERB-01	Water	03/10/20 13:00	03/11/20 09:00	
180-103435-15	AP-FERB-02	Water	03/10/20 13:05	03/11/20 09:00	

Method Summary

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

Job ID: 180-103433-2

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 TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Lab Chronicle

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

Job ID: 180-103433-2

Client Sample ID: MGWA-11

Lab Sample ID: 180-103433-1

Date Collected: 03/09/20 17:00

Matrix: Water

Date Received: 03/11/20 09:00

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			99915 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	467244	04/08/20 19:01	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			99915 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:38	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-10

Lab Sample ID: 180-103433-2

Date Collected: 03/09/20 17:05

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.53 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467299	04/09/20 05:45	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.53 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:38	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-5

Lab Sample ID: 180-103435-1

Date Collected: 03/10/20 09:45

Matrix: Water

Date Received: 03/11/20 09:00

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			999.46 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:55	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.46 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467264	04/08/20 12:32	CJQ	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Lab Sample ID: 180-103435-2

Date Collected: 03/10/20 11:15

Matrix: Water

Date Received: 03/11/20 09:00

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			999.08 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:55	CJQ	TAL SL
Instrument ID: GFPCRED										

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Lab Chronicle

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

Job ID: 180-103433-2

Client Sample ID: MGWA-6

Lab Sample ID: 180-103435-2

Date Collected: 03/10/20 11:15

Matrix: Water

Date Received: 03/11/20 09:00

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			999.08 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467264	04/08/20 12:32	CJQ	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-103435-3

Date Collected: 03/10/20 10:00

Matrix: Water

Date Received: 03/11/20 09:00

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			999.92 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:55	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.92 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467264	04/08/20 12:32	CJQ	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-12

Lab Sample ID: 180-103435-4

Date Collected: 03/10/20 10:45

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.11 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:55	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.11 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467264	04/08/20 12:32	CJQ	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.00 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:55	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.00 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467264	04/08/20 12:32	CJQ	TAL SL
Instrument ID: GFPCPURPLE										

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Lab Chronicle

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

Job ID: 180-103433-2

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

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			467506	04/13/20 07:29	SMP	TAL SL

Client Sample ID: MGWC-7

Lab Sample ID: 180-103435-6

Date Collected: 03/10/20 12:40

Matrix: Water

Date Received: 03/11/20 09:00

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			999.77 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:58	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.77 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-2

Lab Sample ID: 180-103435-7

Date Collected: 03/10/20 12:00

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.32 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:58	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.32 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-103435-8

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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			999.81 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:58	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.81 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

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

Job ID: 180-103433-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-103435-9

Date Collected: 03/10/20 15:00

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.41 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:58	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.41 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-103435-10

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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			999.53 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:59	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.53 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-103435-11

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.35 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:59	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.35 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

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			999.17 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 18:59	CJQ	TAL SL
Instrument ID: GFPCRED										

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Lab Chronicle

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

Job ID: 180-103433-2

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

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			999.17 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:37	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FB-02

Lab Sample ID: 180-103435-13

Date Collected: 03/10/20 12:55

Matrix: Water

Date Received: 03/11/20 09:00

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			999.43 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 19:00	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.43 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:38	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-103435-14

Date Collected: 03/10/20 13:00

Matrix: Water

Date Received: 03/11/20 09:00

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			1000.58 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 19:00	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.58 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:38	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			467506	04/13/20 07:29	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-103435-15

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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			999.81 mL	1.0 g	464489	03/17/20 07:35	MNH	TAL SL
Total/NA	Analysis	9315		1			467244	04/08/20 19:00	CJQ	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.81 mL	1.0 g	464492	03/17/20 07:51	MNH	TAL SL
Total/NA	Analysis	9320		1			467126	04/08/20 12:38	KLS	TAL SL
Instrument ID: GFPCBLUE										

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Lab Chronicle

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

Job ID: 180-103433-2

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-103435-15

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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			467506	04/13/20 07:29	SMP	TAL SL

Laboratory References:

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

Analyst References:

Lab: TAL SL

Batch Type: Prep

MNH = Molly Howard

Batch Type: Analysis

CJQ = Caleb Quinn

KLS = Kody Saulters

SMP = Siobhan Perry

Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWA-11

Lab Sample ID: 180-103433-1

Date Collected: 03/09/20 17:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00268	U	0.00222	0.00223	1.00	0.00327	pCi/L	03/17/20 07:35	04/08/20 19:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					03/17/20 07:35	04/08/20 19:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00215	U	0.00277	0.00278	1.00	0.00461	pCi/L	03/17/20 07:51	04/08/20 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					03/17/20 07:51	04/08/20 12:38	1
Y Carrier	83.0		40 - 110					03/17/20 07:51	04/08/20 12:38	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	0.00483		0.0035498	0.0035639	2.00	0.00461	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWA-10

Lab Sample ID: 180-103433-2

Date Collected: 03/09/20 17:05

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.279		0.159	0.161	1.00	0.183	pCi/L	03/17/20 07:35	04/09/20 05:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	112	X	40 - 110					03/17/20 07:35	04/09/20 05:45	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.482		0.236	0.240	1.00	0.340	pCi/L	03/17/20 07:51	04/08/20 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	112	X	40 - 110					03/17/20 07:51	04/08/20 12:38	1
Y Carrier	84.9		40 - 110					03/17/20 07:51	04/08/20 12:38	1

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Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWA-10

Date Collected: 03/09/20 17:05

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103433-2

Matrix: Water

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	0.761		0.285	0.289	2.00	0.340	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWA-5

Date Collected: 03/10/20 09:45

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103435-1

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	0.121	U	0.149	0.149	1.00	0.244	pCi/L	03/17/20 07:35	04/08/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					03/17/20 07:35	04/08/20 18:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0613	U	0.229	0.229	1.00	0.423	pCi/L	03/17/20 07:51	04/08/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					03/17/20 07:51	04/08/20 12:32	1
Y Carrier	79.3		40 - 110					03/17/20 07:51	04/08/20 12:32	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	0.0594	U	0.273	0.273	2.00	0.423	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWA-6

Date Collected: 03/10/20 11:15

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103435-2

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	0.403		0.252	0.255	1.00	0.350	pCi/L	03/17/20 07:35	04/08/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					03/17/20 07:35	04/08/20 18:55	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWA-6

Lab Sample ID: 180-103435-2

Date Collected: 03/10/20 11:15

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00671	U	0.244	0.244	1.00	0.434	pCi/L	03/17/20 07:51	04/08/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					03/17/20 07:51	04/08/20 12:32	1
Y Carrier	83.4		40 - 110					03/17/20 07:51	04/08/20 12:32	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	0.410	U	0.351	0.353	2.00	0.434	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWA-6A

Lab Sample ID: 180-103435-3

Date Collected: 03/10/20 10:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.436		0.222	0.226	1.00	0.255	pCi/L	03/17/20 07:35	04/08/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					03/17/20 07:35	04/08/20 18:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0921	U	0.217	0.217	1.00	0.376	pCi/L	03/17/20 07:51	04/08/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					03/17/20 07:51	04/08/20 12:32	1
Y Carrier	83.0		40 - 110					03/17/20 07:51	04/08/20 12:32	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	0.528		0.310	0.313	2.00	0.376	pCi/L		04/13/20 07:29	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWC-12

Lab Sample ID: 180-103435-4

Date Collected: 03/10/20 10:45

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0642	U	0.142	0.142	1.00	0.263	pCi/L	03/17/20 07:35	04/08/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					03/17/20 07:35	04/08/20 18:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.276	U	0.244	0.245	1.00	0.391	pCi/L	03/17/20 07:51	04/08/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					03/17/20 07:51	04/08/20 12:32	1
Y Carrier	85.6		40 - 110					03/17/20 07:51	04/08/20 12:32	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	0.340	U	0.282	0.283	2.00	0.391	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.865		0.321	0.331	1.00	0.358	pCi/L	03/17/20 07:35	04/08/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					03/17/20 07:35	04/08/20 18:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.459		0.280	0.284	1.00	0.430	pCi/L	03/17/20 07:51	04/08/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					03/17/20 07:51	04/08/20 12:32	1
Y Carrier	86.7		40 - 110					03/17/20 07:51	04/08/20 12:32	1

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Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWC-3

Lab Sample ID: 180-103435-5

Date Collected: 03/10/20 10:55

Matrix: Water

Date Received: 03/11/20 09:00

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	1.32		0.426	0.436	2.00	0.430	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWC-7

Lab Sample ID: 180-103435-6

Date Collected: 03/10/20 12:40

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.796		0.272	0.281	1.00	0.228	pCi/L	03/17/20 07:35	04/08/20 18:58	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	96.5		40 - 110					03/17/20 07:35	04/08/20 18:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.107	U	0.242	0.242	1.00	0.416	pCi/L	03/17/20 07:51	04/08/20 12:37	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	96.5		40 - 110					03/17/20 07:51	04/08/20 12:37	1
<i>Y Carrier</i>	78.9		40 - 110					03/17/20 07:51	04/08/20 12:37	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	0.903		0.364	0.371	2.00	0.416	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWC-2

Lab Sample ID: 180-103435-7

Date Collected: 03/10/20 12:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.176	U	0.177	0.178	1.00	0.275	pCi/L	03/17/20 07:35	04/08/20 18:58	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	89.3		40 - 110					03/17/20 07:35	04/08/20 18:58	1

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Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWC-2

Date Collected: 03/10/20 12:00

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103435-7

Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.291	0.293	1.00	0.452	pCi/L	03/17/20 07:51	04/08/20 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		40 - 110					03/17/20 07:51	04/08/20 12:37	1
Y Carrier	78.5		40 - 110					03/17/20 07:51	04/08/20 12:37	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	0.589		0.341	0.343	2.00	0.452	pCi/L		04/13/20 07:29	1

Client Sample ID: MGWC-8

Date Collected: 03/10/20 13:05

Date Received: 03/11/20 09:00

Lab Sample ID: 180-103435-8

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	0.823		0.281	0.291	1.00	0.231	pCi/L	03/17/20 07:35	04/08/20 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					03/17/20 07:35	04/08/20 18:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13		0.347	0.362	1.00	0.453	pCi/L	03/17/20 07:51	04/08/20 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					03/17/20 07:51	04/08/20 12:37	1
Y Carrier	81.1		40 - 110					03/17/20 07:51	04/08/20 12:37	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	1.95		0.447	0.464	2.00	0.453	pCi/L		04/13/20 07:29	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-103435-9

Date Collected: 03/10/20 15:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.07		0.333	0.347	1.00	0.281	pCi/L	03/17/20 07:35	04/08/20 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					03/17/20 07:35	04/08/20 18:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.326	U	0.295	0.296	1.00	0.474	pCi/L	03/17/20 07:51	04/08/20 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					03/17/20 07:51	04/08/20 12:37	1
Y Carrier	81.1		40 - 110					03/17/20 07:51	04/08/20 12:37	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	1.40		0.445	0.456	2.00	0.474	pCi/L		04/13/20 07:29	1

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-103435-10

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.377		0.201	0.203	1.00	0.223	pCi/L	03/17/20 07:35	04/08/20 18:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/17/20 07:35	04/08/20 18:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.480		0.258	0.262	1.00	0.381	pCi/L	03/17/20 07:51	04/08/20 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/17/20 07:51	04/08/20 12:37	1
Y Carrier	85.2		40 - 110					03/17/20 07:51	04/08/20 12:37	1

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Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-103435-10

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

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	0.857		0.327	0.331	2.00	0.381	pCi/L		04/13/20 07:29	1

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-103435-11

Date Collected: 03/10/20 00:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.52		0.368	0.393	1.00	0.240	pCi/L	03/17/20 07:35	04/08/20 18:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					03/17/20 07:35	04/08/20 18:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.489		0.253	0.257	1.00	0.370	pCi/L	03/17/20 07:51	04/08/20 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					03/17/20 07:51	04/08/20 12:37	1
Y Carrier	84.5		40 - 110					03/17/20 07:51	04/08/20 12:37	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	2.01		0.447	0.470	2.00	0.370	pCi/L		04/13/20 07:29	1

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0125	U	0.123	0.123	1.00	0.258	pCi/L	03/17/20 07:35	04/08/20 18:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					03/17/20 07:35	04/08/20 18:59	1

Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: AP-FB-01

Lab Sample ID: 180-103435-12

Date Collected: 03/10/20 12:50

Matrix: Water

Date Received: 03/11/20 09:00

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	0.251	0.253	1.00	0.403	pCi/L	03/17/20 07:51	04/08/20 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					03/17/20 07:51	04/08/20 12:37	1
Y Carrier	80.7		40 - 110					03/17/20 07:51	04/08/20 12:37	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	0.290	U	0.280	0.281	2.00	0.403	pCi/L		04/13/20 07:29	1

Client Sample ID: AP-FB-02

Lab Sample ID: 180-103435-13

Date Collected: 03/10/20 12:55

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0679	U	0.135	0.135	1.00	0.245	pCi/L	03/17/20 07:35	04/08/20 19:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/17/20 07:35	04/08/20 19:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.226	0.226	1.00	0.383	pCi/L	03/17/20 07:51	04/08/20 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/17/20 07:51	04/08/20 12:38	1
Y Carrier	78.5		40 - 110					03/17/20 07:51	04/08/20 12:38	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	0.198	U	0.263	0.263	2.00	0.383	pCi/L		04/13/20 07:29	1

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Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: AP-FERB-01

Lab Sample ID: 180-103435-14

Date Collected: 03/10/20 13:00

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0148	U	0.129	0.129	1.00	0.275	pCi/L	03/17/20 07:35	04/08/20 19:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		40 - 110					03/17/20 07:35	04/08/20 19:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00615	U	0.182	0.182	1.00	0.329	pCi/L	03/17/20 07:51	04/08/20 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		40 - 110					03/17/20 07:51	04/08/20 12:38	1
Y Carrier	80.0		40 - 110					03/17/20 07:51	04/08/20 12:38	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	-0.00866	U	0.223	0.223	2.00	0.329	pCi/L		04/13/20 07:29	1

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-103435-15

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00194	U	0.129	0.129	1.00	0.271	pCi/L	03/17/20 07:35	04/08/20 19:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/17/20 07:35	04/08/20 19:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.180	U	0.252	0.252	1.00	0.420	pCi/L	03/17/20 07:51	04/08/20 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/17/20 07:51	04/08/20 12:38	1
Y Carrier	80.7		40 - 110					03/17/20 07:51	04/08/20 12:38	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

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

Job ID: 180-103433-2

Client Sample ID: AP-FERB-02

Lab Sample ID: 180-103435-15

Date Collected: 03/10/20 13:05

Matrix: Water

Date Received: 03/11/20 09:00

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	0.178	U	0.283	0.283	2.00	0.420	pCi/L		04/13/20 07:29	1

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QC Sample Results

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

Job ID: 180-103433-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-464489/23-A
Matrix: Water
Analysis Batch: 467244

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 464489

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04966	U	0.107	0.108	1.00	0.201	pCi/L	03/17/20 07:35	04/08/20 23:03	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	98.4		40 - 110			03/17/20 07:35	04/08/20 23:03	1		

Lab Sample ID: LCS 160-464489/1-A
Matrix: Water
Analysis Batch: 467244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 464489

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	8.787		1.13	1.00	0.203	pCi/L	77	75 - 125
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	106		40 - 110						

Lab Sample ID: LCSD 160-464489/2-A
Matrix: Water
Analysis Batch: 467244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 464489

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	9.504		1.22	1.00	0.229	pCi/L	84	75 - 125	0.30	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier									
Ba Carrier	98.1		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-464492/23-A
Matrix: Water
Analysis Batch: 467126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 464492

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2712	U	0.240	0.242	1.00	0.384	pCi/L	03/17/20 07:51	04/08/20 12:38	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	98.4		40 - 110			03/17/20 07:51	04/08/20 12:38	1		
Y Carrier	81.9		40 - 110			03/17/20 07:51	04/08/20 12:38	1		

QC Sample Results

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

Job ID: 180-103433-2

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

Lab Sample ID: LCS 160-464492/1-A
Matrix: Water
Analysis Batch: 467264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 464492

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.95	6.927		0.860	1.00	0.374	pCi/L	77	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	106		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: LCSD 160-464492/2-A
Matrix: Water
Analysis Batch: 467264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 464492

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	8.95	7.121		0.902	1.00	0.423	pCi/L	80	75 - 125	0.11	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	98.1		40 - 110
Y Carrier	78.9		40 - 110

QC Association Summary

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

Job ID: 180-103433-2

Rad

Prep Batch: 464489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total/NA	Water	PrecSep-21	
180-103433-2	MGWA-10	Total/NA	Water	PrecSep-21	
180-103435-1	MGWA-5	Total/NA	Water	PrecSep-21	
180-103435-2	MGWA-6	Total/NA	Water	PrecSep-21	
180-103435-3	MGWA-6A	Total/NA	Water	PrecSep-21	
180-103435-4	MGWC-12	Total/NA	Water	PrecSep-21	
180-103435-5	MGWC-3	Total/NA	Water	PrecSep-21	
180-103435-6	MGWC-7	Total/NA	Water	PrecSep-21	
180-103435-7	MGWC-2	Total/NA	Water	PrecSep-21	
180-103435-8	MGWC-8	Total/NA	Water	PrecSep-21	
180-103435-9	MGWC-1	Total/NA	Water	PrecSep-21	
180-103435-10	AP-DUP-01	Total/NA	Water	PrecSep-21	
180-103435-11	AP-DUP-02	Total/NA	Water	PrecSep-21	
180-103435-12	AP-FB-01	Total/NA	Water	PrecSep-21	
180-103435-13	AP-FB-02	Total/NA	Water	PrecSep-21	
180-103435-14	AP-FERB-01	Total/NA	Water	PrecSep-21	
180-103435-15	AP-FERB-02	Total/NA	Water	PrecSep-21	
MB 160-464489/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-464489/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-464489/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 464492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-103433-1	MGWA-11	Total/NA	Water	PrecSep_0	
180-103433-2	MGWA-10	Total/NA	Water	PrecSep_0	
180-103435-1	MGWA-5	Total/NA	Water	PrecSep_0	
180-103435-2	MGWA-6	Total/NA	Water	PrecSep_0	
180-103435-3	MGWA-6A	Total/NA	Water	PrecSep_0	
180-103435-4	MGWC-12	Total/NA	Water	PrecSep_0	
180-103435-5	MGWC-3	Total/NA	Water	PrecSep_0	
180-103435-6	MGWC-7	Total/NA	Water	PrecSep_0	
180-103435-7	MGWC-2	Total/NA	Water	PrecSep_0	
180-103435-8	MGWC-8	Total/NA	Water	PrecSep_0	
180-103435-9	MGWC-1	Total/NA	Water	PrecSep_0	
180-103435-10	AP-DUP-01	Total/NA	Water	PrecSep_0	
180-103435-11	AP-DUP-02	Total/NA	Water	PrecSep_0	
180-103435-12	AP-FB-01	Total/NA	Water	PrecSep_0	
180-103435-13	AP-FB-02	Total/NA	Water	PrecSep_0	
180-103435-14	AP-FERB-01	Total/NA	Water	PrecSep_0	
180-103435-15	AP-FERB-02	Total/NA	Water	PrecSep_0	
MB 160-464492/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-464492/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-464492/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Chain of Custody Record

Client Information		Sampler: Lab PM		Carrier Tracking No(s):	
Client Contact: Lauren Petty		Bortot, Veronica		180-54264-10410.1	
Company: Southern Company Services, Inc.		E-Mail: veronica.bortot@testamericainc.com		Page 1 of 1	
Address: 3535 Colonnade Parkway		Job #:		Preservation Codes:	
City: Birmingham		Due Date Requested:		A - HCL	
State, Zip: GA, 30309		TAT Requested (days): Standard		M - Hexane	
Phone: 205-992-5417 (Tel)		PO #		N - None	
Email: Impetty@southernco.com		SCS10347656		O - AsNaO2	
Project Name: CCR - Plant McIntosh Ash Pond 1		WO #		P - Na2O4S	
Site: Georgia		Field Filtered Sample (Yes or No)		Q - Na2SO3	
		Perform MS/MSD (Yes or No)		R - Na2S2O3	
		9315 Ra226, 9320 Ra228		S - H2SO4	
		6020 - B, Ca : plus As, B, Cd, Co, Li (detected App IV elements)		T - TSP Dodecahydrate	
		2540C, Calcd, 300, Chloride Sulfate, Fluoride, pH TDS		U - Acetone	
		D N		V - MCAA	
		D X		W - pH 4-5	
		N X		Z - other (specify)	
		M X		Other:	
		M X		Total Number of containers	
				Special Instructions/Note:	
				Analyze App III, Rad226	
				and App IV	
				except NOT	
				Selenium,	
				App III	
				180-103433 Chain of Custody	
				Barcode	
				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
				Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months	
				Special Instructions/QC Requirements:	
				Method of Shipment:	
				Received by: Jennifer Watson	
				Date/Time: 3-11-20	
				Company: GEI	
				Received by:	
				Date/Time: 9:00	
				Company:	
				Received by:	
				Date/Time:	
				Company:	
				Cooler Temperature(s) °C and Other Remarks:	
				Custody Seal No.:	
				Δ Yes Δ No	



Client Information Client Contact: Ms. Lauren Petty Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 205-992-5417(Tel) Email: lmpetty@southernco.com Project Name: CCR - Plant McIntosh Ash Pond 1 Site: Georgia		Lab PM: Bortol, Veronica E-Mail: veronica.bortol@testamericainc.com Carrier Tracking No(s): 180-57786-11316.2 Page: 1 of 2 Job #:					
Due Date Requested: TAT Requested (days): PO #: SCS10382606 W/O #: Project #: 18019956 SSOW#:		Analysis Requested Field Filtered Sample (Yes or No) [X] [] Total Number of Containers [X] []					
Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)		Other: Special Instructions/Note: Analyze App11 Radium 226, 228 and App1V EXCEPT Selenium					
Sample Identification MGWA-5 MGWA-6 MGWA-6A MGWC-12 MGWC-3 MGWC-7 MGWC-2 MGWC-8 MGWC-1 AP-DUP-01 AP-DUP-02	Sample Date 3/10/20 1115 1000 1045 1055 1240 1200 1305 1500 - -	Sample Time 0945 1115 1000 1045 1055 1240 1200 1305 1500 - -	Sample Type (C=Comp, G=grab) 6 	Matrix (W=water, S=solid, O=wash/oil, BT=tissue, A=air) Water Water Water Water Water Water Water Water Water Water Water Water Water Water Water	Field Filtered Sample (Yes or No) [X] [] TDS 2540C-calc'd, 300-CIS, FI, PH 9315, Pa226, 19320, Pa228 60208, Ca+detected App1V	Preservation Code [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] [] [X] []	Special Instructions/Note: Analyze App11 Radium 226, 228 and App1V EXCEPT Selenium
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by: Relinquished by: <i>Amber</i> Relinquished by: Relinquished by:		Method of Shipment: Received by: <i>Melanie Watson</i> Received by: Received by: Date/Time: 3/10/20 0945 Date/Time: Date/Time:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

Client Information		Lab PM: Bortol, Veronica		Carrier Tracking No(s):	
Client Contact: Lauren Petty		E-Mail: veronica.bortol@testamericainc.com		COC No:	
Company: Southern Company		Address: PO BOX 2641 GSC8		Page: 2 of 2	
City: Birmingham		State, Zip: AL, 35291		Job #:	
Phone: 205-992-5417(Tel)		E-mail: Impetty@southernco.com		Preservation Codes:	
Project Name: CCR - Plant McIntosh		Site: Ash Pond		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 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)	
Due Date Requested:		TAT Requested (days):		Total Number of Containers:	
PO #: SCS10347656		Rush			
WO #:		Project #: 4885956 18019954		Special Instructions/Note:	
SSOW#:		Matrix (W=water, S=solid, O=water, BT=Tissue, AA=Air)			
Sample Identification		Sample Type (C=comp, G=grab)		Field Filtered Sample (Yes or No)	
Sample Date		Sample Time		Perform MS/MSD (Yes or No)	
AP-FB-01		G		M	
AP-FB-02		W		N	
AP-FERB-01		↓		↓	
AP-FERB-02		↓		↓	
3/16/20		1250		X	
↓		1255		X	
↓		1300		X	
↓		1305		X	
9315-Ra226, 9320-Ra228		9320-Ra226, Ca+detected HPIV		Zs40C-Calc, 300-C1,S,FI,PH,TDS	
3 Analyze App III		3 Radium 226, 228		3 App IV, EXCEPT	
3		3		3 Selenium	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:	
Possible Hazard Identification		Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Method of Shipment:	
Deliverable Requested: I, II, III, IV, Other (specify)		Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/>		Received by: <i>Julie Watson</i>	
Empty Kit Relinquished by:		Date: 3/16/20		Date/Time: 5-11-20	
Relinquished by: <i>Julie Watson</i>		Company: GEL		Company: EPA, H	
Relinquished by:		Date/Time: 1920		Date/Time: 9:00	
Relinquished by:		Company:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Client Information		Lab PM: Bortot, Veronica		Carrier Tracking No(s):		COC No: 180-57786-11316.2	
Client Contact: Ms. Lauren Petty		E-Mail: veronica.bortot@testamericainc.com		Page: 1 of 2		Job #:	
Company: Southern Company		Due Date Requested:		Analysis Requested			
Address: PO BOX 2641 GSC8		TAT Requested (days):		Total Number of Containers: 3			
City: Birmingham		PO #:		Preservation Codes:			
State, Zip: AL, 35291		SCS10382606		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 M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Phone: 205-992-5417(Tel)		WO #:		Other:			
Email: Impetty@southernco.com		Project #:		Special Instructions/Note:			
Project Name: CCR - Plant McIntosh Ash Pond 1		18019956		Analyze App III Radium 226, 228 and App IV EXCEPT Selenium			
Site: Georgia		SSOW#:		Barcode: 180-103435 Chain of Custody			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wash/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	D	N
MGWA-5	3/10/20	0945	6	Water	N	X	X
MGWA-6		1115		Water			
MGWA-6A		1000		Water			
MGWC-12		1045		Water			
MGWC-3		1055		Water			
MGWC-7		1240		Water			
MGWC-2		1200		Water			
MGWC-8		1305		Water			
MGWC-1		1500		Water			
AP-DUP-01				Water			
AP-DUP-02				Water			
Possible Hazard Identification <input checked="" 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 Deliverable Requested: I, II, III, IV, Other (specify)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Method of Shipment:			
Relinquished by: <i>Lauren</i>		3/10/20		Received by: <i>Melanie Watson</i>			
Relinquished by:		Date/Time: 3/10/20 09:20		Received by: <i>Melanie Watson</i>			
Relinquished by:		Date/Time:		Received by: <i>Melanie Watson</i>			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



Chain of Custody Record

Client Information		Lab PM: Bortot, Veronica		Carrier Tracking No(s):	
Client Contact: Lauren Petty		Phone: 4045920094		E-Mail: veronica.bortot@testamericainc.com	
Company: Southern Company		Address: PO BOX 2641 GSC8		City: Birmingham	
State, Zip: AL, 35291		TAT Requested (days):		Rush	
Phone: 205-992-5417(Tel)		PO #: SCS10347656		WO #:	
Email: Impetty@southernco.com		Project #: 44845050 18 019954		SSOW#:	
Project Name: CCR - Plant McIntosh		Site: Ash Pond		Plant: McIntosh	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water/soil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
AP-FB-01	3/16/20	1250	G	W	X	X	Q315-PA226, Q320-PA228	3	Analyze App III
AP-FB-02		1255			X	X	6020-B, Ca + de HCHd, APP IV	3	Radium 226, 228
AP-FERB-01		1300			X	X	2540C-Calc, 300-cl, s, f, PH, TDS	3	APP IV, EXCEPT
AP-FERB-02		1305			X	X		3	Selenium

Possible Hazard Identification		<input checked="" 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	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>Jan Orin</i>	Date: 3/10/20	Received by: <i>Dulme Watson</i>	Date/Time: 5-1-20
Relinquished by:	Date/Time:	Received by:	Date/Time: 9:00
Relinquished by:	Date/Time:	Received by:	Date/Time:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Company: <i>ETAP, Inc</i>	Company:

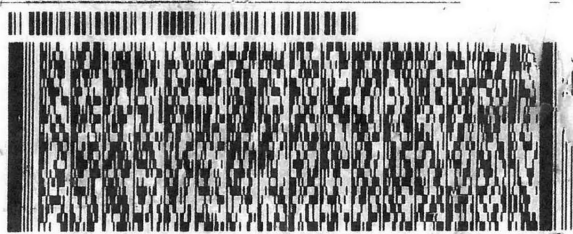


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SA
 EUROFIN
 301 ALPHA DR.
 RIDC PARK
 PITTSBURGH PA 15238

(412) 963-7068
 REF: SOUTHERN



WED - 11 MAR 3:00P
 STANDARD OVERNIGHT

TRK# 1516 9323 1447
 0201

NA AGCA

15238
 PA-US PIT

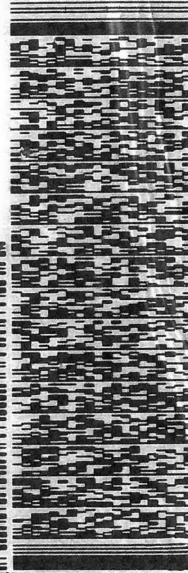
Uncorrected temp 3.7 °C
 Thermometer ID 17
 CF Ø Initials JS
 PT-WI-SR-001 effective 11/8/18

SHIP DATE: 10MAR20
ACTWGT: 32.80 LB
CAD: 6994919/SSFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY

IGIN ID: SAVA (412) 963-2435
RONICA BORTOT
E CHEERS 5 BEFORE BILL
1 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
REF: (412) 963-8222



WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

3 of 5
MPS# 3910 1405 5900
Mstr# 3910 1405 5885

XH AGCA

15238
PA-US PIT



Uncorrected temp
Thermometer ID
CF 0 Initials JS

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

SHIP DATE: 10MAR20
ACTWGT: 32.80 LB
CAD: 6994919/SSFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY

ORIGIN ID: SAVA (412)
VERONICA BORTOT
SEE CHEERS 5 BEFORE BILL
1 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

TO VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH
(412) 963-8222

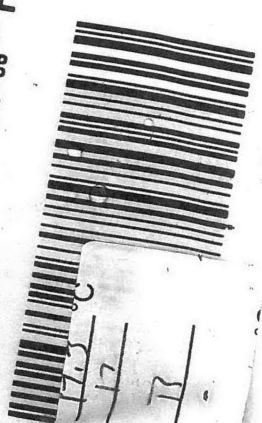


WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

4 of 5
MPS# 3910 1405 5
Mstr# 3910 1405 58E

XH AGI

15238
PA-US PIT



Uncorrected temp
Thermometer ID
CF 0 M J Initials JS

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



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- 12
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ETP: 13
 14835469898
 PU: SP: 100: V
110-1076
 313265215-84
 313265215-84
 313265215-84
 313265215-84

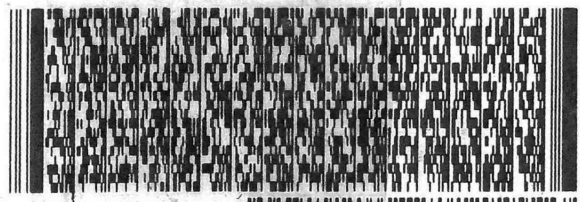


PT-WI-SR-001 effective 11/8/18
 CF
 Initials JS
 Thermometer ID 3.4
 Uncorrected temp 17

PA-US
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 15238

XH AGCA

MPS# 3910 1405 5896
 Mat# 3910 1405 5885
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 0201
 WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT
 2 of 5



12010200113011v

PITTSBURGH PA 15238

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

ORIGIN ID: SAVVA (412) 963-2435
 VERONICA BORTOT
 SEE CHECKS 5 BEFORE BILL
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US
 SHIP DATE: 10MAR20
 ACTWGT: 44.70 LB
 CAD: 6984919/SSFE2021
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

Part 15526 XP 01/21
 55A12/61E07E48:2951 # JNF

Part # 156299469407E46

SHIP DATE: 10MAR20
ACTWT: 32.80 LB
CAD: 6994619/SSFE2021
DIMS: 21x14x14 IN
BILL THIRD PARTY

ORIGIN ID: SAVA (412) 963-2435
VERONICA BORTOT
SEE CHECKS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
REF: (412) 863-8222
DEPT: 4

SHIP BY
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CAD: 69
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BILL TH

963-2435

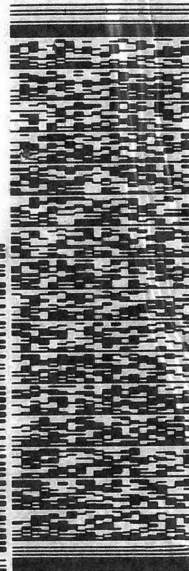
BILL

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VERONICA BORTOT
SEE CHECKS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

VERONICA BORTOT
TEST AMERICA
301 ALPHA DR

PITTSBURGH
(412) 863-8222
DEPT: 4

PA 15238
REF: (412) 863-8222
DEPT: 4



WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

MPS# 3910 1405 5900
Mstr# 3910 1405 5885
0263 0201

XH AGCA

15238
PA-US
PIT

3 of 5



Uncorrected temp
Thermometer ID
CF 0 Initials B

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

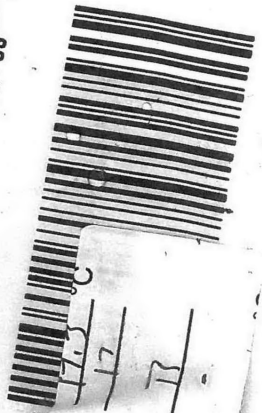
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WED - 11 MAR
PRIORITY OVERNIGHT

MPS# 3910 1405 5911
Mstr# 3910 1405 5885
0263 0201

XH AGI

PA-US



Uncorrected temp
Thermometer ID
CF 0 M J Initials B

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

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 EFP: 13
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 313265215-81
 313265215-81

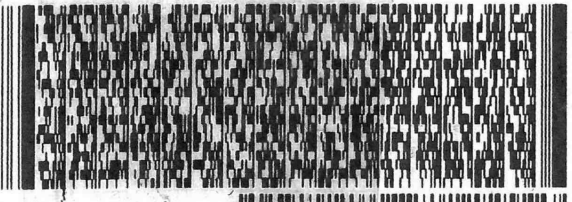


PT-WI-SR-001 effective 11/8/18
 CF. 0
 Initials JS
 Thermometer ID 314
 Uncorrected temp 17

PA-US
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 15238

XH AGCA

MPS# 3910 1405 5896
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 0201
 WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT



TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR
 PITTSBURGH PA 15238
 REF: (412) 963-0222
 INU:
 PO:

Part # 1562565832/5610/FE46-01/21

ORIGIN ID:SAVA (412) 963-2435
 VERONICA BORTOT
 SEE CHECKS 5 BEFORE BILL
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US
 SHIP DATE: 10MAR20
 ACTWGT: 44.70 LB
 CAD: 6994919/SSFE2021
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

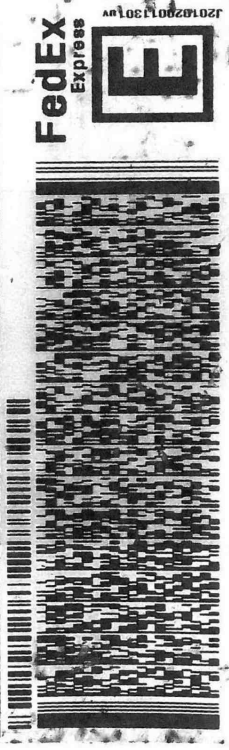
VERONICA BORTOT
 SEE CHEERS 5 BEFORE BILL
 301 ALPHA DR PA 15238
 PITTSBURGH, PA
 UNITED STATES US

SHIP DATE: 10MAR20
 ACTWT: 42.90 LB
 CAD: 6994919/55FE2021
 DIMS: 20x13x15 IN
 BILL THIRD PARTY

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

PITTSBURGH PA 15238

REF: (412) 983-6222



WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT

5 of 5
 MPS# 3910 1405 5922
 Metr# 3910 1405 5885

XH AGCA

15238
 PA-US PIT

Uncorrected temp _____ °C
 Thermometer ID M12
 CF 0 Initials JB

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

ORIGIN ID: SAVA (412) 963-2435
 VERONICA BORTOT
 SEE CHEERS 5 BEFORE BILL
 301 ALPHA DR PA 15238
 PITTSBURGH, PA
 UNITED STATES US

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

PITTSBURGH PA 15238

REF: (412) 983-6222



WED - 11 MAR 10:30A
 PRIORITY OVERNIGHT

1 of 5
 TRM# 3910 1405
 0201
 ## MASTER ##

XH AC

15238
 PA-US PIT

Uncorrected tem
 Thermometer IC

CF 0 Initials II

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

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-103433-2

Login Number: 103433

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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: 180-103433-2

Login Number: 103433

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 03/16/20 03:50 PM

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: 180-103433-2

Login Number: 103435

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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.	False	ONE WITH RADS NOT ON ICE
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: 180-103433-2

Login Number: 103435

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 03/16/20 03:50 PM

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

1st Semi-Annual Event

March 2020

Georgia Power Company – McIntosh Ash Pond 1

Quality Control Review of Analytical Data – March 2020

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh and St. Louis for groundwater samples collected at McIntosh AP1 between March 9, 2020 and March 10, 2020. 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 180-103433 was revised by the laboratory to remove lab pH analysis data.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected 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 US EPA 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 (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, with the exceptions of Arsenic and combined Radium on MGWC-1 (180-103435-9) and combined Radium on MGWC-2 (180-103435-7) as described in the qualifications section below.

Accuracy: Laboratory goals for accuracy were met, with the exception of Radium-226 and Radium-228 on MGWA-10 (180-103433-2) as described in the qualifications section below.

Detection Limits: Project goals for detection limits were met. Certain samples were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

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 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

U: The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. 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 MGWC-1 (180-103435-9) and AP-DUP-02 (180-103435-11) were qualified as estimated (J) for Arsenic and combined Radium as the field relative percent difference (RPD) exceeded QC criteria (34.78% and 35.78%, respectively above the limit of 25).
- Samples MGWC-2 (180-103435-7) and AP-DUP-01 (180-103435-10) were qualified as estimated (J) for combined Radium as the field RPD exceeded QC criteria (37.07% above limit of 25).
- Sample MGWA-10 (180-103433-2) was qualified as estimated (J) for Radium-226 and Radium-228 as the respective Barium carriers exceeded QC criteria (both 112% above range of 40-110).
- Certain Beryllium and/or Thallium results in SDG 180-103433 were qualified as non-detect (U) 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 RL, the method detection limit (MDL) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled between March 9, 2020 and March 10, 2020 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

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – March 2020

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)
103433	MGWA-11	3/9/2020	180-103433-1	GW		X	X	X	X
103433	MGWA-10	3/9/2020	180-103433-2	GW		X	X	X	X
103433	MGWA-5	3/10/2020	180-103435-1	GW		X	X	X	X
103433	MGWA-6	3/10/2020	180-103435-2	GW		X	X	X	X
103433	MGWA-6A	3/10/2020	180-103435-3	GW		X	X	X	X
103433	MGWC-12	3/10/2020	180-103435-4	GW		X	X	X	X
103433	MGWC-3	3/10/2020	180-103435-5	GW		X	X	X	X
103433	MGWC-7	3/10/2020	180-103435-6	GW		X	X	X	X
103433	MGWC-2	3/10/2020	180-103435-7	GW		X	X	X	X
103433	MGWC-8	3/10/2020	180-103435-8	GW		X	X	X	X
103433	MGWC-1	3/10/2020	180-103435-9	GW		X	X	X	X
103433	AP-DUP-01	3/10/2020	180-103435-10	GW	FD (MGWC-2)	X	X	X	X
103433	AP-DUP-02	3/10/2020	180-103435-11	GW	FD (MGWC-1)	X	X	X	X
103433	AP-FB-01	3/10/2020	180-103435-12	WQ	FB	X	X	X	X
103433	AP-FB-02	3/10/2020	180-103435-13	WQ	FB	X	X	X	X
103433	AP-FERB-01	3/10/2020	180-103435-14	WQ	EB	X	X	X	X
103433	AP-FERB-02	3/10/2020	180-103435-15	WQ	EB	X	X	X	X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 2

Georgia Power Company – McIntosh AP1

Qualifier Summary Table – March 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
103433	MGWA-10	Radium-226			J	High Ba carrier
103433	MGWA-10	Radium-228			J	High Ba carrier
103433	MGWC-2	Radium combined			J	RPD exceeds field goal
103433	AP-DUP-01	Radium combined			J	RPD exceeds field goal
103433	MGWC-1	Radium combined			J	RPD exceeds field goal
103433	AP-DUP-02	Radium combined			J	RPD exceeds field goal
103433	MGWC-1	Arsenic			J	RPD exceeds field goal
103433	AP-DUP-02	Arsenic			J	RPD exceeds field goal
103433	MGWA-11	Thallium		0.00036	U	Blank detection
103433	MGWA-10	Beryllium		0.00045	U	Blank detection
103433	MGWA-10	Thallium		0.00058	U	Blank detection
103433	MGWA-6	Thallium		0.00019	U	Blank detection
103433	MGWC-3	Thallium		0.00016	U	Blank detection
103433	MGWC-8	Beryllium		0.0013	U	Blank detection
103433	MGWC-8	Thallium		0.00025	U	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
U – Non-Detect Result

Product Name: Low-Flow System

Date: 2020-03-10 15:16:39

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter .170 in
Tubing Length 50 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWC-1
Well diameter 2 in
Well Total Depth 55.78 ft
Screen Length 10 ft
Depth to Water 36.90 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.3131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 7.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 10%
Last 5	14:26:25	600.02	21.33	7.01	667.43	17.20	37.59	1.68	-31.51
Last 5	14:31:25	900.02	21.34	7.08	671.77	12.00	37.65	0.86	-24.21
Last 5	14:36:25	1200.02	21.43	7.10	670.20	6.68	37.61	0.79	-14.92
Last 5	14:41:25	1500.02	21.38	7.12	667.96	6.42	37.70	0.71	-10.77
Last 5	14:46:25	1800.02	21.46	7.11	666.75	4.69	37.71	0.72	-4.07
Variance 0			0.09	0.03	-1.56			-0.06	9.29
Variance 1			-0.06	0.02	-2.25			-0.09	4.15
Variance 2			0.09	-0.01	-1.20			0.01	6.69

Notes

Sampled at 1500 AP-DUP-02 taken here

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 11:55:33

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC ft

Well Information:

Well ID MGWC-2
Well diameter 2 in
Well Total Depth 37 ft
Screen Length 10 ft
Depth to Water 19.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.48 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:39:06	300.03	20.11	7.36	803.69	1.41	20.56	0.67	-5.80
Last 5	11:44:07	600.90	20.04	7.33	803.02	1.33	20.60	0.56	-6.60
Last 5	11:49:07	900.90	20.07	7.31	802.57	1.29	20.65	0.54	-7.23
Last 5	11:54:07	1200.90	20.11	7.30	801.93	1.17	20.69	0.51	-7.36
Last 5									
Variance 0			-0.08	-0.03	-0.66			-0.11	-0.80
Variance 1			0.04	-0.01	-0.45			-0.02	-0.63
Variance 2			0.04	-0.02	-0.64			-0.03	-0.13

Notes

Sampled at 1200

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 11:08:56

Project Information:

Operator Name J Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 647057
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 33.44 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWC-3
Well diameter 2 in
Well Total Depth 38.74 ft
Screen Length 10 ft
Depth to Water 16.83 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2392569 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:37:57	600.01	19.74	6.81	611.61	1.40	17.15	0.62	24.43
Last 5	10:42:57	900.00	19.80	6.84	618.76	1.59	17.15	0.57	23.95
Last 5	10:47:57	1199.99	19.86	6.85	619.96	0.98	17.16	0.59	24.06
Last 5	10:52:57	1499.99	19.92	6.86	619.64	0.53	17.16	0.62	26.50
Last 5	10:57:57	1799.97	19.93	6.87	619.75	0.41	17.17	0.63	24.85
Variance 0			0.06	0.01	1.20			0.02	0.11
Variance 1			0.06	0.01	-0.32			0.02	2.44
Variance 2			0.01	0.01	0.11			0.02	-1.65

Notes

Sampled at 1055

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 09:52:24

Project Information:

Operator Name J Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 647057
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 57.79 ft

Pump placement from TOC 3 ft

Well Information:

Well ID MGWA-5
Well diameter 2 in
Well Total Depth 63.9 ft
Screen Length 10 ft
Depth to Water 21.02 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3479412 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.08 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:26:43	1499.98	20.02	7.33	283.25	2.85	21.82	0.64	27.23
Last 5	09:31:43	1799.97	20.11	7.32	282.45	2.82	21.84	0.73	19.24
Last 5	09:36:43	2099.96	20.14	7.32	281.77	2.72	21.85	0.60	12.71
Last 5	09:41:43	2399.96	20.19	7.30	281.03	2.54	21.86	0.59	5.86
Last 5	09:46:43	2699.95	20.19	7.30	282.03	2.29	21.86	0.56	0.22
Variance 0			0.03	0.00	-0.68			-0.13	-6.54
Variance 1			0.05	-0.02	-0.75			-0.01	-6.85
Variance 2			0.01	-0.00	1.00			-0.03	-5.64

Notes

Sampled at 0945

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 11:21:57

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter .170 in
Tubing Length 36 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-6
Well diameter 2 in
Well Total Depth 41.63 ft
Screen Length 10 ft
Depth to Water 18.60 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.44 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 10%
Last 5	10:50:30	1200.02	21.21	7.06	524.25	1.62	18.71	1.20	7.55
Last 5	10:55:30	1500.02	21.38	7.05	525.83	1.62	18.71	1.11	5.06
Last 5	11:00:30	1800.02	21.55	7.02	527.24	1.31	18.71	0.64	2.79
Last 5	11:05:30	2100.02	21.64	7.00	527.38	1.43	18.72	0.31	0.52
Last 5	11:10:30	2400.03	21.64	7.00	527.78	1.21	18.72	0.26	-1.66
Variance 0			0.18	-0.03	1.41			-0.47	-2.27
Variance 1			0.09	-0.02	0.14			-0.32	-2.27
Variance 2			0.00	-0.00	0.40			-0.05	-2.19

Notes

Sampled at 1115

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 09:54:53

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter .170 in
Tubing Length 35 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-6A
Well diameter 2 in
Well Total Depth 39 ft
Screen Length 10 ft
Depth to Water 17.10 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.2 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 10%
Last 5	09:32:10	1800.02	19.42	6.98	428.13	4.65	18.15	0.72	-69.15
Last 5	09:37:10	2100.02	19.46	6.99	442.77	4.89	18.15	0.55	-85.20
Last 5	09:42:10	2400.02	19.62	7.00	457.41	4.53	18.17	0.30	-100.02
Last 5	09:47:10	2700.02	19.66	7.02	468.74	4.89	18.18	0.22	-109.99
Last 5	09:52:10	3000.02	19.82	7.04	478.92	3.91	18.20	0.15	-115.72
Variance 0			0.15	0.01	14.63			-0.25	-14.82
Variance 1			0.05	0.02	11.34			-0.08	-9.97
Variance 2			0.15	0.01	10.18			-0.06	-5.73

Notes

Sampled at 10:00

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 12:38:21

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter .170 in
Tubing Length 35 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWC-7
Well diameter 2 in
Well Total Depth 43 ft
Screen Length 10 ft
Depth to Water 19.10 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.8 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 10%
Last 5	12:16:46	1500.02	21.04	6.31	514.76	1.58	19.47	0.20	32.32
Last 5	12:21:46	1800.02	21.06	6.41	529.91	1.91	19.50	0.19	23.25
Last 5	12:26:46	2100.02	21.07	6.48	537.56	1.82	19.50	0.18	13.67
Last 5	12:31:46	2400.02	21.09	6.54	534.84	1.25	19.50	0.17	9.10
Last 5	12:36:46	2700.03	21.06	6.54	534.44	1.05	19.50	0.17	8.06
Variance 0			0.01	0.07	7.65			-0.01	-9.58
Variance 1			0.02	0.05	-2.72			-0.01	-4.57
Variance 2			-0.03	0.01	-0.40			0.01	-1.04

Notes

Sampled at 1240

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 13:16:26

Project Information:

Operator Name J Bash
Company Name GEI
Project Name AP1
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 647057
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 47.26 ft

Pump placement from TOC 1 ft

Well Information:

Well ID MGWC-8
Well diameter 2 in
Well Total Depth 52.56 ft
Screen Length 10 ft
Depth to Water 30.01 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3009414 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:52:42	2699.95	21.67	5.51	858.63	0.78	30.10	0.23	103.54
Last 5	12:57:42	2999.94	21.62	5.51	870.17	0.07	30.10	0.23	102.69
Last 5	13:02:42	3299.93	21.57	5.51	876.34	0.04	30.10	0.23	101.66
Last 5	13:07:42	3599.92	21.58	5.50	886.39	0.21	30.09	0.26	100.84
Last 5	13:12:42	3899.92	21.56	5.50	887.89	0.22	30.09	0.25	100.28
Variance 0			-0.05	0.07	6.17			0.00	-1.03
Variance 1			0.01	0.06	10.05			0.03	-0.82
Variance 2			-0.01	0.03	1.50			-0.00	-0.56

Notes

Sampled at 1305

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-09 17:07:33

Project Information:

Operator Name J Bash
Company Name GEI
Project Name McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 647057
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 47.79 ft

Pump placement from TOC 3 ft

Well Information:

Well ID MGWC-10
Well diameter 2 in
Well Total Depth 53.09 ft
Screen Length 10 ft
Depth to Water 15.25 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.303307 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 45.36 in
Total Volume Pumped 8.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	16:44:09	3899.91	21.44	5.43	67.93	0.12	18.91	4.03	84.22
Last 5	16:49:09	4199.91	21.44	5.45	68.00	0.16	18.96	2.69	82.99
Last 5	16:54:09	4499.90	21.49	5.45	67.97	0.26	19.00	2.43	83.53
Last 5	16:59:09	4799.89	21.58	5.45	68.31	0.24	19.02	2.51	83.89
Last 5	17:04:09	5099.88	21.44	5.46	68.23	0.22	19.03	2.47	83.23
Variance 0			0.05	-0.00	-0.03			-0.26	0.54
Variance 1			0.09	-0.00	0.34			0.08	0.35
Variance 2			-0.13	0.02	-0.08			-0.04	-0.65

Notes

Sampled at 1705

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-09 16:57:42

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter .170 in
Tubing Length 46 ft

Pump placement from TOC 2 ft

Well Information:

Well ID MGWA-11
Well diameter 2 in
Well Total Depth 56.63 ft
Screen Length 10 ft
Depth to Water 19.11 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2953174 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 10%	pH +/- 0.1	SpCond μ S/cm +/- 5%	Turb NTU +/- 10%	DTW ft	RDO mg/L +/- 0.2	ORP mV +/- 10%
Stabilization									
Last 5	16:32:19	1500.02	22.65	7.55	262.49	0.38	19.35	1.02	43.80
Last 5	16:37:19	1800.03	21.92	7.56	265.51	0.51	19.35	0.74	42.06
Last 5	16:42:19	2100.03	22.30	7.57	265.26	0.63	19.36	0.58	41.81
Last 5	16:47:19	2400.03	22.02	7.58	268.44	0.42	19.37	0.42	39.28
Last 5	16:52:19	2700.03	22.56	7.58	270.69	0.24	19.36	0.37	32.79
Variance 0			0.38	0.01	-0.25			-0.15	-0.25
Variance 1			-0.28	0.02	3.18			-0.16	-2.53
Variance 2			0.53	-0.00	2.25			-0.06	-6.49

Notes

Sampled at 1700

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-10 10:44:31

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name AP1
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 48 ft

Pump placement from TOC 3 ft

Well Information:

Well ID MGWC-12
Well diameter 2 in
Well Total Depth 52.7 ft
Screen Length 9 ft
Depth to Water 24.40 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3042443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.16 in
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:21:56	2699.96	18.79	7.75	284.39	1.13	24.93	0.16	-23.54
Last 5	10:26:56	2999.96	18.79	7.71	285.67	0.80	24.93	0.14	-52.56
Last 5	10:31:56	3299.96	18.85	7.62	280.60	0.77	24.93	0.13	-70.56
Last 5	10:36:56	3599.96	18.90	7.56	279.19	0.91	24.93	0.13	-77.85
Last 5	10:41:56	3899.96	18.96	7.53	276.24	--	--	0.12	-87.93
Variance 0			0.06	-0.09	-5.07			-0.01	-18.00
Variance 1			0.05	-0.06	-1.41			-0.00	-7.29
Variance 2			0.06	-0.04	-2.95			-0.01	-10.08

Notes

Sampled at 1045

Grab Samples

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-1
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	<u>X</u>	_____	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>N/A</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-2
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____

7 Corrective actions as needed, by date:
Rusted steel casing latch, 1 bent bollard

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-3
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>Rusted steel casing latch</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-4
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	_____	_____	<u>X</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>X</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>N/A</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-5
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-6
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>N/A</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-6A
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-7
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-8
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-9
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____

7 Corrective actions as needed, by date:

Some sediment around edges of pad

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-10
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>N/A</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-11
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-12
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-19
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-20
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____

7 Corrective actions as needed, by date:

N/A

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-21
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-22
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	_____	_____	<u>X</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>N/A</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWC-23
 Date 3/9/2020
 Reflective Sign Yes

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	_____	_____	<u>X</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>X</u>	_____	_____
7 Corrective actions as needed, by date:			
<u>N/A</u>			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID MGWA-24
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID PZ-13
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID PZ-14
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID PZ-15
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID PZ-16
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID PZ-17
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McIntosh- Ash Pond
 Permit Number _____
 Well ID PZ-18
 Date 3/9/2020
 Reflective Sign Yes

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>X</u>	_____	_____
7 Corrective actions as needed, by date:				
<u>N/A</u>				

Signature and Seal of PE/PG responsible for inspection

ANALYTICAL REPORT

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

Laboratory Job ID: 180-111215-1

Client Project/Site: CCR - 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:
10/27/2020 8:11:20 AM

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	16
QC Sample Results	33
QC Association Summary	39
Chain of Custody	43
Receipt Checklists	48

Case Narrative

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

Job ID: 180-111215-1

Job ID: 180-111215-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-111215-1**

Comments

No additional comments.

Receipt

The samples were received on 9/19/2020 11:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.6° C, 1.9° C, 2.1° C, 2.1° C, 2.4° C and 2.4° C.

GC Semi VOA

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

Metals

No analytical or quality issues were noted, other than those described 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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-111215-1

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-111215-1

Laboratory: Eurofins TestAmerica, 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	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

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



Sample Summary

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

Job ID: 180-111215-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111215-1	MGWA-10	Water	09/16/20 11:36	09/19/20 11:00	
180-111215-2	MGWA-11	Water	09/16/20 13:47	09/19/20 11:00	
180-111215-3	MGWA-5	Water	09/16/20 16:00	09/19/20 11:00	
180-111215-4	MGWA-6	Water	09/16/20 12:30	09/19/20 11:00	
180-111215-5	MGWA-6A	Water	09/16/20 14:00	09/19/20 11:00	
180-111215-6	MGWC-1	Water	09/17/20 09:49	09/19/20 11:00	
180-111215-7	MGWC-2	Water	09/16/20 15:27	09/19/20 11:00	
180-111215-8	MGWC-3	Water	09/17/20 11:46	09/19/20 11:00	
180-111215-9	MGWC-7	Water	09/17/20 10:06	09/19/20 11:00	
180-111215-10	MGWC-8	Water	09/17/20 10:45	09/19/20 11:00	
180-111215-11	MGWC-12	Water	09/16/20 15:28	09/19/20 11:00	
180-111215-12	AP-DUP-01	Water	09/16/20 00:00	09/19/20 11:00	
180-111215-13	AP-DUP-02	Water	09/17/20 00:00	09/19/20 11:00	
180-111215-14	AP-FB-01-09-16-20	Water	09/16/20 15:15	09/19/20 11:00	
180-111215-15	AP-FB-02-09-16-20	Water	09/16/20 16:00	09/19/20 11:00	
180-111215-16	AP-FERB-01-09-16-20	Water	09/16/20 14:20	09/19/20 11:00	
180-111215-17	AP-FERB-02-09-17-20	Water	09/17/20 10:50	09/19/20 11:00	

Method Summary

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

Job ID: 180-111215-1

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 TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: MGWA-10

Lab Sample ID: 180-111215-1

Date Collected: 09/16/20 11:36

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 08:57	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 15:48	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:27	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 11:36	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-11

Lab Sample ID: 180-111215-2

Date Collected: 09/16/20 13:47

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 09:17	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:01	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:28	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 13:47	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-5

Lab Sample ID: 180-111215-3

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 09:38	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:03	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:29	KEM	TAL PIT
Instrument ID: HGZ										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: MGWA-5

Lab Sample ID: 180-111215-3

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 16:00	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 12:05	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:06	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:30	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 12:30	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-111215-5

Date Collected: 09/16/20 14:00

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 12:26	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:14	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:21	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:31	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 14:00	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-111215-6

Date Collected: 09/17/20 09:49

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 10:41	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:16	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:31	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:34	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/17/20 09:49	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-2

Lab Sample ID: 180-111215-7

Date Collected: 09/16/20 15:27

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 11:23	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:19	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:34	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:35	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 15:27	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 13:49	EPS	TAL PIT
Instrument ID: INTEGRION										

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

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	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:21	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:37	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:36	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/17/20 11:46	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-7

Lab Sample ID: 180-111215-9

Date Collected: 09/17/20 10:06

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 16:15	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:24	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:39	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:37	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/17/20 10:06	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-111215-10

Date Collected: 09/17/20 10:45

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 14:52	EPS	TAL PIT
Instrument ID: INTEGRION										
Total/NA	Analysis	EPA 300.0 R2.1		5			331737	09/30/20 15:13	EPS	TAL PIT
Instrument ID: INTEGRION										

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: MGWC-8

Lab Sample ID: 180-111215-10

Date Collected: 09/17/20 10:45

Matrix: Water

Date Received: 09/19/20 11:00

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	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:26	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331870	09/30/20 15:41	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:29	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:38	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/17/20 10:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-12

Lab Sample ID: 180-111215-11

Date Collected: 09/16/20 15:28

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 12:47	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:39	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:03	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:39	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			330618	09/16/20 15:28	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-111215-12

Date Collected: 09/16/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 16:36	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:52	RSK	TAL PIT
Instrument ID: NEMO										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-111215-12

Date Collected: 09/16/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

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	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:13	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:40	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-111215-13

Date Collected: 09/17/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 15:34	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:54	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:16	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:41	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: AP-FB-01-09-16-20

Lab Sample ID: 180-111215-14

Date Collected: 09/16/20 15:15

Matrix: Water

Date Received: 09/19/20 11:00

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			331737	09/30/20 16:57	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 16:57	RSK	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333989	10/17/20 13:18	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:42	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-111215-1

Client Sample ID: AP-FB-02-09-16-20
Date Collected: 09/16/20 16:00
Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-15
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			331737	09/30/20 17:18	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 17:04	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:43	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-01-09-16-20
Date Collected: 09/16/20 14:20
Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-16
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			331737	09/30/20 17:39	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 17:07	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:46	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-02-09-17-20
Date Collected: 09/17/20 10:50
Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-17
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			331737	09/30/20 18:00	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	331872	09/30/20 15:43	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			333779	10/16/20 17:10	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	332282	10/05/20 08:14	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			332446	10/06/20 10:47	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	330785	09/22/20 10:30	AVS	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

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

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-111215-1

Analyst References:

Lab: TAL PIT

Batch Type: Prep

MM1 = Mary Beth Miller

TJO = Tyler Oliver

Batch Type: Analysis

AVS = Abbey Smith

EPS = Evan Scheuer

FDS = Sampler Field

KEM = Kimberly Mahoney

RSK = Robert Kurtz

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Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWA-10

Lab Sample ID: 180-111215-1

Date Collected: 09/16/20 11:36

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		1.0	0.32	mg/L			09/30/20 08:57	1
Fluoride	0.042	J	0.10	0.026	mg/L			09/30/20 08:57	1
Sulfate	0.69	J	1.0	0.38	mg/L			09/30/20 08:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00098	J	0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 15:48	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 15:48	1
Barium	0.025		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 15:48	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 15:48	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:41	10/16/20 15:48	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 15:48	1
Calcium	6.8		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 15:48	1
Chromium	0.0039		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 15:48	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 15:48	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 15:48	1
Lithium	0.0079		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 15:48	1
Molybdenum	0.0022	J	0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 15:48	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 15:48	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		10/05/20 08:14	10/06/20 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.37				SU			09/16/20 11:36	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWA-11

Lab Sample ID: 180-111215-2

Date Collected: 09/16/20 13:47

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.32	mg/L			09/30/20 09:17	1
Fluoride	0.18		0.10	0.026	mg/L			09/30/20 09:17	1
Sulfate	3.0		1.0	0.38	mg/L			09/30/20 09:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0011	J	0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:01	1
Arsenic	0.00069	J	0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:01	1
Barium	0.078		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:01	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:01	1
Boron	0.045	J	0.080	0.039	mg/L		09/30/20 15:41	10/16/20 16:01	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:01	1
Calcium	30		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:01	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:01	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:01	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:01	1
Lithium	0.014		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:01	1
Molybdenum	0.0019	J	0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:01	1
Thallium	0.00041	J	0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:01	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		10/05/20 08:14	10/06/20 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.89				SU			09/16/20 13:47	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWA-5

Lab Sample ID: 180-111215-3

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.32	mg/L			09/30/20 09:38	1
Fluoride	0.080	J	0.10	0.026	mg/L			09/30/20 09:38	1
Sulfate	3.2		1.0	0.38	mg/L			09/30/20 09:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:03	1
Arsenic	0.00035	J	0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:03	1
Barium	0.037		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:03	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:03	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:41	10/16/20 16:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:03	1
Calcium	28		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:03	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:03	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:03	1
Lithium	0.0094		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:03	1
Molybdenum	0.00079	J	0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:03	1
Thallium	0.00018	J	0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:03	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		10/05/20 08:14	10/06/20 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.38				SU			09/16/20 16:00	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.32	mg/L			09/30/20 12:05	1
Fluoride	0.076	J	0.10	0.026	mg/L			09/30/20 12:05	1
Sulfate	2.7		1.0	0.38	mg/L			09/30/20 12:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:06	1
Arsenic	0.0089		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:06	1
Barium	0.028		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:06	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:06	1
Boron	0.041	J	0.080	0.039	mg/L		09/30/20 15:41	10/16/20 16:06	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:06	1
Calcium	100		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:06	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:06	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:06	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:06	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:06	1
Thallium	0.00021	J	0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:06	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		10/05/20 08:14	10/06/20 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.98				SU			09/16/20 12:30	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWA-6A

Lab Sample ID: 180-111215-5

Date Collected: 09/16/20 14:00

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.32	mg/L			09/30/20 12:26	1
Fluoride	0.078	J	0.10	0.026	mg/L			09/30/20 12:26	1
Sulfate	1.0		1.0	0.38	mg/L			09/30/20 12:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:14	1
Arsenic	0.011		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:14	1
Barium	0.034		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:14	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:14	1
Boron	0.040	J	0.080	0.039	mg/L		09/30/20 15:41	10/17/20 13:21	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:14	1
Calcium	93		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:14	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:14	1
Cobalt	0.00038	J	0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:14	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:14	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:14	1
Molybdenum	0.0014	J	0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:14	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:14	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		10/05/20 08:14	10/06/20 10:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	320		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.89				SU			09/16/20 14:00	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWC-1

Lab Sample ID: 180-111215-6

Date Collected: 09/17/20 09:49

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.32	mg/L			09/30/20 10:41	1
Fluoride	0.15		0.10	0.026	mg/L			09/30/20 10:41	1
Sulfate	150		1.0	0.38	mg/L			09/30/20 10:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:16	1
Arsenic	0.0020		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:16	1
Barium	0.11		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:16	1
Boron	1.8		0.080	0.039	mg/L		09/30/20 15:41	10/17/20 13:31	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:16	1
Calcium	110		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:16	1
Cobalt	0.00020	J	0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:16	1
Lithium	0.0086		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:16	1
Molybdenum	0.0012	J	0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:16	1
Thallium	0.00016	J	0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:16	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		10/05/20 08:14	10/06/20 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	460		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.95				SU			09/17/20 09:49	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWC-2

Lab Sample ID: 180-111215-7

Date Collected: 09/16/20 15:27

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			09/30/20 11:23	1
Fluoride	0.076	J	0.10	0.026	mg/L			09/30/20 11:23	1
Sulfate	160		1.0	0.38	mg/L			09/30/20 11:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:19	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:19	1
Barium	0.048		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:19	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:19	1
Boron	2.1		0.080	0.039	mg/L		09/30/20 15:41	10/17/20 13:34	1
Cadmium	0.00053	J	0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:19	1
Calcium	110		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:19	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:19	1
Cobalt	0.0020	J	0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:19	1
Lithium	0.0055		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:19	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:19	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:19	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		10/05/20 08:14	10/06/20 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.16				SU			09/16/20 15:27	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.32	mg/L			09/30/20 13:49	1
Fluoride	0.083	J	0.10	0.026	mg/L			09/30/20 13:49	1
Sulfate	120		1.0	0.38	mg/L			09/30/20 13:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:21	1
Arsenic	0.0015		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:21	1
Barium	0.16		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:21	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:21	1
Boron	1.2		0.080	0.039	mg/L		09/30/20 15:41	10/17/20 13:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:21	1
Calcium	110		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:21	1
Cobalt	0.00053	J	0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:21	1
Lithium	0.012		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:21	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:21	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		10/05/20 08:14	10/06/20 10:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.68				SU			09/17/20 11:46	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWC-7

Lab Sample ID: 180-111215-9

Date Collected: 09/17/20 10:06

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.6		1.0	0.32	mg/L			09/30/20 16:15	1
Fluoride	0.25		0.10	0.026	mg/L			09/30/20 16:15	1
Sulfate	160		1.0	0.38	mg/L			09/30/20 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:24	1
Arsenic	0.00045	J	0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:24	1
Barium	0.0091	J	0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:24	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:24	1
Boron	1.4		0.080	0.039	mg/L		09/30/20 15:41	10/17/20 13:39	1
Cadmium	0.00023	J	0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:24	1
Calcium	48		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:24	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:24	1
Cobalt	0.0098		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:24	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:24	1
Lithium	0.11		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:24	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:24	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:24	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		10/05/20 08:14	10/06/20 10:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	320		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.39				SU			09/17/20 10:06	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWC-8

Lab Sample ID: 180-111215-10

Date Collected: 09/17/20 10:45

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.32	mg/L			09/30/20 14:52	1
Fluoride	0.11		0.10	0.026	mg/L			09/30/20 14:52	1
Sulfate	380		5.0	1.9	mg/L			09/30/20 15:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 16:26	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 16:26	1
Barium	0.028		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 16:26	1
Beryllium	0.0019	J	0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 16:26	1
Boron	4.4		0.080	0.039	mg/L		09/30/20 15:41	10/17/20 13:29	1
Cadmium	0.00072	J	0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 16:26	1
Calcium	100		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 16:26	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 16:26	1
Cobalt	0.024		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 16:26	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 16:26	1
Lithium	0.039		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 16:26	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 16:26	1
Thallium	0.00031	J	0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 16:26	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00014	J	0.00020	0.00013	mg/L		10/05/20 08:14	10/06/20 10:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.22				SU			09/17/20 10:45	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: MGWC-12

Lab Sample ID: 180-111215-11

Date Collected: 09/16/20 15:28

Matrix: Water

Date Received: 09/19/20 11:00

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	0.32	mg/L			09/30/20 12:47	1
Fluoride	0.26		0.10	0.026	mg/L			09/30/20 12:47	1
Sulfate	4.4		1.0	0.38	mg/L			09/30/20 12:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 16:39	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 16:39	1
Barium	0.10		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 16:39	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 16:39	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:43	10/17/20 13:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 16:39	1
Calcium	25		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 16:39	1
Chromium	0.029		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 16:39	1
Cobalt	0.0015	J	0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 16:39	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 16:39	1
Lithium	0.025		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 16:39	1
Molybdenum	0.0024	J	0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 16:39	1
Thallium	0.00027	J	0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 16:39	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		10/05/20 08:14	10/06/20 10:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		10	10	mg/L			09/22/20 10:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	11.03				SU			09/16/20 15:28	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-111215-12

Date Collected: 09/16/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.32	mg/L			09/30/20 16:36	1
Fluoride	0.078	J	0.10	0.026	mg/L			09/30/20 16:36	1
Sulfate	1.0		1.0	0.38	mg/L			09/30/20 16:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 16:52	1
Arsenic	0.012		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 16:52	1
Barium	0.035		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 16:52	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 16:52	1
Boron	0.049	J	0.080	0.039	mg/L		09/30/20 15:43	10/17/20 13:13	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 16:52	1
Calcium	96		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 16:52	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 16:52	1
Cobalt	0.00042	J	0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 16:52	1
Lead	0.00014	J	0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 16:52	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 16:52	1
Molybdenum	0.0013	J	0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 16:52	1
Thallium	0.00046	J	0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 16:52	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		10/05/20 08:14	10/06/20 10:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		10	10	mg/L			09/22/20 10:30	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-111215-13

Date Collected: 09/17/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.32	mg/L			09/30/20 15:34	1
Fluoride	0.15		0.10	0.026	mg/L			09/30/20 15:34	1
Sulfate	150		1.0	0.38	mg/L			09/30/20 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 16:54	1
Arsenic	0.0022		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 16:54	1
Barium	0.11		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 16:54	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 16:54	1
Boron	1.7		0.080	0.039	mg/L		09/30/20 15:43	10/17/20 13:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 16:54	1
Calcium	110		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 16:54	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 16:54	1
Cobalt	0.00022	J	0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 16:54	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 16:54	1
Lithium	0.0097		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 16:54	1
Molybdenum	0.0011	J	0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 16:54	1
Thallium	0.00032	J	0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 16:54	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		10/05/20 08:14	10/06/20 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	460		10	10	mg/L			09/22/20 10:30	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: AP-FB-01-09-16-20

Lab Sample ID: 180-111215-14

Date Collected: 09/16/20 15:15

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			09/30/20 16:57	1
Fluoride	<0.026		0.10	0.026	mg/L			09/30/20 16:57	1
Sulfate	<0.38		1.0	0.38	mg/L			09/30/20 16:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 16:57	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 16:57	1
Barium	<0.0016		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 16:57	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 16:57	1
Boron	0.041	J	0.080	0.039	mg/L		09/30/20 15:43	10/17/20 13:18	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 16:57	1
Calcium	<0.13		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 16:57	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 16:57	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 16:57	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 16:57	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 16:57	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 16:57	1
Thallium	0.00017	J	0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 16:57	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		10/05/20 08:14	10/06/20 10:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/22/20 10:30	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: AP-FB-02-09-16-20

Lab Sample ID: 180-111215-15

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			09/30/20 17:18	1
Fluoride	<0.026		0.10	0.026	mg/L			09/30/20 17:18	1
Sulfate	<0.38		1.0	0.38	mg/L			09/30/20 17:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 17:04	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 17:04	1
Barium	<0.0016		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 17:04	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 17:04	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:43	10/16/20 17:04	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 17:04	1
Calcium	<0.13		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 17:04	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 17:04	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 17:04	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 17:04	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 17:04	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 17:04	1
Thallium	0.00015	J	0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 17:04	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		10/05/20 08:14	10/06/20 10:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/22/20 10:30	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: AP-FERB-01-09-16-20

Lab Sample ID: 180-111215-16

Date Collected: 09/16/20 14:20

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			09/30/20 17:39	1
Fluoride	<0.026		0.10	0.026	mg/L			09/30/20 17:39	1
Sulfate	<0.38		1.0	0.38	mg/L			09/30/20 17:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 17:07	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 17:07	1
Barium	<0.0016		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 17:07	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 17:07	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:43	10/16/20 17:07	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 17:07	1
Calcium	<0.13		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 17:07	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 17:07	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 17:07	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 17:07	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 17:07	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 17:07	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 17:07	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		10/05/20 08:14	10/06/20 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/22/20 10:30	1

Client Sample Results

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

Job ID: 180-111215-1

Client Sample ID: AP-FERB-02-09-17-20

Lab Sample ID: 180-111215-17

Date Collected: 09/17/20 10:50

Matrix: Water

Date Received: 09/19/20 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			09/30/20 18:00	1
Fluoride	<0.026		0.10	0.026	mg/L			09/30/20 18:00	1
Sulfate	<0.38		1.0	0.38	mg/L			09/30/20 18:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 17:10	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 17:10	1
Barium	<0.0016		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 17:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 17:10	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:43	10/16/20 17:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 17:10	1
Calcium	0.14	J	0.50	0.13	mg/L		09/30/20 15:43	10/16/20 17:10	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 17:10	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 17:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 17:10	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 17:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 17:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 17:10	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		10/05/20 08:14	10/06/20 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/22/20 10:30	1

QC Sample Results

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

Job ID: 180-111215-1

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

Lab Sample ID: MB 180-331737/6
Matrix: Water
Analysis Batch: 331737

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			09/30/20 05:08	1
Fluoride	<0.026		0.10	0.026	mg/L			09/30/20 05:08	1
Sulfate	<0.38		1.0	0.38	mg/L			09/30/20 05:08	1

Lab Sample ID: LCS 180-331737/5
Matrix: Water
Analysis Batch: 331737

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	49.8		mg/L		100	90 - 110
Fluoride	2.50	2.47		mg/L		99	90 - 110
Sulfate	50.0	48.0		mg/L		96	90 - 110

Lab Sample ID: 180-111215-11 MS
Matrix: Water
Analysis Batch: 331737

Client Sample ID: MGWC-12
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	54.2		mg/L		98	90 - 110
Fluoride	0.26		2.50	2.79		mg/L		101	90 - 110
Sulfate	4.4		50.0	53.4		mg/L		98	90 - 110

Lab Sample ID: 180-111215-11 MSD
Matrix: Water
Analysis Batch: 331737

Client Sample ID: MGWC-12
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	55.5		mg/L		101	90 - 110	2	20
Fluoride	0.26		2.50	2.87		mg/L		104	90 - 110	3	20
Sulfate	4.4		50.0	54.9		mg/L		101	90 - 110	3	20

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

Lab Sample ID: MB 180-331870/1-A
Matrix: Water
Analysis Batch: 333779

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 331870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:41	10/16/20 15:12	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:41	10/16/20 15:12	1
Barium	<0.0016		0.010	0.0016	mg/L		09/30/20 15:41	10/16/20 15:12	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:41	10/16/20 15:12	1
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:41	10/16/20 15:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:41	10/16/20 15:12	1
Calcium	<0.13		0.50	0.13	mg/L		09/30/20 15:41	10/16/20 15:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:41	10/16/20 15:12	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:41	10/16/20 15:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:41	10/16/20 15:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:41	10/16/20 15:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:41	10/16/20 15:12	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-111215-1

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

Lab Sample ID: MB 180-331870/1-A
Matrix: Water
Analysis Batch: 333779

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 331870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:41	10/16/20 15:12	1

Lab Sample ID: LCS 180-331870/2-A
Matrix: Water
Analysis Batch: 333779

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 331870

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	1.01		mg/L		101	80 - 120
Beryllium	0.500	0.524		mg/L		105	80 - 120
Boron	1.25	1.08		mg/L		86	80 - 120
Cadmium	0.500	0.501		mg/L		100	80 - 120
Calcium	25.0	27.0		mg/L		108	80 - 120
Chromium	0.500	0.484		mg/L		97	80 - 120
Cobalt	0.500	0.458		mg/L		92	80 - 120
Lead	0.500	0.479		mg/L		96	80 - 120
Lithium	0.500	0.473		mg/L		95	80 - 120
Molybdenum	0.500	0.486		mg/L		97	80 - 120
Thallium	1.00	0.954		mg/L		95	80 - 120

Lab Sample ID: 180-111215-1 MS
Matrix: Water
Analysis Batch: 333779

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 331870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00098	J	0.250	0.270		mg/L		108	75 - 125
Arsenic	<0.00031		1.00	0.954		mg/L		95	75 - 125
Barium	0.025		1.00	1.04		mg/L		102	75 - 125
Beryllium	<0.00018		0.500	0.503		mg/L		101	75 - 125
Boron	<0.039		1.25	1.14		mg/L		92	75 - 125
Cadmium	<0.00022		0.500	0.509		mg/L		102	75 - 125
Calcium	6.8		25.0	34.2		mg/L		110	75 - 125
Chromium	0.0039		0.500	0.493		mg/L		98	75 - 125
Cobalt	<0.00013		0.500	0.471		mg/L		94	75 - 125
Lead	<0.00013		0.500	0.487		mg/L		97	75 - 125
Lithium	0.0079		0.500	0.467		mg/L		92	75 - 125
Molybdenum	0.0022	J	0.500	0.499		mg/L		99	75 - 125
Thallium	<0.00015		1.00	0.977		mg/L		98	75 - 125

Lab Sample ID: 180-111215-1 MSD
Matrix: Water
Analysis Batch: 333779

Client Sample ID: MGWA-10
Prep Type: Total Recoverable
Prep Batch: 331870

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00098	J	0.250	0.268		mg/L		107	75 - 125	1	20
Arsenic	<0.00031		1.00	0.937		mg/L		94	75 - 125	2	20
Barium	0.025		1.00	1.01		mg/L		98	75 - 125	3	20
Beryllium	<0.00018		0.500	0.537		mg/L		107	75 - 125	7	20

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-111215-1

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

Lab Sample ID: 180-111215-1 MSD

Matrix: Water

Analysis Batch: 333779

Client Sample ID: MGWA-10

Prep Type: Total Recoverable

Prep Batch: 331870

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Boron	<0.039		1.25	1.18		mg/L		95	75 - 125	3	20
Cadmium	<0.00022		0.500	0.512		mg/L		102	75 - 125	1	20
Calcium	6.8		25.0	34.2		mg/L		109	75 - 125	0	20
Chromium	0.0039		0.500	0.489		mg/L		97	75 - 125	1	20
Cobalt	<0.00013		0.500	0.458		mg/L		92	75 - 125	3	20
Lead	<0.00013		0.500	0.497		mg/L		99	75 - 125	2	20
Lithium	0.0079		0.500	0.496		mg/L		98	75 - 125	6	20
Molybdenum	0.0022	J	0.500	0.486		mg/L		97	75 - 125	3	20
Thallium	<0.00015		1.00	0.990		mg/L		99	75 - 125	1	20

Lab Sample ID: MB 180-331872/1-A

Matrix: Water

Analysis Batch: 333779

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 331872

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00038		0.0020	0.00038	mg/L		09/30/20 15:43	10/16/20 16:34	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/30/20 15:43	10/16/20 16:34	1
Barium	<0.0016		0.010	0.0016	mg/L		09/30/20 15:43	10/16/20 16:34	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/30/20 15:43	10/16/20 16:34	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/30/20 15:43	10/16/20 16:34	1
Calcium	<0.13		0.50	0.13	mg/L		09/30/20 15:43	10/16/20 16:34	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/30/20 15:43	10/16/20 16:34	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/30/20 15:43	10/16/20 16:34	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/30/20 15:43	10/16/20 16:34	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/30/20 15:43	10/16/20 16:34	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/30/20 15:43	10/16/20 16:34	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/30/20 15:43	10/16/20 16:34	1

Lab Sample ID: MB 180-331872/1-A

Matrix: Water

Analysis Batch: 333989

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 331872

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.039		0.080	0.039	mg/L		09/30/20 15:43	10/17/20 12:58	1

Lab Sample ID: LCS 180-331872/2-A

Matrix: Water

Analysis Batch: 333779

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 331872

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Antimony	0.250	0.264		mg/L		106	80 - 120
Arsenic	1.00	0.968		mg/L		97	80 - 120
Barium	1.00	1.01		mg/L		101	80 - 120
Beryllium	0.500	0.517		mg/L		103	80 - 120
Cadmium	0.500	0.511		mg/L		102	80 - 120
Calcium	25.0	27.7		mg/L		111	80 - 120
Chromium	0.500	0.497		mg/L		99	80 - 120
Cobalt	0.500	0.473		mg/L		95	80 - 120
Lead	0.500	0.497		mg/L		99	80 - 120

Eurofins TestAmerica, Pittsburgh

QC Sample Results

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

Job ID: 180-111215-1

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

Lab Sample ID: LCS 180-331872/2-A
Matrix: Water
Analysis Batch: 333779

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.456		mg/L		91	80 - 120
Molybdenum	0.500	0.501		mg/L		100	80 - 120
Thallium	1.00	0.995		mg/L		99	80 - 120

Lab Sample ID: LCS 180-331872/2-A
Matrix: Water
Analysis Batch: 333989

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.07		mg/L		86	80 - 120

Lab Sample ID: 180-111215-11 MS
Matrix: Water
Analysis Batch: 333779

Client Sample ID: MGWC-12
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.250	0.269		mg/L		107	75 - 125
Arsenic	<0.00031		1.00	0.950		mg/L		95	75 - 125
Barium	0.10		1.00	1.09		mg/L		98	75 - 125
Beryllium	<0.00018		0.500	0.522		mg/L		104	75 - 125
Cadmium	<0.00022		0.500	0.511		mg/L		102	75 - 125
Calcium	25		25.0	52.6		mg/L		112	75 - 125
Chromium	0.029		0.500	0.521		mg/L		99	75 - 125
Cobalt	0.0015	J	0.500	0.470		mg/L		94	75 - 125
Lead	<0.00013		0.500	0.489		mg/L		98	75 - 125
Lithium	0.025		0.500	0.496		mg/L		94	75 - 125
Molybdenum	0.0024	J	0.500	0.501		mg/L		100	75 - 125
Thallium	0.00027	J	1.00	0.981		mg/L		98	75 - 125

Lab Sample ID: 180-111215-11 MS
Matrix: Water
Analysis Batch: 333989

Client Sample ID: MGWC-12
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.039		1.25	1.14		mg/L		91	75 - 125

Lab Sample ID: 180-111215-11 MSD
Matrix: Water
Analysis Batch: 333779

Client Sample ID: MGWC-12
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.274		mg/L		110	75 - 125	2	20
Arsenic	<0.00031		1.00	0.953		mg/L		95	75 - 125	0	20
Barium	0.10		1.00	1.11		mg/L		100	75 - 125	2	20
Beryllium	<0.00018		0.500	0.521		mg/L		104	75 - 125	0	20
Cadmium	<0.00022		0.500	0.523		mg/L		105	75 - 125	2	20
Calcium	25		25.0	52.5		mg/L		112	75 - 125	0	20
Chromium	0.029		0.500	0.528		mg/L		100	75 - 125	1	20
Cobalt	0.0015	J	0.500	0.472		mg/L		94	75 - 125	0	20
Lead	<0.00013		0.500	0.494		mg/L		99	75 - 125	1	20

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QC Sample Results

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

Job ID: 180-111215-1

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

Lab Sample ID: 180-111215-11 MSD
Matrix: Water
Analysis Batch: 333779

Client Sample ID: MGWC-12
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.025		0.500	0.487		mg/L		93	75 - 125	2	20
Molybdenum	0.0024	J	0.500	0.505		mg/L		101	75 - 125	1	20
Thallium	0.00027	J	1.00	0.983		mg/L		98	75 - 125	0	20

Lab Sample ID: 180-111215-11 MSD
Matrix: Water
Analysis Batch: 333989

Client Sample ID: MGWC-12
Prep Type: Total Recoverable
Prep Batch: 331872

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.039		1.25	1.12		mg/L		89	75 - 125	2	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-332282/1-A
Matrix: Water
Analysis Batch: 332446

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 332282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		10/05/20 08:14	10/06/20 10:23	1

Lab Sample ID: LCS 180-332282/2-A
Matrix: Water
Analysis Batch: 332446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 332282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00268		mg/L		107	80 - 120

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

Lab Sample ID: MB 180-330785/2
Matrix: Water
Analysis Batch: 330785

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			09/22/20 10:30	1

Lab Sample ID: LCS 180-330785/1
Matrix: Water
Analysis Batch: 330785

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	632	666		mg/L		105	80 - 120

Lab Sample ID: 180-111215-4 DU
Matrix: Water
Analysis Batch: 330785

Client Sample ID: MGWA-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	300		322		mg/L		8	10

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QC Sample Results

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

Job ID: 180-111215-1

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

Lab Sample ID: 180-111215-5 DU
Matrix: Water
Analysis Batch: 330785

Client Sample ID: MGWA-6A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	320		293		mg/L		9	10

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

QC Association Summary

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

Job ID: 180-111215-1

HPLC/IC

Analysis Batch: 331737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-111215-2	MGWA-11	Total/NA	Water	EPA 300.0 R2.1	
180-111215-3	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-111215-4	MGWA-6	Total/NA	Water	EPA 300.0 R2.1	
180-111215-5	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-111215-6	MGWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-111215-7	MGWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-111215-8	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
180-111215-9	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-111215-10	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-111215-10	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-111215-11	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-111215-12	AP-DUP-01	Total/NA	Water	EPA 300.0 R2.1	
180-111215-13	AP-DUP-02	Total/NA	Water	EPA 300.0 R2.1	
180-111215-14	AP-FB-01-09-16-20	Total/NA	Water	EPA 300.0 R2.1	
180-111215-15	AP-FB-02-09-16-20	Total/NA	Water	EPA 300.0 R2.1	
180-111215-16	AP-FERB-01-09-16-20	Total/NA	Water	EPA 300.0 R2.1	
180-111215-17	AP-FERB-02-09-17-20	Total/NA	Water	EPA 300.0 R2.1	
MB 180-331737/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-331737/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111215-11 MS	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-111215-11 MSD	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 331870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total Recoverable	Water	3005A	
180-111215-2	MGWA-11	Total Recoverable	Water	3005A	
180-111215-3	MGWA-5	Total Recoverable	Water	3005A	
180-111215-4	MGWA-6	Total Recoverable	Water	3005A	
180-111215-5	MGWA-6A	Total Recoverable	Water	3005A	
180-111215-6	MGWC-1	Total Recoverable	Water	3005A	
180-111215-7	MGWC-2	Total Recoverable	Water	3005A	
180-111215-8	MGWC-3	Total Recoverable	Water	3005A	
180-111215-9	MGWC-7	Total Recoverable	Water	3005A	
180-111215-10	MGWC-8	Total Recoverable	Water	3005A	
MB 180-331870/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-331870/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-111215-1 MS	MGWA-10	Total Recoverable	Water	3005A	
180-111215-1 MSD	MGWA-10	Total Recoverable	Water	3005A	

Prep Batch: 331872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-11	MGWC-12	Total Recoverable	Water	3005A	
180-111215-12	AP-DUP-01	Total Recoverable	Water	3005A	
180-111215-13	AP-DUP-02	Total Recoverable	Water	3005A	
180-111215-14	AP-FB-01-09-16-20	Total Recoverable	Water	3005A	
180-111215-15	AP-FB-02-09-16-20	Total Recoverable	Water	3005A	
180-111215-16	AP-FERB-01-09-16-20	Total Recoverable	Water	3005A	
180-111215-17	AP-FERB-02-09-17-20	Total Recoverable	Water	3005A	

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QC Association Summary

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

Job ID: 180-111215-1

Metals (Continued)

Prep Batch: 331872 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-331872/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-331872/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-111215-11 MS	MGWC-12	Total Recoverable	Water	3005A	
180-111215-11 MSD	MGWC-12	Total Recoverable	Water	3005A	

Prep Batch: 332282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	7470A	
180-111215-2	MGWA-11	Total/NA	Water	7470A	
180-111215-3	MGWA-5	Total/NA	Water	7470A	
180-111215-4	MGWA-6	Total/NA	Water	7470A	
180-111215-5	MGWA-6A	Total/NA	Water	7470A	
180-111215-6	MGWC-1	Total/NA	Water	7470A	
180-111215-7	MGWC-2	Total/NA	Water	7470A	
180-111215-8	MGWC-3	Total/NA	Water	7470A	
180-111215-9	MGWC-7	Total/NA	Water	7470A	
180-111215-10	MGWC-8	Total/NA	Water	7470A	
180-111215-11	MGWC-12	Total/NA	Water	7470A	
180-111215-12	AP-DUP-01	Total/NA	Water	7470A	
180-111215-13	AP-DUP-02	Total/NA	Water	7470A	
180-111215-14	AP-FB-01-09-16-20	Total/NA	Water	7470A	
180-111215-15	AP-FB-02-09-16-20	Total/NA	Water	7470A	
180-111215-16	AP-FERB-01-09-16-20	Total/NA	Water	7470A	
180-111215-17	AP-FERB-02-09-17-20	Total/NA	Water	7470A	
MB 180-332282/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-332282/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 332446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	EPA 7470A	332282
180-111215-2	MGWA-11	Total/NA	Water	EPA 7470A	332282
180-111215-3	MGWA-5	Total/NA	Water	EPA 7470A	332282
180-111215-4	MGWA-6	Total/NA	Water	EPA 7470A	332282
180-111215-5	MGWA-6A	Total/NA	Water	EPA 7470A	332282
180-111215-6	MGWC-1	Total/NA	Water	EPA 7470A	332282
180-111215-7	MGWC-2	Total/NA	Water	EPA 7470A	332282
180-111215-8	MGWC-3	Total/NA	Water	EPA 7470A	332282
180-111215-9	MGWC-7	Total/NA	Water	EPA 7470A	332282
180-111215-10	MGWC-8	Total/NA	Water	EPA 7470A	332282
180-111215-11	MGWC-12	Total/NA	Water	EPA 7470A	332282
180-111215-12	AP-DUP-01	Total/NA	Water	EPA 7470A	332282
180-111215-13	AP-DUP-02	Total/NA	Water	EPA 7470A	332282
180-111215-14	AP-FB-01-09-16-20	Total/NA	Water	EPA 7470A	332282
180-111215-15	AP-FB-02-09-16-20	Total/NA	Water	EPA 7470A	332282
180-111215-16	AP-FERB-01-09-16-20	Total/NA	Water	EPA 7470A	332282
180-111215-17	AP-FERB-02-09-17-20	Total/NA	Water	EPA 7470A	332282
MB 180-332282/1-A	Method Blank	Total/NA	Water	EPA 7470A	332282
LCS 180-332282/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	332282

QC Association Summary

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

Job ID: 180-111215-1

Metals

Analysis Batch: 333779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total Recoverable	Water	EPA 6020B	331870
180-111215-2	MGWA-11	Total Recoverable	Water	EPA 6020B	331870
180-111215-3	MGWA-5	Total Recoverable	Water	EPA 6020B	331870
180-111215-4	MGWA-6	Total Recoverable	Water	EPA 6020B	331870
180-111215-5	MGWA-6A	Total Recoverable	Water	EPA 6020B	331870
180-111215-6	MGWC-1	Total Recoverable	Water	EPA 6020B	331870
180-111215-7	MGWC-2	Total Recoverable	Water	EPA 6020B	331870
180-111215-8	MGWC-3	Total Recoverable	Water	EPA 6020B	331870
180-111215-9	MGWC-7	Total Recoverable	Water	EPA 6020B	331870
180-111215-10	MGWC-8	Total Recoverable	Water	EPA 6020B	331870
180-111215-11	MGWC-12	Total Recoverable	Water	EPA 6020B	331872
180-111215-12	AP-DUP-01	Total Recoverable	Water	EPA 6020B	331872
180-111215-13	AP-DUP-02	Total Recoverable	Water	EPA 6020B	331872
180-111215-14	AP-FB-01-09-16-20	Total Recoverable	Water	EPA 6020B	331872
180-111215-15	AP-FB-02-09-16-20	Total Recoverable	Water	EPA 6020B	331872
180-111215-16	AP-FERB-01-09-16-20	Total Recoverable	Water	EPA 6020B	331872
180-111215-17	AP-FERB-02-09-17-20	Total Recoverable	Water	EPA 6020B	331872
MB 180-331870/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	331870
MB 180-331872/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	331872
LCS 180-331870/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	331870
LCS 180-331872/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	331872
180-111215-1 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	331870
180-111215-1 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	331870
180-111215-11 MS	MGWC-12	Total Recoverable	Water	EPA 6020B	331872
180-111215-11 MSD	MGWC-12	Total Recoverable	Water	EPA 6020B	331872

Analysis Batch: 333989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-5	MGWA-6A	Total Recoverable	Water	EPA 6020B	331870
180-111215-6	MGWC-1	Total Recoverable	Water	EPA 6020B	331870
180-111215-7	MGWC-2	Total Recoverable	Water	EPA 6020B	331870
180-111215-8	MGWC-3	Total Recoverable	Water	EPA 6020B	331870
180-111215-9	MGWC-7	Total Recoverable	Water	EPA 6020B	331870
180-111215-10	MGWC-8	Total Recoverable	Water	EPA 6020B	331870
180-111215-11	MGWC-12	Total Recoverable	Water	EPA 6020B	331872
180-111215-12	AP-DUP-01	Total Recoverable	Water	EPA 6020B	331872
180-111215-13	AP-DUP-02	Total Recoverable	Water	EPA 6020B	331872
180-111215-14	AP-FB-01-09-16-20	Total Recoverable	Water	EPA 6020B	331872
MB 180-331872/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	331872
LCS 180-331872/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	331872
180-111215-11 MS	MGWC-12	Total Recoverable	Water	EPA 6020B	331872
180-111215-11 MSD	MGWC-12	Total Recoverable	Water	EPA 6020B	331872

General Chemistry

Analysis Batch: 330785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	SM 2540C	
180-111215-2	MGWA-11	Total/NA	Water	SM 2540C	
180-111215-3	MGWA-5	Total/NA	Water	SM 2540C	
180-111215-4	MGWA-6	Total/NA	Water	SM 2540C	

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QC Association Summary

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

Job ID: 180-111215-1

General Chemistry (Continued)

Analysis Batch: 330785 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-5	MGWA-6A	Total/NA	Water	SM 2540C	
180-111215-6	MGWC-1	Total/NA	Water	SM 2540C	
180-111215-7	MGWC-2	Total/NA	Water	SM 2540C	
180-111215-8	MGWC-3	Total/NA	Water	SM 2540C	
180-111215-9	MGWC-7	Total/NA	Water	SM 2540C	
180-111215-10	MGWC-8	Total/NA	Water	SM 2540C	
180-111215-11	MGWC-12	Total/NA	Water	SM 2540C	
180-111215-12	AP-DUP-01	Total/NA	Water	SM 2540C	
180-111215-13	AP-DUP-02	Total/NA	Water	SM 2540C	
180-111215-14	AP-FB-01-09-16-20	Total/NA	Water	SM 2540C	
180-111215-15	AP-FB-02-09-16-20	Total/NA	Water	SM 2540C	
180-111215-16	AP-FERB-01-09-16-20	Total/NA	Water	SM 2540C	
180-111215-17	AP-FERB-02-09-17-20	Total/NA	Water	SM 2540C	
MB 180-330785/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-330785/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-111215-4 DU	MGWA-6	Total/NA	Water	SM 2540C	
180-111215-5 DU	MGWA-6A	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 330618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	Field Sampling	
180-111215-2	MGWA-11	Total/NA	Water	Field Sampling	
180-111215-3	MGWA-5	Total/NA	Water	Field Sampling	
180-111215-4	MGWA-6	Total/NA	Water	Field Sampling	
180-111215-5	MGWA-6A	Total/NA	Water	Field Sampling	
180-111215-6	MGWC-1	Total/NA	Water	Field Sampling	
180-111215-7	MGWC-2	Total/NA	Water	Field Sampling	
180-111215-8	MGWC-3	Total/NA	Water	Field Sampling	
180-111215-9	MGWC-7	Total/NA	Water	Field Sampling	
180-111215-10	MGWC-8	Total/NA	Water	Field Sampling	
180-111215-11	MGWC-12	Total/NA	Water	Field Sampling	

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Chain of Custody Record

Client Information Client Contact: SCS Contacts Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts Project Name: Plant Michtosh Ash Pond 1 Site: Georgia		Sampler: R. Williams / T. Gable / A. Gable / H. Keiser Lab PM: Brown, Shali Phone: 770-594-5998 E-Mail: shali.brown@eurofinset.com		Carrier Tracking No(s): Job #: 1 of 2 Preservation Codes: M - Hexane A - HCL N - None		GOC No: Page: 1 of 2 Job #:									
Due Date Requested: TAT Requested (days): PO #: SCS10382606 WO #:		Analysis Requested (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl) (EPA 300.0 & SM 2540C) Cl, F, SO ₄ , TDS App. III Metals (B, Ca) Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Total Number of Containers: L - EDA Other:		Special Instructions/Note: Full App 3 plus detected App 4									
Sample Identification MG-WA-10 MG-WA-11 MG-WA-15 MG-WA-6 MG-WA-6A MG-WC-1 MG-WC-2 MG-WC-3 MG-WC-7 MG-WC-8 MG-WC-12		Sample Date 9-16-20 9-16-20 9-16-20 9-16-20 9-16-20 9-17-20 9-16-20 9-17-20 9-17-20 9-17-20 9-16-20		Sample Time 1136 1347 1600 1230 1400 0949 1527 1146 1006 1045 1528		Matrix (Water, Spill, Overstool, BT-Tissue, A&P)		Preservation Code: W W W W W W W W W W W		Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl) (SM-846 9315/9320) Radium 226 & 228 (EPA 300.0 & SM 2540C) Cl, F, SO ₄ , TDS App. III Metals (B, Ca) Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Total Number of Containers: L - EDA Other:		Special Instructions/Note: Full App 3 plus detected App 4 pH= 6.37 pH= 7.89 pH= 7.38 pH= 6.98 pH= 6.89 pH= 6.95 pH= 7.16 pH= 6.68 pH= 6.39 pH= 5.22 Extra Red pH= 11.03	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:									
Empty Kit Relinquished by:		Date:		Method of Shipment:		Relinquished by: <i>T. Gable</i> Date/Time: 9-18-20 / 1011 Company: A-C		Relinquished by: <i>T. Gable</i> Date/Time: 9-18-20 / 1011 Company:		Relinquished by: <i>T. Gable</i> Date/Time: 9-19-20 / 11:00 Company:		Relinquished by: <i>T. Gable</i> Date/Time: 9-19-20 / 11:00 Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Ver: 01/16/2019									



Eurofins TestAmerica, Pittsburgh

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

244- ATLANTA Eurofins

Chain of Custody Record

Environment Testing
 America

Client Information				Lab PM: Brown, Shali				Carrier Tracking No(s):				COC No:			
Client Contact: R. W. Koc/T. Goble/A. Schmitt/Kec				E-Mail: shali.brown@eurofinset.com				Page: 2 of 2				Job #:			
SCS Contacts: 770-594-5998				Due Date Requested:				Analysis Requested				Preservation Codes:			
Company: GA Power				TAT Requested (days):				Perform MS/MSD (Yes or No)				M - Hexane			
Address: 241 Ralph McGill Blvd SE				PO #: SCS10382606				Field Filtered Sample (Yes or No)				N - None			
City: Atlanta				WO #:				App. III Metals (B,Ca)				O - AsNaO2			
State, Zip: GA, 30308				Project #: 18019956				Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				P - Na2O4S			
Phone: 404-506-7116(Tel)				SSOW#:				Radium 226 & 228 (SW-846 9315/9320)				Q - Na2SO3			
Email: SCS Contacts				Sample Date				Detected App. V Metals (P, F, SO ₄ , TDS)				R - Na2SO3			
Project Name: Plant McIntosh Ash Pond 1				Sample Time				App. III Metals (B,Ca)				S - H2SO4			
Site: Georgia				Sample Type (C=comp, G=grab)				Perform MS/MSD (Yes or No)				T - TSP Dodecahydrate			
Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)				Sample Date				Field Filtered Sample (Yes or No)				U - Acetone			
Sample Identification				Sample Time				App. III Metals (B,Ca)				V - MCAA			
AP-DUP-01				9-16-20				Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				W - pH 4-5			
AP-DUP-02				9-17-20				Radium 226 & 228 (SW-846 9315/9320)				Z - other (specify)			
AP-FB-01-09-16-20				9-16-20				Detected App. V Metals (P, F, SO ₄ , TDS)				Other:			
AP-FB-02-09-16-20				9-16-20				App. III Metals (B,Ca)				Total Number of Containers			
AP-FERB-01-09-16-20				9-16-20				Perform MS/MSD (Yes or No)				Special Instructions/Note: Full			
AP-FERB-02-09-17-20				9-17-20				Field Filtered Sample (Yes or No)				App 3 plus detected App 4			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
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								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
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								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
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								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
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								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
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								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
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								App. III Metals (B,Ca)				pH=			
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								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B,Ca)				pH=			
								Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Li,Hg,Mn,Tl)				pH=			
								Radium 226 & 228 (SW-846 9315/9320)				pH=			
								Detected App. V Metals (P, F, SO ₄ , TDS)				pH=			
								App. III Metals (B,Ca)				pH=			
								Perform MS/MSD (Yes or No)				pH=			
								Field Filtered Sample (Yes or No)				pH=			
								App. III Metals (B							

eurofins

Environment Testing
TestAmerica

IYA (678) 966-9991
OR
EST AMERICA
SUITE C-10
NORCROSS, GA 30093
PAES US

SHIP DAT
ACTING:
CAD: 855

BILL RECIPIENT

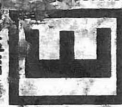
180-111215 Waybill

PLE RECIEVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: ACC



FedEx
Express



4 of 6
S# 1516 9325 0773
Met# 1516 9325 0740
SATURDAY 12:00P
PRIORITY OVERNIGHT
15238
PA-US PIT

XO AGCA

Uncorrected temp

Thermometer ID

Initials



10/27/2020



Enviro
Test

ORIGIN ID: LTYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTAMERICA
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

SHIP
ACTING
CAD:

BILL RE

TO SAMPLE RECIEVING
EUROFINS TESTAMERICA PITTSBI
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: ACC



3 of 6
S# 1516 9325 0762
Met# 1516 9325 0740
SATURDAY 12:00P
PRIORITY OVERNIGHT
15238
PA-US PIT

XO AGCA

Uncorrected temp

Thermometer ID

Initials

1.6 °C
14



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



Environment Testing
TestAmerica



Environment Testing
TestAmerica

ORIGIN ID: L IYA (678) 966-9991
GEORGE TAYLOR AMERICA
EUROFINS TEST AMERICA
8500 MCDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

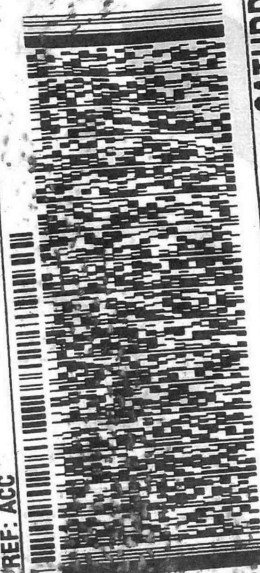
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ACTWT: 61.45 LB
CAD: 859116/CAFE3406

BILL RECIPIENT

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSB
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: ACC

FedEx
Express



5 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT

MPS# 1516 9325 0784
0263
Mstr# 1516 9325 0740

15238
PIT

PA-US

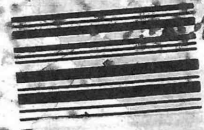
XO AGCA

PI-WI-SK-001 effective 7/26/13

Uncorrected temp
Thermometer ID

21 °C
14

CF 0 Initials B



ORIGIN ID: L IYA (678) 966-9991
GEORGE TAYLOR AMERICA
EUROFINS TEST AMERICA
8500 MCDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

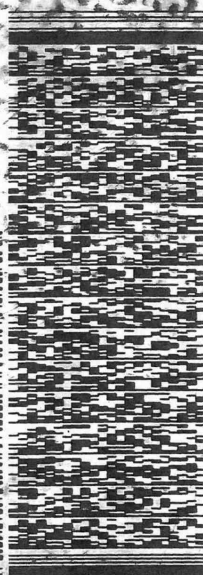
SHIP DATE: 18SEP20
ACTWT: 61.45 LB
CAD: 859116/CAFE3406

BILL RECIPIENT

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

(412) 963-7068
REF: ACC

FedEx
Express



6 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT

MPS# 1516 9325 0795
0263
Mstr# 1516 9325 0740

0201

XO AGCA

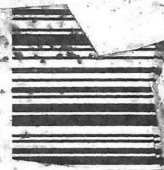
152

PA-US

Uncorrected temp
Thermometer ID

24 °C
14

CF 0 Initials B



Part # 159469-434-RIT2 EXP 09/20



Environment Testing
TestAmerica

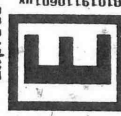
ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTAMERICA
6500 McDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 18SEP20
ACTWT: 61.45 LB
CAD: 859116/CAFE3406

BILL RECIPIENT

TO
SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: ACC

FedEx
Express



2 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT

MPS# 1516 9325 0751
0263

Mestr# 1516 9325 0740

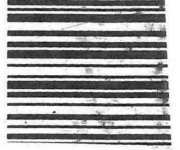
0201

XO AGCA

15238
PA-US
RIT

Uncorrected temp 1.9 °C
Thermometer ID M

CF O Initials B



ins

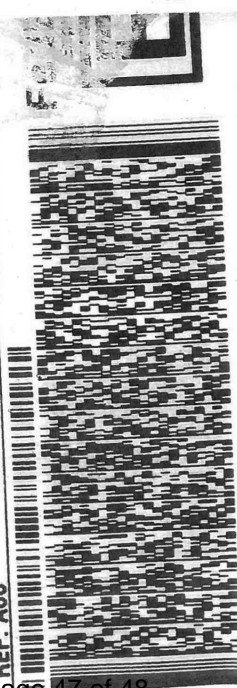
18SEP20
402
412 963 7068
ca

SHIP DATE: 18SEP20
ACTWT: 29
CAD: 859116/

BILL RECIPIENT

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTAMERICA
6500 McDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

TO
SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: ACC



1 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 1516 9325 0740
0201

MASTER

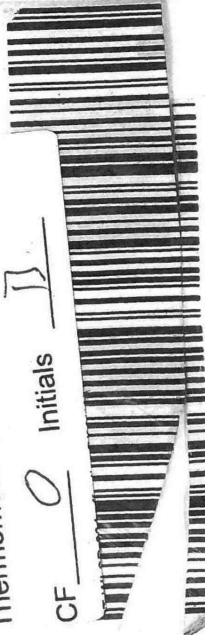
152

PA-US

2.1 °C

Uncorrected temp M
Thermometer ID B

CF O Initials B



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111215-1

Login Number: 111215

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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	



ANALYTICAL REPORT

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

Laboratory Job ID: 180-111215-2

Client Project/Site: CCR - 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:
10/27/2020 8:13:36 AM

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	5
Certification Summary	6
Sample Summary	7
Method Summary	8
Lab Chronicle	9
Client Sample Results	15
QC Sample Results	32
QC Association Summary	34
Chain of Custody	35
Receipt Checklists	43

Case Narrative

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

Job ID: 180-111215-2

Job ID: 180-111215-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-111215-2

Comments

No additional comments.

Receipt

The samples were received on 9/19/2020 11:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.6° C, 1.9° C, 2.1° C, 2.1° C, 2.4° C and 2.4° C.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-483642:

Any 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-10 (180-111215-1), MGWA-11 (180-111215-2), MGWA-5 (180-111215-3), MGWA-6 (180-111215-4), MGWA-6A (180-111215-5), MGWC-1 (180-111215-6), MGWC-2 (180-111215-7), MGWC-3 (180-111215-8), MGWC-7 (180-111215-9), MGWC-8 (180-111215-10), MGWC-12 (180-111215-11), AP-DUP-01 (180-111215-12), AP-DUP-02 (180-111215-13), AP-FB-01-09-16-20 (180-111215-14), AP-FB-02-09-16-20 (180-111215-15), AP-FERB-01-09-16-20 (180-111215-16), AP-FERB-02-09-17-20 (180-111215-17), (LCS 160-483642/1-A), (LCSD 160-483642/2-A) and (MB 160-483642/21-A)

Methods 904.0, 9320: Radium-228 prep batch 160-483649:

Any 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-10 (180-111215-1), MGWA-11 (180-111215-2), MGWA-5 (180-111215-3), MGWA-6 (180-111215-4), MGWA-6A (180-111215-5), MGWC-1 (180-111215-6), MGWC-2 (180-111215-7), MGWC-3 (180-111215-8), MGWC-7 (180-111215-9), MGWC-8 (180-111215-10), MGWC-12 (180-111215-11), AP-DUP-01 (180-111215-12), AP-DUP-02 (180-111215-13), AP-FB-01-09-16-20 (180-111215-14), AP-FB-02-09-16-20 (180-111215-15), AP-FERB-01-09-16-20 (180-111215-16), AP-FERB-02-09-17-20 (180-111215-17), (LCS 160-483649/1-A), (LCSD 160-483649/2-A) and (MB 160-483649/21-A)

Method PrecSep_0: Radium 228 Prep Batch 160-483649:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-111215-1), MGWA-11 (180-111215-2), MGWA-5 (180-111215-3), MGWA-6 (180-111215-4), MGWA-6A (180-111215-5), MGWC-1 (180-111215-6), MGWC-2 (180-111215-7), MGWC-3 (180-111215-8), MGWC-7 (180-111215-9), MGWC-8 (180-111215-10), MGWC-12 (180-111215-11), AP-DUP-01 (180-111215-12), AP-DUP-02 (180-111215-13), AP-FB-01-09-16-20 (180-111215-14), AP-FB-02-09-16-20 (180-111215-15), AP-FERB-01-09-16-20 (180-111215-16) and AP-FERB-02-09-17-20 (180-111215-17). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-483649:

Sample AP-DUP-01 (180-111215-12) was weighed at about 1000 mL (standard aliquot), but the exact weight was not recorded properly on the balance. Lab practice is to weigh the aliquot within 1% variation of this value as can be seen in the standard deviation of the initial amount for this batch. The initial amount for this sample was corrected to 1000 mL. The lab does not believe this excursion adversely affects the data as the 1% variation is extremely minimal in the final result calculation.

Method PrecSep-21: Radium 226 Prep Batch 160-483642:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-111215-1), MGWA-11 (180-111215-2), MGWA-5 (180-111215-3), MGWA-6 (180-111215-4), MGWA-6A (180-111215-5), MGWC-1 (180-111215-6), MGWC-2 (180-111215-7), MGWC-3 (180-111215-8), MGWC-7 (180-111215-9), MGWC-8 (180-111215-10), MGWC-12 (180-111215-11), AP-DUP-01 (180-111215-12), AP-DUP-02 (180-111215-13), AP-FB-01-09-16-20 (180-111215-14), AP-FB-02-09-16-20 (180-111215-15), AP-FERB-01-09-16-20 (180-111215-16) and AP-FERB-02-09-17-20 (180-111215-17). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-483642:

Sample AP-DUP-01 (180-111215-12) was weighed at about 1000 mL (standard aliquot), but the exact weight was not recorded properly on

Case Narrative

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

Job ID: 180-111215-2

Job ID: 180-111215-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

the balance. Lab practice is to weigh the aliquot within 1% variation of this value as can be seen in the standard deviation of the initial amount for this batch. The initial amount for this sample was corrected to 1000 mL. The lab does not believe this excursion adversely affects the data as the 1% variation is extremely minimal in the final result calculation.

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-111215-2

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: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-111215-2

Laboratory: Eurofins TestAmerica, 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	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	12-01-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

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

Job ID: 180-111215-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111215-1	MGWA-10	Water	09/16/20 11:36	09/19/20 11:00	
180-111215-2	MGWA-11	Water	09/16/20 13:47	09/19/20 11:00	
180-111215-3	MGWA-5	Water	09/16/20 16:00	09/19/20 11:00	
180-111215-4	MGWA-6	Water	09/16/20 12:30	09/19/20 11:00	
180-111215-5	MGWA-6A	Water	09/16/20 14:00	09/19/20 11:00	
180-111215-6	MGWC-1	Water	09/17/20 09:49	09/19/20 11:00	
180-111215-7	MGWC-2	Water	09/16/20 15:27	09/19/20 11:00	
180-111215-8	MGWC-3	Water	09/17/20 11:46	09/19/20 11:00	
180-111215-9	MGWC-7	Water	09/17/20 10:06	09/19/20 11:00	
180-111215-10	MGWC-8	Water	09/17/20 10:45	09/19/20 11:00	
180-111215-11	MGWC-12	Water	09/16/20 15:28	09/19/20 11:00	
180-111215-12	AP-DUP-01	Water	09/16/20 00:00	09/19/20 11:00	
180-111215-13	AP-DUP-02	Water	09/17/20 00:00	09/19/20 11:00	
180-111215-14	AP-FB-01-09-16-20	Water	09/16/20 15:15	09/19/20 11:00	
180-111215-15	AP-FB-02-09-16-20	Water	09/16/20 16:00	09/19/20 11:00	
180-111215-16	AP-FERB-01-09-16-20	Water	09/16/20 14:20	09/19/20 11:00	
180-111215-17	AP-FERB-02-09-17-20	Water	09/17/20 10:50	09/19/20 11:00	

Method Summary

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

Job ID: 180-111215-2

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 TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Lab Chronicle

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

Job ID: 180-111215-2

Client Sample ID: MGWA-10

Lab Sample ID: 180-111215-1

Date Collected: 09/16/20 11:36

Matrix: Water

Date Received: 09/19/20 11:00

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			999.37 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.37 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:32	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-11

Lab Sample ID: 180-111215-2

Date Collected: 09/16/20 13:47

Matrix: Water

Date Received: 09/19/20 11:00

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			999.57 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:53	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.57 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:32	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-5

Lab Sample ID: 180-111215-3

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

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			999.64 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:53	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.64 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:32	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

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			1000.13 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:53	SCB	TAL SL
Instrument ID: GFPCRED										

Lab Chronicle

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

Job ID: 180-111215-2

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

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			1000.13 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:32	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWA-6A

Lab Sample ID: 180-111215-5

Date Collected: 09/16/20 14:00

Matrix: Water

Date Received: 09/19/20 11:00

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			1000.15 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:53	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.15 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:32	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-1

Lab Sample ID: 180-111215-6

Date Collected: 09/17/20 09:49

Matrix: Water

Date Received: 09/19/20 11:00

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			1000.94 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.94 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:32	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-2

Lab Sample ID: 180-111215-7

Date Collected: 09/16/20 15:27

Matrix: Water

Date Received: 09/19/20 11:00

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			1000.26 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.26 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:33	SCB	TAL SL
Instrument ID: GFPCPURPLE										

Lab Chronicle

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

Job ID: 180-111215-2

Client Sample ID: MGWC-2

Lab Sample ID: 180-111215-7

Date Collected: 09/16/20 15:27

Matrix: Water

Date Received: 09/19/20 11:00

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			486562	10/22/20 10:35	GRW	TAL SL

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

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			999.06 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.06 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:33	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-7

Lab Sample ID: 180-111215-9

Date Collected: 09/17/20 10:06

Matrix: Water

Date Received: 09/19/20 11:00

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			999.77 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.77 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:33	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-8

Lab Sample ID: 180-111215-10

Date Collected: 09/17/20 10:45

Matrix: Water

Date Received: 09/19/20 11:00

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			999.59 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.59 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485331	10/12/20 12:33	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

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

Job ID: 180-111215-2

Client Sample ID: MGWC-12

Date Collected: 09/16/20 15:28

Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-11

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			1000.48 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:55	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.48 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:34	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-01

Date Collected: 09/16/20 00:00

Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-12

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			1000 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:55	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:34	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-DUP-02

Date Collected: 09/17/20 00:00

Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-13

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			999.98 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:55	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.98 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:34	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FB-01-09-16-20

Date Collected: 09/16/20 15:15

Date Received: 09/19/20 11:00

Lab Sample ID: 180-111215-14

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			999.18 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 17:55	SCB	TAL SL
Instrument ID: GFPCRED										

Lab Chronicle

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

Job ID: 180-111215-2

Client Sample ID: AP-FB-01-09-16-20

Lab Sample ID: 180-111215-14

Date Collected: 09/16/20 15:15

Matrix: Water

Date Received: 09/19/20 11:00

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			999.18 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:34	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FB-02-09-16-20

Lab Sample ID: 180-111215-15

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

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			999.43 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 19:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.43 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:34	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-01-09-16-20

Lab Sample ID: 180-111215-16

Date Collected: 09/16/20 14:20

Matrix: Water

Date Received: 09/19/20 11:00

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			999.75 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 19:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.75 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:34	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			486562	10/22/20 10:35	GRW	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: AP-FERB-02-09-17-20

Lab Sample ID: 180-111215-17

Date Collected: 09/17/20 10:50

Matrix: Water

Date Received: 09/19/20 11:00

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			1000.31 mL	1.0 g	483642	09/25/20 09:53	AVB	TAL SL
Total/NA	Analysis	9315		1			486231	10/19/20 19:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.31 mL	1.0 g	483649	09/25/20 10:23	AVB	TAL SL
Total/NA	Analysis	9320		1			485332	10/12/20 12:35	SCB	TAL SL
Instrument ID: GFPCBLUE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

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

Job ID: 180-111215-2

Client Sample ID: AP-FERB-02-09-17-20

Lab Sample ID: 180-111215-17

Date Collected: 09/17/20 10:50

Matrix: Water

Date Received: 09/19/20 11:00

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			486562	10/22/20 10:35	GRW	TAL SL

Laboratory References:

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

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

Batch Type: Analysis

GRW = George Witt

SCB = Sarah Bernsen



Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWA-10

Lab Sample ID: 180-111215-1

Date Collected: 09/16/20 11:36

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.490		0.131	0.139	1.00	0.0985	pCi/L	09/25/20 09:53	10/19/20 17:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		40 - 110					09/25/20 09:53	10/19/20 17:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.480		0.269	0.273	1.00	0.403	pCi/L	09/25/20 10:23	10/12/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		40 - 110					09/25/20 10:23	10/12/20 12:32	1
Y Carrier	78.5		40 - 110					09/25/20 10:23	10/12/20 12:32	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	0.969		0.299	0.306	5.00	0.403	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWA-11

Lab Sample ID: 180-111215-2

Date Collected: 09/16/20 13:47

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.281		0.122	0.124	1.00	0.145	pCi/L	09/25/20 09:53	10/19/20 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		40 - 110					09/25/20 09:53	10/19/20 17:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.303	0.304	1.00	0.492	pCi/L	09/25/20 10:23	10/12/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		40 - 110					09/25/20 10:23	10/12/20 12:32	1
Y Carrier	78.1		40 - 110					09/25/20 10:23	10/12/20 12:32	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	0.583		0.327	0.328	5.00	0.492	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWA-5

Lab Sample ID: 180-111215-3

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.239		0.0978	0.100	1.00	0.101	pCi/L	09/25/20 09:53	10/19/20 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		40 - 110					09/25/20 09:53	10/19/20 17:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.582		0.297	0.302	1.00	0.439	pCi/L	09/25/20 10:23	10/12/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		40 - 110					09/25/20 10:23	10/12/20 12:32	1
Y Carrier	76.6		40 - 110					09/25/20 10:23	10/12/20 12:32	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	0.821		0.313	0.318	5.00	0.439	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	31.0		0.991	2.96	1.00	0.138	pCi/L	09/25/20 09:53	10/19/20 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					09/25/20 09:53	10/19/20 17:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.321	0.323	1.00	0.509	pCi/L	09/25/20 10:23	10/12/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					09/25/20 10:23	10/12/20 12:32	1
Y Carrier	73.3		40 - 110					09/25/20 10:23	10/12/20 12:32	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	31.4		1.04	2.98	5.00	0.509	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWA-6A

Lab Sample ID: 180-111215-5

Date Collected: 09/16/20 14:00

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.755		0.172	0.185	1.00	0.117	pCi/L	09/25/20 09:53	10/19/20 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.8		40 - 110					09/25/20 09:53	10/19/20 17:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.371	U	0.311	0.313	1.00	0.495	pCi/L	09/25/20 10:23	10/12/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.8		40 - 110					09/25/20 10:23	10/12/20 12:32	1
Y Carrier	74.0		40 - 110					09/25/20 10:23	10/12/20 12:32	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	1.13		0.355	0.364	5.00	0.495	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWC-1

Lab Sample ID: 180-111215-6

Date Collected: 09/17/20 09:49

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.85		0.286	0.384	1.00	0.0844	pCi/L	09/25/20 09:53	10/19/20 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					09/25/20 09:53	10/19/20 17:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.557		0.290	0.294	1.00	0.431	pCi/L	09/25/20 10:23	10/12/20 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					09/25/20 10:23	10/12/20 12:32	1
Y Carrier	75.5		40 - 110					09/25/20 10:23	10/12/20 12:32	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	3.41		0.407	0.484	5.00	0.431	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWC-2

Lab Sample ID: 180-111215-7

Date Collected: 09/16/20 15:27

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.508		0.137	0.145	1.00	0.101	pCi/L	09/25/20 09:53	10/19/20 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.7		40 - 110					09/25/20 09:53	10/19/20 17:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.599		0.342	0.347	1.00	0.520	pCi/L	09/25/20 10:23	10/12/20 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.7		40 - 110					09/25/20 10:23	10/12/20 12:33	1
Y Carrier	76.6		40 - 110					09/25/20 10:23	10/12/20 12:33	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	1.11		0.368	0.376	5.00	0.520	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.72		0.336	0.474	1.00	0.0981	pCi/L	09/25/20 09:53	10/19/20 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		40 - 110					09/25/20 09:53	10/19/20 17:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.512		0.269	0.273	1.00	0.392	pCi/L	09/25/20 10:23	10/12/20 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		40 - 110					09/25/20 10:23	10/12/20 12:33	1
Y Carrier	72.9		40 - 110					09/25/20 10:23	10/12/20 12:33	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	4.23		0.430	0.547	5.00	0.392	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWC-7

Lab Sample ID: 180-111215-9

Date Collected: 09/17/20 10:06

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.11		0.209	0.232	1.00	0.126	pCi/L	09/25/20 09:53	10/19/20 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		40 - 110					09/25/20 09:53	10/19/20 17:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.171	U	0.313	0.314	1.00	0.531	pCi/L	09/25/20 10:23	10/12/20 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		40 - 110					09/25/20 10:23	10/12/20 12:33	1
Y Carrier	80.7		40 - 110					09/25/20 10:23	10/12/20 12:33	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	1.28		0.376	0.390	5.00	0.531	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWC-8

Lab Sample ID: 180-111215-10

Date Collected: 09/17/20 10:45

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.879		0.171	0.188	1.00	0.101	pCi/L	09/25/20 09:53	10/19/20 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					09/25/20 09:53	10/19/20 17:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.679		0.310	0.316	1.00	0.453	pCi/L	09/25/20 10:23	10/12/20 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					09/25/20 10:23	10/12/20 12:33	1
Y Carrier	80.4		40 - 110					09/25/20 10:23	10/12/20 12:33	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	1.56		0.354	0.368	5.00	0.453	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: MGWC-12

Lab Sample ID: 180-111215-11

Date Collected: 09/16/20 15:28

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.707		0.148	0.161	1.00	0.0911	pCi/L	09/25/20 09:53	10/19/20 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					09/25/20 09:53	10/19/20 17:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.381	U	0.257	0.260	1.00	0.399	pCi/L	09/25/20 10:23	10/12/20 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					09/25/20 10:23	10/12/20 12:34	1
Y Carrier	77.8		40 - 110					09/25/20 10:23	10/12/20 12:34	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	1.09		0.297	0.306	5.00	0.399	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: AP-DUP-01

Lab Sample ID: 180-111215-12

Date Collected: 09/16/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.478		0.130	0.136	1.00	0.106	pCi/L	09/25/20 09:53	10/19/20 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					09/25/20 09:53	10/19/20 17:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.496		0.259	0.263	1.00	0.382	pCi/L	09/25/20 10:23	10/12/20 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					09/25/20 10:23	10/12/20 12:34	1
Y Carrier	79.3		40 - 110					09/25/20 10:23	10/12/20 12:34	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	0.974		0.290	0.296	5.00	0.382	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: AP-DUP-02

Lab Sample ID: 180-111215-13

Date Collected: 09/17/20 00:00

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	22.7		0.828	2.20	1.00	0.110	pCi/L	09/25/20 09:53	10/19/20 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.8		40 - 110					09/25/20 09:53	10/19/20 17:55	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	0.259	0.261	1.00	0.418	pCi/L	09/25/20 10:23	10/12/20 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.8		40 - 110					09/25/20 10:23	10/12/20 12:34	1
Y Carrier	80.4		40 - 110					09/25/20 10:23	10/12/20 12:34	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	22.9		0.868	2.22	5.00	0.418	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: AP-FB-01-09-16-20

Lab Sample ID: 180-111215-14

Date Collected: 09/16/20 15:15

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.20		0.295	0.355	1.00	0.134	pCi/L	09/25/20 09:53	10/19/20 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.7		40 - 110					09/25/20 09:53	10/19/20 17:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.423	U	0.313	0.316	1.00	0.491	pCi/L	09/25/20 10:23	10/12/20 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.7		40 - 110					09/25/20 10:23	10/12/20 12:34	1
Y Carrier	82.2		40 - 110					09/25/20 10:23	10/12/20 12:34	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		0.430	0.475	5.00	0.491	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: AP-FB-02-09-16-20

Lab Sample ID: 180-111215-15

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	17.6		0.796	1.77	1.00	0.107	pCi/L	09/25/20 09:53	10/19/20 19:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					09/25/20 09:53	10/19/20 19:52	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	0.294	0.295	1.00	0.480	pCi/L	09/25/20 10:23	10/12/20 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					09/25/20 10:23	10/12/20 12:34	1
Y Carrier	84.9		40 - 110					09/25/20 10:23	10/12/20 12:34	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	17.9		0.849	1.79	5.00	0.480	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: AP-FERB-01-09-16-20

Lab Sample ID: 180-111215-16

Date Collected: 09/16/20 14:20

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0813	0.0827	1.00	0.0915	pCi/L	09/25/20 09:53	10/19/20 19:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					09/25/20 09:53	10/19/20 19:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.213	U	0.232	0.233	1.00	0.381	pCi/L	09/25/20 10:23	10/12/20 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					09/25/20 10:23	10/12/20 12:34	1
Y Carrier	80.0		40 - 110					09/25/20 10:23	10/12/20 12:34	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	0.379	U	0.246	0.247	5.00	0.381	pCi/L		10/22/20 10:35	1

Client Sample Results

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

Job ID: 180-111215-2

Client Sample ID: AP-FERB-02-09-17-20

Lab Sample ID: 180-111215-17

Date Collected: 09/17/20 10:50

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0672	U	0.0768	0.0770	1.00	0.125	pCi/L	09/25/20 09:53	10/19/20 19:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					09/25/20 09:53	10/19/20 19:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.250	U	0.269	0.270	1.00	0.441	pCi/L	09/25/20 10:23	10/12/20 12:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					09/25/20 10:23	10/12/20 12:35	1
Y Carrier	78.9		40 - 110					09/25/20 10:23	10/12/20 12:35	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	0.317	U	0.280	0.281	5.00	0.441	pCi/L		10/22/20 10:35	1

QC Sample Results

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

Job ID: 180-111215-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-483642/21-A
Matrix: Water
Analysis Batch: 486231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483642

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2632		0.0985	0.101	1.00	0.0962	pCi/L	09/25/20 09:53	10/19/20 19:52	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	95.4		40 - 110		09/25/20 09:53	10/19/20 19:52	1			

Lab Sample ID: LCS 160-483642/1-A
Matrix: Water
Analysis Batch: 486231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483642

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	14.09		1.43	1.00	0.114	pCi/L	124	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	92.7		40 - 110						

Lab Sample ID: LCSD 160-483642/2-A
Matrix: Water
Analysis Batch: 486231

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 483642

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	11.78		1.22	1.00	0.105	pCi/L	104	75 - 125	0.87	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	98.8		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-483649/21-A
Matrix: Water
Analysis Batch: 485332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483649

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.4666		0.254	0.257	1.00	0.378	pCi/L	09/25/20 10:23	10/12/20 12:35	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	95.4		40 - 110		09/25/20 10:23	10/12/20 12:35	1			
Y Carrier	80.7		40 - 110		09/25/20 10:23	10/12/20 12:35	1			

QC Sample Results

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

Job ID: 180-111215-2

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

Lab Sample ID: LCS 160-483649/1-A
Matrix: Water
Analysis Batch: 485331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483649

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	7.74	7.033		0.895	1.00	0.433	pCi/L	91	75	125
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	92.7		40 - 110							
Y Carrier	78.9		40 - 110							

Lab Sample ID: LCSD 160-483649/2-A
Matrix: Water
Analysis Batch: 485331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 483649

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									75	125	0.02	1
Radium-228	7.74	7.001		0.888	1.00	0.420	pCi/L	90	75	125	0.02	1
LCSD LCSD												
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	98.8		40 - 110									
Y Carrier	73.6		40 - 110									

QC Association Summary

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

Job ID: 180-111215-2

Rad

Prep Batch: 483642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	PrecSep-21	
180-111215-2	MGWA-11	Total/NA	Water	PrecSep-21	
180-111215-3	MGWA-5	Total/NA	Water	PrecSep-21	
180-111215-4	MGWA-6	Total/NA	Water	PrecSep-21	
180-111215-5	MGWA-6A	Total/NA	Water	PrecSep-21	
180-111215-6	MGWC-1	Total/NA	Water	PrecSep-21	
180-111215-7	MGWC-2	Total/NA	Water	PrecSep-21	
180-111215-8	MGWC-3	Total/NA	Water	PrecSep-21	
180-111215-9	MGWC-7	Total/NA	Water	PrecSep-21	
180-111215-10	MGWC-8	Total/NA	Water	PrecSep-21	
180-111215-11	MGWC-12	Total/NA	Water	PrecSep-21	
180-111215-12	AP-DUP-01	Total/NA	Water	PrecSep-21	
180-111215-13	AP-DUP-02	Total/NA	Water	PrecSep-21	
180-111215-14	AP-FB-01-09-16-20	Total/NA	Water	PrecSep-21	
180-111215-15	AP-FB-02-09-16-20	Total/NA	Water	PrecSep-21	
180-111215-16	AP-FERB-01-09-16-20	Total/NA	Water	PrecSep-21	
180-111215-17	AP-FERB-02-09-17-20	Total/NA	Water	PrecSep-21	
MB 160-483642/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-483642/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-483642/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 483649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-1	MGWA-10	Total/NA	Water	PrecSep_0	
180-111215-2	MGWA-11	Total/NA	Water	PrecSep_0	
180-111215-3	MGWA-5	Total/NA	Water	PrecSep_0	
180-111215-4	MGWA-6	Total/NA	Water	PrecSep_0	
180-111215-5	MGWA-6A	Total/NA	Water	PrecSep_0	
180-111215-6	MGWC-1	Total/NA	Water	PrecSep_0	
180-111215-7	MGWC-2	Total/NA	Water	PrecSep_0	
180-111215-8	MGWC-3	Total/NA	Water	PrecSep_0	
180-111215-9	MGWC-7	Total/NA	Water	PrecSep_0	
180-111215-10	MGWC-8	Total/NA	Water	PrecSep_0	
180-111215-11	MGWC-12	Total/NA	Water	PrecSep_0	
180-111215-12	AP-DUP-01	Total/NA	Water	PrecSep_0	
180-111215-13	AP-DUP-02	Total/NA	Water	PrecSep_0	
180-111215-14	AP-FB-01-09-16-20	Total/NA	Water	PrecSep_0	
180-111215-15	AP-FB-02-09-16-20	Total/NA	Water	PrecSep_0	
180-111215-16	AP-FERB-01-09-16-20	Total/NA	Water	PrecSep_0	
180-111215-17	AP-FERB-02-09-17-20	Total/NA	Water	PrecSep_0	
MB 160-483649/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-483649/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-483649/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

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Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

Client Information Client Contact: SCS Contacts Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts Project Name: Plant Michtosh Ash Pond 1 Site: Georgia		Sampler: R. Williams / T. Gable / A. Gable / H. Keiser Lab PM: Brown, Shali Phone: 770-594-5998 E-Mail: shall.brown@eurofinset.com		Carrier Tracking No(s): Job #: 1012 Preservation Codes: M - Hexane A - HCL N - None		Total Number of Containers: 3 L-EDA Other:		Special Instructions/Note: Full App 3 plus detected App 4			
Due Date Requested: TAT Requested (days): PO #: SCS10382606 WO #:		Analysis Requested		Barcode: 180-11215 Chain of Custody		Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl) (SW-846 9315/9320)		pH= 6.37 pH= 7.89 pH= 7.38 pH= 6.98 pH= 6.89 pH= 6.95 pH= 7.16 pH= 6.68 pH= 6.39 pH= 5.22 Extra Red pH= 11.03			
Sample Identification		Sample Date		Sample Time		Sample Type (G=grab) Preservation Code:		Matrix (Water, Spill, Overstain, BT-Tissue, AAFIP)			
MG-WA-10 MG-WA-11 MG-WA-15 MG-WA-6 MG-WA-6A MG-WC-1 MG-WC-2 MG-WC-3 MG-WC-7 MG-WC-8 MG-WC-12		9-16-20 9-16-20 9-16-20 9-16-20 9-16-20 9-17-20 9-16-20 9-17-20 9-17-20 9-17-20 9-16-20		1136 1347 1600 1230 1400 0949 1527 1146 1006 1045 1528		G G G G G G G G G G		W W W W W W W W W W		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) App. III Metals (B,Ca) Cl, F, SO ₄ , TDS (EPA 300.0 & SM 2540C) Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl) (SW-846 9315/9320)	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:		Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date: 9-18-20/1011 Company: ACU Relinquished by: _____ Date: 9-18-20/1011 Company: _____ Relinquished by: _____ Date: _____ Company: _____			
Custody Seals Intact: _____ Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks:		Method of Shipment:		Received by: _____ Date/Time: 9-8-20 Company: 1011 Received by: _____ Date/Time: 9-19-20 Company: Eurofins Received by: _____ Date/Time: 11:00 Company: _____		Ver: 01/16/2019			



Client Information				Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:		
Client Contact:				R. W. Krc/T. Goble/A. Schmitt/Kec		Brown, Shaili				2012		
SCS Contacts				770-594-5998		E-Mail: shaili.brown@eurofinset.com						
Company:				GA Power								
Address:				241 Ralph McGill Blvd SE								
City:				Atlanta								
State, Zip:				GA, 30308								
Phone:				404-506-7116(Tel)								
Email:				SCS10382606								
SCS Contacts				WO #:								
Project Name:				18019956								
Plant:				McIntosh Ash Pond 1								
Site:				Georgia								
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App. III Metals (B,Ca)	Cl, F, SO ₄ TDS (FPA 300.0 & SM 2540C)	Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Hg,Mo,Tl)	Radium 226 & 228 (SW-846 9315/9320)	Total Number of Containers	Special Instructions/Note: Full App 3 plus detected App 4
AP-DUP-01	9-16-20		G	W	N	N	✓	✓	✓	✓	3	pH=
AP-DUP-02	9-17-20		G	W	N	N	✓	✓	✓	✓	3	pH=
AP-FB-01-09-16-20	9-16-20	1515	G	W	N	N	✓	✓	✓	✓	3	pH=
AP-FB-02-09-16-20	9-16-20	1600	G	W	N	N	✓	✓	✓	✓	3	pH=
AP-FERB-01-09-16-20	9-16-20	1420	G	W	N	N	✓	✓	✓	✓	3	pH=
AP-FERB-02-09-17-20	9-17-20	1050	G	W	N	N	✓	✓	✓	✓	3	pH=
												pH=
												pH=
												pH=
												pH=
												pH=
												pH=
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input checked="" type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological												
Deliverable Requested: I, II, III, IV, Other (specify)												
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months												
Special Instructions/QC Requirements:												
Empty Kit Relinquished by:						Method of Shipment:						
Relinquished by: Taylor Goble Date/Time: 9-18-20 / 1011 Company: ACC						Received by: [Signature] Date/Time: 9-18-20 Company: 1011						
Relinquished by: [Signature] Date/Time: 9-18-20 / 1011 Company:						Received by: [Signature] Date/Time: 9-20 Company:						
Relinquished by: [Signature] Date/Time: 9-18-20 / 1011 Company:						Received by: [Signature] Date/Time: 1100 Company:						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No						Cooler: Temperature(s) °C and Other Remarks:						

eurofins

Environment Testing
TestAmerica

IYA (678) 966-9991
OR
EST AMERICA
OUGH DRIVE
GA 30093
ATES US

SHIP DAT
ACTING:
CAD: 855

BILL RECIPIENT

180-111215 Waybill

54RFE/1545/05A0

PLE RECIEVING
OFINS TESTAMERICA PITTSBURGH
ALPHA DR.
JC PARK
PITTSBURGH PA 15238

963-7068
F: ACC



4 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT
15238
PA-US PIT

S# 1516 9325 0773
Metr# 1516 9325 0740

0201

XO AGCA

WI-SK-001 effective 7/26/13

Uncorrected temp 24 °C
Thermometer ID 14

Initials JS



10/27/2020



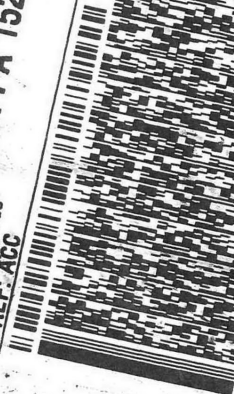
Enviro
Test

ORIGIN ID: IYA (678) 966-9991
GEORGE TAYLOR
6500 HAS TESTAMERICA
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

SHIP
ACTING
CAD:

BILL RE

TO SAMPLE RECIEVING
EUROFINS TESTAMERICA PITTSBI
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: ACC



3 of 6
MPS# 1516 9325 0762
Metr# 1516 9325 0740

0201

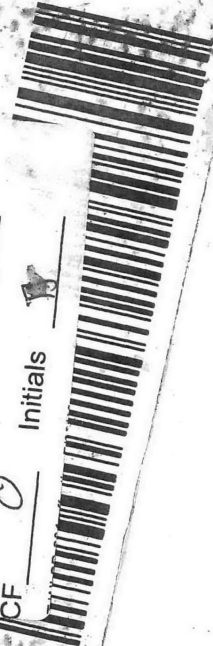
XO AGCA

WI-SK-001 effective 7/26/13

Uncorrected temp 16 °C
Thermometer ID 14

Initials JS

15238
PA-US PIT



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



Environment Testing
TestAmerica

SHIP DATE: 18SEP20
ACTWT: 61.45 LB
CAD: 859116/CAFE3406

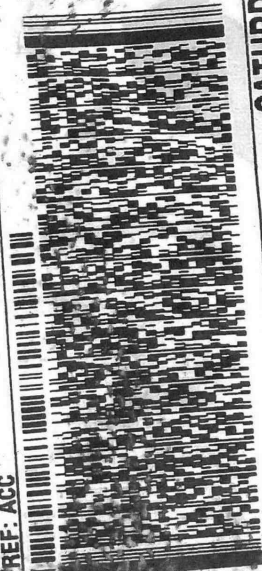
ORIGIN ID: LIVA (678) 966-9991
GEORGE TAYLOR
EUROFINS TEST AMERICA
8500 MCDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

BILL RECIPIENT

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSB
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: ACC

FedEx
Express



5 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT

MPS# 1516 9325 0784
0263
Mstr# 1516 9325 0740

15238
PIT

PA-US

XO AGCA

PI-WI-SK-001 effective 7/26/13

Uncorrected temp
Thermometer ID

21 / 14 °C

CF 0 Initials B



Environment Testing
TestAmerica

SHIP DATE: 18SEP20
ACTWT: 61.45 LB
CAD: 859116/CAFE3406

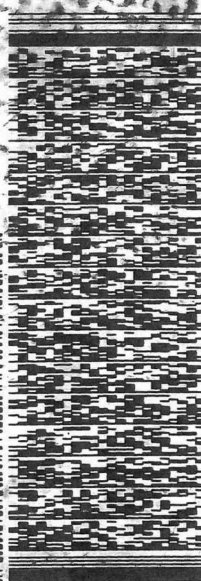
ORIGIN ID: LIVA (678) 966-9991
GEORGE TAYLOR
EUROFINS TEST AMERICA
8500 MCDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

BILL RECIPIENT

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

(412) 963-7068
REF: ACC

FedEx
Express



6 of 6
SATURDAY 12:00P
PRIORITY OVERNIGHT

MPS# 1516 9325 0795
0263
Mstr# 1516 9325 0740

0201

XO AGCA

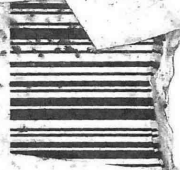
152

PA-US

Uncorrected temp
Thermometer ID

24 / 14 °C

CF 0 Initials B



Part # 159469-434-RIT2 EXP 09/20



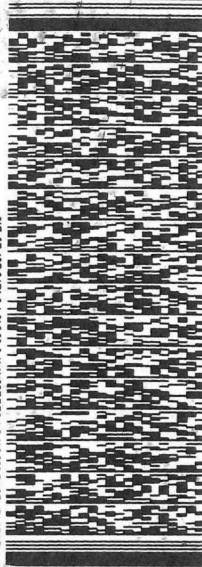
Environment Testing
TestAmerica

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTAMERICA
6500 McDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 18SEP20
ACTWT: 61.45 LB
CAD: 859116/CAFE3406

BILL RECIPIENT

TO
SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: ACC



2 of 6
MPS# 1516 9325 0751
0263
Mstr# 1516 9325 0740
SATURDAY 12:00P
PRIORITY OVERNIGHT
0201

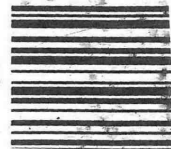
XO AGCA

15238
PA-US
RIT

Uncorrected temp 1.9 °C

Thermometer ID M

CF 0 Initials B



ins

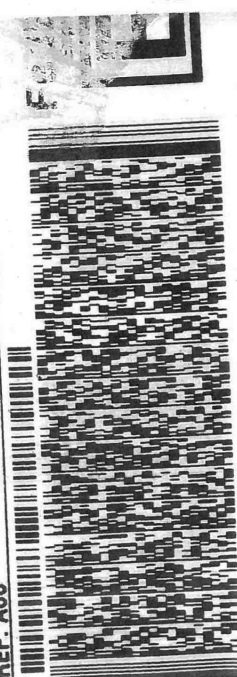
18SEP20
402
412 963 7068
ca

SHIP DATE: 18SEP20
ACTWT: 29
CAD: 859116

BILL RECIPIENT

ORIGIN ID: LIYA (678) 966-9991
GEORGE TAYLOR
EUROFINS TESTAMERICA
6500 McDONOUGH DRIVE
SUITE C-10
NORCROSS, GA 30093
UNITED STATES US

TO
SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTSBURGH
301 ALPHA DR.
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: ACC



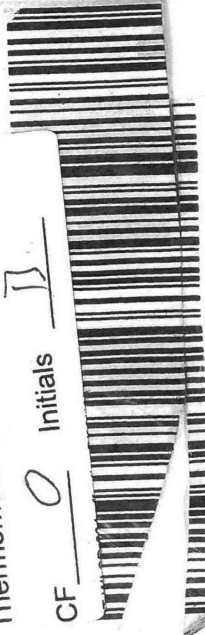
1 of 6
TRK# 1516 9325 0740
0201
MASTER ##
SATURDAY 12:00P
PRIORITY OVERNIGHT
PA-US
152

XO AGCA

Uncorrected temp 2.1 °C

Thermometer ID M

CF 0 Initials B



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No: 180-412263.1	
Client Contact: Shipping/Receiving		Phone: E-Mail: Shali.Brown@Eurofins.com		State of Origin: Georgia		Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #:		180-111215-2	
Address: 13715 Rider Trail North,		Due Date Requested: 10/21/2020		Analysis Requested:		Preservation Codes:	
City: Earth City		TAT Requested (days):		Perform MS/MSD (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
State, Zip: MO, 63045		FO #:		Field Filtered Sample (Yes or No)		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:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:		9320_Ra228/PreSep_0 Standard Target List		Total Number of Containers	
Email:		Project #:		9315_Ra226/PreSep_21 Radium-226		Special Instructions/Note:	
Project Name: CCR - Plant McIntosh Ash Pond 1		SSOW#:		9320_Ra228/PreSep_0 Standard Target List			
Site: Southern McIntosh Ash Pond 1		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (W=water, S=solid, O=waste, LI, BT=Tissue, A=Air)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
MGWA-5 (180-111215-3)		9/16/20		16:00 Eastern		Water	
MGWA-6 (180-111215-4)		9/16/20		12:30 Eastern		Water	
MGWA-6A (180-111215-5)		9/16/20		14:00 Eastern		Water	
MGWC-1 (180-111215-6)		9/17/20		09:49 Eastern		Water	
MGWC-2 (180-111215-7)		9/16/20		15:27 Eastern		Water	
MGWC-3 (180-111215-8)		9/17/20		11:46 Eastern		Water	
MGWC-7 (180-111215-9)		9/17/20		10:06 Eastern		Water	
MGWC-8 (180-111215-10)		9/17/20		10:45 Eastern		Water	
MGWC-12 (180-111215-11)		9/16/20		15:28 Eastern		Water	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>							
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: Date: Time: Method of Shipment:</p> <p>Relinquished by: Date/Time: Company Received by: FEDEX Date/Time: Company</p> <p>Relinquished by: Date/Time: Company Received by: Date/Time: Company</p> <p>Relinquished by: Date/Time: Company Received by: Date/Time: Company</p> <p>Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks:</p>							

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Brown, Shall	State of Origin:	180-412263.2
Company: TestAmerica Laboratories, Inc.		E-Mail: Shall.Brown@Eurofinset.com	Georgia	Page:	Page 2 of 2
Address: 13715 Rider Trail North,		Accreditations Required (See note):		Job #:	180-111215-2
City: Earth City		Analysis Requested		Preservation Codes:	
State, Zip: MO, 63045		Due Date Requested: 10/21/2020		M - Hexane N - None O - AsNaO2 P - Na2SO4S Q - Na2SO3 R - Na2SO3 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)		TAT Requested (days):		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:	
Email:		PO #:		Total Number of Containers	
Project Name: CCR - Plant McIntosh Ash Pond 1		WO #:		Special Instructions/Note:	
Site: Southern McIntosh Ash Pond 1		Project #: 18019956			
		SSOW#:			
Sample Identification - Client ID (Lab ID)		Field Filtered Sample (Yes or No)		Form MS/MSD (Yes or No)	
AP-DUP-01 (180-111215-12)	Eastern	9/16/20	Water	9315_Ra226/PreSep_21 Radium-226	1
AP-DUP-02 (180-111215-13)	Eastern	9/17/20	Water	9320_Ra226/PreSep_0 Standard Target List	1
AP-FB-01-09-16-20 (180-111215-14)	15:15 Eastern	9/16/20	Water		1
AP-FB-02-09-16-20 (180-111215-15)	16:00 Eastern	9/16/20	Water		1
AP-FERB-01-09-16-20 (180-111215-16)	14:20 Eastern	9/16/20	Water		1
AP-FERB-02-09-17-20 (180-111215-17)	10:50 Eastern	9/17/20	Water		1
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>					
Possible Hazard Identification					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Date:					
Time:					
Method of Shipment:					
Received by: FED EX					
Date/Time: 9/16/20 15:00					
Company:					
Relinquished by: FED EX					
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:					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111215-2

Login Number: 111215

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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: 180-111215-2

Login Number: 111215

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 09/23/20 07:30 PM

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

Laboratory Job ID: 180-111215-3

Client Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-
preps)

Revision: 1

For:

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

Attn: Kristen N Jurinko



Authorized for release by:
1/18/2021 3:12:43 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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	10
QC Sample Results	13
QC Association Summary	14
Chain of Custody	15
Receipt Checklists	21

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Job ID: 180-111215-3

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-111215-3

Comments

011821 Revised Report to correct the combined radium results due to incorrect calculations in the initial report. This report replaces the report previously issued on 011321.

Receipt

The samples were received on 9/19/2020 11:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.6° C, 1.9° C, 2.1° C, 2.1° C, 2.4° C and 2.4° C.

RAD

Methods 903.0, 9315: 903 / 9315 Prep batch 491284

Any 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 (180-111215-6), MGWC-3 (180-111215-8), (LCS 160-491284/1-A) and (MB 160-491284/23-A)

Methods 904.0, 9320: 9320 / 904 prep batch 491301

Any 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 (180-111215-4), MGWC-1 (180-111215-6), MGWC-3 (180-111215-8), (LCS 160-491301/1-A), (MB 160-491301/23-A), (180-114491-A-2-B) and (180-114491-G-2-B DU)

Method PrecSep_0: Radium 228 Prep Batch 160-491301:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-6 (180-111215-4), MGWC-1 (180-111215-6) and MGWC-3 (180-111215-8). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-491301:

The following samples were prepared at a reduced aliquot due to limited volume: MGWA-6 (180-111215-4), MGWC-1 (180-111215-6) and MGWC-3 (180-111215-8).

Method PrecSep-21: Radium 226 Prep Batch 160-491284:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-6 (180-111215-4), MGWC-1 (180-111215-6) and MGWC-3 (180-111215-8). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-491284:

The following samples were prepared at a reduced aliquot due to limited volume: MGWA-6 (180-111215-4), MGWC-1 (180-111215-6) and MGWC-3 (180-111215-8).

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: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

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: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Laboratory: Eurofins TestAmerica, 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	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	12-31-20 *
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111215-4	MGWA-6	Water	09/16/20 12:30	09/19/20 11:00	
180-111215-6	MGWC-1	Water	09/17/20 09:49	09/19/20 11:00	
180-111215-8	MGWC-3	Water	09/17/20 11:46	09/19/20 11:00	

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

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 TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

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			749.70 mL	1.0 g	491284	12/09/20 11:52	KMP	TAL SL
Total/NA	Analysis	9315		1			494526	01/10/21 13:19	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.70 mL	1.0 g	491301	12/09/20 12:57	KMP	TAL SL
Total/NA	Analysis	9320		1			494401	01/08/21 13:25	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			495476	01/18/21 10:31	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-1

Lab Sample ID: 180-111215-6

Date Collected: 09/17/20 09:49

Matrix: Water

Date Received: 09/19/20 11:00

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			749.99 mL	1.0 g	491284	12/09/20 11:52	KMP	TAL SL
Total/NA	Analysis	9315		1			494526	01/10/21 13:19	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.99 mL	1.0 g	491301	12/09/20 12:57	KMP	TAL SL
Total/NA	Analysis	9320		1			494401	01/08/21 13:26	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			495476	01/18/21 10:31	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

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			750.67 mL	1.0 g	491284	12/09/20 11:52	KMP	TAL SL
Total/NA	Analysis	9315		1			494526	01/10/21 13:19	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			750.67 mL	1.0 g	491301	12/09/20 12:57	KMP	TAL SL
Total/NA	Analysis	9320		1			494401	01/08/21 13:26	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			495476	01/18/21 10:31	CAH	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Analyst References:

Lab: TAL SL

Batch Type: Prep

KMP = Karen Phillips

Batch Type: Analysis

CAH = Chris Hough

FLC = Fernando Cruz

SCB = Sarah Bernsen

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Client Sample ID: MGWA-6

Lab Sample ID: 180-111215-4

Date Collected: 09/16/20 12:30

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.226	U	0.171	0.172	1.00	0.241	pCi/L	12/09/20 11:52	01/10/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					12/09/20 11:52	01/10/21 13:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.292	U	0.348	0.349	1.00	0.667	pCi/L	12/09/20 12:57	01/08/21 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					12/09/20 12:57	01/08/21 13:25	1
Y Carrier	81.1		40 - 110					12/09/20 12:57	01/08/21 13:25	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	-0.0651	U	0.388	0.389	5.00	0.667	pCi/L		01/18/21 10:31	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Client Sample ID: MGWC-1

Lab Sample ID: 180-111215-6

Date Collected: 09/17/20 09:49

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.39		0.331	0.354	1.00	0.234	pCi/L	12/09/20 11:52	01/10/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					12/09/20 11:52	01/10/21 13:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.399	U	0.387	0.389	1.00	0.628	pCi/L	12/09/20 12:57	01/08/21 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					12/09/20 12:57	01/08/21 13:26	1
Y Carrier	78.5		40 - 110					12/09/20 12:57	01/08/21 13:26	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	1.79		0.509	0.526	5.00	0.628	pCi/L		01/18/21 10:31	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Client Sample ID: MGWC-3

Lab Sample ID: 180-111215-8

Date Collected: 09/17/20 11:46

Matrix: Water

Date Received: 09/19/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.04		0.314	0.328	1.00	0.308	pCi/L	12/09/20 11:52	01/10/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					12/09/20 11:52	01/10/21 13:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.375	U	0.361	0.363	1.00	0.704	pCi/L	12/09/20 12:57	01/08/21 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					12/09/20 12:57	01/08/21 13:26	1
Y Carrier	78.9		40 - 110					12/09/20 12:57	01/08/21 13:26	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	U	0.478	0.489	5.00	0.704	pCi/L		01/18/21 10:31	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-491284/23-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491284

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01403	U	0.0930	0.0930	1.00	0.207	pCi/L	12/09/20 11:52	01/11/21 06:16	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	63.0		40 - 110		12/09/20 11:52	01/11/21 06:16	1			

Lab Sample ID: LCS 160-491284/1-A
Matrix: Water
Analysis Batch: 494526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491284

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.30		1.20	1.00	0.178	pCi/L	91	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	84.0		40 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-491301/23-A
Matrix: Water
Analysis Batch: 494401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491301

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.06233	U	0.317	0.317	1.00	0.581	pCi/L	12/09/20 12:57	01/08/21 13:28	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	63.0		40 - 110		12/09/20 12:57	01/08/21 13:28	1			
Y Carrier	87.9		40 - 110		12/09/20 12:57	01/08/21 13:28	1			

Lab Sample ID: LCS 160-491301/1-A
Matrix: Water
Analysis Batch: 494401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491301

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	7.52	7.493		0.960	1.00	0.470	pCi/L	100	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	84.0		40 - 110						
Y Carrier	84.9		40 - 110						

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Pond 1 (Rad Re-preps)

Job ID: 180-111215-3

Rad

Prep Batch: 491284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-4	MGWA-6	Total/NA	Water	PrecSep-21	
180-111215-6	MGWC-1	Total/NA	Water	PrecSep-21	
180-111215-8	MGWC-3	Total/NA	Water	PrecSep-21	
MB 160-491284/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491284/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 491301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111215-4	MGWA-6	Total/NA	Water	PrecSep_0	
180-111215-6	MGWC-1	Total/NA	Water	PrecSep_0	
180-111215-8	MGWC-3	Total/NA	Water	PrecSep_0	
MB 160-491301/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-491301/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Client Information		Sampler: <u>R. Williams / T. Gable / A. Gable / H. Keiser</u>		Lab PM: <u>Brown, Shall</u>		Carrier Tracking No(s):		GOC No:	
Client Contact: SCS Contacts		Phone: <u>770-594-5998</u>		E-Mail: <u>shall.brown@eurofinset.com</u>				Page: <u>1 of 2</u>	
Company: GA Power		Address: <u>241 Ralph McGill Blvd SE</u>		City: <u>Atlanta</u>		State, Zip: <u>GA, 30308</u>		Job #:	
Phone: <u>404-506-7116(Tel)</u>		PO #: <u>SCS10382606</u>		WO #:		Due Date Requested:		Analysis Requested	
Email:		Project #: <u>18019956</u>		Plant Name: <u>Michtosh Ash Pond 1</u>		Site: <u>Georgia</u>		Preservation Codes: M - Hexane A - HCL N - None	
Sample Identification		Sample Date		Sample Time		Sample Type (G=grab)		Matrix (Water, Spill, Other, BT-Tissue, AAFIP)	
MG-WA-10		9-16-20		1136		G		W	
MG-WA-11		9-16-20		1347		G		W	
MG-WA-15		9-16-20		1600		G		W	
MG-WA-6		9-16-20		1230		G		W	
MG-WA-6A		9-16-20		1400		G		W	
MG-WC-1		9-17-20		0949		G		W	
MG-WC-2		9-16-20		1527		G		W	
MG-WC-3		9-17-20		1146		G		W	
MG-WC-7		9-17-20		1006		G		W	
MG-WC-8		9-17-20		1045		G		W	
MG-WC-12		9-16-20		1528		G		W	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological									
Deliverable Requested: I, II, III, IV, Other (specify)									
Empty Kit Relinquished by: _____ Date: _____									
Relinquished by: <u>T. Gable</u> Date/Time: <u>9-18-20 / 1011</u> Company: <u>GA</u>									
Relinquished by: <u>T. Gable</u> Date/Time: <u>9-18-20 / 1011</u> Company: <u>GA</u>									
Relinquished by: <u>T. Gable</u> Date/Time: <u>9-18-20 / 1011</u> Company: <u>GA</u>									
Custody Seals Intact: _____ Custody Seal No.: _____									
Cooler Temperature(s) °C and Other Remarks:									
Special Instructions/QC Requirements:									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Method of Shipment:									
Received by: <u>T. Gable</u> Date/Time: <u>9-8-20</u> Company: <u>1011</u>									
Received by: <u>T. Gable</u> Date/Time: <u>9-19-20</u> Company: <u>1011</u>									
Received by: <u>T. Gable</u> Date/Time: <u>11:00</u> Company: <u>1011</u>									
Total Number of Containers: _____									
Special Instructions/Note: <u>Full App 3 plus detected App 4</u>									
pH= 6.37									
pH= 7.89									
pH= 7.38									
pH= 6.98									
pH= 6.89									
pH= 6.95									
pH= 7.16									
pH= 6.68									
pH= 6.39									
pH= 5.22 Extra Red									
pH= 11.03									



Brown, Shali

From: Betsy McDaniel <betsy.mcdaniel@atlcc.net>
Sent: Monday, November 16, 2020 7:42 AM
To: Brown, Shali
Cc: Jurinko, Kristen Nichole; Evan Perry; Matt Malone
Subject: Reprep: DQR Request: Eurofins TestAmerica report files from 180-111215-2 CCR - Plant McIntosh Ash Pond 1

Importance: High

EXTERNAL EMAIL*

Shali:

We want a reprep/re-reporting of samples MGWA-6 (180-111215-4), MGWC-1 (-6), and MGWC-3 (-8). Please get that in the queue as soon as possible, and let us know when data are expected to be available. Thank you,

Betsy McDaniel

Atlantic Coast Consulting, Inc.

1150 Northmeadow Pkwy, Suite 100, Roswell, Georgia 30076

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

“Our work helps produce a cleaner environment for all”

From: Brown, Shali <Shali.Brown@Eurofinset.com>
Sent: Friday, November 13, 2020 3:00 PM
To: Betsy McDaniel <betsy.mcdaniel@atlcc.net>; Chris Parker <chris.parker@atlcc.net>
Cc: Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Evan Perry <evan.perry@atlcc.net>; Matt Malone <matt.malone@atlcc.net>
Subject: RE: DQR Request: Eurofins TestAmerica report files from 180-111215-2 CCR - Plant McIntosh Ash Pond 1

Good Afternoon,

The lab checked everything and could not find any errors. See below. Let me know if you need them to proceed with recount or reprep.

We could not find any anomalies. If the client wants us to recount the ra-226 we can, or we can reprep for 226 and 228. These would need to be logged in.

Kristen Ely
QA Manager

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Please note our adjusted hours for Thanksgiving >>

Shali Brown

Phone: 615-301-5031

E-mail: shali.brown@eurofinset.com

From: Betsy McDaniel <betsy.mcdaniel@atlcc.net>
Sent: Wednesday, November 11, 2020 7:48 AM
To: Brown, Shali <Shali.Brown@Eurofinset.com>; Chris Parker <chris.parker@atlcc.net>
Cc: Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Evan Perry <evan.perry@atlcc.net>; Matt Malone <matt.malone@atlcc.net>
Subject: DQR Request: Eurofins TestAmerica report files from 180-111215-2 CCR - Plant McIntosh Ash Pond 1

EXTERNAL EMAIL*

Shali:
We would like a data quality review on these radium batches. From the level II lab QC provided in the report, I don't see a problem. However, the sample results are generally not in line with expectations as compared to history. Specifically, the reported data for MGWA-6 (180-11215-4), MGWA-6A (-5), MGWC-1 (-6), and MGWC-3 (-8) are very high. We would like to be sure no sample containers were mixed up, or data entry errors, or any potential reporting mistake. I think it's okay to tell you now after data reporting that AP-DUP-01 (-12) is the duplicate of MGWA-6A (-5) and AP-DUP-02 (-13) is the duplicate of MGWC-1 (-6). The calculated RPD for radium-226 on reported data for AP-DUP-01 and MWGA-6A is 45%. The calculated RPDs for radium-226 and combined radium on AP-DUP-02 and MGWC-1 are 155% and 148%, respectively. We had that communication about the exact weight of AP-DUP-01 not being recorded properly, and the report narrative indicating that would not adversely affect the data. That doesn't seem to be an issue with what we're questioning. I don't understand the report narrative comment about "insufficient sample volume was available to perform a sample duplicate", when extra volume was provided for MGWC-8 (-10). Please have your QA Department check the radium-226 and radium-228 batches for work order 180-111215 to determine if there were any possible errors in analysis and/or reporting.

Chris:
Just to check all the possibilities, please confirm that AP-DUP-01 was collected at MGWA-6A on 9/16/2020 and AP-DUP-02 was collected at MGWC-1 on 9/17/2020.

Betsy McDaniel

Atlantic Coast Consulting, Inc.
1150 Northmeadow Pkwy, Suite 100, Roswell, Georgia 30076
Office: 770-594-5998 | Cell: 678-448-8459 | www.atlcc.net

"Our work helps produce a cleaner environment for all"

From: Shali Brown <Shali.Brown@Eurofinset.com>

Sent: Tuesday, October 27, 2020 9:20 AM

To: Betsy McDaniel <betsy.mcdaniel@atlcc.net>; Evan Perry <evan.perry@atlcc.net>; Kristen N Jurinko <KNJURINK@SOUTHERNCO.COM>; Ms. Lauren Petty <lpetty@southernco.com>; Matt Malone <matt.malone@atlcc.net>; Owens Fuquea <owens.fuquea@atlcc.net>

Subject: Eurofins TestAmerica report files from 180-111215-2 CCR - Plant McIntosh Ash Pond 1

Hello,

Attached please find the report files for job 180-111215-2; CCR - Plant McIntosh Ash Pond 1

Please feel free to contact me if you have any questions.

Thank you.

Shali Brown
Project Manager

TestAmerica Laboratories, Inc
Phone: 615-301-5031

E-mail: Shali.Brown@Eurofinset.com
www.eurofinsus.com/env



Reference: [180-333704]
Attachments: 5

Please let us know if we met your expectations by rating the service you received from Eurofins TestAmerica on this project by visiting our website at: [Project Feedback](#)

* WARNING - EXTERNAL: This email originated from outside of Eurofins TestAmerica. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111215-3

Login Number: 111215

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

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: 180-111215-3

Login Number: 111215

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 09/23/20 07:30 PM

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	



Product Name: Low-Flow System

Date: 2020-09-16 16:01:16

Project Information:

Operator Name Anna Schnittker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646777
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type Poly
Tubing Diameter .1 in
Tubing Length 63 ft

Pump placement from TOC 57 ft

Well Information:

Well ID MGWA-5
Well diameter 2 in
Well Total Depth 63.09 ft
Screen Length 10 ft
Depth to Water 23.88 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2772996 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:35:07	1501.00	22.27	7.52	267.19	1.10	24.30	2.30	-18.66
Last 5	15:40:07	1801.00	22.31	7.49	267.69	1.50	24.30	1.89	-31.89
Last 5	15:45:07	2100.99	22.29	7.42	270.56	1.70	24.30	0.80	-63.82
Last 5	15:50:07	2400.99	22.21	7.40	271.76	2.30	24.30	0.56	-74.18
Last 5	15:55:07	2700.98	22.22	7.38	273.30	2.60	24.30	0.46	-80.45
Variance 0			-0.02	-0.07	2.88			-1.09	-31.92
Variance 1			-0.08	-0.03	1.20			-0.24	-10.36
Variance 2			0.01	-0.01	1.53			-0.10	-6.27

Notes

Sample time : 1600. Light rain 80s. FB-1 poured here

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-16 12:23:06

Project Information:

Operator Name Anna Schnittker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646777
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type Poly
Tubing Diameter .1 in
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID MGWA-6
Well diameter 2 in
Well Total Depth 41.93 ft
Screen Length 10 ft
Depth to Water 22.52 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2417775 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:58:30	600.02	22.49	6.90	552.63	3.10	22.70	0.34	102.99
Last 5	12:03:30	900.01	22.44	6.94	550.72	2.60	22.70	0.37	99.38
Last 5	12:08:30	1200.01	22.40	6.96	547.17	2.50	22.70	0.32	95.62
Last 5	12:13:30	1500.00	22.35	6.97	555.11	2.30	22.70	0.28	92.25
Last 5	12:18:30	1800.00	22.35	6.98	550.71	2.00	22.70	0.30	88.88
Variance 0			-0.04	0.02	-3.54			-0.05	-3.76
Variance 1			-0.05	0.01	7.93			-0.04	-3.37
Variance 2			0.00	0.01	-4.40			0.02	-3.36

Notes

Sample time: 12:30. Cloudy, light rain, 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-16 13:56:05

Project Information:

Operator Name Anna Schnittker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646777
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type Poly
Tubing Diameter .1 in
Tubing Length 40 ft

Pump placement from TOC 34 ft

Well Information:

Well ID MGWA-6A
Well diameter 2 in
Well Total Depth 39.7 ft
Screen Length 10 ft
Depth to Water 21.14 ft

Pumping Information:

Final Pumping Rate 115 mL/min
Total System Volume 0.2417775 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:29:47	900.02	22.47	6.79	521.63	5.30	22.10	0.56	-92.25
Last 5	13:34:47	1200.01	22.48	6.83	520.94	5.90	22.10	0.37	-115.41
Last 5	13:39:47	1500.00	22.51	6.86	519.80	6.70	22.10	0.54	-123.94
Last 5	13:44:47	1800.00	22.44	6.87	518.38	6.90	22.10	0.55	-126.03
Last 5	13:49:47	2100.00	22.38	6.89	519.33	4.90	22.10	0.54	-128.54
Variance 0			0.02	0.02	-1.14			0.17	-8.53
Variance 1			-0.06	0.01	-1.42			0.01	-2.09
Variance 2			-0.06	0.02	0.95			-0.01	-2.51

Notes

Sample time: 1400. Light rain 80s. DUP-1 poured here

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-16 11:38:15

Project Information:

Operator Name Taylor Goble
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 52.92 ft

Pump placement from TOC 47.92 ft

Well Information:

Well ID MGWA-10
Well diameter 2 in
Well Total Depth 52.92 ft
Screen Length 10 ft
Depth to Water 18.11 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 0.2232442 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	11:16:51	600.01	20.05	6.23	74.73	1.26	18.91	6.28	2.90
Last 5	11:21:51	900.00	20.04	6.31	74.74	0.99	18.96	6.24	4.16
Last 5	11:26:51	1199.99	20.01	6.35	74.87	0.95	19.03	6.24	5.94
Last 5	11:31:51	1499.98	20.06	6.37	74.73	0.83	19.10	6.20	7.81
Last 5	11:36:51	1799.97	20.08	6.37	74.62	0.80	19.18	6.21	9.19
Variance 0			-0.03	0.04	0.13			-0.00	1.78
Variance 1			0.05	0.02	-0.14			-0.04	1.87
Variance 2			0.02	0.01	-0.11			0.01	1.38

Notes

Sampled at 1136. Light rain 72 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-16 13:48:06

Project Information:

Operator Name Taylor Goble
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 56.60 ft

Pump placement from TOC 51.60 ft

Well Information:

Well ID MGWA-11
Well diameter 2 in
Well Total Depth 56.60 ft
Screen Length 10 ft
Depth to Water 21.80 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2232442 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	13:27:03	1199.99	20.22	7.66	242.27	1.54	21.98	5.33	14.78
Last 5	13:32:03	1499.98	20.20	7.76	242.39	1.20	21.99	5.35	16.57
Last 5	13:37:03	1799.97	20.21	7.82	242.55	0.94	22.01	5.37	18.06
Last 5	13:42:03	2099.96	20.17	7.87	242.04	0.88	22.03	5.36	19.95
Last 5	13:47:03	2399.95	20.04	7.89	242.26	0.69	22.04	5.32	21.81
Variance 0			0.01	0.06	0.16			0.02	1.49
Variance 1			-0.04	0.04	-0.51			-0.01	1.89
Variance 2			-0.14	0.03	0.22			-0.04	1.86

Notes

Sampled at 1347. Raining 73 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-17 09:50:41

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 56 ft

Pump placement from TOC 51 ft

Well Information:

Well ID MGWC-1
Well diameter 2 in
Well Total Depth 56.08 ft
Screen Length 10 ft
Depth to Water 38.23 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.4764885 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 18 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	09:29:36	1200.04	22.05	6.80	636.15	3.21	39.70	0.24	93.64
Last 5	09:34:36	1500.03	22.03	6.85	638.17	3.12	39.70	0.25	90.49
Last 5	09:39:36	1800.03	21.99	6.88	642.07	2.98	39.70	0.27	88.79
Last 5	09:44:36	2100.03	21.94	6.93	649.24	1.98	39.70	0.28	85.96
Last 5	09:49:36	2400.04	21.93	6.95	656.28	2.10	39.70	0.28	83.71
Variance 0			-0.04	0.03	3.89			0.02	-1.70
Variance 1			-0.05	0.04	7.17			0.01	-2.83
Variance 2			-0.01	0.02	7.04			-0.00	-2.25

Notes

Sampled at 09:49. Raining, 80's. Dup-02 here.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-16 15:28:44

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 37 ft

Pump placement from TOC 32 ft

Well Information:

Well ID MGWC-2
Well diameter 2 in
Well Total Depth 37.36 ft
Screen Length 10 ft
Depth to Water 21.16 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2371442 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:07:39	1200.03	22.57	7.04	767.39	0.14	22.00	0.21	127.07
Last 5	15:12:39	1500.03	22.52	7.08	767.28	0.32	22.00	0.20	123.94
Last 5	15:17:39	1800.03	22.51	7.12	767.16	0.11	22.00	0.20	121.61
Last 5	15:22:39	2100.04	22.49	7.15	766.27	0.18	22.00	0.23	119.00
Last 5	15:27:39	2400.04	22.52	7.16	766.07	0.20	22.00	0.16	117.89
Variance 0			-0.01	0.03	-0.12			0.00	-2.33
Variance 1			-0.02	0.04	-0.90			0.02	-2.60
Variance 2			0.03	0.00	-0.20			-0.07	-1.11

Notes

Sampled at 15:27. Cloudy/light rain, 70's. FB2 here.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-17 11:47:25

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID MGWC-3
Well diameter 2 in
Well Total Depth 38.74 ft
Screen Length 10 ft
Depth to Water 19.30 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2386886 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 3.0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:26:49	600.03	23.48	6.77	612.65	0.94	19.60	0.28	77.54
Last 5	11:31:49	900.03	23.53	6.74	609.37	0.87	19.60	0.24	75.70
Last 5	11:36:49	1200.03	23.50	6.71	609.83	1.10	19.60	0.22	74.65
Last 5	11:41:49	1500.03	23.51	6.69	607.20	0.25	19.60	0.20	73.79
Last 5	11:46:49	1800.03	23.37	6.68	606.63	0.99	19.60	0.19	73.27
Variance 0			-0.02	-0.03	0.46			-0.02	-1.06
Variance 1			0.01	-0.01	-2.63			-0.01	-0.86
Variance 2			-0.14	-0.02	-0.57			-0.01	-0.52

Notes

Sampled at 11:46. Cloudy, 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-17 10:06:58

Project Information:

Operator Name Taylor Goble
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 42.22 ft

Pump placement from TOC 37.22 ft

Well Information:

Well ID MGWC-7
Well diameter 2 in
Well Total Depth 42.22 ft
Screen Length 10 ft
Depth to Water 21.83 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 0.2232442 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 2.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	09:45:45	900.00	21.73	6.55	489.42	2.25	22.12	0.39	17.25
Last 5	09:50:45	1199.99	21.65	6.49	486.49	1.55	22.14	0.34	15.02
Last 5	09:55:45	1499.98	21.70	6.45	486.06	1.12	22.15	0.87	14.17
Last 5	10:00:46	1800.97	21.64	6.41	484.39	0.54	22.17	0.50	15.12
Last 5	10:05:46	2100.97	21.68	6.39	484.51	0.51	22.18	0.27	15.94
Variance 0			0.05	-0.04	-0.43			0.53	-0.85
Variance 1			-0.06	-0.04	-1.68			-0.37	0.95
Variance 2			0.04	-0.01	0.13			-0.23	0.81

Notes

Sampled at 1006. Light rain 82 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-17 10:48:51

Project Information:

Operator Name Anna Schnittker
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646777
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type Poly
Tubing Diameter .1 in
Tubing Length 50 ft

Pump placement from TOC 47 ft

Well Information:

Well ID MGWC-8
Well diameter 2 in
Well Total Depth 52.56 ft
Screen Length 10 ft
Depth to Water 31.5 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.2572219 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:24:49	600.02	24.24	5.19	1010.27	1.40	31.60	0.25	152.06
Last 5	10:29:49	900.01	24.20	5.20	1006.42	1.30	31.60	0.24	149.49
Last 5	10:34:49	1200.00	24.24	5.19	1003.71	1.10	31.60	0.28	147.40
Last 5	10:39:50	1500.99	24.29	5.20	1009.05	0.80	31.60	0.39	145.74
Last 5	10:44:50	1800.99	24.41	5.22	1009.43	0.60	31.60	0.40	143.49
Variance 0			0.05	-0.01	-2.70			0.04	-2.09
Variance 1			0.05	0.01	5.34			0.11	-1.66
Variance 2			0.13	0.02	0.38			0.01	-2.25

Notes

Sample time 10:45. Light rain 80s. Extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-16 15:30:34

Project Information:

Operator Name Taylor Goble
Company Name Atlantic Coast Consulting
Project Name McIntosh AP-1
Site Name McIntosh AP-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter 0.10 in
Tubing Length 52.90 ft

Pump placement from TOC 47.90 ft

Well Information:

Well ID MGWC-12
Well diameter 2 in
Well Total Depth 52.90 ft
Screen Length 10 ft
Depth to Water 26.73 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.2263331 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	15:08:56	600.02	18.98	11.01	270.67	0.48	27.08	7.70	28.46
Last 5	15:13:56	900.00	18.88	11.03	271.15	0.33	27.12	7.71	28.26
Last 5	15:18:56	1199.99	18.83	11.04	271.08	0.29	27.16	7.76	29.02
Last 5	15:23:56	1499.98	18.82	11.04	270.98	0.25	27.21	8.14	29.60
Last 5	15:28:56	1799.97	18.81	11.03	270.30	0.30	27.25	8.20	30.34
Variance 0			-0.05	0.01	-0.07			0.05	0.76
Variance 1			-0.01	-0.00	-0.10			0.38	0.58
Variance 2			-0.01	-0.00	-0.69			0.06	0.74

Notes

Sampled at 1528. Cloudy 75 degrees

Grab Samples

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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?	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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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:

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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	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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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:

- 1) MGWC-23: Well pad cleaned off

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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?	Yes	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)	Yes	Yes	Yes								
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 9/15/2020

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:

- 1) PZ-16: Well pad cleaned off

ANALYTICAL REPORT

Eurofins TestAmerica, St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

Laboratory Job ID: 160-40740-1

Client Project/Site: CCR - 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:
1/15/2021 8:32:42 AM

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

LINKS

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results through
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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.



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	4
Receipt Checklists	6
Definitions/Glossary	7
Method Summary	8
Sample Summary	9
Detection Summary	10
Client Sample Results	11
QC Sample Results	13
QC Association Summary	14
Tracer Carrier Summary	15

Case Narrative

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

Job ID: 160-40740-1

Job ID: 160-40740-1

Laboratory: Eurofins TestAmerica, St. Louis

Narrative

Job Narrative 160-40740-1

Comments

No additional comments.

Receipt

The samples were received on 12/10/2020 9:18 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.7° C.

RAD

Methods 904.0, 9320: 904/9320 prep batch 492145

Any 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 (160-40740-1), MGWC-1 (160-40740-2), MGWC-3 (160-40740-3), (LCS 160-492145/1-A) and (MB 160-492145/20-A)

Methods 903.0, 9315: 903 prep batch 492140

Any 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 (160-40740-1), MGWC-1 (160-40740-2), MGWC-3 (160-40740-3) and (LCS 160-492140/1-A)

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.

Chain of Custody Record



Client Information Client Contact: <u>SCS Contacts</u> Company: <u>GA Power</u>		Lab PM: <u>Brown, Shail</u> E-Mail: <u>shail.brown@eurofinset.com</u>		Carrier Tracking No(s):		COC No:	
Address: <u>241 Ralph McGill Blvd SE</u> City: <u>Atlanta</u> State, Zip: <u>GA, 30308</u> Phone: <u>404-506-7116(Tel)</u> Email: <u>SCS Contacts</u>		PO #: <u>SCS10382606</u> WO #:		Page: <u>1 of 1</u> Job #:		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: TAT Requested (days):		Matrix (W=water, S=solid, O=water/soil, BT=tissue, A=air)		Analysis Requested		Special Instructions/Note:	
Sample Identification <u>MGWA-6</u> <u>MGWC-1</u> <u>MGWC-3</u>		Sample Date <u>12-7-20</u> <u>12-8-20</u> <u>12-8-20</u>		Sample Time <u>1605</u> <u>0927</u> <u>1057</u>		Total Number of Containers pH= <u>7.20</u> pH= <u>7.41</u> pH= <u>7.04</u> pH= pH= pH= pH= pH= pH= pH=	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Type (C=Comp, G=grab) <u>G</u> <u>G</u> <u>G</u>		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) App. III Metals (B,Ca) EPA 300.0 & SM 2540C Detected App. IV Metals (Sb,As,Ba,Be,Cd,Cr,Co,Pb,LI,Hg,Mo,Tl) Radium 226 & 228 (SM-846 9315/9320)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date/Time: <u>12/9/20 1244</u>		Date/Time:		Date/Time:	
Relinquished by: <u>[Signature]</u>		Company: <u>AC</u>		Company:		Company:	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		Company:		Company:		Company:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Method of Shipment:	



Eurofins TestAmerica Savannah Triage Checklist

- Date: 12-09-2020
- Time: 1244
- Checked By: BD
- Number of Coolers: 1
- Cooler Type: (Hard) Styrofoam Box
- Ice Type: (Wet) Dry GelPack None Other
- Received Via: Fed-Ex () UPS () Bus
(Client Drop Off) US Mail Courier
Other
- Client: GA POWER
- Thermometer ID: CUIR 27
- Uncorrected Cooler Temps (°C): 1.3
- Correction Factor: +0.3
- Corrected Cooler Temps (°C): 1.6
- Other/ Comments:

- West Virginia – Yes / No
- Foreign soil – Yes / No

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 160-40740-1

Login Number: 40740

List Source: Eurofins TestAmerica, St. Louis

List Number: 1

Creator: Mazariegos, Leonel A

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.	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	

Definitions/Glossary

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

Job ID: 160-40740-1

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

Method Summary

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

Job ID: 160-40740-1

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
Field Sampling	Field Sampling	EPA	TAL PIT
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

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

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

Sample Summary

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

Job ID: 160-40740-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
160-40740-1	MGWA-6	Water	12/07/20 16:05	12/10/20 09:18	
160-40740-2	MGWC-1	Water	12/08/20 09:27	12/10/20 09:18	
160-40740-3	MGWC-3	Water	12/08/20 10:57	12/10/20 09:18	

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

Detection Summary

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

Job ID: 160-40740-1

Client Sample ID: MGWA-6

Lab Sample ID: 160-40740-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.20				SU	1		Field Sampling	Total/NA

Client Sample ID: MGWC-1

Lab Sample ID: 160-40740-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.41				SU	1		Field Sampling	Total/NA

Client Sample ID: MGWC-3

Lab Sample ID: 160-40740-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.04				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, St. Louis

Client Sample Results

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

Job ID: 160-40740-1

Client Sample ID: MGWA-6

Lab Sample ID: 160-40740-1

Date Collected: 12/07/20 16:05

Matrix: Water

Date Received: 12/10/20 09:18

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.405		0.245	0.248	1.00	0.322	pCi/L	12/17/20 08:31	01/11/21 21:16	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	82.9		40 - 110					12/17/20 08:31	01/11/21 21:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.574		0.324	0.328	1.00	0.487	pCi/L	12/17/20 09:22	01/11/21 13:18	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	82.9		40 - 110					12/17/20 09:22	01/11/21 13:18	1
Y Carrier	80.0		40 - 110					12/17/20 09:22	01/11/21 13:18	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	0.979		0.406	0.411	5.00	0.487	pCi/L		01/14/21 21:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.20				SU			12/07/20 15:05	1

Client Sample ID: MGWC-1

Lab Sample ID: 160-40740-2

Date Collected: 12/08/20 09:27

Matrix: Water

Date Received: 12/10/20 09:18

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.46		0.418	0.438	1.00	0.368	pCi/L	12/17/20 08:31	01/11/21 21:17	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	74.3		40 - 110					12/17/20 08:31	01/11/21 21:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.412	U	0.360	0.362	1.00	0.577	pCi/L	12/17/20 09:22	01/11/21 13:19	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	74.3		40 - 110					12/17/20 09:22	01/11/21 13:19	1
Y Carrier	79.3		40 - 110					12/17/20 09:22	01/11/21 13:19	1

Eurofins TestAmerica, St. Louis

Client Sample Results

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

Job ID: 160-40740-1

Client Sample ID: MGWC-1

Lab Sample ID: 160-40740-2

Date Collected: 12/08/20 09:27

Matrix: Water

Date Received: 12/10/20 09:18

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	1.87		0.552	0.568	5.00	0.577	pCi/L		01/14/21 21:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.41				SU			12/08/20 08:27	1

Client Sample ID: MGWC-3

Lab Sample ID: 160-40740-3

Date Collected: 12/08/20 10:57

Matrix: Water

Date Received: 12/10/20 09:18

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.45		0.382	0.403	1.00	0.317	pCi/L	12/17/20 08:31	01/11/21 21:17	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	89.3		40 - 110					12/17/20 08:31	01/11/21 21:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.201	U	0.268	0.269	1.00	0.447	pCi/L	12/17/20 09:22	01/11/21 13:19	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	89.3		40 - 110					12/17/20 09:22	01/11/21 13:19	1
<i>Y Carrier</i>	83.4		40 - 110					12/17/20 09:22	01/11/21 13:19	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	1.65		0.467	0.485	5.00	0.447	pCi/L		01/14/21 21:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.04				SU			12/08/20 09:57	1

QC Sample Results

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

Job ID: 160-40740-1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-492140/20-A
Matrix: Water
Analysis Batch: 494923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492140

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.004104	U	0.0813	0.0813	1.00	0.177	pCi/L	12/17/20 08:31	01/13/21 06:57	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	
Ba Carrier	85.9		40 - 110				12/17/20 08:31		01/13/21 06:57	

Lab Sample ID: LCS 160-492140/1-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492140

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Radium-226	11.3	9.513		1.26	1.00	0.320	pCi/L	84	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	82.6		40 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-492145/20-A
Matrix: Water
Analysis Batch: 494647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492145

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2189	U	0.232	0.233	1.00	0.378	pCi/L	12/17/20 09:22	01/11/21 13:28	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	
Ba Carrier	85.9		40 - 110				12/17/20 09:22		01/11/21 13:28	
Y Carrier	87.1		40 - 110				12/17/20 09:22		01/11/21 13:28	

Lab Sample ID: LCS 160-492145/1-A
Matrix: Water
Analysis Batch: 494650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492145

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Radium-228	7.51	7.481		0.956	1.00	0.466	pCi/L	100	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	82.6		40 - 110						
Y Carrier	86.7		40 - 110						

QC Association Summary

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

Job ID: 160-40740-1

Rad

Prep Batch: 492140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40740-1	MGWA-6	Total/NA	Water	PrecSep-21	
160-40740-2	MGWC-1	Total/NA	Water	PrecSep-21	
160-40740-3	MGWC-3	Total/NA	Water	PrecSep-21	
MB 160-492140/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-492140/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 492145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40740-1	MGWA-6	Total/NA	Water	PrecSep_0	
160-40740-2	MGWC-1	Total/NA	Water	PrecSep_0	
160-40740-3	MGWC-3	Total/NA	Water	PrecSep_0	
MB 160-492145/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-492145/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 342300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-40740-1	MGWA-6	Total/NA	Water	Field Sampling	
160-40740-2	MGWC-1	Total/NA	Water	Field Sampling	
160-40740-3	MGWC-3	Total/NA	Water	Field Sampling	

Tracer/Carrier Summary

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

Job ID: 160-40740-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
160-40740-1	MGWA-6	82.9	
160-40740-2	MGWC-1	74.3	
160-40740-3	MGWC-3	89.3	
LCS 160-492140/1-A	Lab Control Sample	82.6	
MB 160-492140/20-A	Method Blank	85.9	

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
160-40740-1	MGWA-6	82.9	80.0
160-40740-2	MGWC-1	74.3	79.3
160-40740-3	MGWC-3	89.3	83.4
LCS 160-492145/1-A	Lab Control Sample	82.6	86.7
MB 160-492145/20-A	Method Blank	85.9	87.1

Tracer/Carrier Legend
Ba = Ba Carrier
Y = Y Carrier

LEVEL 2A LABORATORY DATA VALIDATIONS

McIntosh Ash Pond 1

2nd Semi-Annual Event

September 2020

Georgia Power Company – McIntosh Ash Pond 1

Quality Control Review of Analytical Data – September 2020

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh and St. Louis for groundwater samples collected at McIntosh AP1 between September 16, 2020 and December 8, 2020. 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 180-111215 was re-checked by the laboratory to provide details following a data quality review of radium analysis. SDG 160-40740 was provided by the laboratory as resample radium data for MGWA-6, MGWC-1, and MGWC-3, which did not confirm the original results.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III, and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (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 US EPA 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 (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, with the exceptions of Thallium on MGWC-1 (180-111215-6) and Radium-226 on MGWA-6A (180-111215-5) as described in the qualifications section below.

Accuracy: Laboratory goals for accuracy were met.

Detection Limits: Project goals for detection limits were met. Certain samples were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

Completeness: There were rejected analytical results for this event as described in the qualifications section below, resulting in a completion of 98.4%.

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

U: 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 MGWC-1 (180-111215-6) and AP-DUP-02 (180-111215-13) were qualified as estimated (J) for Thallium as the field relative percent difference (RPD) exceeded QC criteria (66.67% above the limit of 25).
- Samples MGWA-6A (180-111215-5) and AP-DUP-01 (180-111215-12) were qualified as estimated (J) for Radium-226 as the field RPD exceeded QC criteria (44.93% above the limit of 25).
- Radium data for samples MGWA-6 (180-111215-4), MGWC-1 (180-111215-6), and MGWC-3 (180-111215-8) yielded results that were significantly higher than historical data for these wells. The laboratory performed a data quality review which did not turn up evidence of a quality issue. The laboratory reanalyzed for radium on these three samples, and the reanalysis results were inconsistent with the original report. These results were rejected (R) as unverified data. A resampling event was conducted December 7-8, 2020 for radium on these three sampling points: MGWA-6 (160-40740-1), MGWC-1 (160-40740-2), and MGWC-3 (160-40740-3). There were no quality issues from the resample report, and the sample results were more consistent with history. Resampled report 160-40740 was used as valid data.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled between September 16, 2020 and December 8, 2020 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

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – September 2020

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)
111215	MGWA-10	9/16/2020	180-111215-1	GW		X	X	X	X
111215	MGWA-11	9/16/2020	180-111215-2	GW		X	X	X	X
111215	MGWA-5	9/16/2020	180-111215-3	GW		X	X	X	X
111215	MGWA-6	9/16/2020	180-111215-4	GW		X	X	X	X
40740	MGWA-6	12/7/2020	160-40740-1	GW					X
111215	MGWA-6A	9/16/2020	180-111215-5	GW		X	X	X	X
111215	MGWC-1	9/17/2020	180-111215-6	GW		X	X	X	X
40740	MGWC-1	12/8/2020	160-40740-2	GW					X
111215	MGWC-2	9/16/2020	180-111215-7	GW		X	X	X	X
111215	MGWC-3	9/17/2020	180-111215-8	GW		X	X	X	X
40740	MGWC-3	12/8/2020	160-40740-3	GW					X
111215	MGWC-7	9/17/2020	180-111215-9	GW		X	X	X	X
111215	MGWC-8	9/17/2020	180-111215-10	GW		X	X	X	X
111215	MGWC-12	9/16/2020	180-111215-11	GW		X	X	X	X
111215	AP-DUP-01	9/16/2020	180-111215-12	GW	FD (MGWA-6A)	X	X	X	X
111215	AP-DUP-02	9/17/2020	180-111215-13	GW	FD (MGWC-1)	X	X	X	X
111215	AP-FB-01-09-16-20	9/16/2020	180-111215-14	WQ	FB	X	X	X	X
111215	AP-FB-02-09-16-20	9/16/2020	180-111215-15	WQ	FB	X	X	X	X
111215	AP-FERB-01-09-16-20	9/16/2020	180-111215-16	WQ	EB	X	X	X	X
111215	AP-FERB-02-09-17-20	9/17/2020	180-111215-17	WQ	EB	X	X	X	X

Abbreviations:
 EB – Equipment Blank
 FB – Field Blank
 FD – Field Duplicate
 GW – Groundwater
 QC – Quality Control
 TDS – Total Dissolved Solids
 WQ – Water Quality Control

TABLE 2

Georgia Power Company – McIntosh AP1

Qualifier Summary Table – September 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
111215	MGWC-1	Thallium			J	RPD exceeds field goal
111215	AP-DUP-02	Thallium			J	RPD exceeds field goal
111215	MGWA-6A	Radium-226			J	RPD exceeds field goal
111215	AP-DUP-01	Radium-226			J	RPD exceeds field goal
111215	MGWA-6	Radium-226			R	Replaced with resample data
111215	MGWA-6	Radium-228			R	Replaced with resample data
111215	MGWC-1	Radium-226			R	Replaced with resample data
111215	MGWC-1	Radium-228			R	Replaced with resample data
111215	MGWC-3	Radium-226			R	Replaced with resample data
111215	MGWC-3	Radium-228			R	Replaced with resample data

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
U – Non-Detect Result
R – Rejected Data

Low-Flow Test Report:

Test Date / Time: 12/7/2020 3:33:50 PM

Project: Plant McIntosh AP-1

Operator Name: Ryan Walker

Location Name: MGWA-6 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 31 ft Total Depth: 41.93 ft Initial Depth to Water: 23.19 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 36 ft Estimated Total Volume Pumped: 4582.5 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.31 ft	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Weather Conditions:

Sunny 50 s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
12/7/2020 3:33 PM	00:00	7.20 pH	20.80 °C	458.57 µS/cm	0.22 mg/L		57.4 mV	23.19 ft	150.00 ml/min
12/7/2020 3:34 PM	00:33	7.21 pH	20.72 °C	453.32 µS/cm	0.21 mg/L		58.0 mV	23.19 ft	150.00 ml/min
12/7/2020 3:39 PM	05:33	7.20 pH	20.40 °C	463.44 µS/cm	0.19 mg/L	2.18 NTU	41.4 mV	23.50 ft	150.00 ml/min
12/7/2020 3:44 PM	10:33	7.20 pH	20.70 °C	461.38 µS/cm	0.18 mg/L	1.55 NTU	33.0 mV	23.50 ft	150.00 ml/min
12/7/2020 3:49 PM	15:33	7.20 pH	20.25 °C	460.57 µS/cm	0.16 mg/L	2.01 NTU	26.3 mV	23.50 ft	150.00 ml/min
12/7/2020 3:54 PM	20:33	7.20 pH	19.99 °C	458.23 µS/cm	0.17 mg/L	1.99 NTU	21.9 mV	23.50 ft	150.00 ml/min
12/7/2020 3:59 PM	25:33	7.20 pH	19.73 °C	461.89 µS/cm	0.13 mg/L	1.68 NTU	23.0 mV	23.50 ft	150.00 ml/min
12/7/2020 4:04 PM	30:33	7.20 pH	19.60 °C	463.25 µS/cm	0.15 mg/L	1.38 NTU	21.8 mV	23.50 ft	150.00 ml/min

Samples

Sample ID:	Description:
MGWA-6	Sampled at 1615. Sunny 50 s.

Low-Flow Test Report:

Test Date / Time: 12/8/2020 8:56:12 AM

Project: Plant McIntosh AP-1

Operator Name: Ryan Walker

Location Name: MGWC-1 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 46 ft Total Depth: 56.08 ft Initial Depth to Water: 38.6 ft	Pump Type: QED Bladder Tubing Type: Poly Pump Intake From TOC: 51 ft Estimated Total Volume Pumped: 6056.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 1 ft	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Weather Conditions:

Sunny 40 s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
12/8/2020 8:56 AM	00:00	7.52 pH	15.06 °C	553.70 µS/cm	1.14 mg/L		99.7 mV	38.60 ft	200.00 ml/min
12/8/2020 8:56 AM	00:17	7.50 pH	15.22 °C	563.04 µS/cm	1.08 mg/L		110.6 mV	38.60 ft	200.00 ml/min
12/8/2020 9:01 AM	05:17	7.40 pH	17.79 °C	545.71 µS/cm	0.51 mg/L	7.12 NTU	27.0 mV	39.60 ft	200.00 ml/min
12/8/2020 9:06 AM	10:17	7.39 pH	18.34 °C	548.32 µS/cm	0.43 mg/L	7.27 NTU	15.2 mV	39.60 ft	200.00 ml/min
12/8/2020 9:11 AM	15:17	7.39 pH	18.44 °C	545.15 µS/cm	0.35 mg/L	6.21 NTU	17.3 mV	39.60 ft	200.00 ml/min
12/8/2020 9:16 AM	20:17	7.39 pH	18.70 °C	561.07 µS/cm	0.30 mg/L	4.63 NTU	16.3 mV	39.60 ft	200.00 ml/min
12/8/2020 9:21 AM	25:17	7.40 pH	18.71 °C	566.17 µS/cm	0.27 mg/L	3.71 NTU	17.3 mV	39.60 ft	200.00 ml/min
12/8/2020 9:26 AM	30:17	7.41 pH	18.88 °C	561.98 µS/cm	0.24 mg/L	2.80 NTU	15.5 mV	39.60 ft	200.00 ml/min

Samples

Sample ID:	Description:
MGWC-1	Sampled at 0927. Sunny, 40 s.

Low-Flow Test Report:

Test Date / Time: 12/8/2020 10:22:32 AM

Project: Plant McIntosh AP-1

Operator Name: Ryan Walker

Location Name: MGWC-3 Well Diameter: 2 ft Casing Type: PVC Screen Length: 10 ft Top of Screen: 28 ft Total Depth: 38.74 ft Initial Depth to Water: 19.88 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 33 ft Estimated Total Volume Pumped: 4200 ml Flow Cell Volume: 90 ml Final Flow Rate: 120 ml/min Final Draw Down: 0.42 ft	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Weather Conditions:

Sunny, 50 s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
12/8/2020 10:22 AM	00:00	6.92 pH	14.93 °C	528.71 µS/cm	0.68 mg/L		56.0 mV	19.88 ft	120.00 ml/min
12/8/2020 10:27 AM	05:00	6.85 pH	17.01 °C	525.64 µS/cm	0.31 mg/L	0.53 NTU	53.9 mV	20.30 ft	120.00 ml/min
12/8/2020 10:32 AM	10:00	6.88 pH	17.10 °C	544.99 µS/cm	0.25 mg/L	0.41 NTU	40.8 mV	20.30 ft	120.00 ml/min
12/8/2020 10:37 AM	15:00	6.92 pH	17.46 °C	548.34 µS/cm	0.22 mg/L	0.51 NTU	38.0 mV	20.30 ft	120.00 ml/min
12/8/2020 10:42 AM	20:00	6.98 pH	17.55 °C	545.85 µS/cm	0.19 mg/L	0.34 NTU	36.2 mV	20.30 ft	120.00 ml/min
12/8/2020 10:47 AM	25:00	7.01 pH	17.68 °C	550.48 µS/cm	0.18 mg/L	0.35 NTU	34.8 mV	20.30 ft	120.00 ml/min
12/8/2020 10:52 AM	30:00	7.03 pH	17.59 °C	554.27 µS/cm	0.17 mg/L	0.43 NTU	33.7 mV	20.30 ft	120.00 ml/min
12/8/2020 10:57 AM	35:00	7.04 pH	18.35 °C	548.38 µS/cm	0.16 mg/L	0.40 NTU	32.6 mV	20.30 ft	120.00 ml/min

Samples

Sample ID:	Description:
MGWC-3	Sunny, 50 s

APPENDIX B

Monitoring Well and Piezometer Survey Data

107 Mountain Brook Dr., Ste. 104
Canton, GA 30115



www.gunninsurvey.com
678.880.7502

DATE: July 2, 2020

TO: Atlantic Coastal Consulting, Inc
1150 Northmeadow Parkway
Suite 100
Roswell, GA 30076

ATTN: Evan Perry of Atlantic Coastal Consulting

SUBJECT: Plant McIntosh Ash Pond 1: 19 wells / 6 piezometers

The following data has been established on the existing wells using Georgia State Plane East Zone (NAD 83 horizontal and NAVD 88 vertical). Wells were surveyed to the following tolerances: 0.01' vertical and 0.5' horizontal via conventional survey methods, GPS, OPUS processing, and level loops. Each well was cross-checked for horizontal and vertical accuracy.

WELL ID	NORTHING	EASTING	ELEVATION	ELEVATION	ELEVATION
	NAIL	NAIL	NAIL	TOP OF CASE	TOP OF PVC
MGWA-5	855860.82	962763.17	61.42	64.57	64.36
MGWA-6	856527.73	963130.08	58.24	61.22	61.08
MGWA-6A	856520.82	963113.65	56.89	59.90	59.76
MGWA-9	857129.70	963164.58	56.25	59.44	59.29
MGWA-10	855934.25	961406.49	62.05	65.23	65.07
MGWA-11	855985.31	962070.22	62.04	65.11	64.91
MGWA-24	856600.28	962885.22	57.55	60.75	60.53
MGWC-1	856813.23	964287.35	62.20	65.36	65.23
MGWC-2	856400.69	963958.38	45.32	48.72	48.54
MGWC-3	856033.79	963658.28	50.09	52.78	52.65
MGWC-4	855555.05	963139.37	61.05	64.46	64.33
MGWC-7	857417.68	964007.53	51.28	54.55	54.40
MGWC-8	857177.10	964141.67	59.69	62.75	62.61
MGWC-12	855545.67	963110.24	61.24	64.32	64.10
MGWC-19	857406.16	963972.44	50.74	54.13	53.98
MGWC-20	857596.86	964281.59	48.77	51.84	51.56

MGWC-21	857159.04	964155.30	59.89	62.85	62.65
MGWC-22	856381.60	963948.23	45.09	47.73	47.53
MGWC-23	856940.45	964617.96	54.84	57.63	57.47
WELL ID	NORTHING	EASTING	ELEVATION	ELEVATION	ELEVATION
	NAIL	NAIL	NAIL	TOP OF CASE	TOP OF PVC
PZ-13	856123.86	964192.52	38.02	41.11	40.91
PZ-14	855727.20	963895.98	43.99	47.34	47.11
PZ-15	856156.03	964192.45	39.07	42.50	42.37
PZ-16	857077.14	964957.28	51.29	54.85	54.71
PZ-17	857655.05	964525.72	54.07	57.64	57.51
PZ-18	857542.34	963505.91	50.26	53.61	53.48

Sincerely yours,

Gunnin Land Surveying, LLC.

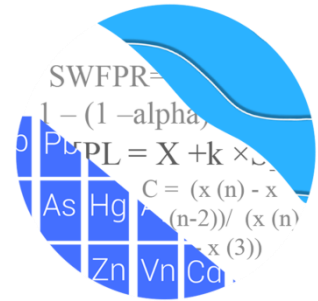


Jesse R. Gunnin, L.S. Principal Surveyor

APPENDIX C

Statistical Analyses

GROUNDWATER STATS CONSULTING



August 26, 2020

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant McIntosh Ash Pond 1 (AP-1)
Statistical Analysis March 2020

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the March 2020 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of the analysis of groundwater data 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 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 Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting.

The 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 well/constituent pairs with 100% nondetects follows this letter. A substitution of the most recent reporting limit is used for nondetect data. Selenium was not detected during the scan event conducted in January 2020 and, therefore, no sampling or statistical analysis was required for this parameter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

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 recommended. The Analysis of Variance (ANOVA) is typically 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 nondetects, 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% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect 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% nondetects.

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 – March 2020

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through March 2020 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

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. Several prediction limit exceedances were noted for Appendix III parameters. A summary table of the interwell prediction limits follows this letter.

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 increasing trends were noted for the following well/constituent pairs:

- Boron: MGWC-1, MGWC-3, MGWC-7, and MGWC-8
- Sulfate: MGWC-3 and MGWC-8
- TDS: MGWC-8

Statistically significant decreasing trends were noted for the following well/constituent pairs:

- Boron: MGWA-6 (upgradient) and MGWC-2
- Calcium: MGWA-10 (upgradient)
- Chloride: MGWA-5 (upgradient), MGWA-6 (upgradient), MGWC-2, and MGWC-7
- Sulfate: MGWA-6 (upgradient) and MGWC-2
- TDS: MGWC-2

Statistical Analysis of Appendix IV Parameters – March 2020

Interwell 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% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR §257.95(h) (1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified levels have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR Rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements and the CCR Rule, State and Federal GWPS were established for statistical comparison of Appendix IV constituents for the March 2020 sample event (Figures G and H, respectively). To complete the statistical comparison to GWPS, State and Federal confidence intervals were constructed for the Appendix IV constituents in accordance with the federal and state requirements in each downgradient well (Figures I and J, respectively). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. The confidence intervals were compared to the GWPS established using the CCR Rules for the Federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. Summaries of the confidence intervals follow this letter. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified.

Federal:

- Cobalt: MGWC-7
- Lithium: MGWC-7

State:

- Cobalt: MGWC-2, MGWC-7, and MGWC-8
- Lithium: MGWC-7

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
Groundwater Analyst



Kristina L. Rayner
Groundwater Statistician

100% Nondetect Well-Constituent Pairs

Date: 5/27/2020 7:34 AM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Antimony (mg/L)

MGWA-11, MGWA-6A, MGWC-1, MGWC-2, MGWC-8

Beryllium (mg/L)

MGWA-5, MGWA-6, MGWA-6A, MGWC-12, MGWC-2, MGWC-7

Cadmium (mg/L)

MGWA-11, MGWA-5, MGWA-6, MGWA-6A, MGWC-12, MGWC-3, MGWC-7

Chromium (mg/L)

MGWA-6A

Lead (mg/L)

MGWA-10, MGWA-6, MGWA-6A, MGWC-1, MGWC-2, MGWC-3, MGWC-8

Mercury (mg/L)

MGWA-10, MGWA-5, MGWA-6A, MGWC-1

Molybdenum (mg/L)

MGWA-6, MGWC-2, MGWC-3

Selenium (mg/L)

MGWA-5, MGWA-6, MGWA-6A

Thallium (mg/L)

MGWA-6A, MGWC-7

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:31 PM

MGWC-12 pH (SU)

9/10/2019 10.96 (o)

Appendix III Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:47 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	3/10/2020	1.9	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	3/10/2020	2.3	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	3/10/2020	1.3	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	3/10/2020	1.4	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	3/10/2020	4	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	3/10/2020	120	Yes	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.6	n/a	3/10/2020	14	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.6	n/a	3/10/2020	15	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.6	n/a	3/10/2020	10	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-1	25	n/a	3/10/2020	140	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	25	n/a	3/10/2020	130	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	25	n/a	3/10/2020	370	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	340	n/a	3/10/2020	450	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	340	n/a	3/10/2020	540	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	340	n/a	3/10/2020	390	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	340	n/a	3/10/2020	370	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	340	n/a	3/10/2020	600	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:47 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	3/10/2020	1.9	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-12	0.18	n/a	3/10/2020	0.08ND	No	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	3/10/2020	2.3	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	3/10/2020	1.3	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	3/10/2020	1.4	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	3/10/2020	4	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	3/10/2020	120	Yes	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-12	110	n/a	3/10/2020	30	No	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	3/10/2020	110	No	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	3/10/2020	110	No	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	3/10/2020	55	No	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	3/10/2020	100	No	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.6	n/a	3/10/2020	14	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-12	9.6	n/a	3/10/2020	4.1	No	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-2	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-3	9.6	n/a	3/10/2020	15	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-7	9.6	n/a	3/10/2020	10	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-8	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	MGWC-1	0.19	n/a	3/10/2020	0.086	No	64	n/a	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	3/10/2020	0.15	No	64	n/a	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	3/10/2020	0.05	No	64	n/a	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	3/10/2020	0.058	No	64	n/a	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	3/10/2020	0.18	No	64	n/a	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-8	0.19	n/a	3/10/2020	0.084	No	64	n/a	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	8.0	5.3	3/10/2020	7.11	No	73	n/a	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2
pH (SU)	MGWC-12	8.0	5.3	3/10/2020	7.53	No	73	n/a	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2
pH (SU)	MGWC-2	8.0	5.3	3/10/2020	7.3	No	73	n/a	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2
pH (SU)	MGWC-3	8.0	5.3	3/10/2020	6.87	No	73	n/a	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2
pH (SU)	MGWC-7	8.0	5.3	3/10/2020	6.54	No	73	n/a	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2
pH (SU)	MGWC-8	8.0	5.3	3/10/2020	5.5	No	73	n/a	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MGWC-1	25	n/a	3/10/2020	140	Yes	60	1.129	1.109	13.33	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-12	25	n/a	3/10/2020	7.8	No	60	1.129	1.109	13.33	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-2	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-3	25	n/a	3/10/2020	130	Yes	60	1.129	1.109	13.33	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-7	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-8	25	n/a	3/10/2020	370	Yes	60	1.129	1.109	13.33	None	In(x)	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-1	340	n/a	3/10/2020	450	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-12	340	n/a	3/10/2020	170	No	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-2	340	n/a	3/10/2020	540	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-3	340	n/a	3/10/2020	390	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-7	340	n/a	3/10/2020	370	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-8	340	n/a	3/10/2020	600	Yes	60	176.6	89.2	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 5/26/2020, 4:52 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>
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-63	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	48	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3306	-46	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-3	0.201	45	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.07557	60	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.394	63	44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.7439	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3936	-58	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.324	-70	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.296	-84	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8063	-64	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-4.202	-71	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-34.14	-78	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	7.185	60	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	90.35	68	44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-48.03	-67	-44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	114.5	58	44	Yes	14	0	n/a	n/a	0.02	NP

Appendix III Trend Tests - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:52 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>
Boron (mg/L)	MGWA-10 (bg)	0	20	44	No	14	57.14	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-11 (bg)	0	32	44	No	14	71.43	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-5 (bg)	0	21	44	No	14	85.71	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-63	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6A (bg)	0	-1	-8	No	4	75	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	48	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3306	-46	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-3	0.201	45	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.07557	60	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.394	63	44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.7439	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-11 (bg)	-0.8057	-17	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-5 (bg)	0	-2	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6 (bg)	0	20	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6A (bg)	-5.532	-2	-8	No	4	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-1	5.325	31	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-10 (bg)	-0.0804	-19	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-11 (bg)	-0.05739	-8	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3936	-58	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.324	-70	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.4452	-6	-8	No	4	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-1	0	-24	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.296	-84	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-3	0.3017	36	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8063	-64	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-8	0.3935	33	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4642	-41	-44	No	14	14.29	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-11 (bg)	0.3617	30	44	No	14	42.86	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.8789	-40	-44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-4.202	-71	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6A (bg)	-3.4	-2	-8	No	4	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-1	5.48	25	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-34.14	-78	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	7.185	60	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-7	3.621	36	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	90.35	68	44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-10 (bg)	-7.28	-28	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-11 (bg)	0	-6	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-5 (bg)	4.65	11	44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6 (bg)	-3.179	-12	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6A (bg)	-30.59	-2	-8	No	4	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-1	0	5	44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-48.03	-67	-44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-3	-6.612	-19	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-7	0	-2	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	114.5	58	44	Yes	14	0	n/a	n/a	0.02	NP

Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:54 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	0.0020	n/a	n/a	n/a	n/a	51	n/a	n/a	92.16	n/a	n/a	0.0731	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.035	n/a	n/a	n/a	n/a	69	n/a	n/a	36.23	n/a	n/a	0.02904	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a	69	n/a	n/a	0	n/a	n/a	0.02904	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	59	n/a	n/a	93.22	n/a	n/a	0.04849	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	69	n/a	n/a	98.55	n/a	n/a	0.02904	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	n/a	59	n/a	n/a	67.8	n/a	n/a	0.04849	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	69	n/a	n/a	75.36	n/a	n/a	0.02904	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.1	n/a	n/a	n/a	n/a	69	0.5336	0.287	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	64	n/a	n/a	34.38	n/a	n/a	0.03752	NP Inter(normality)
Lead (mg/L)	n/a	0.0010	n/a	n/a	n/a	n/a	51	n/a	n/a	94.12	n/a	n/a	0.0731	NP Inter(NDs)
Lithium (mg/L)	n/a	0.030	n/a	n/a	n/a	n/a	69	n/a	n/a	27.54	n/a	n/a	0.02904	NP Inter(normality)
Mercury (mg/L)	n/a	0.00020	n/a	n/a	n/a	n/a	59	n/a	n/a	94.92	n/a	n/a	0.04849	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	n/a	59	n/a	n/a	69.49	n/a	n/a	0.04849	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0050	n/a	n/a	n/a	n/a	54	n/a	n/a	88.89	n/a	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0010	n/a	n/a	n/a	n/a	59	n/a	n/a	88.14	n/a	n/a	0.04849	NP Inter(NDs)

PLANT MCINTOSH AP 1 GWPS - FEDERAL				
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		0.035	0.035
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		1.1	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	0.005
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

PLANT MCINTOSH AP 1 GWPS - STATE				
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		0.035	0.035
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	0.0025
Combined Radium, Total (pCi/L)	5		1.1	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
Selenium, Total (mg/L)	0.05		0.005	0.005
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:58 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. 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>
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.006	Yes 16	0.009375	0.002034	0	None	x^2	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 16	0.1208	0.02225	0	None	No	0.01	NP (normality)

Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:58 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	12	0.001867	0.0004619	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	12	0.001858	0.0004907	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	12	0.001998	0.00000866	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.003041	0.002155	0.035	No	16	0.002621	0.0007343	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.0019	0.00053	0.035	No	16	0.001732	0.001673	18.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-2	0.005	0.00065	0.035	No	16	0.003881	0.002004	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.0018	0.0013	0.035	No	16	0.001721	0.000926	6.25	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-7	0.005	0.00066	0.035	No	16	0.002664	0.00214	43.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-8	0.005	0.00059	0.035	No	16	0.004164	0.001798	81.25	None	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	16	0.1071	0.01877	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06203	0.04733	2	No	16	0.05468	0.01129	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-2	0.05588	0.0498	2	No	16	0.05284	0.004671	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1519	0.136	2	No	16	0.1439	0.0122	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No	16	0.01324	0.007627	6.25	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03769	0.03386	2	No	16	0.03578	0.00294	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.013	0.00018	0.004	No	14	0.01208	0.003426	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.013	0.00031	0.004	No	14	0.01209	0.003392	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.0019	0.00049	0.004	No	14	0.002679	0.004398	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	MGWC-1	0.013	0.0005	0.005	No	16	0.01061	0.005134	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003546	0.001353	0.005	No	16	0.002607	0.001997	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-8	0.013	0.00044	0.005	No	16	0.005282	0.006178	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	14	0.002114	0.0004276	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	14	0.002086	0.0003207	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	14	0.002093	0.0003474	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	14	0.002071	0.0002673	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	14	0.002064	0.0004069	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	14	0.002079	0.000294	92.86	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No	16	0.001765	0.0009996	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.00016	0.006	No	16	0.002354	0.000585	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.00349	0.002952	0.006	No	16	0.003221	0.0004134	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.006	No	16	0.0009387	0.0007782	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.006	Yes	16	0.009375	0.002034	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.006	No	16	0.01121	0.007422	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.64	1.08	5	No	16	1.327	0.3151	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6982	0.3727	5	No	16	0.5354	0.2501	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.726	0.4138	5	No	16	0.5699	0.24	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.641	1.369	5	No	16	1.505	0.2091	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.309	0.8683	5	No	16	1.089	0.339	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	2.009	1.423	5	No	16	1.716	0.45	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2569	0.1556	4	No	15	0.2063	0.07479	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.258	0.2006	4	No	15	0.2293	0.04234	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	15	0.1464	0.06142	46.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No	15	0.1416	0.06414	40	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3654	0.2204	4	No	15	0.2929	0.107	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.2	0.088	4	No	15	0.1245	0.04492	20	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	12	0.000925	0.0002598	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	12	0.0009417	0.0002021	91.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01278	0.01041	0.04	No	16	0.01163	0.001897	6.25	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02189	0.01478	0.04	No	16	0.01834	0.005465	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0074	0.0047	0.04	No	16	0.006061	0.002012	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01368	0.01097	0.04	No	16	0.01233	0.002076	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes	16	0.1208	0.02225	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04014	0.02762	0.04	No	16	0.03388	0.009623	0	None	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	14	0.0001829	0.00004364	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	14	0.0001841	0.00004054	85.71	None	No	0.01	NP (NDs)

Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No 14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No 14	0.0001914	0.00003207	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00012	0.002	No 14	0.0002097	0.0001581	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.1	No 14	0.005391	0.006316	28.57	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No 14	0.01211	0.005737	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No 14	0.01418	0.003071	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No 14	0.01419	0.00302	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No 14	0.0007604	0.0003966	71.43	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00015	0.002	No 14	0.0009393	0.0002272	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No 14	0.0009436	0.0002111	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No 14	0.000895	0.0002701	85.71	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0004022	0.0001433	0.002	No 14	0.00032	0.0003001	14.29	None	In(x)	0.01	Param.

State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:41 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. 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>
Cobalt (mg/L)	MGWC-2	0.00349	0.002952	0.0025	Yes 16	0.003221	0.0004134	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.0025	Yes 16	0.009375	0.002034	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.0025	Yes 16	0.01121	0.007422	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 16	0.1208	0.02225	0	None	No	0.01	NP (normality)

State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:41 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	12	0.001867	0.0004619	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	12	0.001858	0.0004907	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	12	0.001998	0.00000866	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.003041	0.002155	0.035	No	16	0.002621	0.0007343	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.0019	0.00053	0.035	No	16	0.001732	0.001673	18.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-2	0.005	0.00065	0.035	No	16	0.003881	0.002004	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.0018	0.0013	0.035	No	16	0.001721	0.000926	6.25	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-7	0.005	0.00066	0.035	No	16	0.002664	0.00214	43.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-8	0.005	0.00059	0.035	No	16	0.004164	0.001798	81.25	None	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	16	0.1071	0.01877	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06203	0.04733	2	No	16	0.05468	0.01129	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-2	0.05588	0.0498	2	No	16	0.05284	0.004671	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1519	0.136	2	No	16	0.1439	0.0122	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No	16	0.01324	0.007627	6.25	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03769	0.03386	2	No	16	0.03578	0.00294	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.013	0.00018	0.004	No	14	0.01208	0.003426	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.013	0.00031	0.004	No	14	0.01209	0.003392	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.0019	0.00049	0.004	No	14	0.002679	0.004398	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	MGWC-1	0.013	0.0005	0.005	No	16	0.01061	0.005134	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003546	0.001353	0.005	No	16	0.002607	0.001997	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-8	0.013	0.00044	0.005	No	16	0.005282	0.006178	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	14	0.002114	0.0004276	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	14	0.002086	0.0003207	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	14	0.002093	0.0003474	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	14	0.002071	0.0002673	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	14	0.002064	0.0004069	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	14	0.002079	0.000294	92.86	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.0025	No	16	0.001765	0.0009996	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.00016	0.0025	No	16	0.002354	0.000585	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.00349	0.002952	0.0025	Yes	16	0.003221	0.0004134	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.0025	No	16	0.0009387	0.0007782	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.0025	Yes	16	0.009375	0.002034	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.0025	Yes	16	0.01121	0.007422	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.64	1.08	5	No	16	1.327	0.3151	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6982	0.3727	5	No	16	0.5354	0.2501	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.726	0.4138	5	No	16	0.5699	0.24	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.641	1.369	5	No	16	1.505	0.2091	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.309	0.8683	5	No	16	1.089	0.339	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	2.009	1.423	5	No	16	1.716	0.45	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2569	0.1556	4	No	15	0.2063	0.07479	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.258	0.2006	4	No	15	0.2293	0.04234	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	15	0.1464	0.06142	46.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No	15	0.1416	0.06414	40	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3654	0.2204	4	No	15	0.2929	0.107	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.2	0.088	4	No	15	0.1245	0.04492	20	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No	12	0.000925	0.0002598	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No	12	0.0009417	0.0002021	91.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01278	0.01041	0.03	No	16	0.01163	0.001897	6.25	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02189	0.01478	0.03	No	16	0.01834	0.005465	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0074	0.0047	0.03	No	16	0.006061	0.002012	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01368	0.01097	0.03	No	16	0.01233	0.002076	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes	16	0.1208	0.02225	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04014	0.02762	0.03	No	16	0.03388	0.009623	0	None	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	14	0.0001829	0.00004364	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	14	0.0001841	0.00004054	85.71	None	No	0.01	NP (NDs)

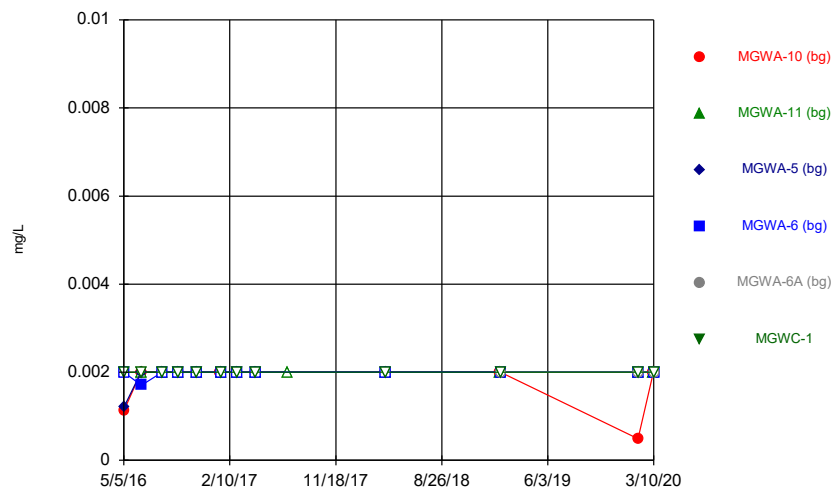
State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:41 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-3	0.0002	0.00007	0.002	No	14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	14	0.0001914	0.00003207	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00012	0.002	No	14	0.0002097	0.0001581	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.015	No	14	0.005391	0.006316	28.57	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.015	No	14	0.01211	0.005737	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	14	0.01418	0.003071	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	14	0.01419	0.00302	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	14	0.0007604	0.0003966	71.43	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00015	0.002	No	14	0.0009393	0.0002272	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	14	0.0009436	0.0002111	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	14	0.000895	0.0002701	85.71	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0004022	0.0001433	0.002	No	14	0.00032	0.0003001	14.29	None	In(x)	0.01	Param.

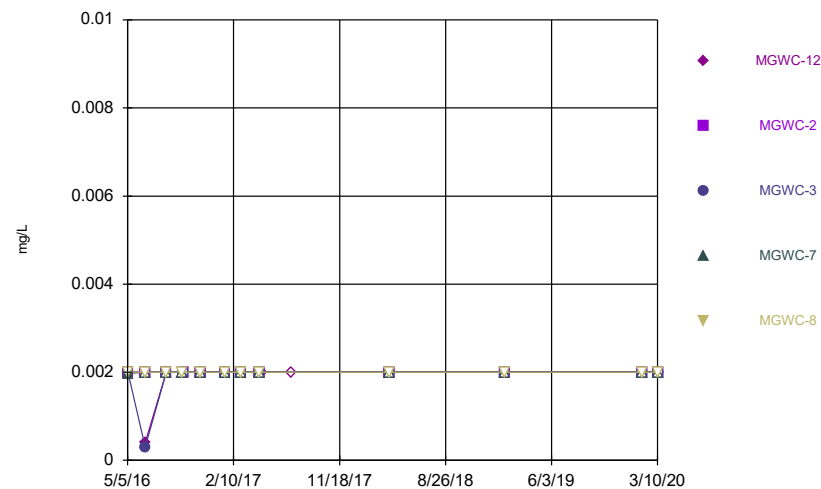
FIGURE A.

Time Series



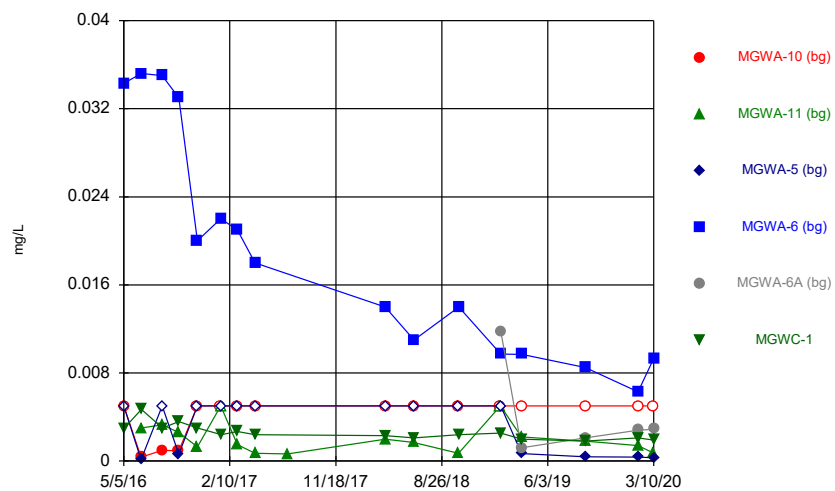
Constituent: Antimony Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



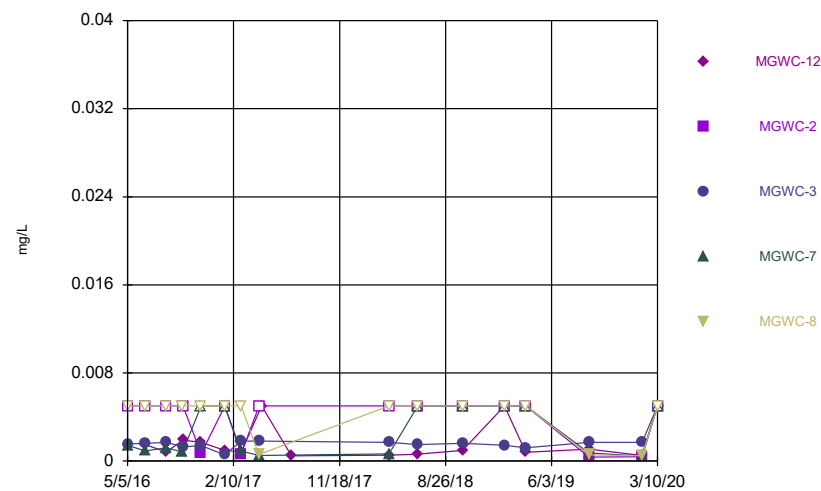
Constituent: Antimony Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



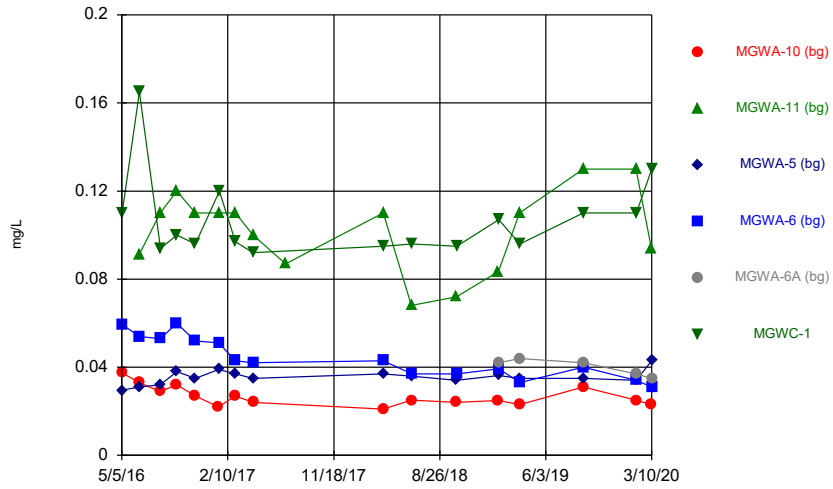
Constituent: Arsenic Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



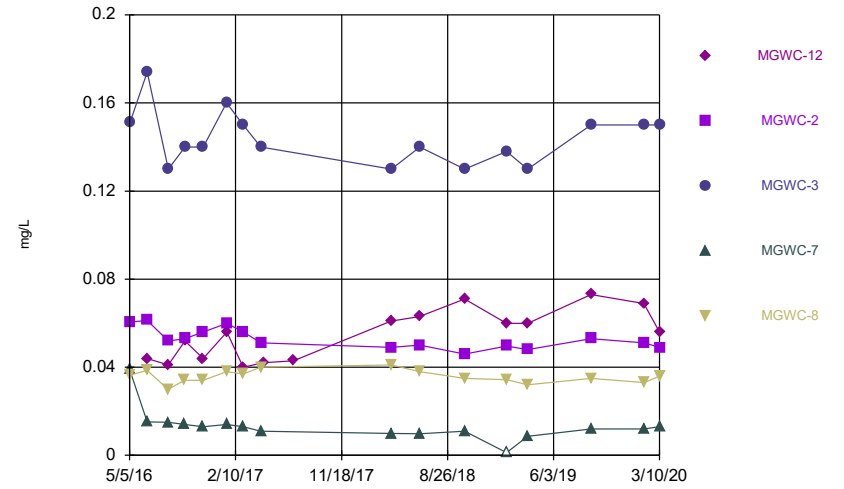
Constituent: Arsenic Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



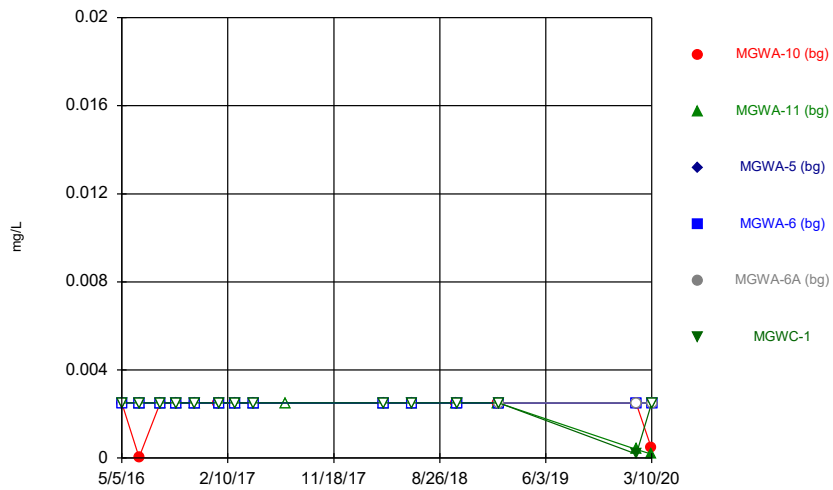
Constituent: Barium Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



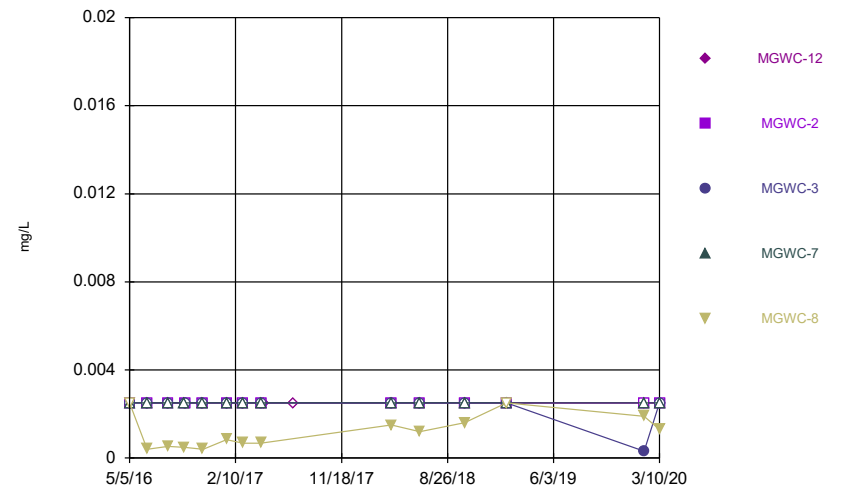
Constituent: Barium Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



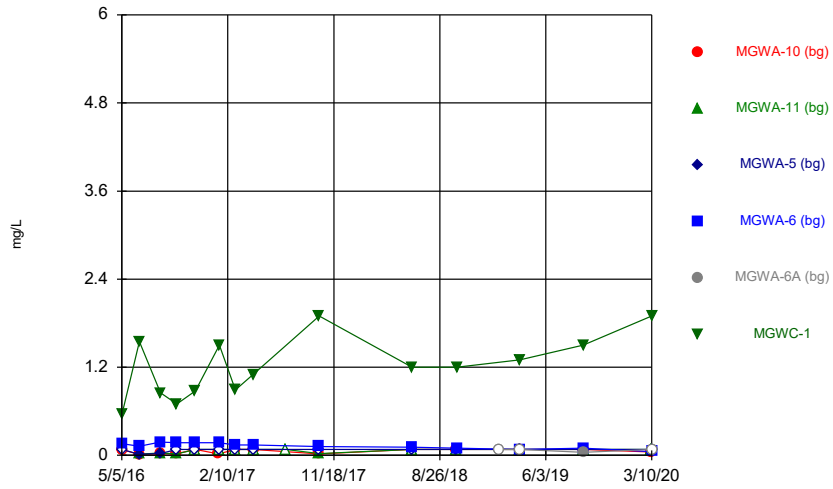
Constituent: Beryllium Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



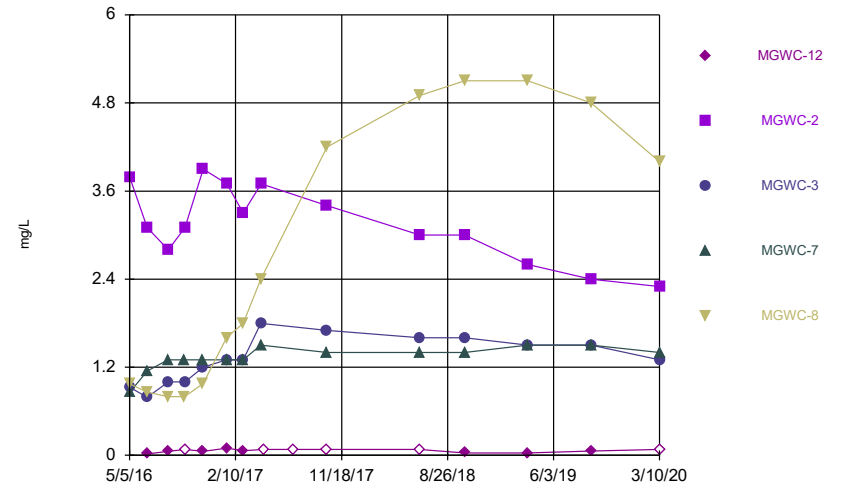
Constituent: Beryllium Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



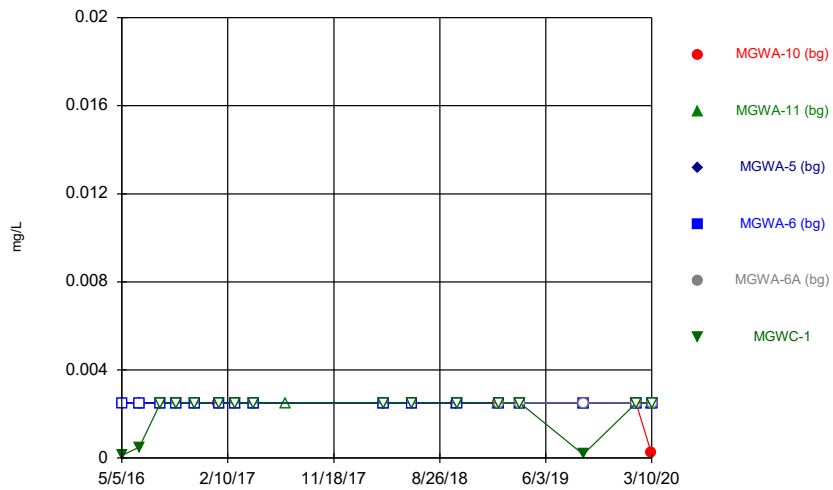
Constituent: Boron Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



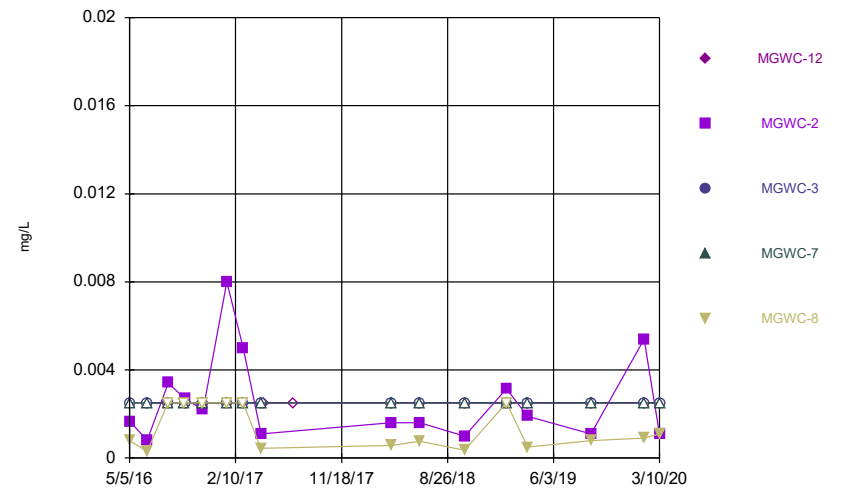
Constituent: Boron Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



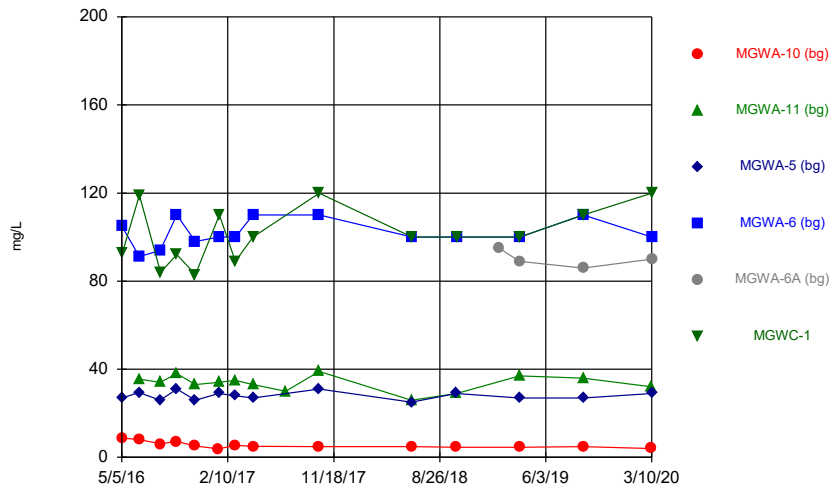
Constituent: Cadmium Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



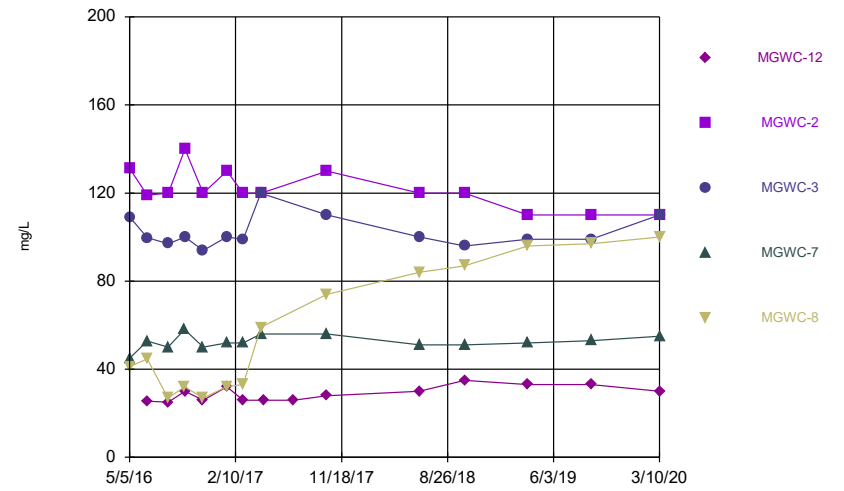
Constituent: Cadmium Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



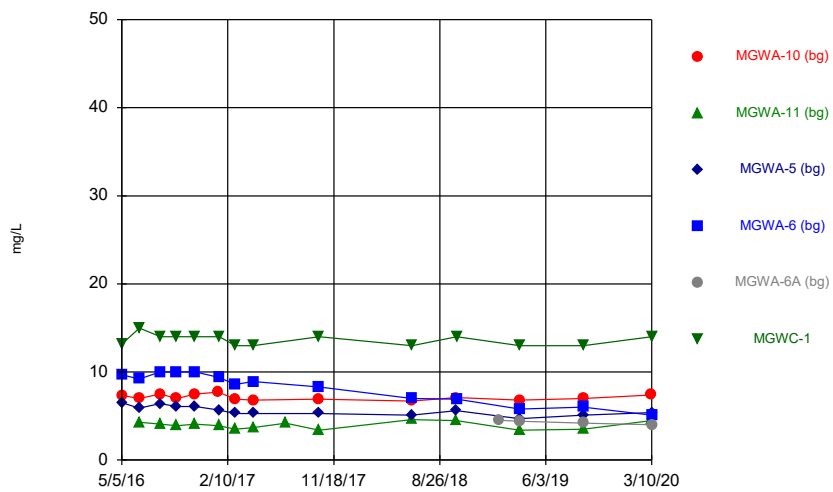
Constituent: Calcium Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



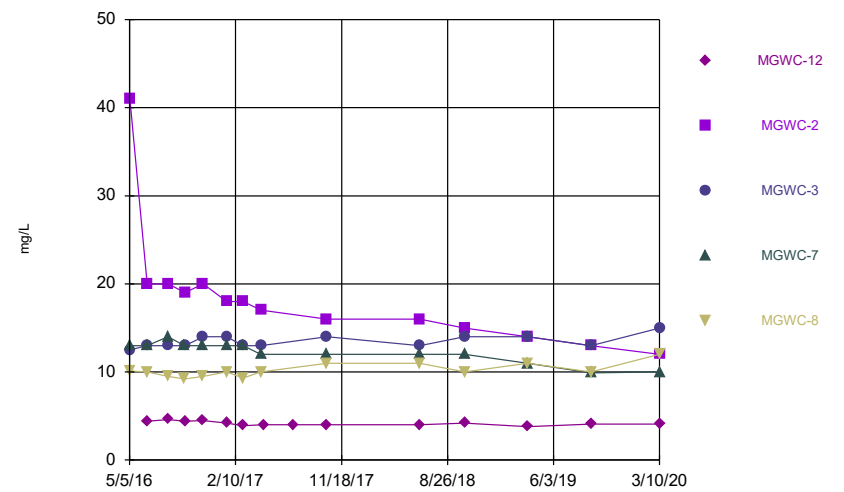
Constituent: Calcium Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



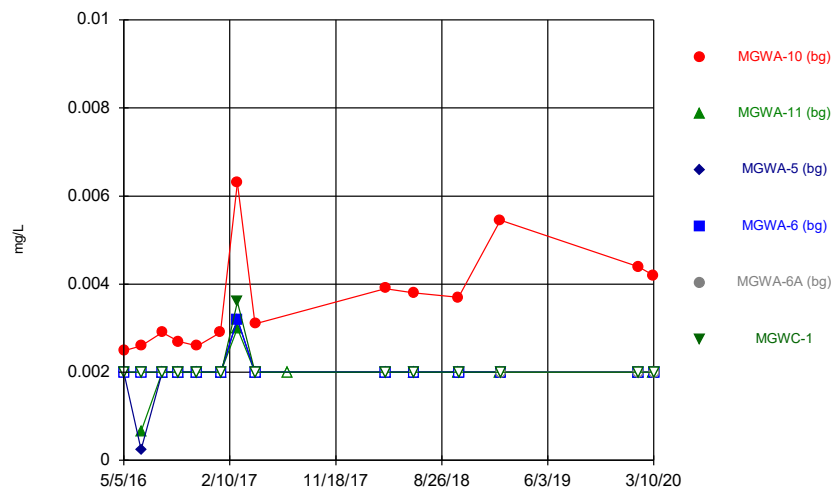
Constituent: Chloride Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



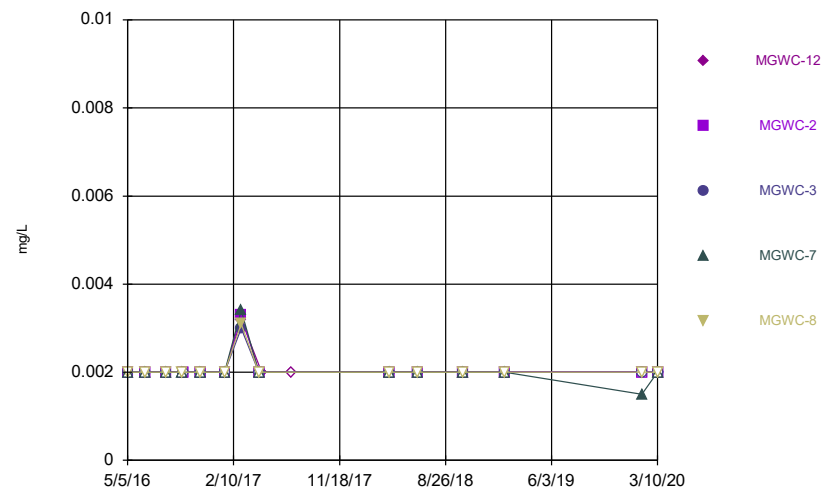
Constituent: Chloride Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



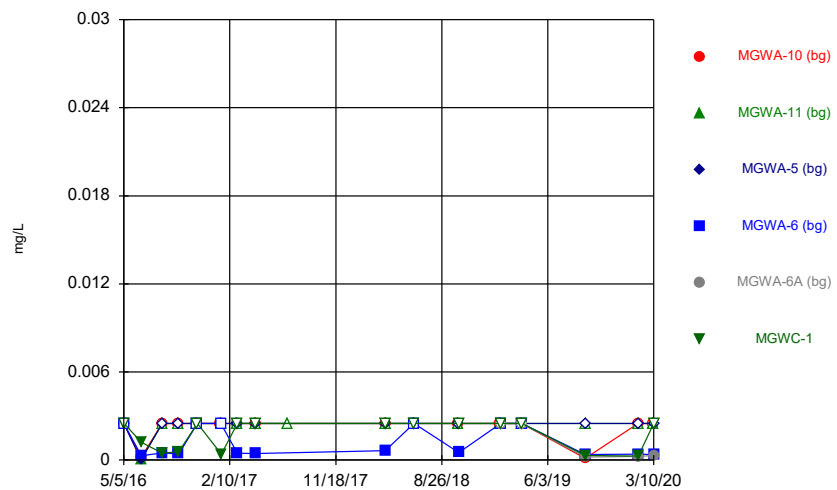
Constituent: Chromium Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



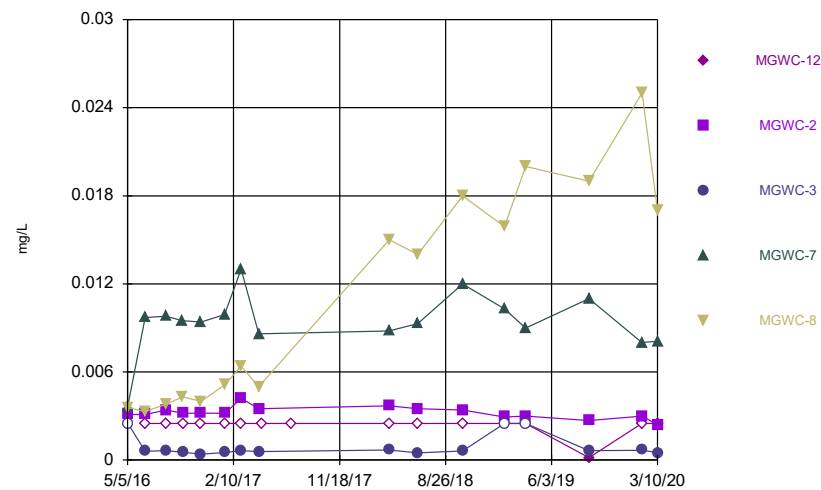
Constituent: Chromium Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



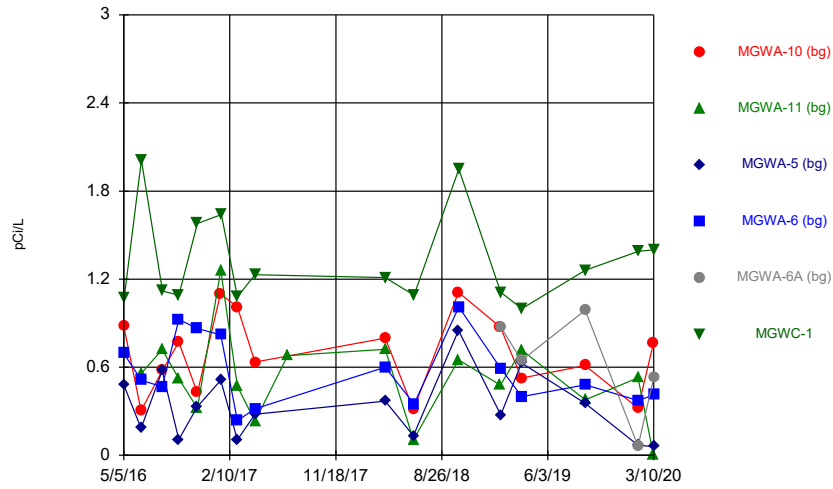
Constituent: Cobalt Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



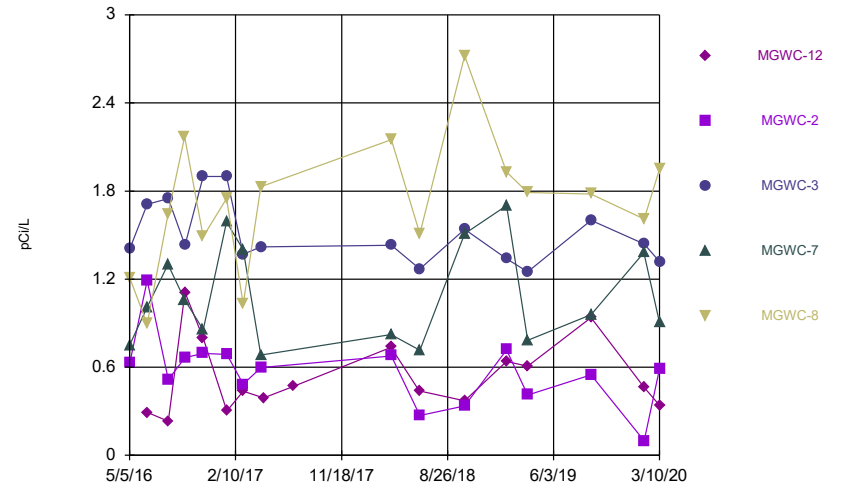
Constituent: Cobalt Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



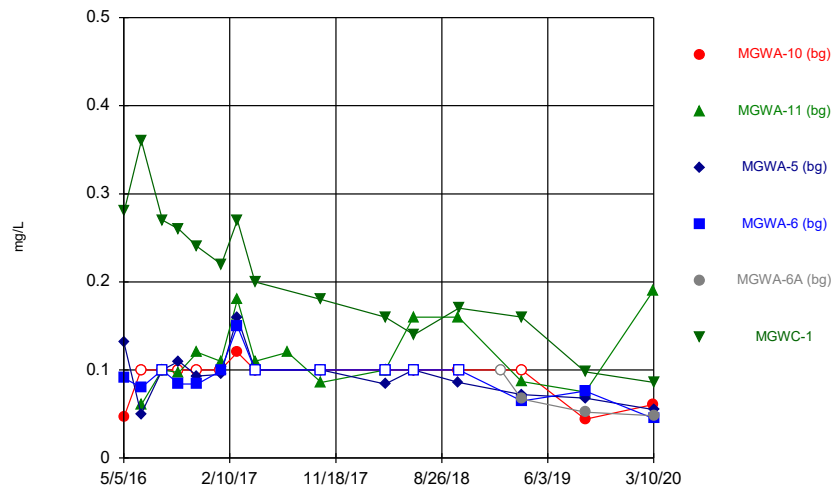
Constituent: Combined Radium 226 + 228 Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



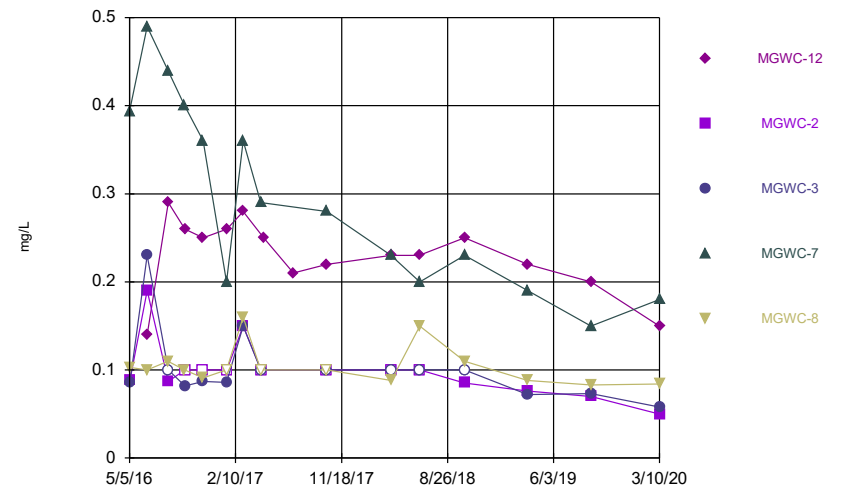
Constituent: Combined Radium 226 + 228 Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



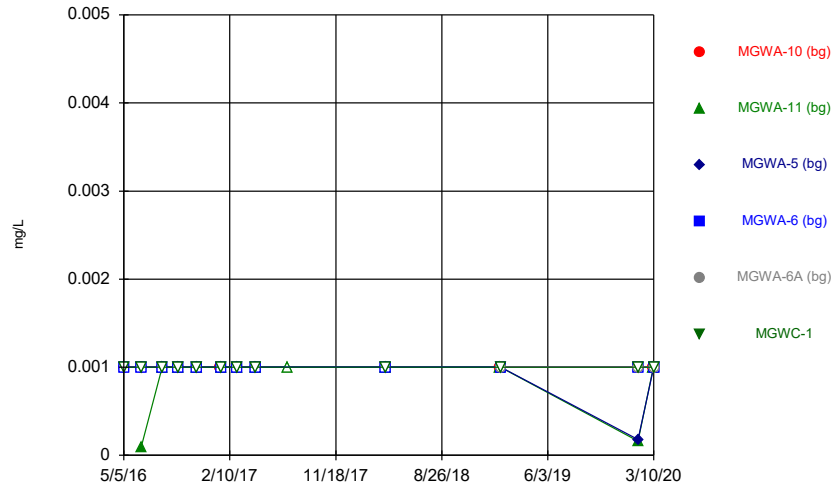
Constituent: Fluoride Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series

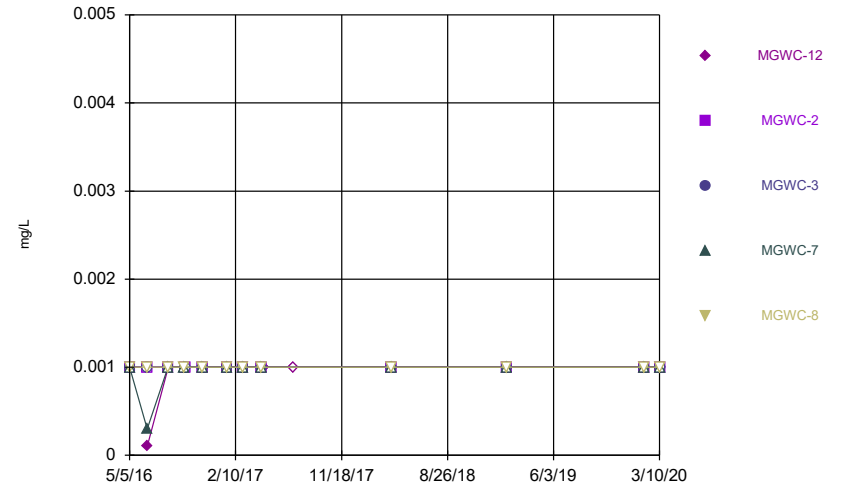


Constituent: Fluoride Analysis Run 5/27/2020 6:59 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

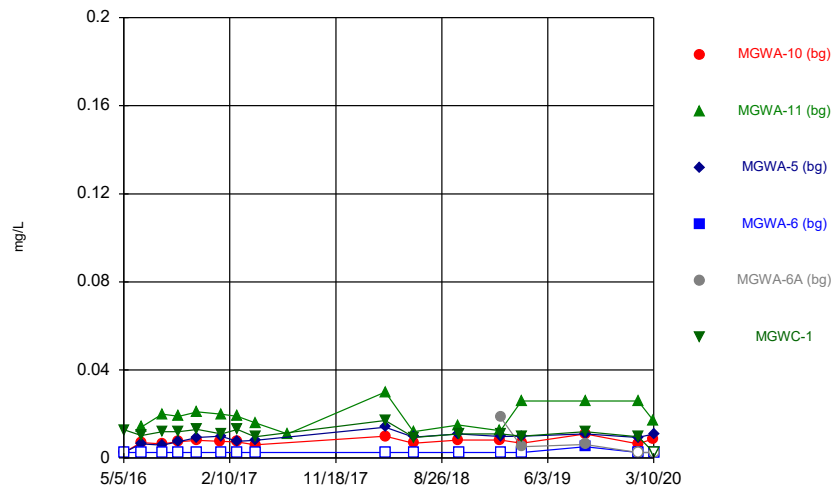
Time Series



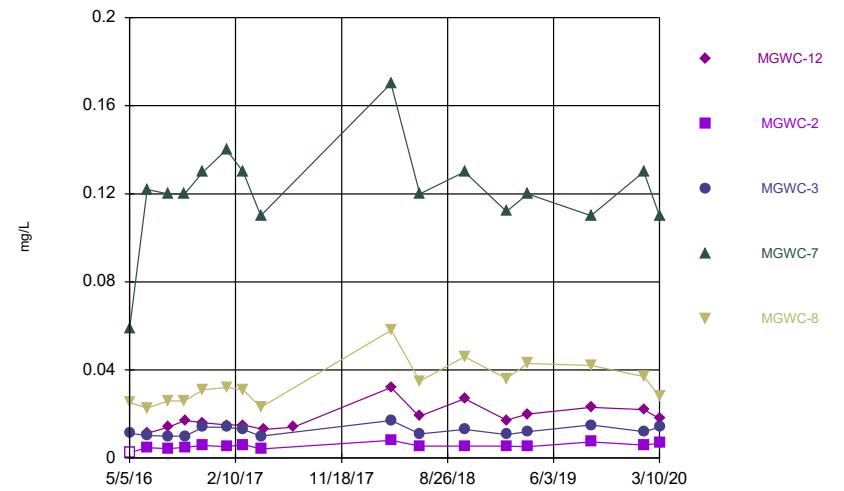
Time Series



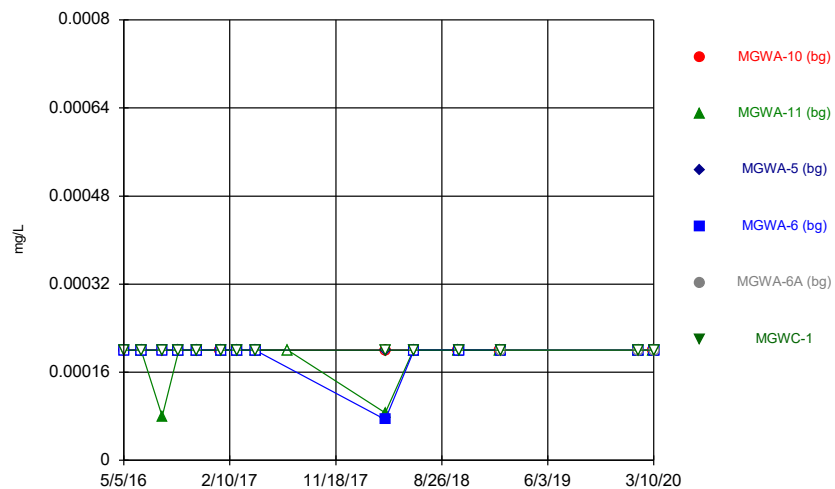
Time Series



Time Series

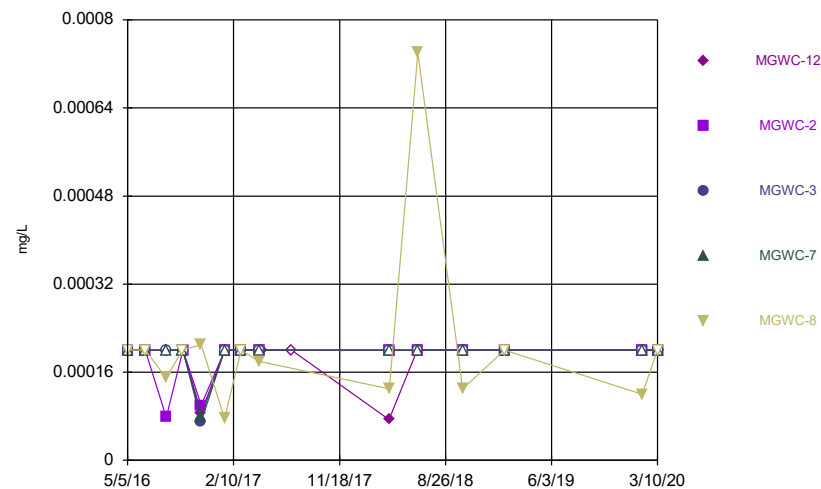


Time Series



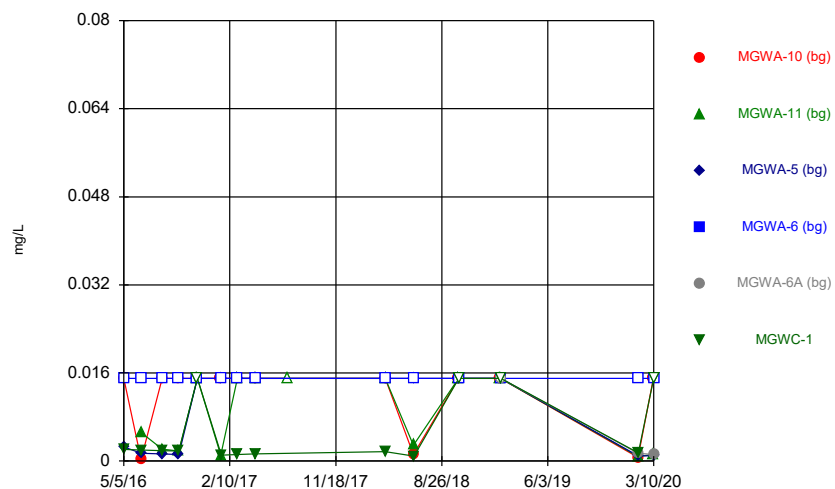
Constituent: Mercury Analysis Run 5/27/2020 6:59 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



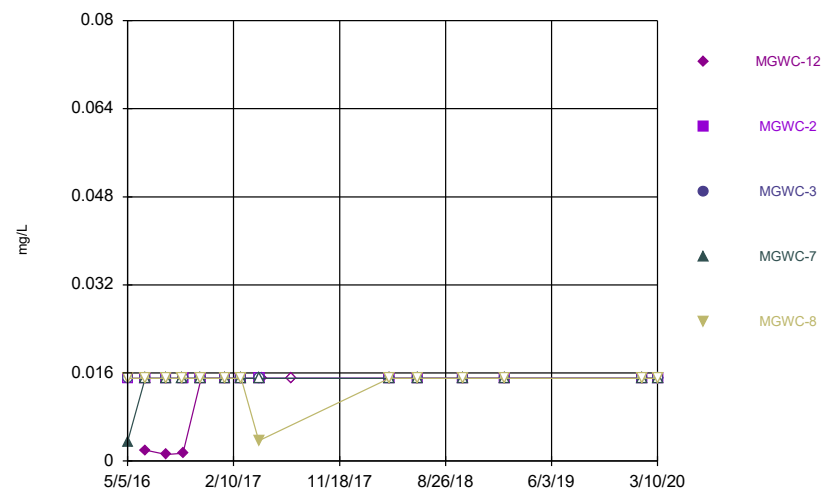
Constituent: Mercury Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



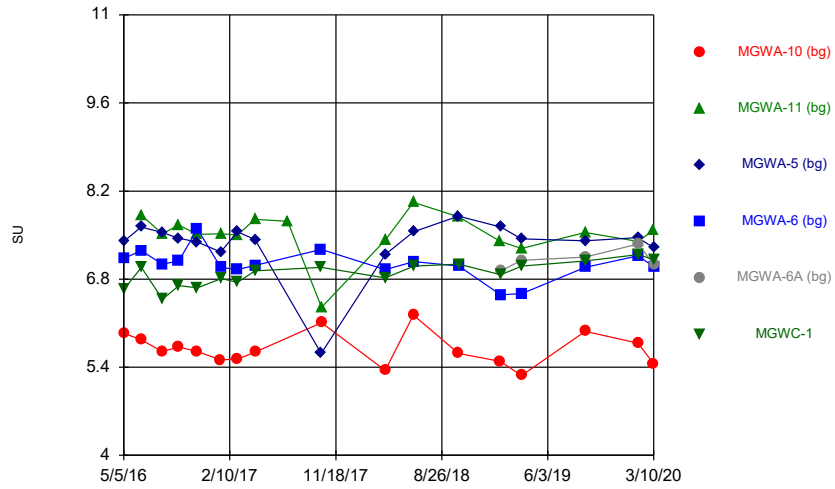
Constituent: Molybdenum Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series

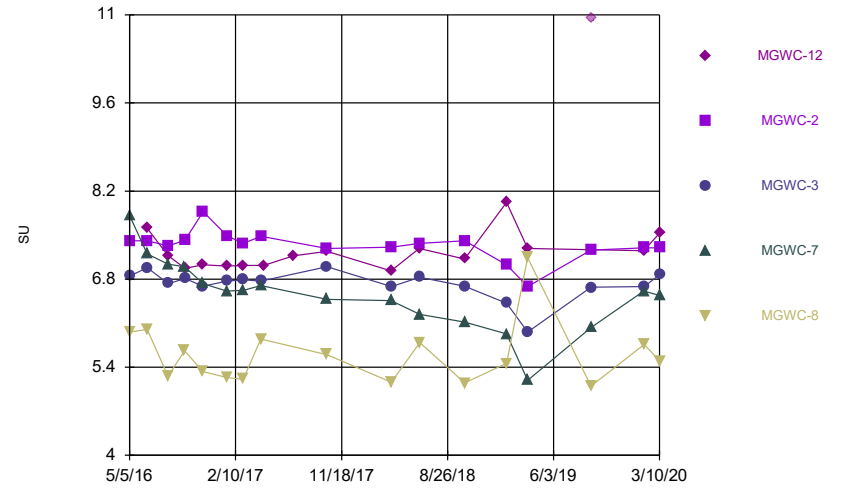


Constituent: Molybdenum Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

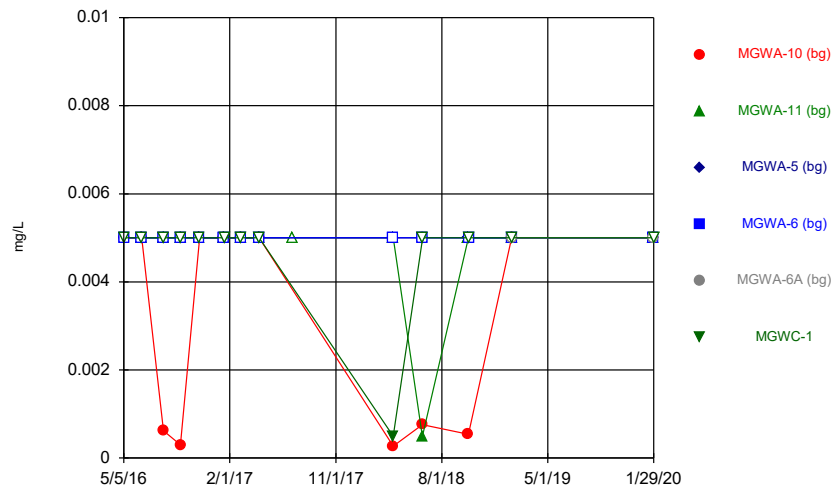
Time Series



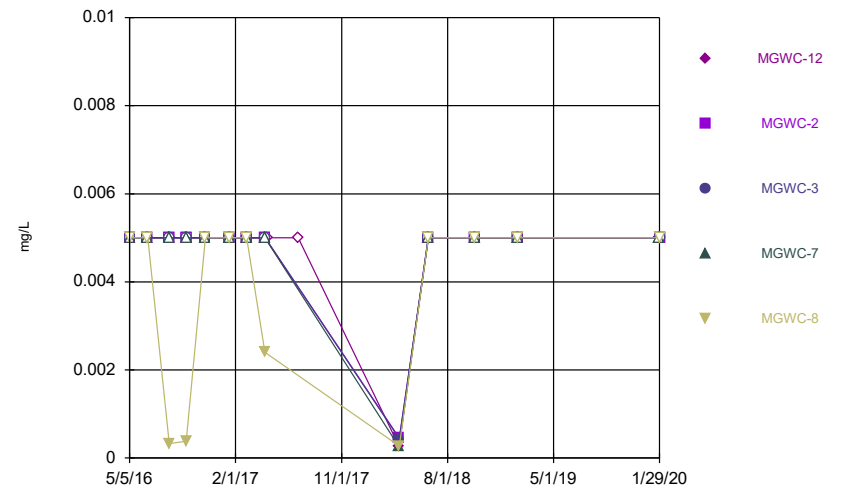
Time Series



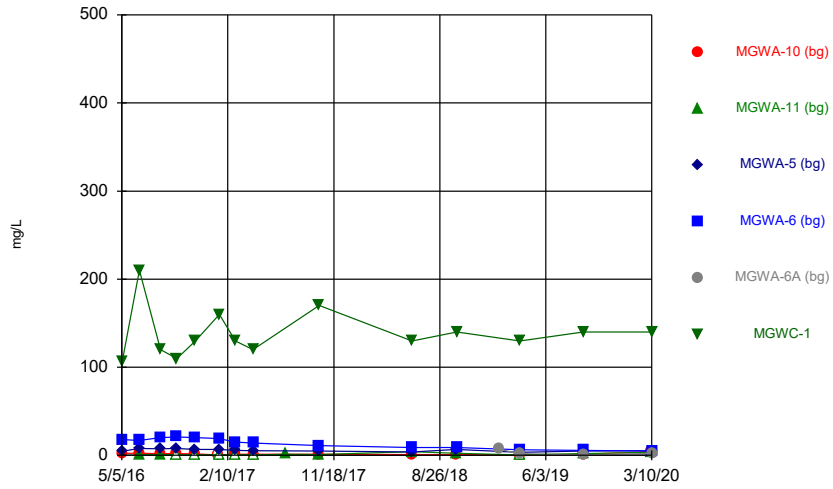
Time Series



Time Series

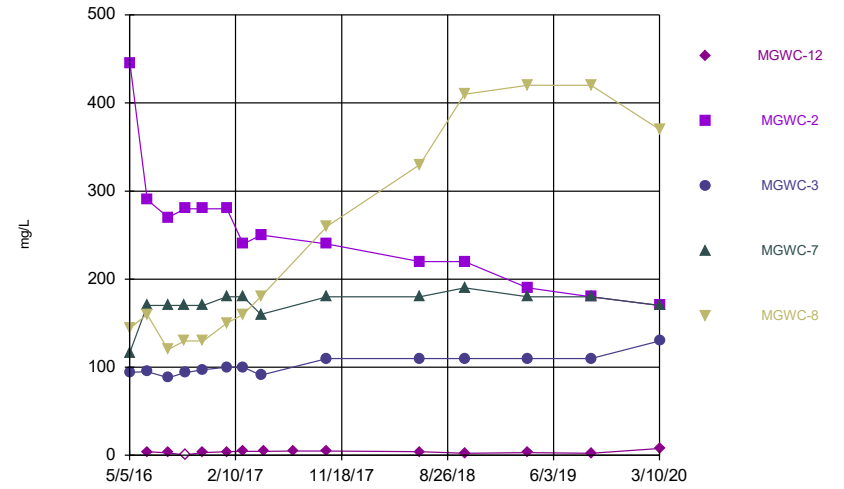


Time Series



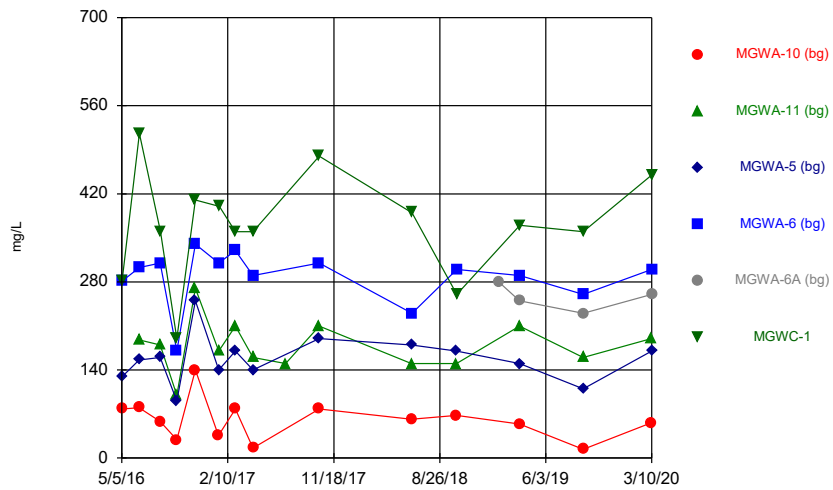
Constituent: Sulfate Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



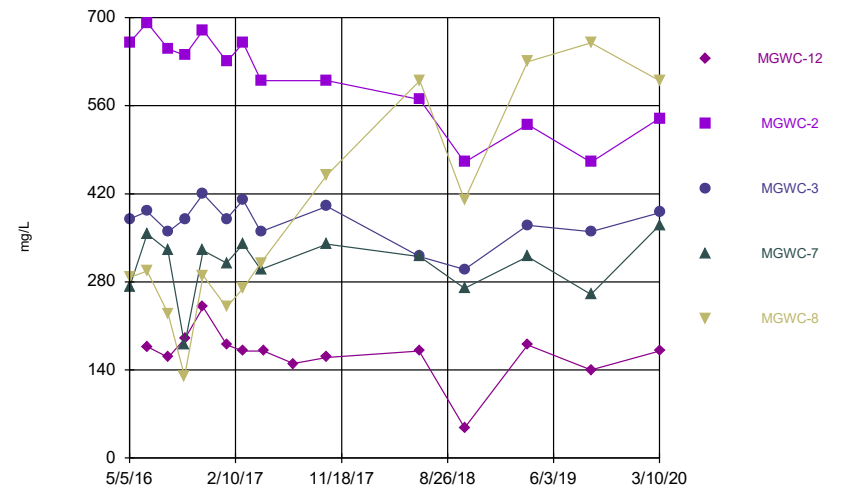
Constituent: Sulfate Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



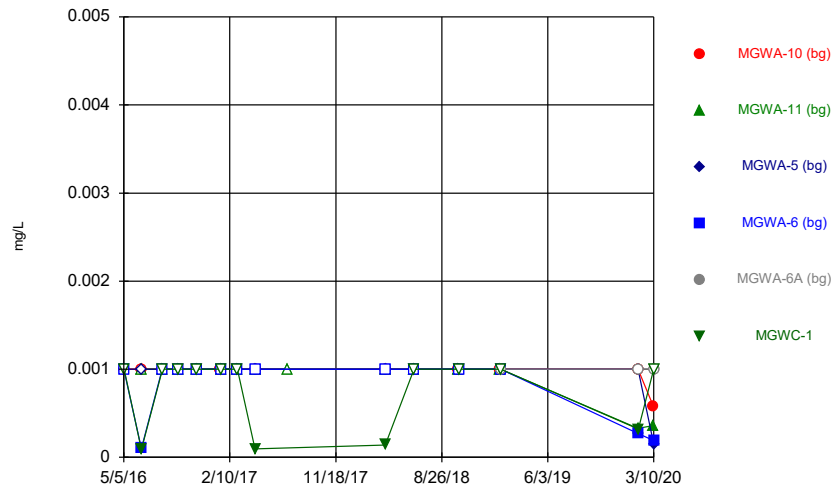
Constituent: TDS Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



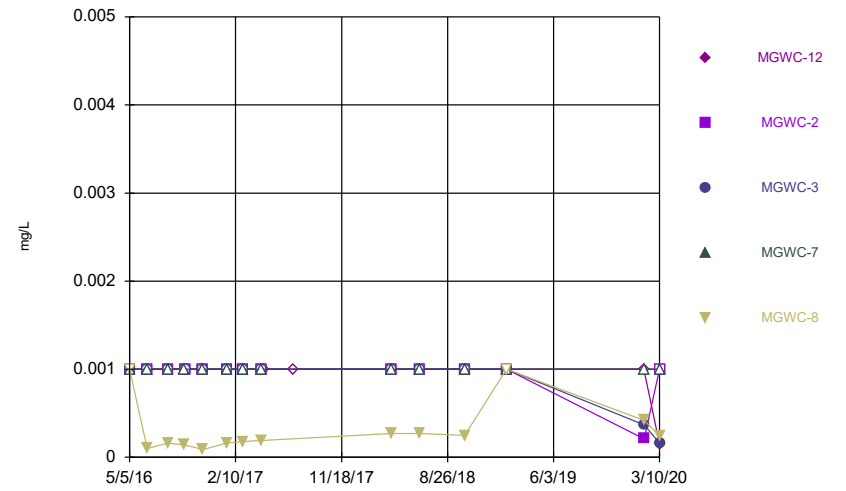
Constituent: TDS Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Thallium Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Thallium Analysis Run 5/27/2020 7:00 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/27/2020 7:00 AM

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	0.00112 (J)		0.0012 (J)	<0.002		
5/6/2016						<0.002
6/20/2016	<0.002	<0.002	<0.002			
6/21/2016				0.0017 (J)		<0.002
8/15/2016	<0.002	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	<0.002	<0.002	<0.002	<0.002		<0.002
11/16/2016	<0.002	<0.002	<0.002	<0.002		<0.002
1/16/2017	<0.002					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	<0.002	<0.002	<0.002	<0.002		<0.002
4/18/2017	<0.002	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002	<0.002	<0.002		<0.002
1/28/2019	<0.002	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.00049 (J)	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	<0.002	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/27/2020 7:00 AM
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	0.0343		
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	<0.005	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	<0.005	0.0013	<0.005	0.02		0.003
1/16/2017	<0.005					
1/17/2017		<0.005	<0.005	0.022		
1/19/2017						0.0024
3/2/2017	<0.005	0.0015	<0.005	0.021		0.0027
4/18/2017	<0.005	0.00071 (J)	<0.005	0.018		0.0024
7/13/2017		0.00066 (J)				
3/29/2018	<0.005	0.002	<0.005	0.014		0.0023
6/12/2018	<0.005	0.0017	<0.005			
6/13/2018				0.011		0.0021
10/9/2018	<0.005	0.00072 (J)	<0.005			
10/10/2018				0.014		0.0024
1/28/2019	<0.005	<0.005				
1/29/2019			<0.005	0.00972	0.0118	0.00255
3/25/2019	<0.005	0.0022	0.00069 (J)		0.0012 (J)	
3/26/2019				0.0097		0.002
9/10/2019	<0.005	0.0018	0.00039 (J)	0.0085	0.0021	0.0018
1/28/2020	<0.005	0.0014	0.00036 (J)	0.0063	0.0028	
1/29/2020						0.0021
3/9/2020	<0.005	0.00073 (J)				
3/10/2020			0.00031 (J)	0.0093	0.0029	0.0019

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/27/2020 7:00 AM
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)	<0.005
5/6/2016		<0.005	0.00154 (J)		
6/21/2016	0.0015 (J)	<0.005	0.0016 (J)	0.0009 (J)	<0.005
8/15/2016				0.0012 (J)	<0.005
8/16/2016	0.00082 (J)	<0.005	0.0017		
9/28/2016				0.00084 (J)	<0.005
9/29/2016	0.0019	<0.005	0.0013		
11/16/2016	0.0017	0.00068 (J)	0.0014	<0.005	<0.005
1/17/2017			0.00056 (J)	<0.005	<0.005
1/18/2017	0.00096 (J)	<0.005			
3/2/2017	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.005
4/18/2017			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017		<0.005			
4/25/2017	<0.005				
7/13/2017	0.00047 (J)				
3/29/2018	0.00053 (J)			0.00066 (J)	
3/30/2018		<0.005	0.0017		<0.005
6/12/2018	0.00063 (J)				
6/13/2018		<0.005	0.0015	<0.005	<0.005
10/10/2018	0.00098 (J)	<0.005	0.0016	<0.005	<0.005
1/29/2019	<0.005	<0.005	0.00143	<0.005	<0.005
3/26/2019	0.00079 (J)	<0.005	0.0012 (J)	<0.005	<0.005
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	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Barium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/27/2020 7:00 AM
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	3.3E-05 (J)	<0.0025	<0.0025			
6/21/2016				<0.0025		<0.0025
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
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						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<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				<0.0025		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025	0.0004 (J)	<0.0025	<0.0025	<0.0025	
1/29/2020						0.00018 (J)
3/9/2020	0.00045 (J)	0.00018 (J)				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/27/2020 7:00 AM
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)

Time Series

Constituent: Boron (mg/L) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: Boron (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/27/2020 7:00 AM
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						0.000126 (J)
6/20/2016	<0.0025	<0.0025	<0.0025			
6/21/2016				<0.0025		0.0005 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
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						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<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				<0.0025		<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	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.00017 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
1/29/2020						<0.0025
3/9/2020	0.00023 (J)	<0.0025				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/27/2020 7:00 AM
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)

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/27/2020 7:00 AM
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)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/27/2020 7:00 AM
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)

Time Series

Constituent: Lead (mg/L) Analysis Run 5/27/2020 7:00 AM

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	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	8.7E-05 (J)	<0.001			
6/21/2016				<0.001		<0.001
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		<0.001
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00016 (J)	0.00018 (J)	<0.001	<0.001	
1/29/2020						<0.001
3/9/2020	<0.001	<0.001				
3/10/2020			<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/27/2020 7:00 AM
 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

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/27/2020 7:00 AM
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	<0.0002		<0.0002	<0.0002		
5/6/2016						<0.0002
6/20/2016	<0.0002	<0.0002	<0.0002			
6/21/2016				<0.0002		<0.0002
8/15/2016	<0.0002	8E-05 (J)	<0.0002	<0.0002		
8/16/2016						<0.0002
9/28/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/16/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
1/16/2017	<0.0002					
1/17/2017		<0.0002	<0.0002	<0.0002		
1/19/2017						<0.0002
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
4/18/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
7/13/2017		<0.0002				
3/29/2018	<0.0002	8.6E-05 (J)	<0.0002	7.4E-05 (J)		<0.0002
6/12/2018	<0.0002	<0.0002	<0.0002			
6/13/2018				<0.0002		<0.0002
10/9/2018	<0.0002	<0.0002	<0.0002			
10/10/2018				<0.0002		<0.0002
1/28/2019	<0.0002	<0.0002				
1/29/2019			<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
1/29/2020						<0.0002
3/9/2020	<0.0002	<0.0002				
3/10/2020			<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: pH (SU) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: pH (SU) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/27/2020 7:00 AM

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						<0.005
6/20/2016	<0.005	<0.005	<0.005			
6/21/2016				<0.005		<0.005
8/15/2016	0.00062 (J)	<0.005	<0.005	<0.005		
8/16/2016						<0.005
9/28/2016	0.0003 (J)	<0.005	<0.005	<0.005		<0.005
11/16/2016	<0.005	<0.005	<0.005	<0.005		<0.005
1/16/2017	<0.005					
1/17/2017		<0.005	<0.005	<0.005		
1/19/2017						<0.005
3/2/2017	<0.005	<0.005	<0.005	<0.005		<0.005
4/18/2017	<0.005	<0.005	<0.005	<0.005		<0.005
7/13/2017		<0.005				
3/29/2018	0.00027 (J)	<0.005	<0.005	<0.005		0.0005 (J)
6/12/2018	0.00076 (J)	0.00049 (J)	<0.005			
6/13/2018				<0.005		<0.005
10/9/2018	0.00054 (J)	<0.005	<0.005			
10/10/2018				<0.005		<0.005
1/28/2019	<0.005	<0.005				
1/29/2019			<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005	<0.005	<0.005	<0.005	<0.005	
1/29/2020						<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/27/2020 7:00 AM
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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/27/2020 7:00 AM
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	<1.3	7.8	21		110
11/16/2016	1.7	<1.3	6.7	20		130
1/16/2017	<1.3					
1/17/2017		<1.3	6.7	19		
1/19/2017						160
3/2/2017	1.4	<1.3	5.6	15		130
4/18/2017	1.3	<1.3	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	<1.3	<1.3	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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/27/2020 7:00 AM
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	<1.3	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

Time Series

Constituent: TDS (mg/L) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: TDS (mg/L) Analysis Run 5/27/2020 7:00 AM

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

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/27/2020 7:00 AM
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	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	<0.001	<0.001			
6/21/2016				0.0001 (J)		9E-05 (J)
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		9.5E-05 (J)
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		0.00014 (J)
6/12/2018	<0.001	<0.001	<0.001			
6/13/2018				<0.001		<0.001
10/9/2018	<0.001	<0.001	<0.001			
10/10/2018				<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00033 (J)	<0.001	0.00027 (J)	<0.001	
1/29/2020						0.00032 (J)
3/9/2020	0.00058 (J)	0.00036 (J)				
3/10/2020			0.00015 (J)	0.00019 (J)	<0.001	<0.001

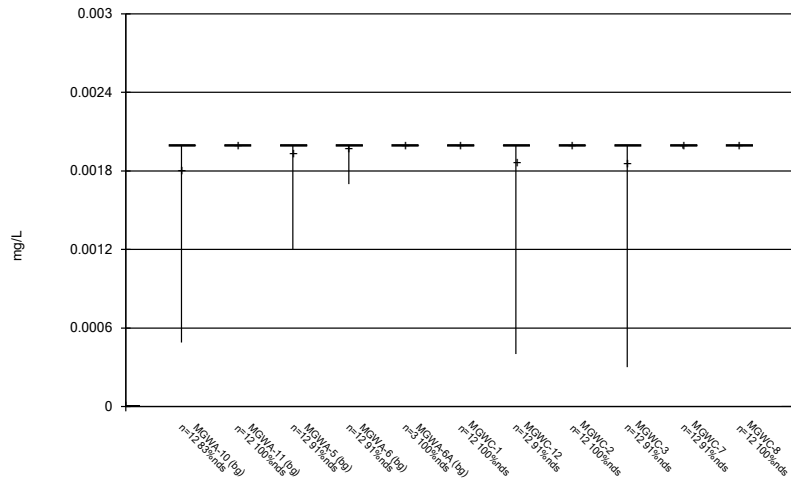
Time Series

Constituent: Thallium (mg/L) Analysis Run 5/27/2020 7:00 AM
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)

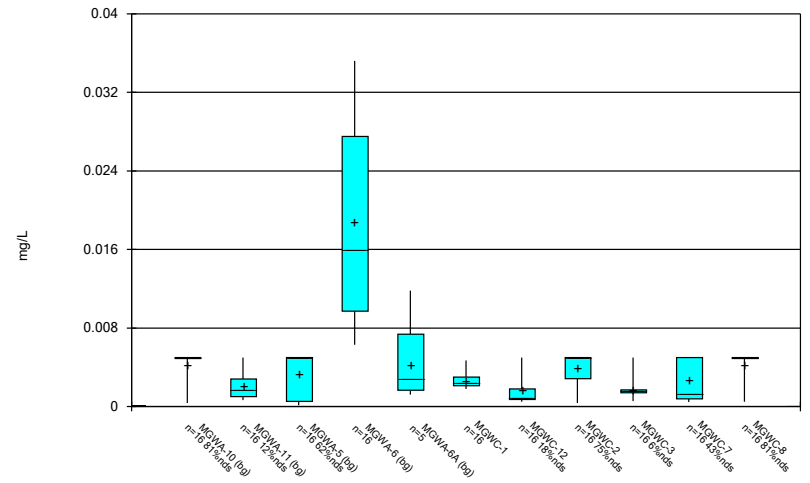
FIGURE B.

Box & Whiskers Plot



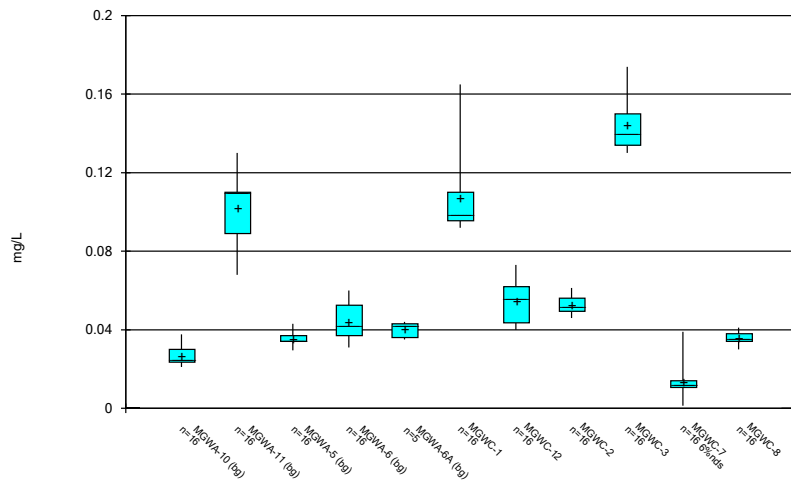
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



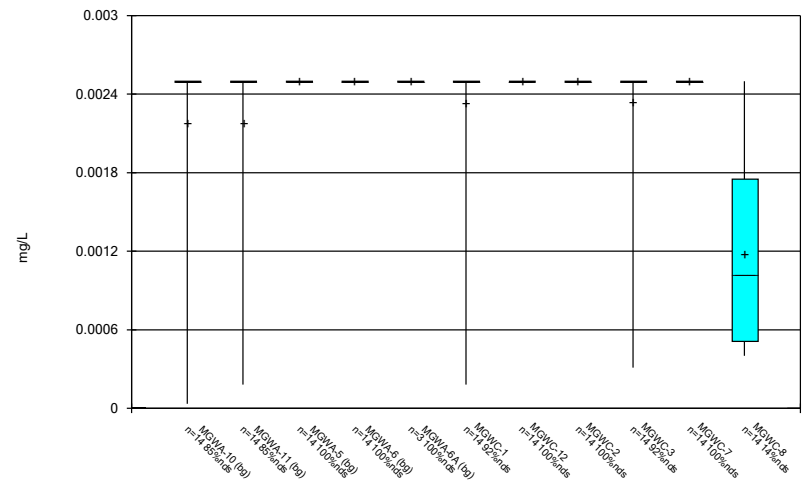
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



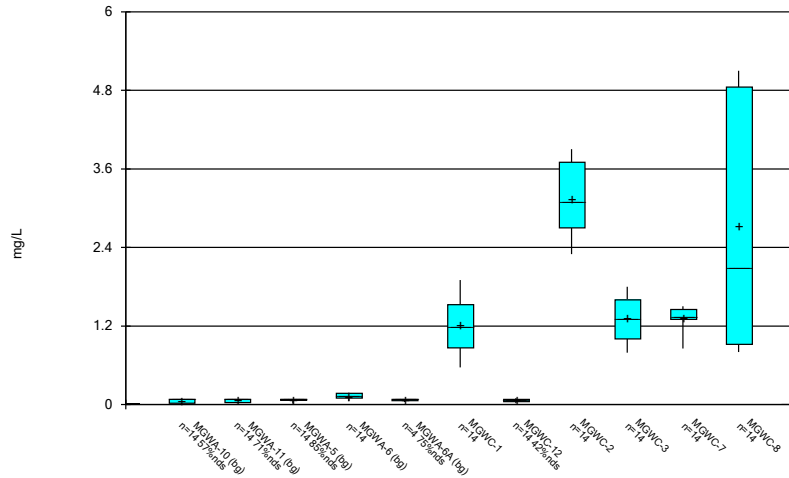
Constituent: Barium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



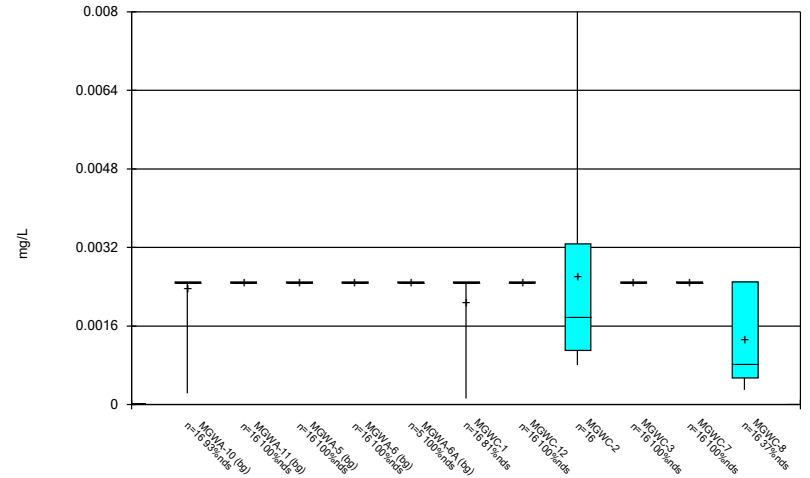
Constituent: Beryllium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



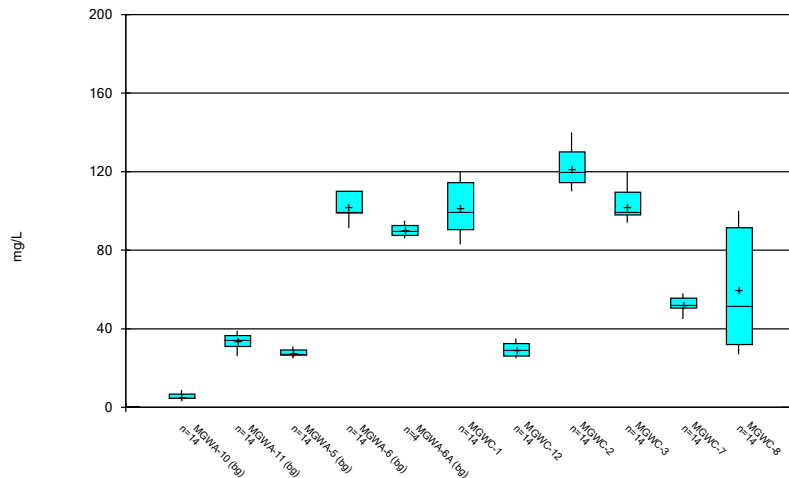
Constituent: Boron Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



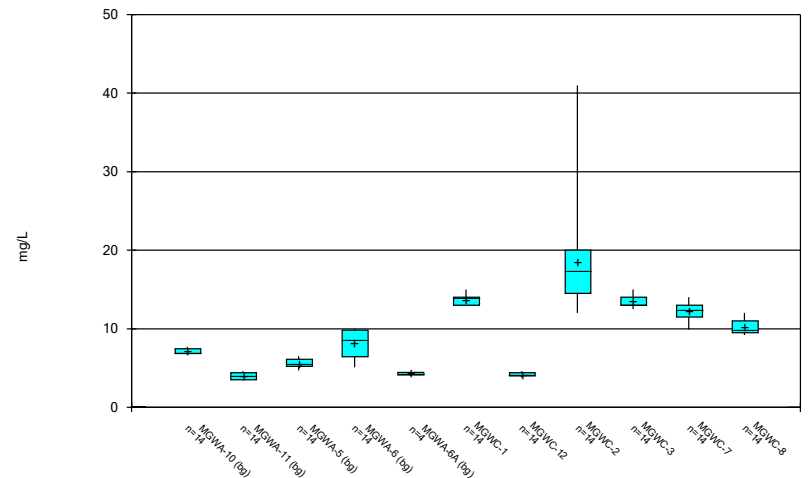
Constituent: Cadmium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



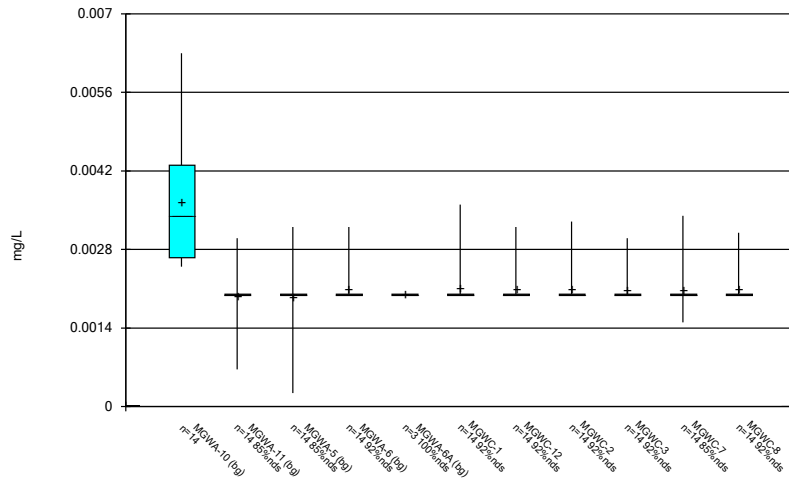
Constituent: Calcium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



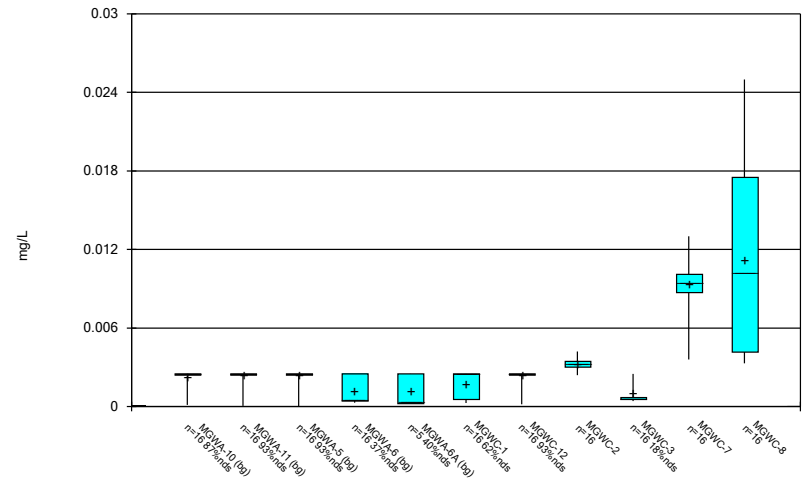
Constituent: Chloride Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



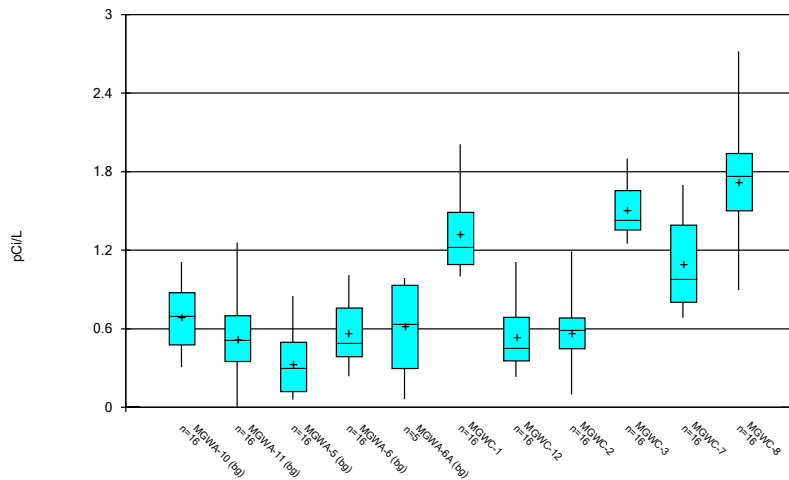
Constituent: Chromium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



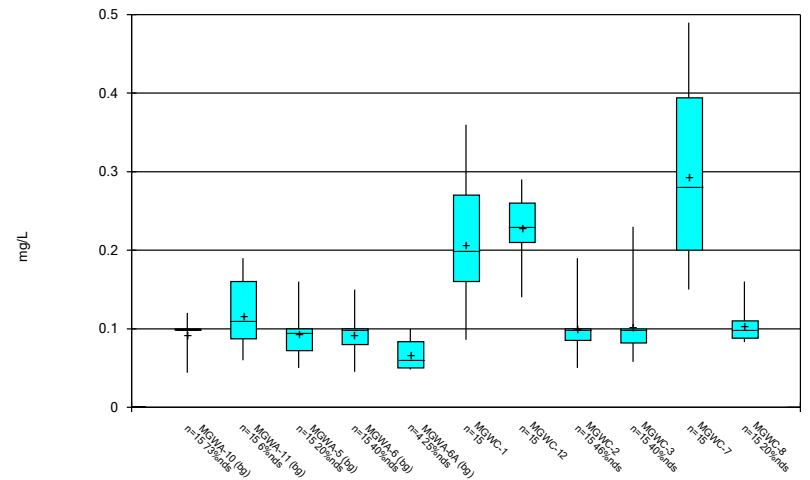
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



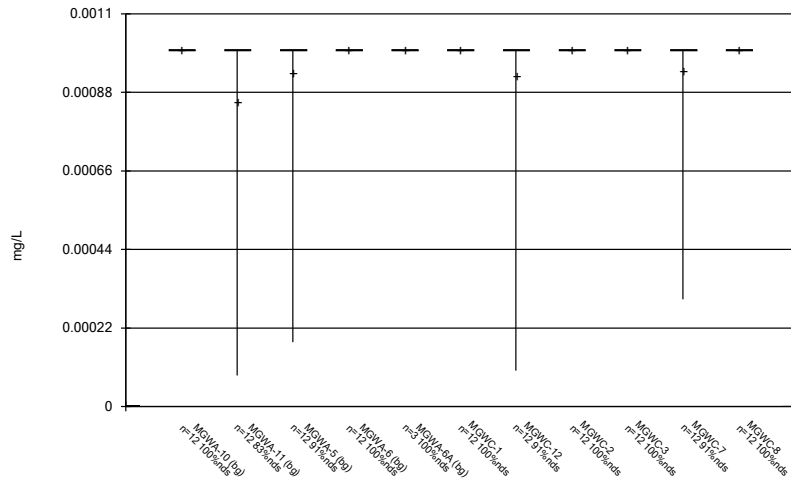
Constituent: Combined Radium 226 + 228 Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



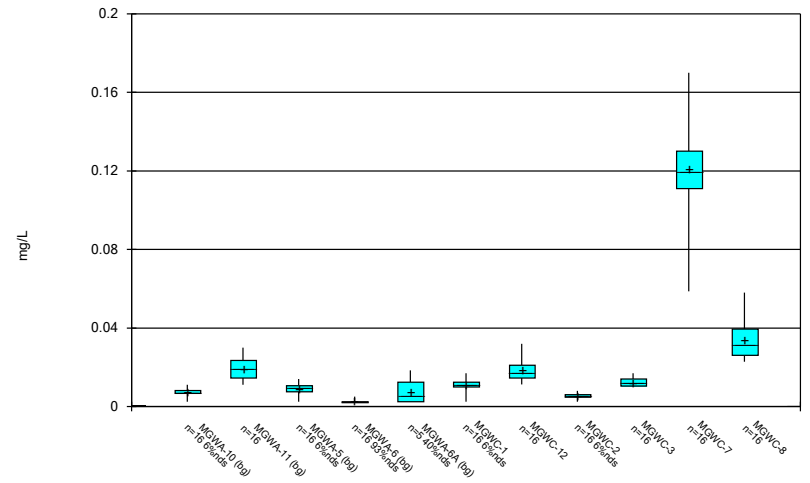
Constituent: Fluoride Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



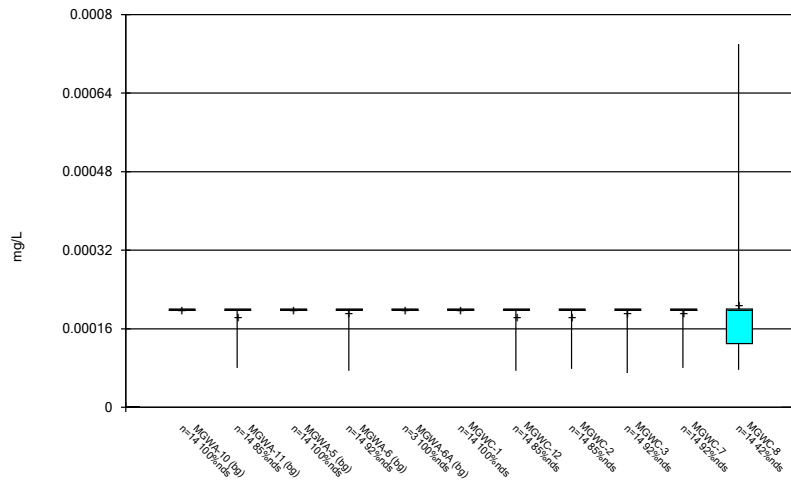
Constituent: Lead Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



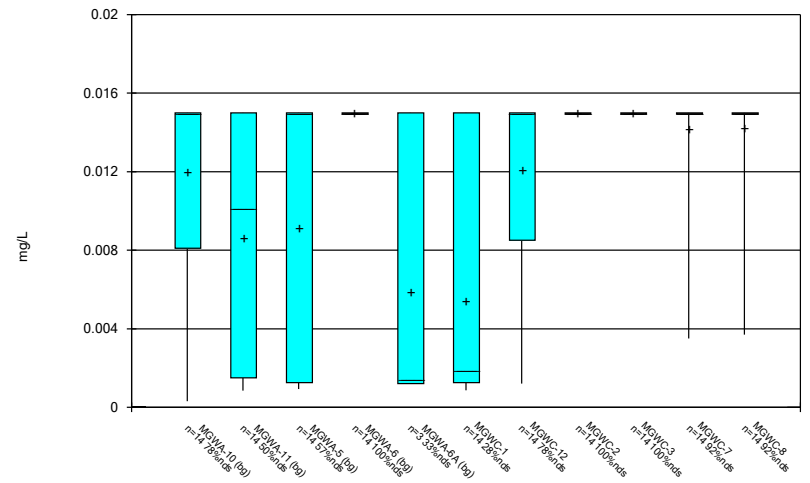
Constituent: Lithium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



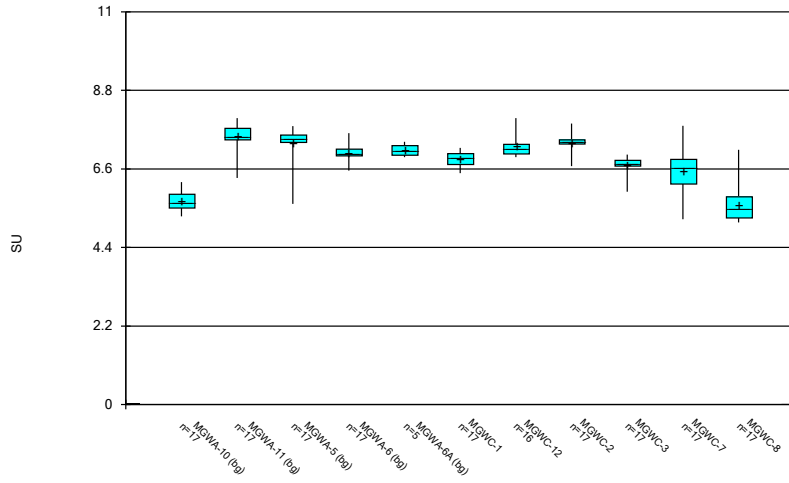
Constituent: Mercury Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



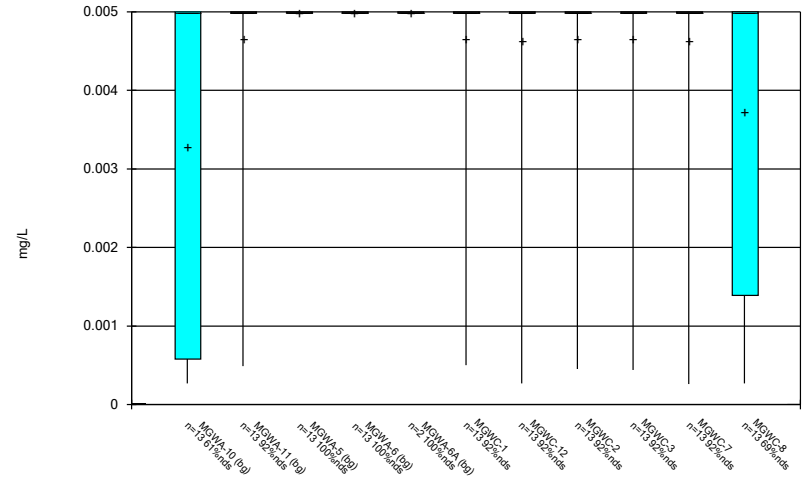
Constituent: Molybdenum Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



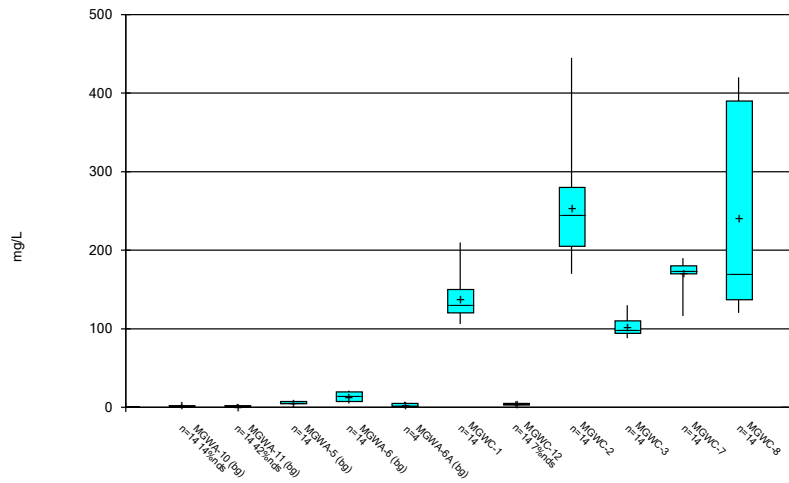
Constituent: pH Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



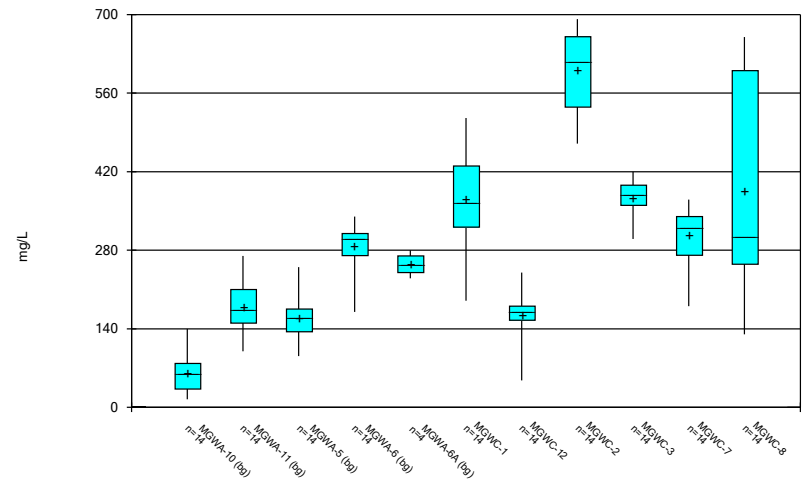
Constituent: Selenium Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



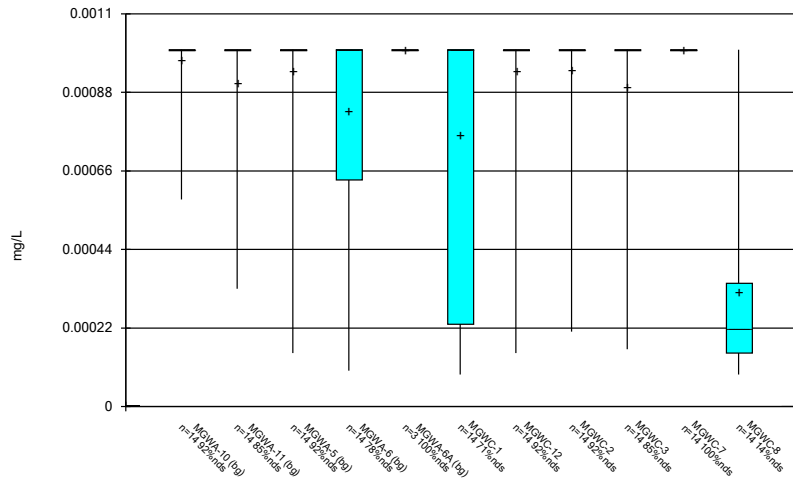
Constituent: Sulfate Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: TDS Analysis Run 5/26/2020 4:41 PM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/26/2020 4:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE C.

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:31 PM

MGWC-12 pH (SU)

9/10/2019 10.96 (o)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:47 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	3/10/2020	1.9	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	3/10/2020	2.3	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	3/10/2020	1.3	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	3/10/2020	1.4	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	3/10/2020	4	Yes	60	n/a	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	3/10/2020	120	Yes	60	n/a	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.6	n/a	3/10/2020	14	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.6	n/a	3/10/2020	15	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.6	n/a	3/10/2020	10	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	0	None	No	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-1	25	n/a	3/10/2020	140	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	25	n/a	3/10/2020	130	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	25	n/a	3/10/2020	370	Yes	60	1.129	1.109	13.33	0	None	In(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	340	n/a	3/10/2020	450	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	340	n/a	3/10/2020	540	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	340	n/a	3/10/2020	390	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	340	n/a	3/10/2020	370	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	340	n/a	3/10/2020	600	Yes	60	176.6	89.2	0	0	None	No	0.001254	Param Inter 1 of 2

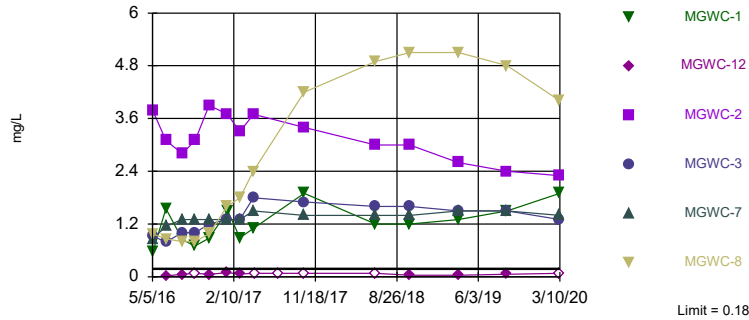
Appendix III Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:47 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	3/10/2020	1.9	Yes	60	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-12	0.18	n/a	3/10/2020	0.08ND	No	60	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-2	0.18	n/a	3/10/2020	2.3	Yes	60	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-3	0.18	n/a	3/10/2020	1.3	Yes	60	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-7	0.18	n/a	3/10/2020	1.4	Yes	60	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-8	0.18	n/a	3/10/2020	4	Yes	60	n/a	n/a	55	n/a	n/a	0.0005218	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	MGWC-1	110	n/a	3/10/2020	120	Yes	60	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2	
Calcium (mg/L)	MGWC-12	110	n/a	3/10/2020	30	No	60	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2	
Calcium (mg/L)	MGWC-2	110	n/a	3/10/2020	110	No	60	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2	
Calcium (mg/L)	MGWC-3	110	n/a	3/10/2020	110	No	60	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2	
Calcium (mg/L)	MGWC-7	110	n/a	3/10/2020	55	No	60	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2	
Calcium (mg/L)	MGWC-8	110	n/a	3/10/2020	100	No	60	n/a	n/a	0	n/a	n/a	0.0005218	NP Inter (normality) 1 of 2	
Chloride (mg/L)	MGWC-1	9.6	n/a	3/10/2020	14	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-12	9.6	n/a	3/10/2020	4.1	No	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-2	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-3	9.6	n/a	3/10/2020	15	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-7	9.6	n/a	3/10/2020	10	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-8	9.6	n/a	3/10/2020	12	Yes	60	6.096	1.852	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	MGWC-1	0.19	n/a	3/10/2020	0.086	No	64	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	MGWC-12	0.19	n/a	3/10/2020	0.15	No	64	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	MGWC-2	0.19	n/a	3/10/2020	0.05	No	64	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	MGWC-3	0.19	n/a	3/10/2020	0.058	No	64	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	MGWC-7	0.19	n/a	3/10/2020	0.18	No	64	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	MGWC-8	0.19	n/a	3/10/2020	0.084	No	64	n/a	n/a	34.38	n/a	n/a	0.000468	NP Inter (normality) 1 of 2	
pH (SU)	MGWC-1	8.0	5.3	3/10/2020	7.11	No	73	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2	
pH (SU)	MGWC-12	8.0	5.3	3/10/2020	7.53	No	73	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2	
pH (SU)	MGWC-2	8.0	5.3	3/10/2020	7.3	No	73	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2	
pH (SU)	MGWC-3	8.0	5.3	3/10/2020	6.87	No	73	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2	
pH (SU)	MGWC-7	8.0	5.3	3/10/2020	6.54	No	73	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2	
pH (SU)	MGWC-8	8.0	5.3	3/10/2020	5.5	No	73	n/a	n/a	0	n/a	n/a	0.0007215	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	MGWC-1	25	n/a	3/10/2020	140	Yes	60	1.129	1.109	13.33	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-12	25	n/a	3/10/2020	7.8	No	60	1.129	1.109	13.33	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-2	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-3	25	n/a	3/10/2020	130	Yes	60	1.129	1.109	13.33	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-7	25	n/a	3/10/2020	170	Yes	60	1.129	1.109	13.33	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-8	25	n/a	3/10/2020	370	Yes	60	1.129	1.109	13.33	None	ln(x)	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-1	340	n/a	3/10/2020	450	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-12	340	n/a	3/10/2020	170	No	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-2	340	n/a	3/10/2020	540	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-3	340	n/a	3/10/2020	390	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-7	340	n/a	3/10/2020	370	Yes	60	176.6	89.2	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-8	340	n/a	3/10/2020	600	Yes	60	176.6	89.2	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

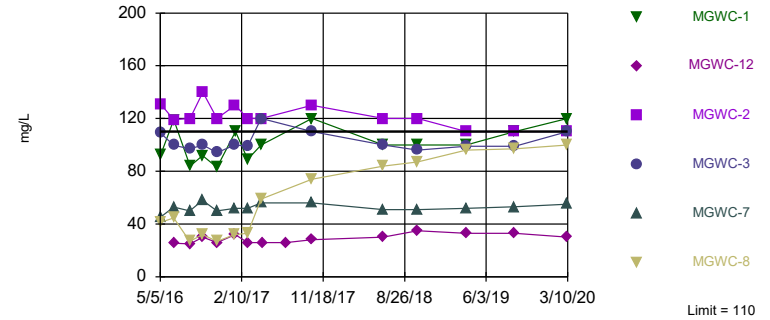


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 60 background values. 55% NDs. Annual per-constituent alpha = 0.006244. Individual comparison alpha = 0.0005218 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 5/26/2020 4:45 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1

Prediction Limit
Interwell Non-parametric

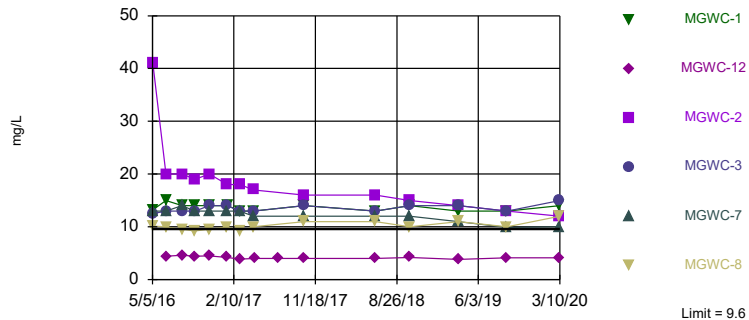


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. Annual per-constituent alpha = 0.006244. Individual comparison alpha = 0.0005218 (1 of 2). Comparing 6 points to limit.

Constituent: Calcium Analysis Run 5/26/2020 4:45 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

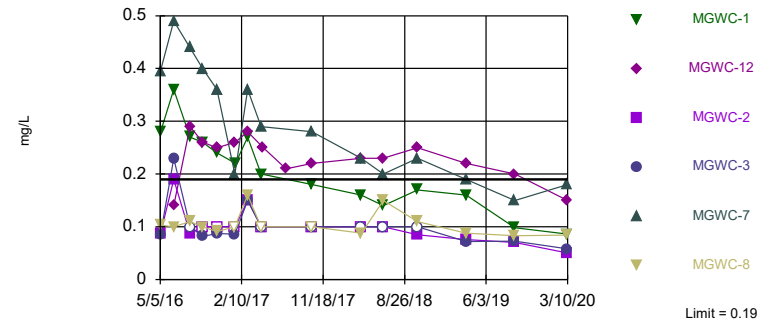


Background Data Summary: Mean=6.096, Std. Dev.=1.852, n=60. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9592, critical = 0.945. Kappa = 1.881 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Chloride Analysis Run 5/26/2020 4:45 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Within Limit

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 64 background values. 34.38% NDs. Annual per-constituent alpha = 0.005602. Individual comparison alpha = 0.000468 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 5/26/2020 4:45 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	<0.08	0.976	0.157	<0.08	0.855				
5/6/2016						0.567	0.926	3.78	
6/20/2016	0.011 (J)			0.013 (J)					0.017 (J)
6/21/2016		0.862	0.124		1.15	1.55	0.792	3.1	
8/15/2016	0.022 (J)	0.8	0.18	0.023 (J)	1.3				0.032 (J)
8/16/2016						0.85	1	2.8	
9/28/2016	0.023 (J)	0.8	0.17	<0.08	1.3	0.7			0.021 (J)
9/29/2016							1	3.1	
11/16/2016	<0.08	0.98	0.17	<0.08	1.3	0.88	1.2	3.9	<0.08
1/16/2017	0.021 (J)								
1/17/2017		1.6	0.17	<0.08	1.3		1.3		<0.08
1/18/2017								3.7	
1/19/2017						1.5			
3/2/2017	<0.08	1.8	0.14	<0.08	1.3	0.89	1.3	3.3	<0.08
4/18/2017	<0.08	2.4	0.14	<0.08	1.5	1.1	1.8		<0.08
4/19/2017								3.7	
4/25/2017									
7/13/2017									<0.08
10/10/2017	0.021 (J)	4.2	0.12	<0.08	1.4	1.9	1.7	3.4	0.025 (J)
6/12/2018	<0.08			<0.08					<0.08
6/13/2018		4.9	0.11		1.4	1.2	1.6	3	
10/9/2018	<0.08			<0.08					<0.08
10/10/2018		5.1	0.096 (J)		1.4	1.2	1.6	3	
1/29/2019									
3/25/2019	<0.08			<0.08					<0.08
3/26/2019		5.1	0.079 (J)		1.5	1.3	1.5	2.6	
9/10/2019	<0.08	4.8	0.097	<0.08	1.5	1.5	1.5	2.4	<0.08
3/9/2020	0.045 (J)								<0.08
3/10/2020		4	0.051 (J)	<0.08	1.4	1.9	1.3	2.3	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/26/2020 4:47 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

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	8.83	41.2	105	27	45				
5/6/2016						92.5	109	131	
6/20/2016	8.1			29.4					35.5
6/21/2016		44.7	91.2		52.8	119	99.7	119	
8/15/2016	6.1	27	94	26	50				34
8/16/2016						84	97	120	
9/28/2016	7.2	32	110	31	58	92			38
9/29/2016							100	140	
11/16/2016	5.2	27	98	26	50	83	94	120	33
1/16/2017	3.8								
1/17/2017		32	100	29	52		100		34
1/18/2017								130	
1/19/2017						110			
3/2/2017	5.4	33	100	28	52	89	99	120	35
4/18/2017	5	59	110	27	56	100	120		33
4/19/2017								120	
4/25/2017									
7/13/2017									30
10/10/2017	4.8	74	110	31	56	120	110	130	39
6/12/2018	4.8			25					26
6/13/2018		84	100		51	100	100	120	
10/9/2018	4.5			29					29
10/10/2018		87	100		51	100	96	120	
1/29/2019									
3/25/2019	4.6			27					37
3/26/2019		96	100		52	100	99	110	
9/10/2019	4.9	97	110	27	53	110	99	110	36
3/9/2020	4								32
3/10/2020		100	100	29	55	120	110	110	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/26/2020 4:47 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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	7.35	10.1	9.67	6.51	13				
5/6/2016						13.2	12.5	41	
6/20/2016	7			5.9					4.3
6/21/2016		10	9.2		13	15	13	20	
8/15/2016	7.5	9.5	10	6.4	14				4.1
8/16/2016						14	13	20	
9/28/2016	7	9.2	10	6.1	13	14			3.9
9/29/2016							13	19	
11/16/2016	7.5	9.5	10	6.1	13	14	14	20	4.1
1/16/2017	7.7								
1/17/2017		10	9.4	5.7	13		14		3.9
1/18/2017								18	
1/19/2017						14			
3/2/2017	6.9	9.3	8.6	5.3	13	13	13	18	3.5
4/18/2017	6.8	10	8.9	5.3	12	13	13		3.7
4/19/2017								17	
4/25/2017									
7/13/2017									4.2
10/10/2017	6.9	11	8.3	5.3	12	14	14	16	3.4
6/12/2018	6.7			5.1					4.6
6/13/2018		11	7		12	13	13	16	
10/9/2018	7.1			5.6					4.5
10/10/2018		10	6.9		12	14	14	15	
1/29/2019									
3/25/2019	6.8			4.7					3.4
3/26/2019		11	5.8		11	13	14	14	
9/10/2019	7	10	6	5.1	9.9	13	13	13	3.5
3/9/2020	7.4								4.5
3/10/2020		12	5.1	5.4	10	14	15	12	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/26/2020 4:47 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

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-2	MGWC-1	MGWA-11 (bg)
5/5/2016	0.046 (J)	0.091 (J)	0.103 (J)	0.132 (J)	0.394				
5/6/2016						0.086 (J)	0.088 (J)	0.28 (J)	
6/20/2016	<0.1			0.05 (J)					0.06 (J)
6/21/2016		0.08 (J)	0.1 (J)		0.49	0.23 (J)	0.19 (J)	0.36	
8/15/2016	<0.1	<0.1	0.11 (J)	0.1 (J)	0.44				0.1 (J)
8/16/2016						<0.1	0.087 (J)	0.27	
9/28/2016	<0.1	0.084 (J)	0.1 (J)	0.11 (J)	0.4			0.26	0.097 (J)
9/29/2016						0.082 (J)	<0.1		
11/16/2016	<0.1	0.084 (J)	0.091 (J)	0.093 (J)	0.36	0.087 (J)	<0.1	0.24	0.12 (J)
1/16/2017	<0.1								
1/17/2017		0.099 (J)	<0.1	0.095 (J)	0.2	0.086 (J)			0.11 (J)
1/18/2017							<0.1		
1/19/2017								0.22	
3/2/2017	0.12 (J)	0.15 (J)	0.16 (J)	0.16 (J)	0.36	0.15 (J)	0.15 (J)	0.27	0.18 (J)
4/18/2017	<0.1	<0.1	<0.1	<0.1	0.29	<0.1		0.2	0.11 (J)
4/19/2017							<0.1		
4/25/2017									
7/13/2017									0.12 (J)
10/10/2017	<0.1	<0.1	<0.1	<0.1	0.28	<0.1	<0.1	0.18 (J)	0.086 (J)
3/29/2018	<0.1	<0.1		0.084 (J)	0.23			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		<0.1	0.15 (J)		0.2	<0.1	<0.1	0.14 (J)	
10/9/2018	<0.1			0.086 (J)					0.16 (J)
10/10/2018		<0.1	0.11 (J)		0.23	<0.1	0.085 (J)	0.17 (J)	
1/29/2019									
3/25/2019	<0.1			0.072 (J)					0.087 (J)
3/26/2019		0.065 (J)	0.088 (J)		0.19 (J)	0.072 (J)	0.076 (J)	0.16	
9/10/2019	0.044 (J)	0.076 (J)	0.083 (J)	0.068 (J)	0.15	0.073 (J)	0.07 (J)	0.098 (J)	0.075 (J)
3/9/2020	0.061 (J)								0.19
3/10/2020		0.045 (J)	0.084 (J)	0.055 (J)	0.18	0.058 (J)	0.05 (J)	0.086 (J)	

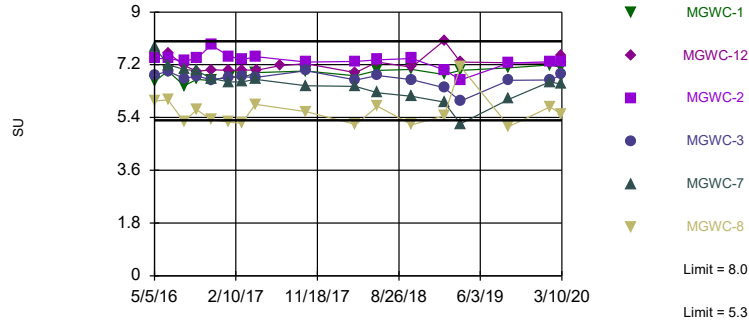
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/26/2020 4:47 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)

Within Limits

Prediction Limit
Interwell Non-parametric



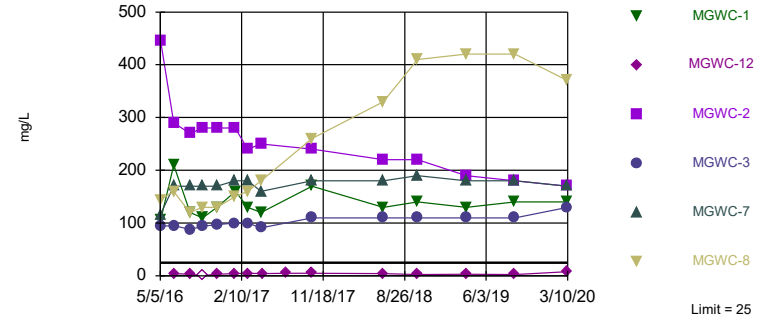
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 73 background values. Annual per-constituent alpha = 0.008641. Individual comparison alpha = 0.0007215 (1 of 2). Comparing 6 points to limit.

Constituent: pH Analysis Run 5/26/2020 4:45 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

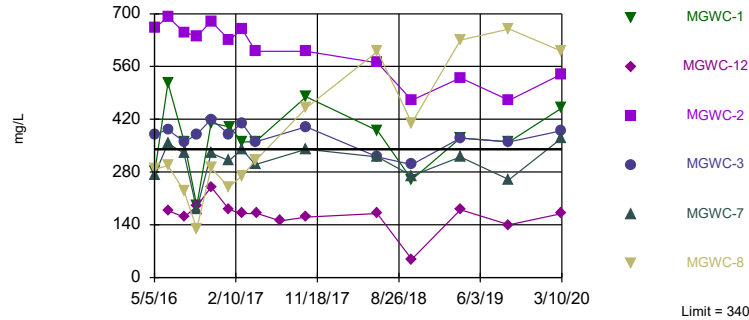


Background Data Summary (based on natural log transformation): Mean=1.129, Std. Dev.=1.109, n=60, 13.33% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9554, critical = 0.945. Kappa = 1.881 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 5/26/2020 4:45 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=176.6, Std. Dev.=89.2, n=60. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9756, critical = 0.945. Kappa = 1.881 (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 5/26/2020 4:45 PM View: Appendix III
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Prediction Limit

Constituent: pH (SU) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	5.94	5.96	7.13	7.4	7.81				
5/6/2016						6.85	6.64	7.41	
6/20/2016	5.84 (D)			7.63					7.82
6/21/2016		6	7.25		7.2	6.98	6.99	7.41	
8/15/2016	5.65	5.26	7.04	7.54	7.04				7.52
8/16/2016						6.73	6.48	7.33	
9/28/2016	5.72	5.66	7.09	7.45	7		6.7		7.66
9/29/2016						6.81		7.42	
11/16/2016	5.65	5.33	7.6	7.39	6.73	6.69	6.66	7.87	7.51
1/16/2017	5.52								
1/17/2017		5.24	6.99	7.23	6.61	6.77			7.52
1/18/2017								7.49	
1/19/2017							6.81		
3/2/2017	5.53	5.21	6.95	7.55	6.62	6.79	6.75	7.37	7.5
4/18/2017	5.64	5.85	7.02	7.43	6.7	6.77	6.93		7.75
4/19/2017								7.48	
4/25/2017									
7/13/2017									7.72
10/10/2017		5.6	7.27	5.62	6.48	7	6.99	7.29	
10/11/2017	6.11								6.35
3/29/2018	5.35		6.95	7.19	6.46		6.82		7.42
3/30/2018		5.16				6.68		7.31	
6/12/2018	6.23			7.55					8.02
6/13/2018		5.79	7.08		6.24	6.83	7.01	7.37	
10/9/2018	5.62 (D)			7.8 (D)					7.79 (D)
10/10/2018		5.15 (D)	7.01 (D)		6.12 (D)	6.69 (D)	7.04 (D)	7.41 (D)	
1/28/2019	5.49 (D)								7.4 (D)
1/29/2019		5.46 (D)	6.55 (D)	7.63 (D)	5.93 (D)	6.42 (D)	6.87 (D)	7.03 (D)	
3/25/2019	5.27 (D)			7.44 (D)					7.29 (D)
3/26/2019		7.14 (D)	6.57 (D)		5.19 (D)	5.96 (D)	7.01 (D)	6.68 (D)	
9/10/2019	5.97	5.1	6.99	7.41	6.03	6.67	7.09	7.26	7.54
1/28/2020	5.78		7.17	7.46	6.61				7.4
1/29/2020		5.76				6.68	7.19	7.3	
3/9/2020	5.46								7.58
3/10/2020		5.5	7	7.3	6.54	6.87	7.11	7.3	

Prediction Limit

Constituent: pH (SU) Analysis Run 5/26/2020 4:47 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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	2.46	144	17.8	4.47	116				
5/6/2016						106	94.2	445	
6/20/2016	2.5			7.7					1
6/21/2016		160	17		170	210	95	290	
8/15/2016	1.9	120	20	7.5	170				0.73 (J)
8/16/2016						120	88	270	
9/28/2016	1.9	130	21	7.8	170	110			<1.3
9/29/2016							94	280	
11/16/2016	1.7	130	20	6.7	170	130	97	280	<1.3
1/16/2017	<1.3								
1/17/2017		150	19	6.7	180		100		<1.3
1/18/2017								280	
1/19/2017						160			
3/2/2017	1.4	160	15	5.6	180	130	100	240	<1.3
4/18/2017	1.3	180	14	5.1	160	120	91		<1.3
4/19/2017								250	
4/25/2017									
7/13/2017									1.4
10/10/2017	1.1	260	11	4.9	180	170	110	240	0.87 (J)
6/12/2018	0.82 (J)			3.8					4.1
6/13/2018		330	8.7		180	130	110	220	
10/9/2018	0.82 (J)			6.7					2.2
10/10/2018		410	8.7		190	140	110	220	
1/29/2019									
3/25/2019	<1.3			3.4 (J)					<1.3
3/26/2019		420	6.3 (J)		180	130	110	190	
9/10/2019	1.1	420	5.6	4.7	180	140	110	180	1.8
3/9/2020	4.2								3.4
3/10/2020		370	5	5.2	170	140	130	170	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/26/2020 4:47 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	<1.3	
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

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/26/2020 4:47 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	78	287	281	129	272				
5/6/2016						282	380	661	
6/20/2016	80			156					188
6/21/2016		297	303		356	516	392	692	
8/15/2016	58	230	310	160	330				180
8/16/2016						360	360	650	
9/28/2016	29	130	170	91	180	190			100
9/29/2016							380	640	
11/16/2016	140	290	340	250	330	410	420	680	270
1/16/2017	36								
1/17/2017		240	310	140	310		380		170
1/18/2017								630	
1/19/2017						400			
3/2/2017	78	270	330	170	340	360	410	660	210
4/18/2017	16	310	290	140	300	360	360		160
4/19/2017								600	
4/25/2017									
7/13/2017									150
10/10/2017	78	450	310	190	340	480	400	600	210
6/12/2018	62			180					150
6/13/2018		600	230		320	390	320	570	
10/9/2018	68			170					150
10/10/2018		410	300		270	260	300	470	
1/29/2019									
3/25/2019	54			150					210
3/26/2019		630	290		320	370	370	530	
9/10/2019	14	660	260	110	260	360	360	470	160
3/9/2020	56								190
3/10/2020		600	300	170	370	450	390	540	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/26/2020 4:47 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

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:52 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-63	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	48	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3306	-46	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-3	0.201	45	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.07557	60	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.394	63	44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.7439	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3936	-58	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.324	-70	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.296	-84	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8063	-64	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-4.202	-71	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-34.14	-78	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	7.185	60	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	90.35	68	44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-48.03	-67	-44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	114.5	58	44	Yes	14	0	n/a	n/a	0.02	NP

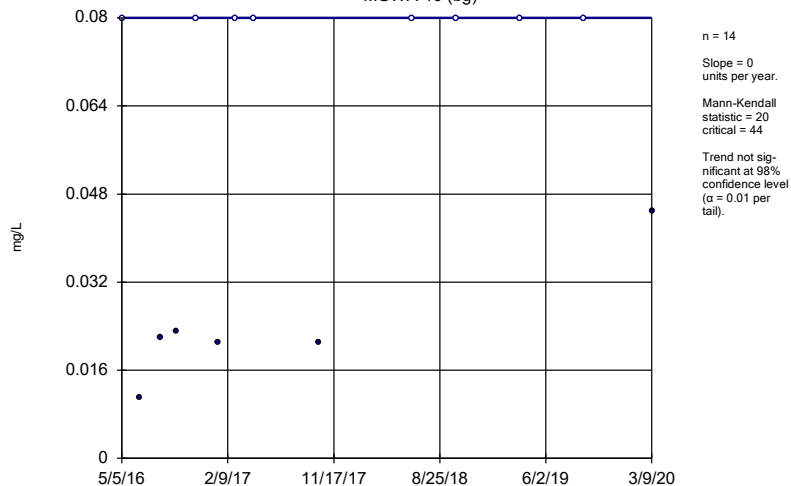
Appendix III Trend Tests - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:52 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	20	44	No	14	57.14	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-11 (bg)	0	32	44	No	14	71.43	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-5 (bg)	0	21	44	No	14	85.71	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-63	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6A (bg)	0	-1	-8	No	4	75	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	48	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3306	-46	-44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-3	0.201	45	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.07557	60	44	Yes	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.394	63	44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.7439	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-11 (bg)	-0.8057	-17	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-5 (bg)	0	-2	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6 (bg)	0	20	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6A (bg)	-5.532	-2	-8	No	4	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-1	5.325	31	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-10 (bg)	-0.0804	-19	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-11 (bg)	-0.05739	-8	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3936	-58	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.324	-70	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.4452	-6	-8	No	4	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-1	0	-24	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.296	-84	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-3	0.3017	36	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8063	-64	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-8	0.3935	33	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4642	-41	-44	No	14	14.29	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-11 (bg)	0.3617	30	44	No	14	42.86	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.8789	-40	-44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-4.202	-71	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6A (bg)	-3.4	-2	-8	No	4	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-1	5.48	25	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-34.14	-78	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	7.185	60	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-7	3.621	36	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	90.35	68	44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-10 (bg)	-7.28	-28	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-11 (bg)	0	-6	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-5 (bg)	4.65	11	44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6 (bg)	-3.179	-12	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6A (bg)	-30.59	-2	-8	No	4	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-1	0	5	44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-48.03	-67	-44	Yes	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-3	-6.612	-19	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-7	0	-2	-44	No	14	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	114.5	58	44	Yes	14	0	n/a	n/a	0.02	NP

Sen's Slope Estimator

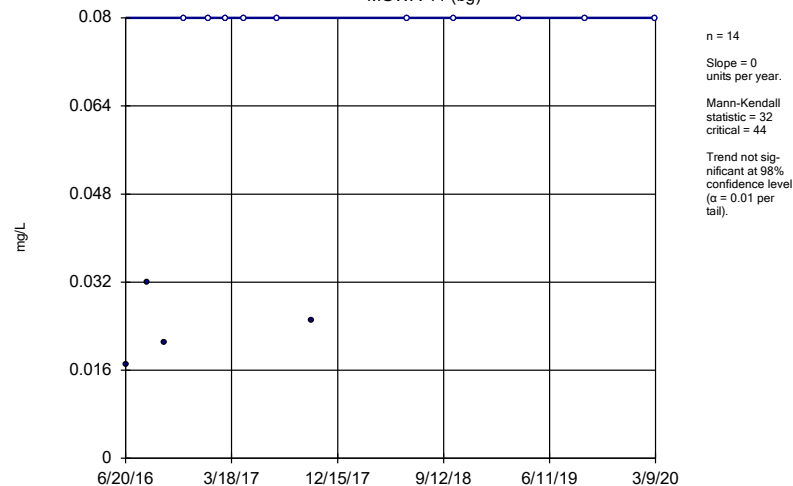
MGWA-10 (bg)



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

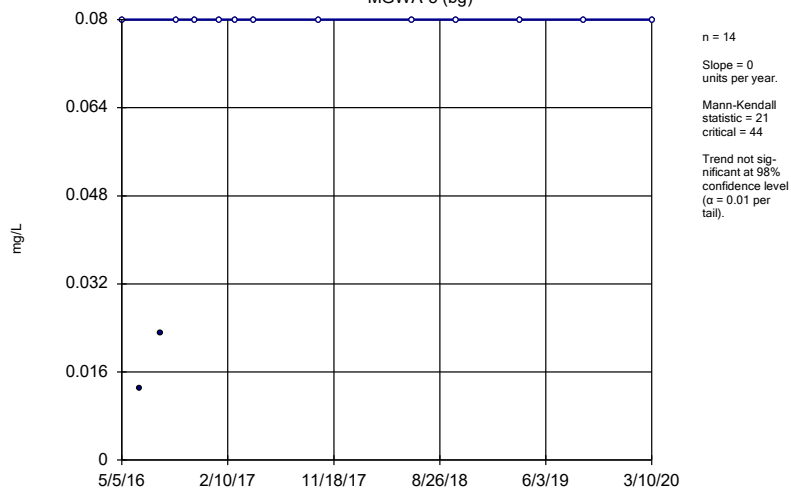
MGWA-11 (bg)



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

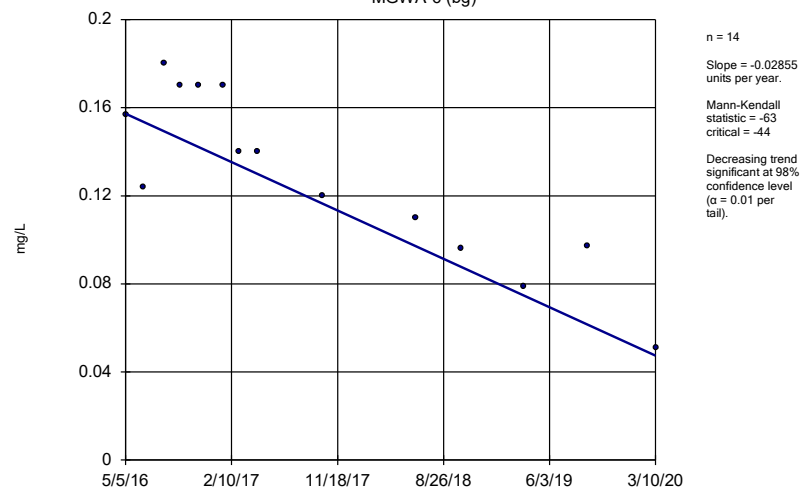
MGWA-5 (bg)



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

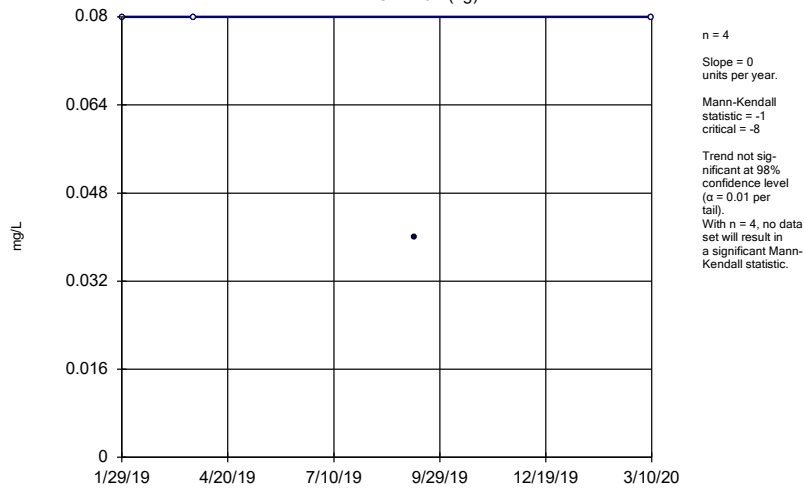
MGWA-6 (bg)



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

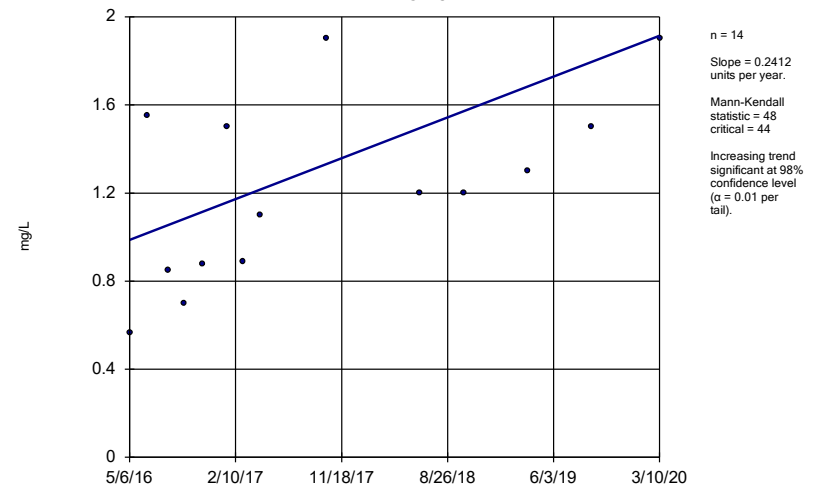
MGWA-6A (bg)



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

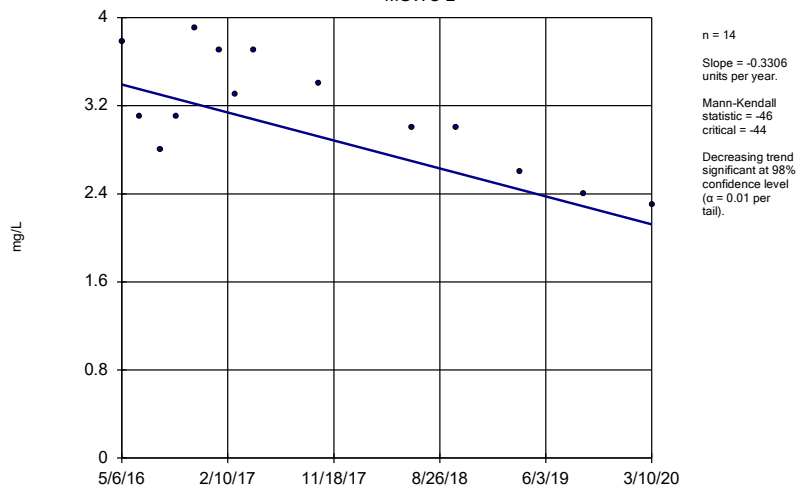
MGWC-1



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

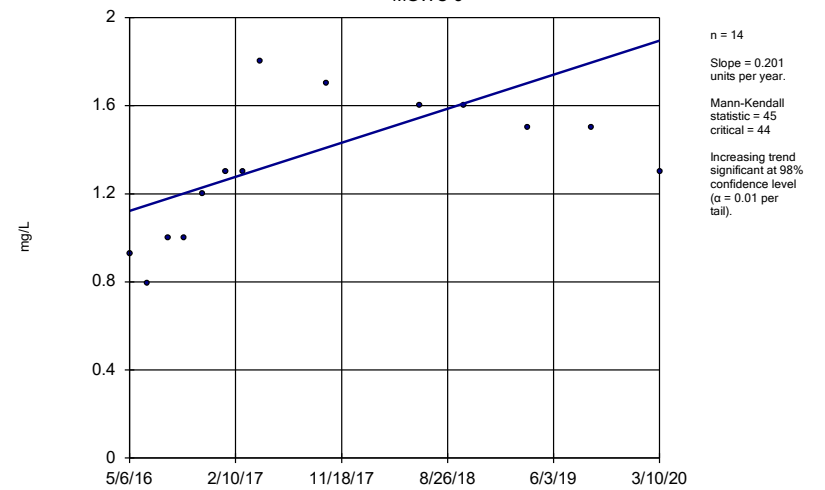
MGWC-2



Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

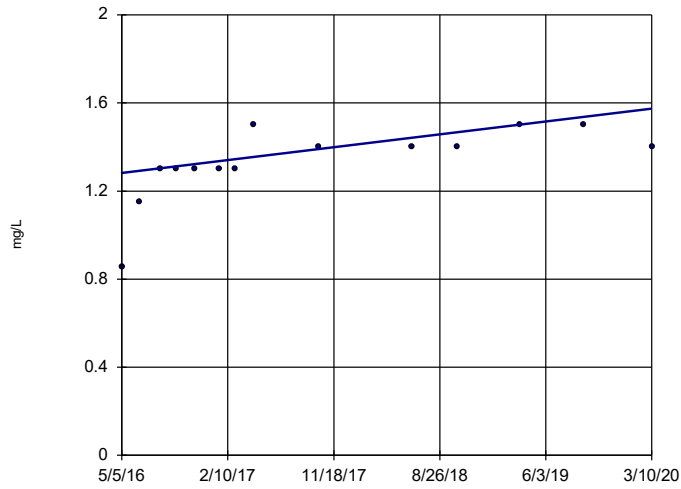
Sen's Slope Estimator

MGWC-3



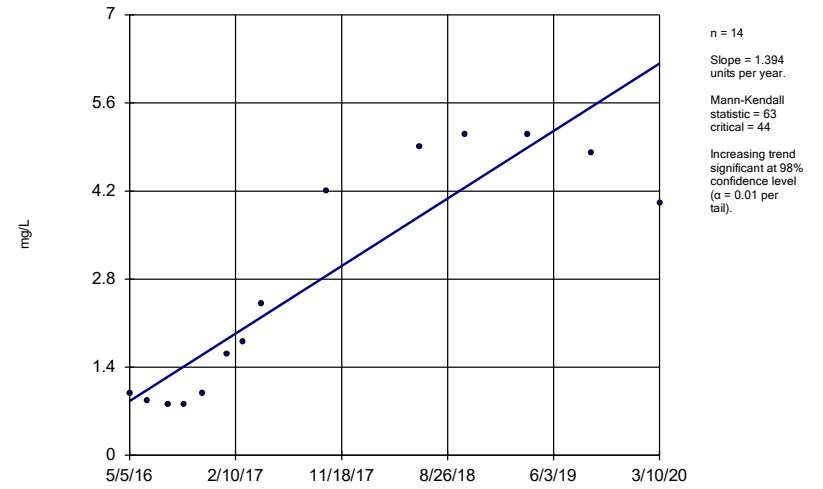
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-7



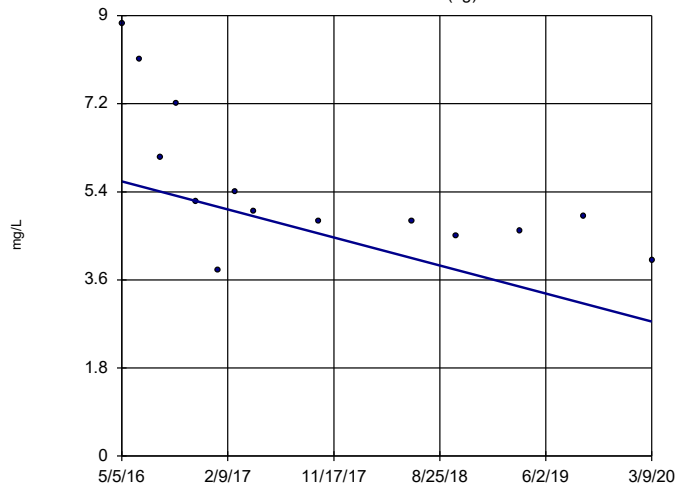
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-8



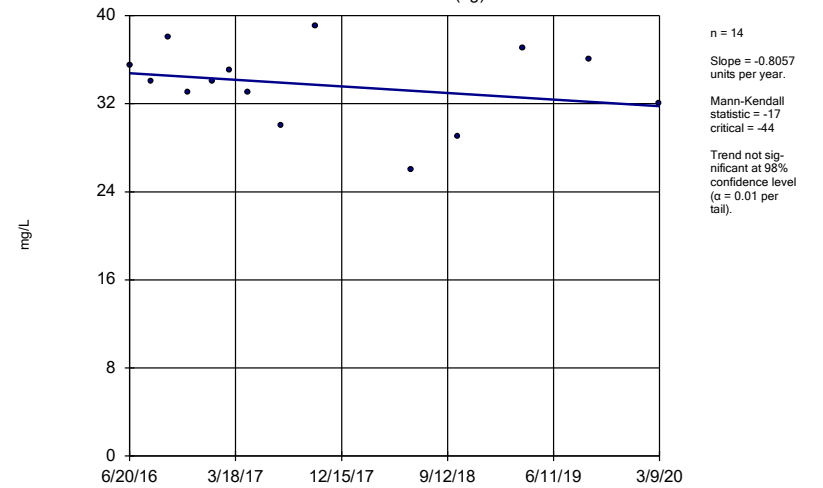
Constituent: Boron Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-10 (bg)



Constituent: Calcium Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

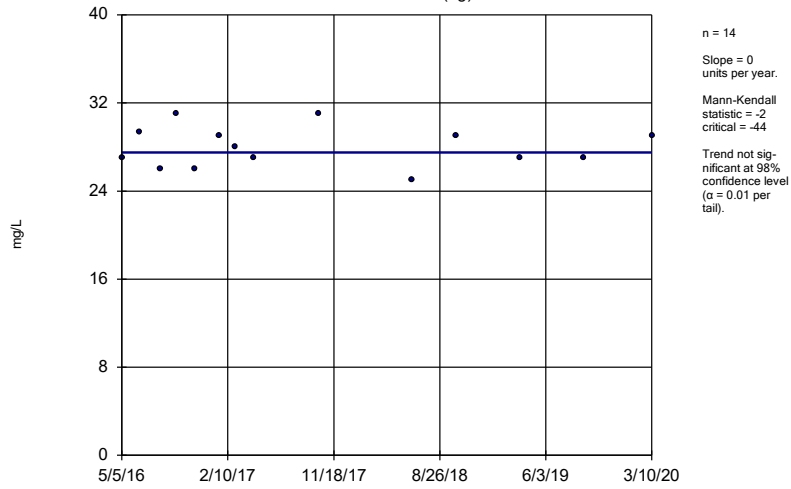
Sen's Slope Estimator
MGWA-11 (bg)



Constituent: Calcium Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

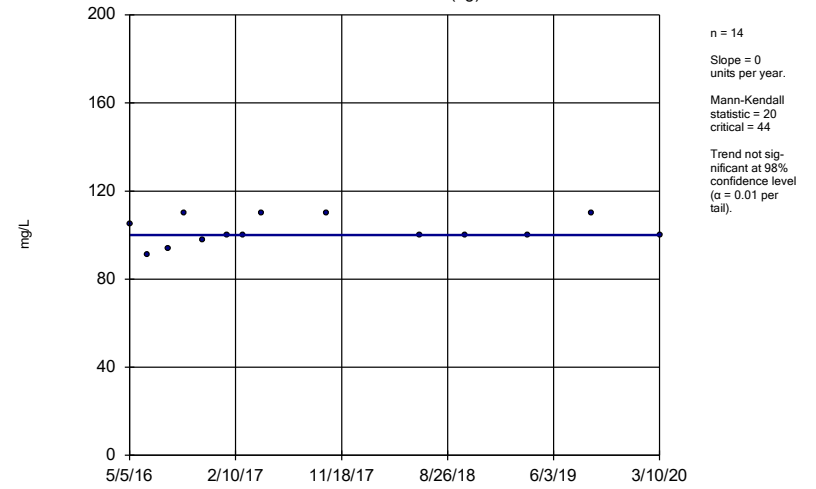
MGWA-5 (bg)



Constituent: Calcium Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

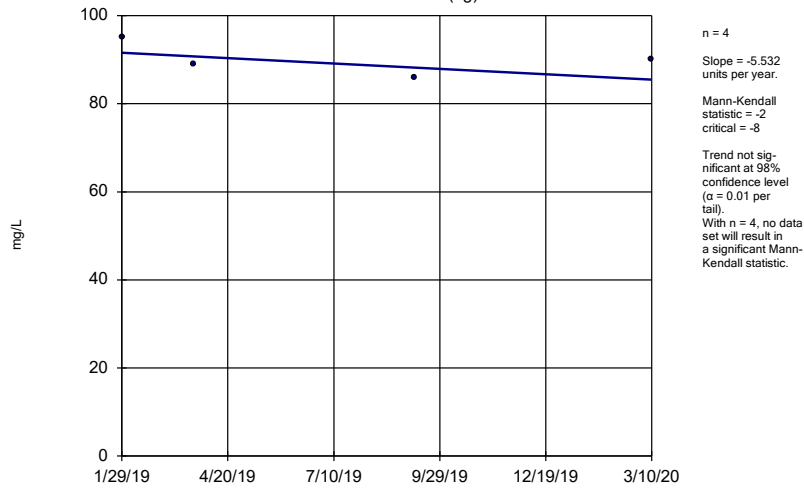
MGWA-6 (bg)



Constituent: Calcium Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

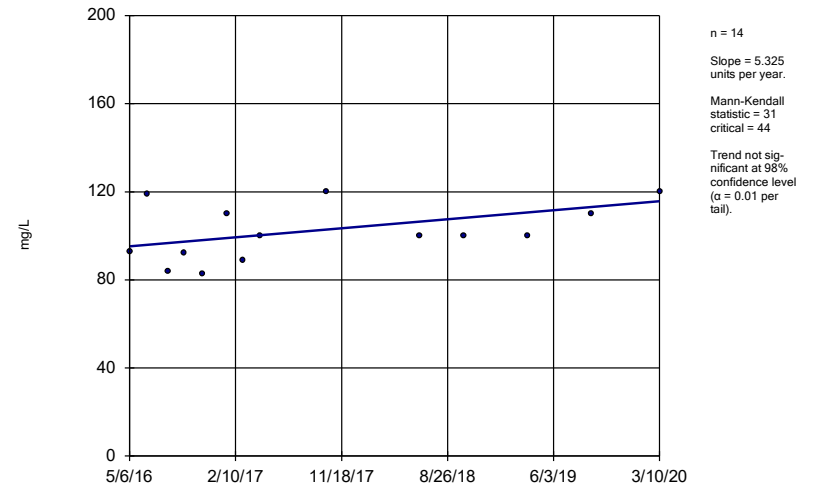
MGWA-6A (bg)



Constituent: Calcium Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

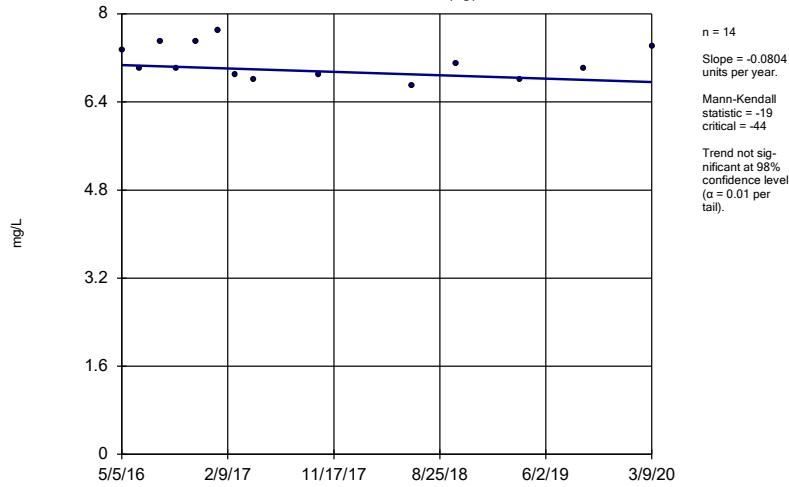
MGWC-1



Constituent: Calcium Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

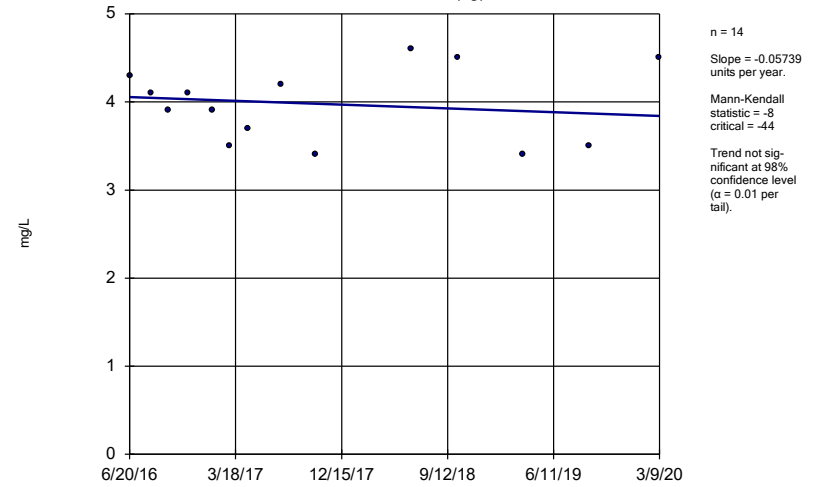
MGWA-10 (bg)



Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

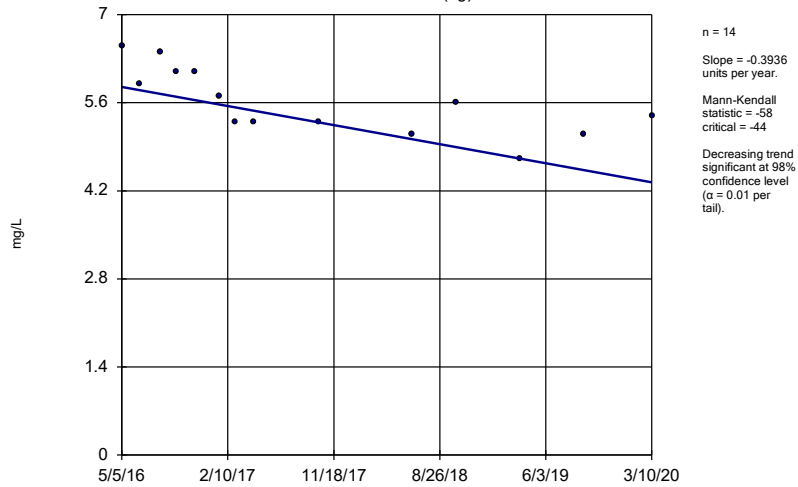
MGWA-11 (bg)



Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

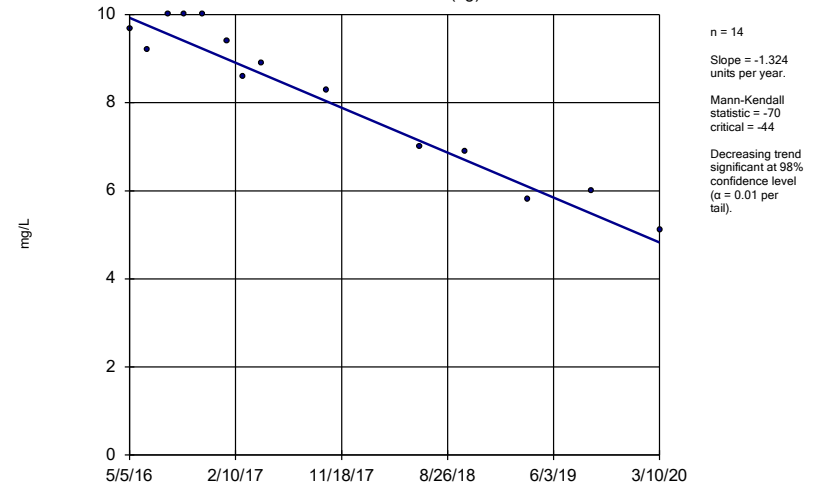
MGWA-5 (bg)



Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

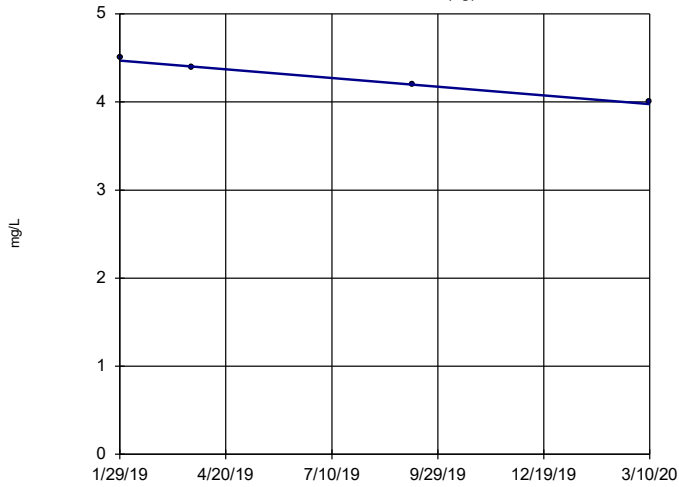
MGWA-6 (bg)



Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-6A (bg)

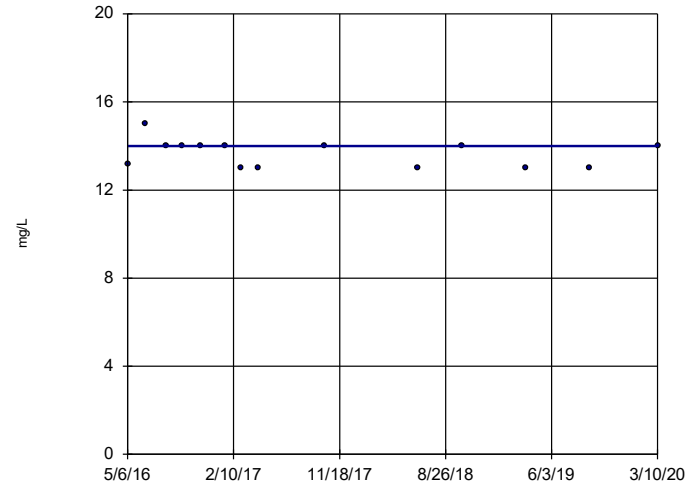


n = 4
 Slope = -0.4452 units per year.
 Mann-Kendall statistic = -6
 critical = -8
 Trend not significant at 98% confidence level (α = 0.01 per tail).
 With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWC-1

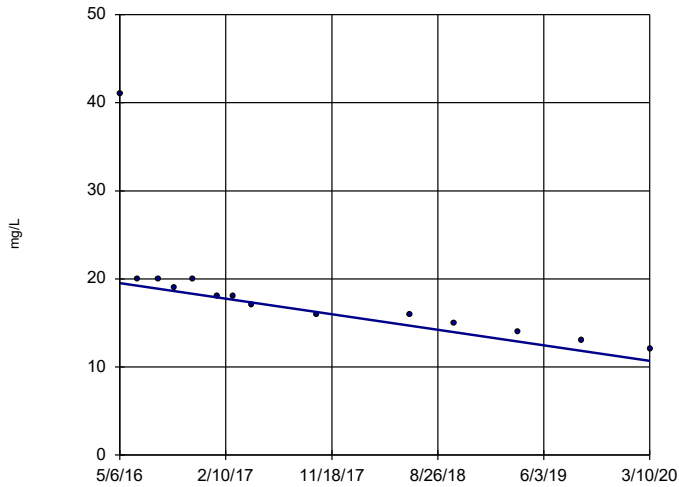


n = 14
 Slope = 0 units per year.
 Mann-Kendall statistic = -24
 critical = -44
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWC-2

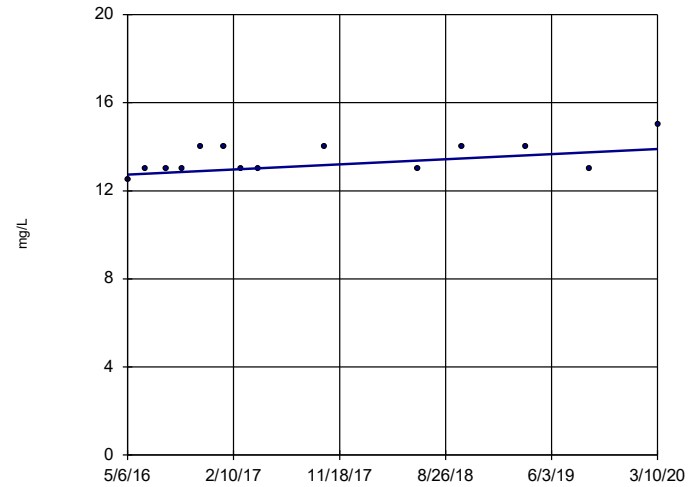


n = 14
 Slope = -2.296 units per year.
 Mann-Kendall statistic = -84
 critical = -44
 Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

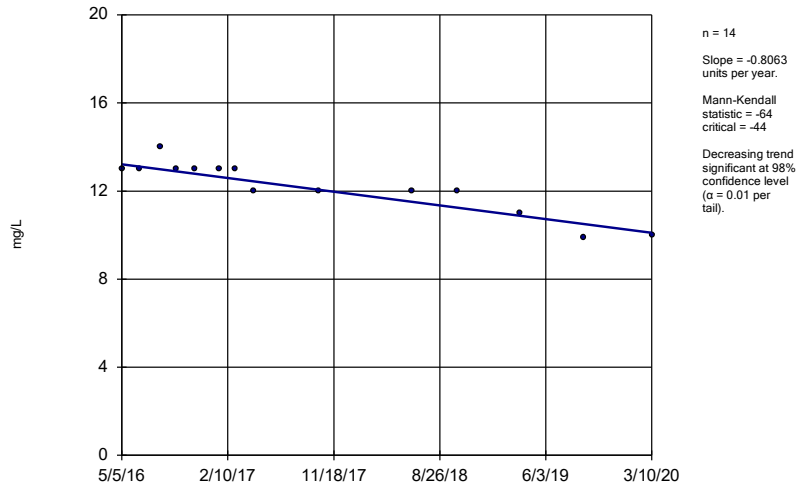
MGWC-3



n = 14
 Slope = 0.3017 units per year.
 Mann-Kendall statistic = 36
 critical = 44
 Trend not significant at 98% confidence level (α = 0.01 per tail).

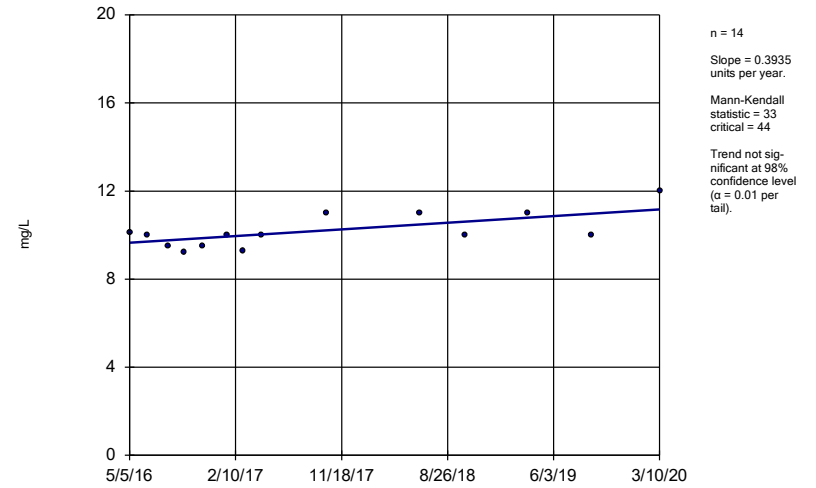
Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-7



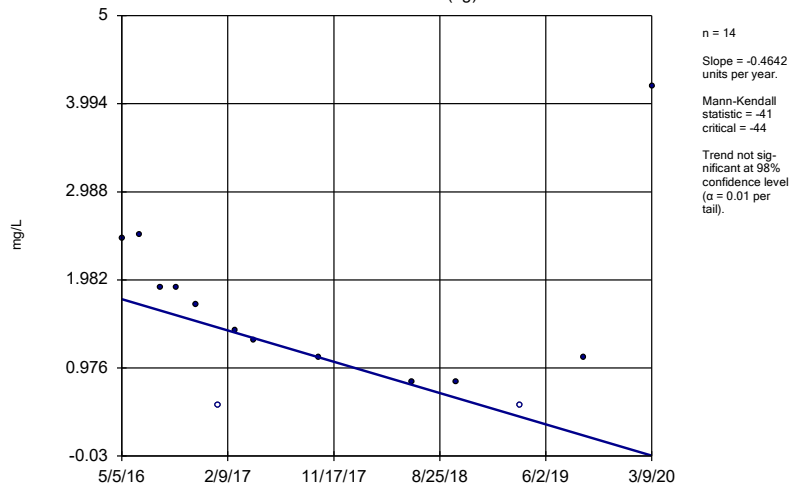
Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-8



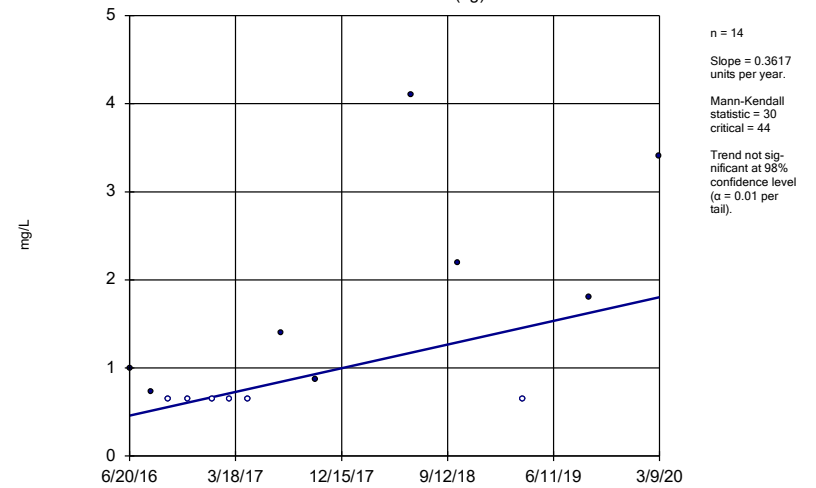
Constituent: Chloride Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-10 (bg)



Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

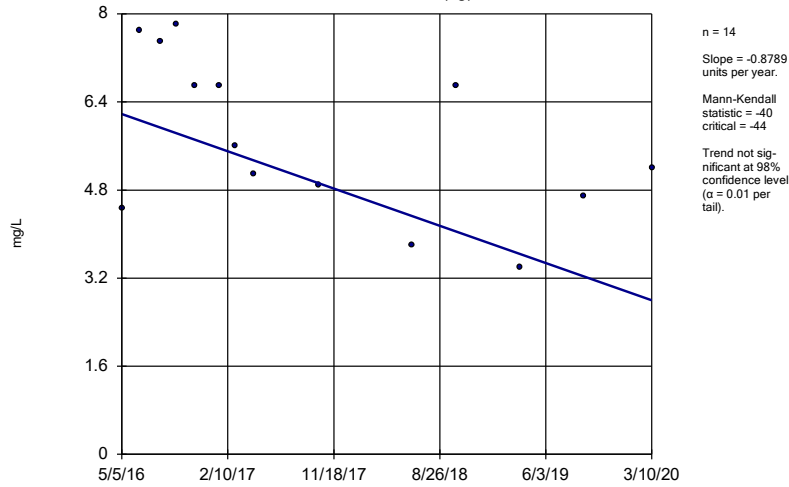
Sen's Slope Estimator
MGWA-11 (bg)



Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

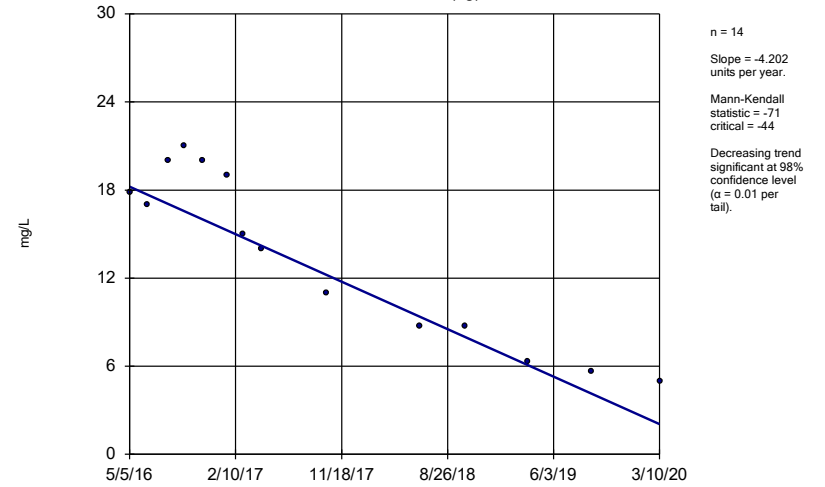
MGWA-5 (bg)



Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

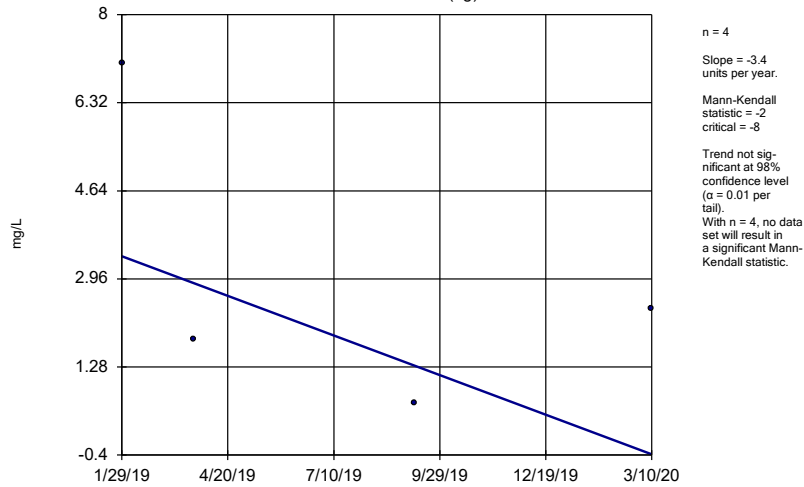
MGWA-6 (bg)



Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

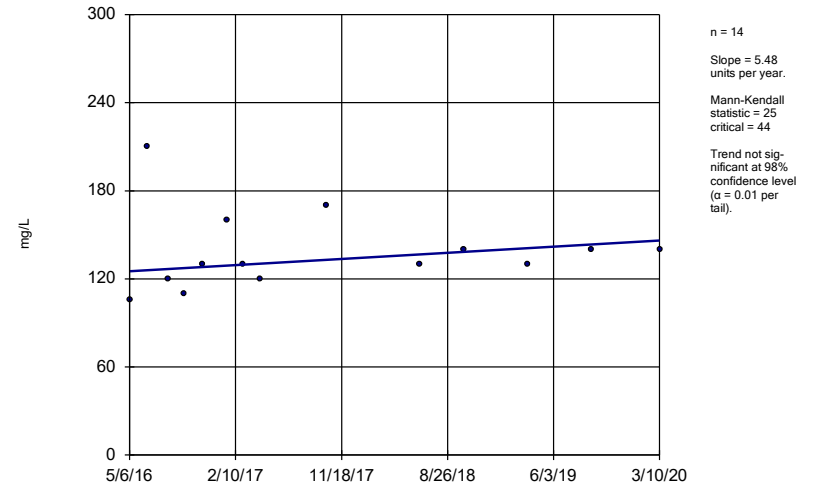
MGWA-6A (bg)



Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

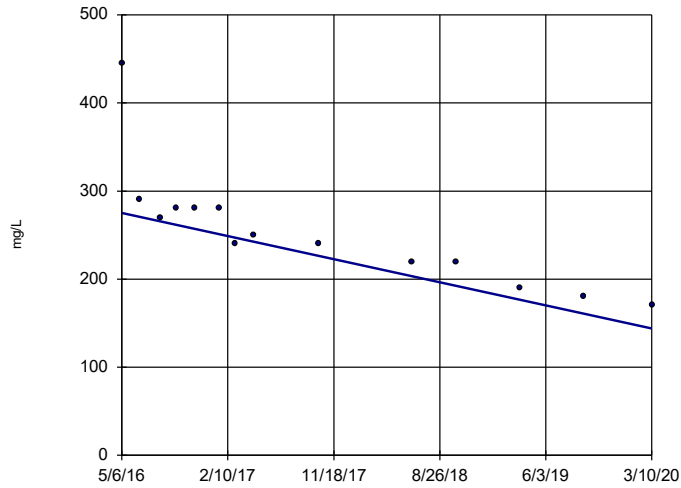
Sen's Slope Estimator

MGWC-1



Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

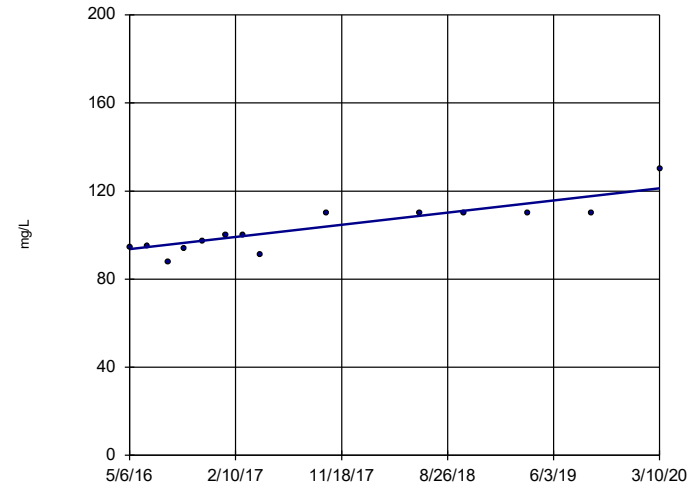
Sen's Slope Estimator MGWC-2



n = 14
 Slope = -34.14
 units per year.
 Mann-Kendall
 statistic = -78
 critical = -44
 Decreasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

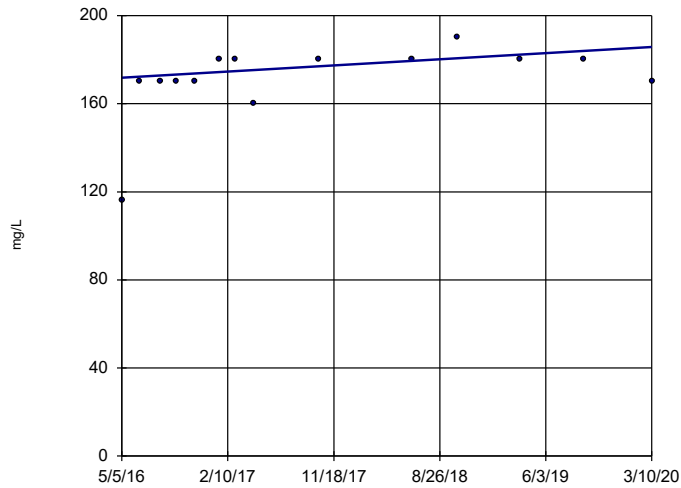
Sen's Slope Estimator MGWC-3



n = 14
 Slope = 7.185
 units per year.
 Mann-Kendall
 statistic = 60
 critical = 44
 Increasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

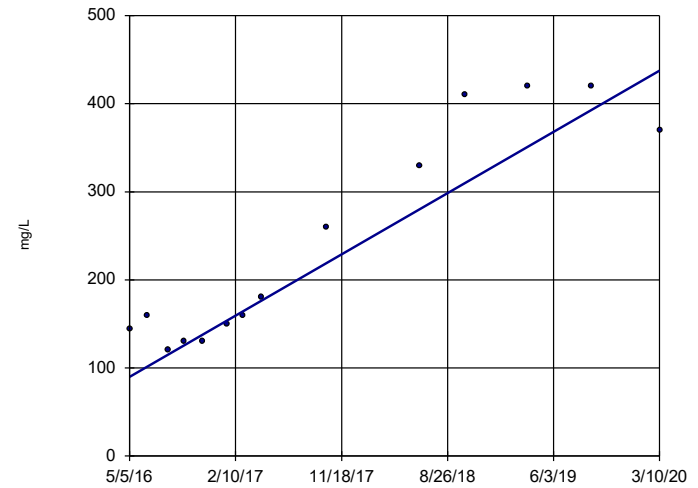
Sen's Slope Estimator MGWC-7



n = 14
 Slope = 3.621
 units per year.
 Mann-Kendall
 statistic = 36
 critical = 44
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator MGWC-8

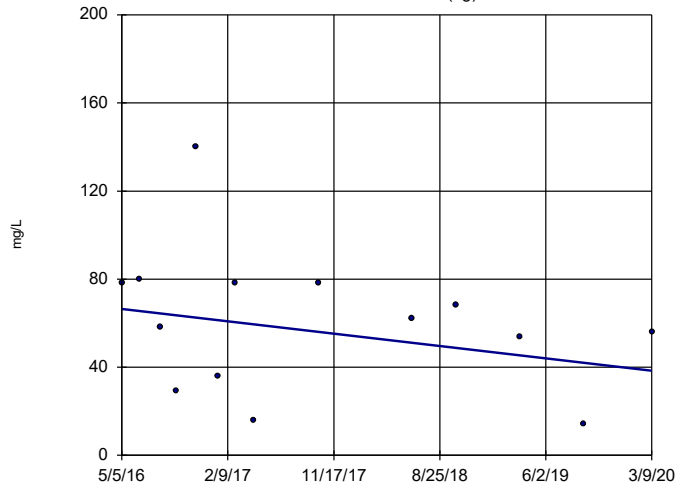


n = 14
 Slope = 90.35
 units per year.
 Mann-Kendall
 statistic = 68
 critical = 44
 Increasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-10 (bg)

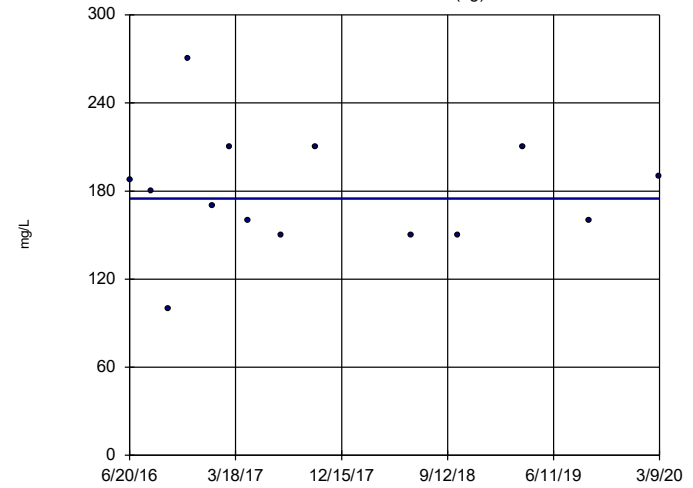


n = 14
 Slope = -7.28 units per year.
 Mann-Kendall statistic = -28
 critical = -44
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-11 (bg)

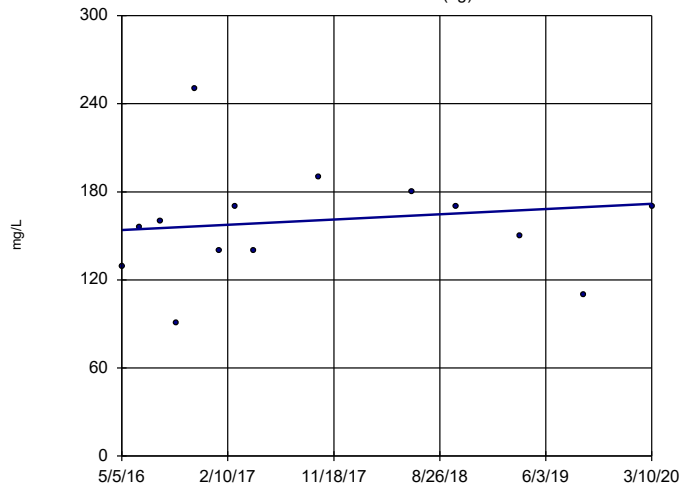


n = 14
 Slope = 0 units per year.
 Mann-Kendall statistic = -6
 critical = -44
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-5 (bg)

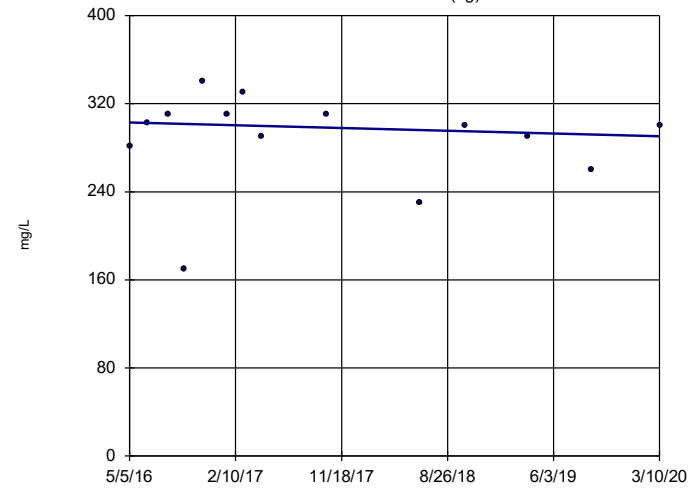


n = 14
 Slope = 4.65 units per year.
 Mann-Kendall statistic = 11
 critical = 44
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

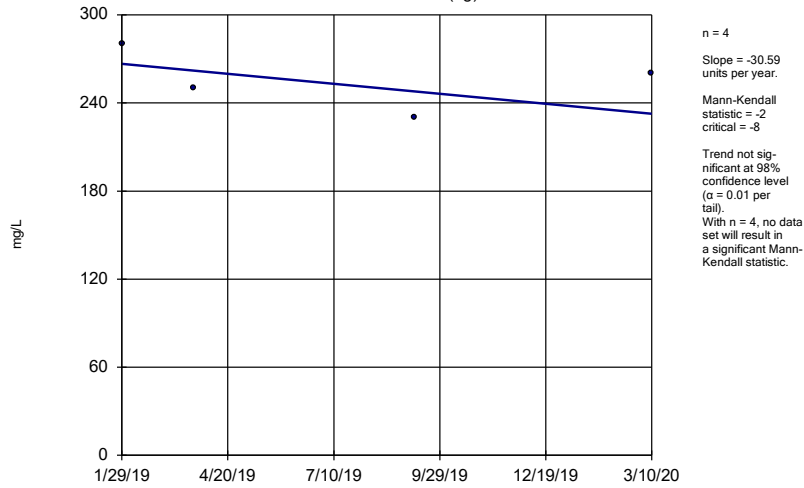
MGWA-6 (bg)



n = 14
 Slope = -3.179 units per year.
 Mann-Kendall statistic = -12
 critical = -44
 Trend not significant at 98% confidence level (α = 0.01 per tail).

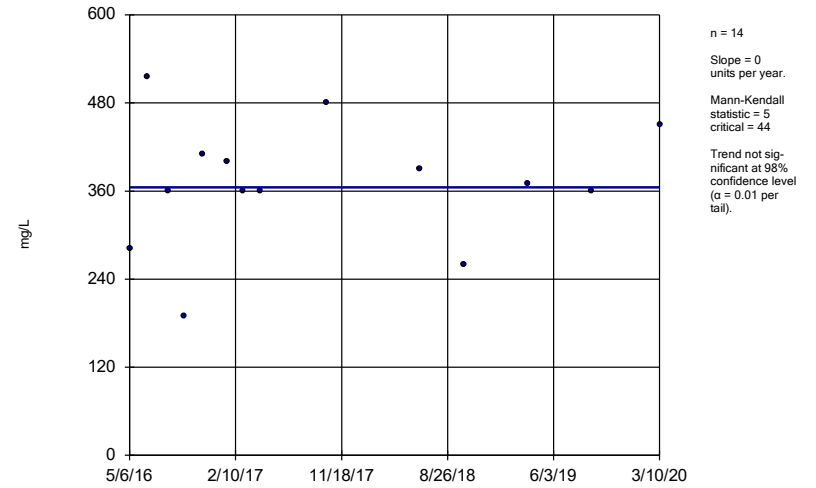
Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)



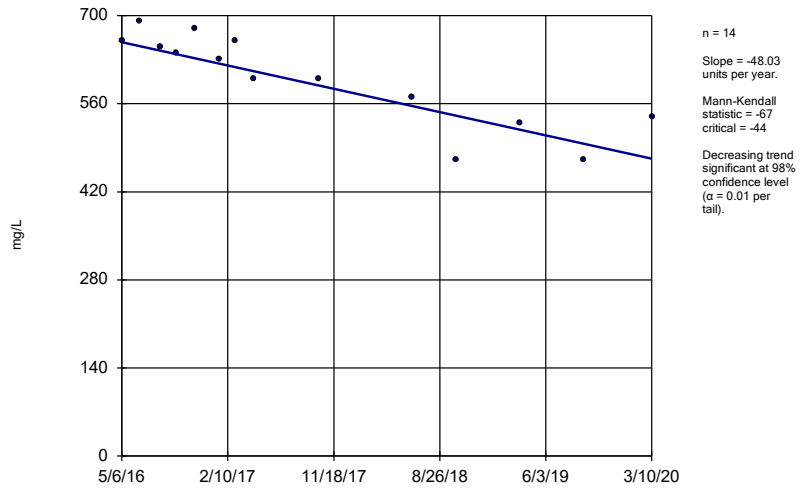
Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-1



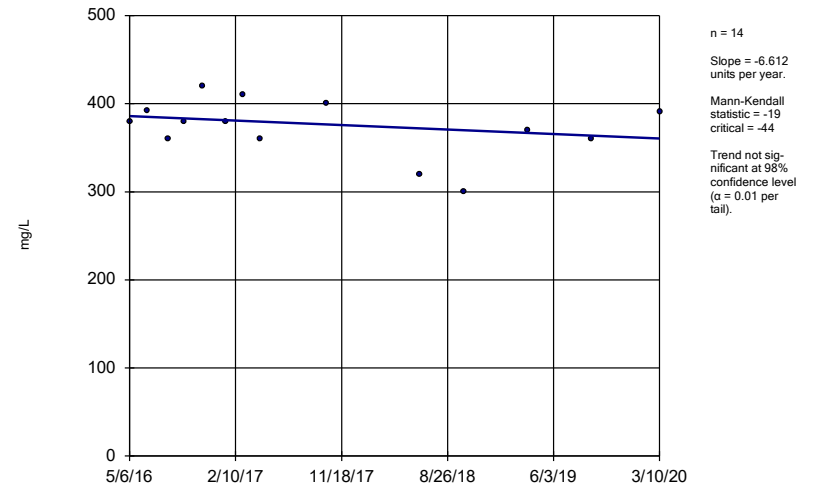
Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWC-2



Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

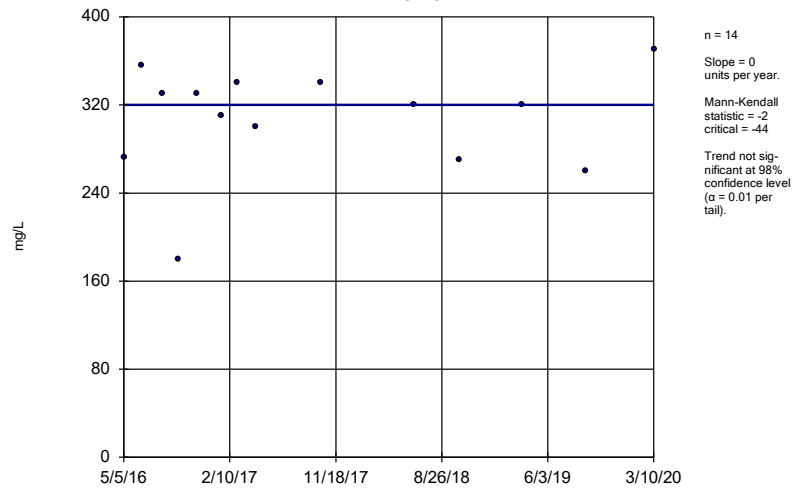
Sen's Slope Estimator
MGWC-3



Constituent: TDS Analysis Run 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

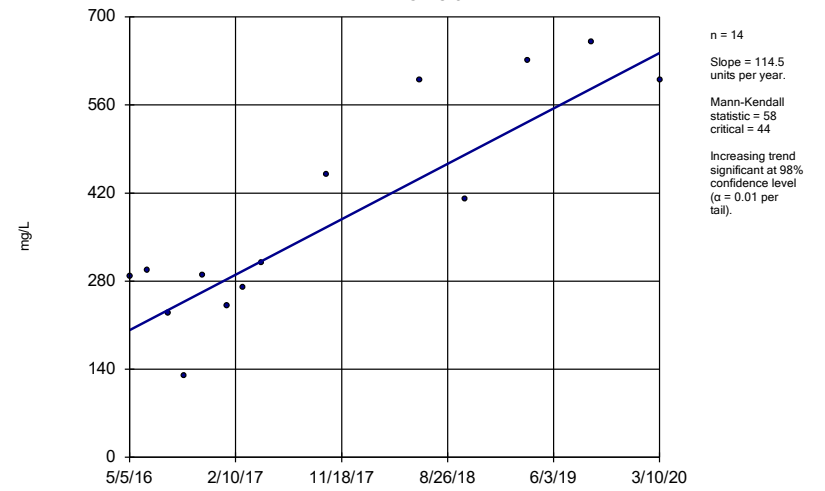
MGWC-7



Constituent: TDS Analysis Run 5/26/2020 4:51 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 5/26/2020 4:51 PM View: Appendix III - Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE F.

Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/26/2020, 4:54 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	0.0020	n/a	n/a	n/a	n/a	51	n/a	n/a	92.16	n/a	n/a	0.0731	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.035	n/a	n/a	n/a	n/a	69	n/a	n/a	36.23	n/a	n/a	0.02904	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a	69	n/a	n/a	0	n/a	n/a	0.02904	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	59	n/a	n/a	93.22	n/a	n/a	0.04849	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	69	n/a	n/a	98.55	n/a	n/a	0.02904	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	n/a	59	n/a	n/a	67.8	n/a	n/a	0.04849	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	69	n/a	n/a	75.36	n/a	n/a	0.02904	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.1	n/a	n/a	n/a	n/a	69	0.5336	0.287	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	64	n/a	n/a	34.38	n/a	n/a	0.03752	NP Inter(normality)
Lead (mg/L)	n/a	0.0010	n/a	n/a	n/a	n/a	51	n/a	n/a	94.12	n/a	n/a	0.0731	NP Inter(NDs)
Lithium (mg/L)	n/a	0.030	n/a	n/a	n/a	n/a	69	n/a	n/a	27.54	n/a	n/a	0.02904	NP Inter(normality)
Mercury (mg/L)	n/a	0.00020	n/a	n/a	n/a	n/a	59	n/a	n/a	94.92	n/a	n/a	0.04849	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	n/a	59	n/a	n/a	69.49	n/a	n/a	0.04849	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0050	n/a	n/a	n/a	n/a	54	n/a	n/a	88.89	n/a	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0010	n/a	n/a	n/a	n/a	59	n/a	n/a	88.14	n/a	n/a	0.04849	NP Inter(NDs)

FIGURE G.

PLANT MCINTOSH AP 1 GWPS - FEDERAL				
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		0.035	0.035
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		1.1	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*

**MCL = Maximum Contaminant Level*

FIGURE H.

PLANT MCINTOSH AP 1 GWPS - STATE				
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		0.035	0.035
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	0.0025
Combined Radium, Total (pCi/L)	5		1.1	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
Selenium, Total (mg/L)	0.05		0.005	0.005
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

FIGURE I.

Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.006	Yes 16	0.009375	0.002034	0	None	x^2	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 16	0.1208	0.02225	0	None	No	0.01	NP (normality)

Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:58 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	12	0.001867	0.0004619	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	12	0.001858	0.0004907	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	12	0.001998	0.00000866	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.003041	0.002155	0.035	No	16	0.002621	0.0007343	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.0019	0.00053	0.035	No	16	0.001732	0.001673	18.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-2	0.005	0.00065	0.035	No	16	0.003881	0.002004	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.0018	0.0013	0.035	No	16	0.001721	0.000926	6.25	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-7	0.005	0.00066	0.035	No	16	0.002664	0.00214	43.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-8	0.005	0.00059	0.035	No	16	0.004164	0.001798	81.25	None	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	16	0.1071	0.01877	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06203	0.04733	2	No	16	0.05468	0.01129	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-2	0.05588	0.0498	2	No	16	0.05284	0.004671	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1519	0.136	2	No	16	0.1439	0.0122	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No	16	0.01324	0.007627	6.25	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03769	0.03386	2	No	16	0.03578	0.00294	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.013	0.00018	0.004	No	14	0.01208	0.003426	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.013	0.00031	0.004	No	14	0.01209	0.003392	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.0019	0.00049	0.004	No	14	0.002679	0.004398	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	MGWC-1	0.013	0.0005	0.005	No	16	0.01061	0.005134	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003546	0.001353	0.005	No	16	0.002607	0.001997	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-8	0.013	0.00044	0.005	No	16	0.005282	0.006178	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	14	0.002114	0.0004276	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	14	0.002086	0.0003207	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	14	0.002093	0.0003474	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	14	0.002071	0.0002673	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	14	0.002064	0.0004069	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	14	0.002079	0.000294	92.86	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No	16	0.001765	0.0009996	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.00016	0.006	No	16	0.002354	0.000585	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.00349	0.002952	0.006	No	16	0.003221	0.0004134	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.006	No	16	0.0009387	0.0007782	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.006	Yes	16	0.009375	0.002034	0	None	x*2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.006	No	16	0.01121	0.007422	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.64	1.08	5	No	16	1.327	0.3151	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6982	0.3727	5	No	16	0.5354	0.2501	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.726	0.4138	5	No	16	0.5699	0.24	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.641	1.369	5	No	16	1.505	0.2091	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.309	0.8683	5	No	16	1.089	0.339	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	2.009	1.423	5	No	16	1.716	0.45	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2569	0.1556	4	No	15	0.2063	0.07479	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.258	0.2006	4	No	15	0.2293	0.04234	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	15	0.1464	0.06142	46.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No	15	0.1416	0.06414	40	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3654	0.2204	4	No	15	0.2929	0.107	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.2	0.088	4	No	15	0.1245	0.04492	20	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	12	0.000925	0.0002598	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	12	0.0009417	0.0002021	91.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01278	0.01041	0.04	No	16	0.01163	0.001897	6.25	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02189	0.01478	0.04	No	16	0.01834	0.005465	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0074	0.0047	0.04	No	16	0.006061	0.002012	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01368	0.01097	0.04	No	16	0.01233	0.002076	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes	16	0.1208	0.02225	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04014	0.02762	0.04	No	16	0.03388	0.009623	0	None	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	14	0.0001829	0.00004364	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	14	0.0001841	0.00004054	85.71	None	No	0.01	NP (NDs)

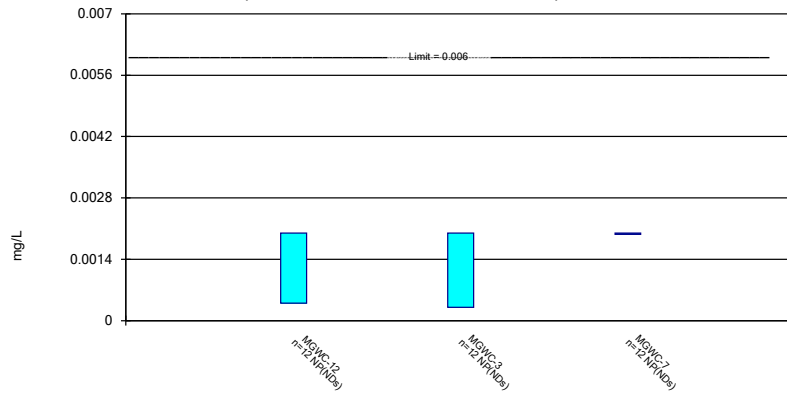
Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No 14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No 14	0.0001914	0.00003207	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00012	0.002	No 14	0.0002097	0.0001581	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.1	No 14	0.005391	0.006316	28.57	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No 14	0.01211	0.005737	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No 14	0.01418	0.003071	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No 14	0.01419	0.00302	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No 14	0.0007604	0.0003966	71.43	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00015	0.002	No 14	0.0009393	0.0002272	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No 14	0.0009436	0.0002111	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No 14	0.000895	0.0002701	85.71	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0004022	0.0001433	0.002	No 14	0.00032	0.0003001	14.29	None	In(x)	0.01	Param.

Non-Parametric Confidence Interval

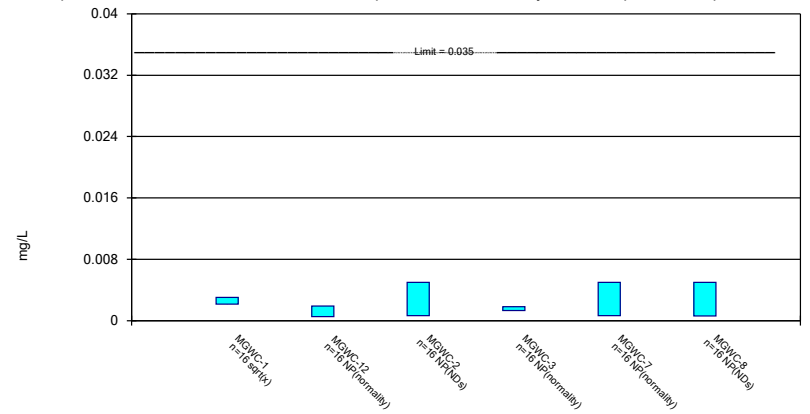
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

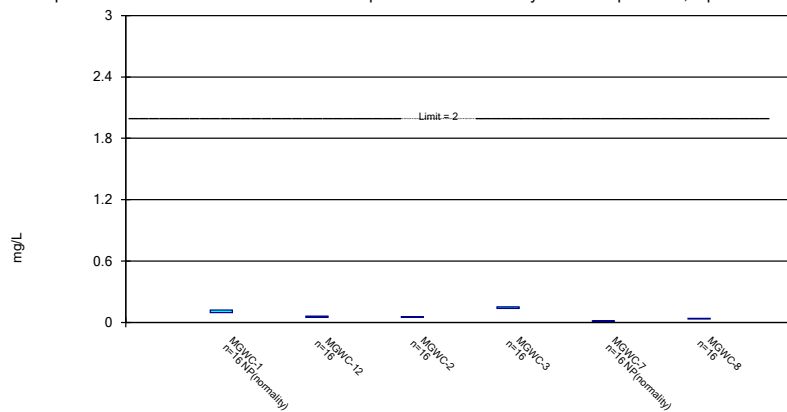
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

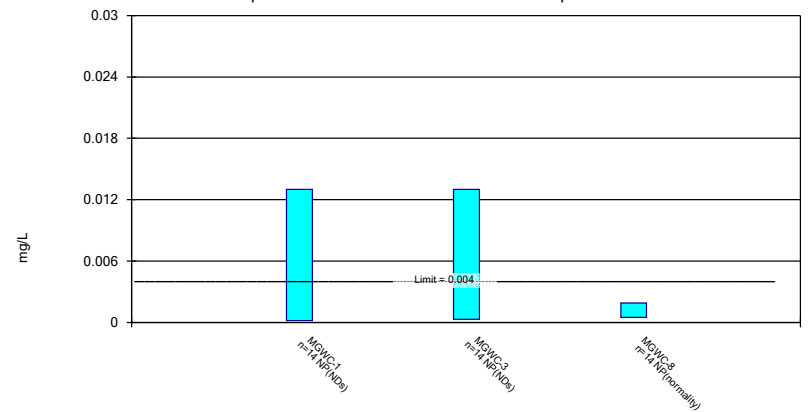
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

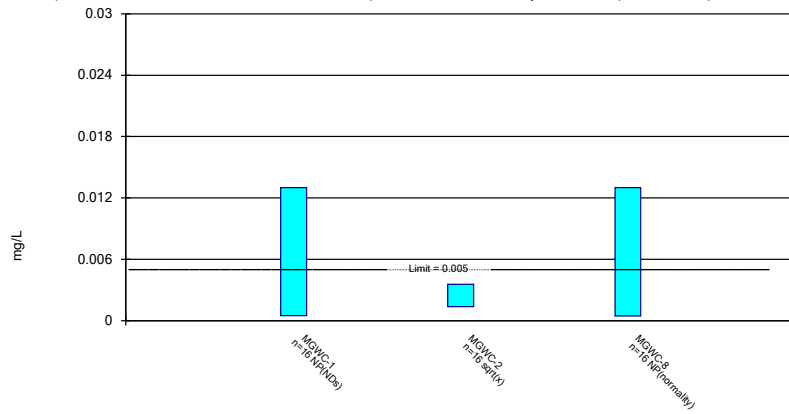
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

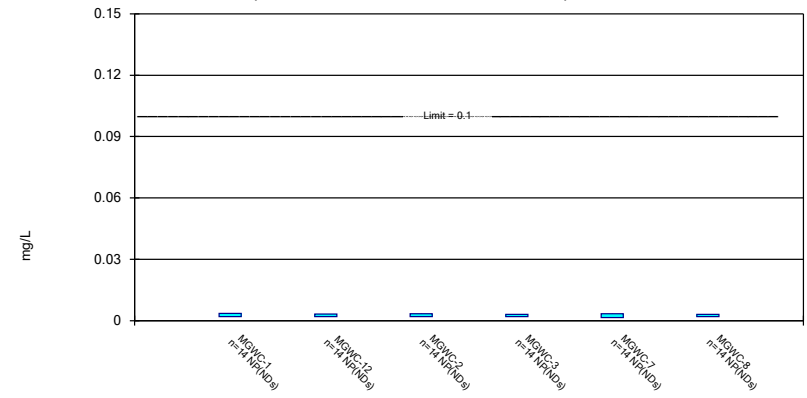
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/28/2020 9:57 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

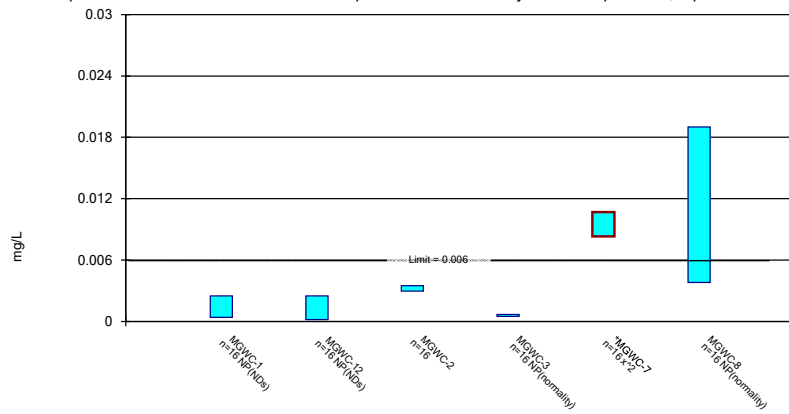
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/28/2020 9:57 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

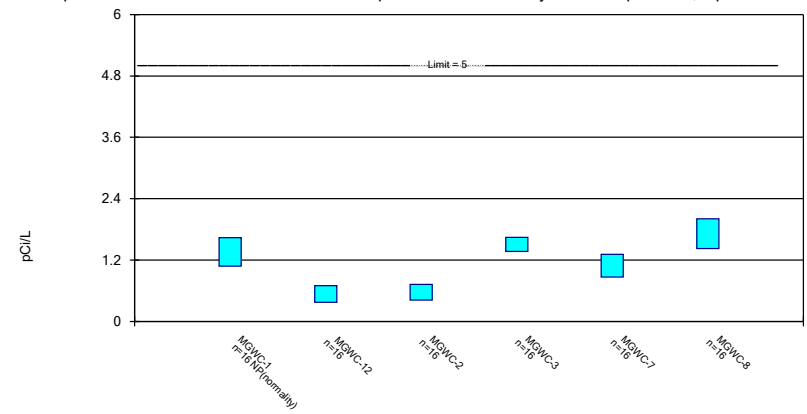
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/28/2020 9:57 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

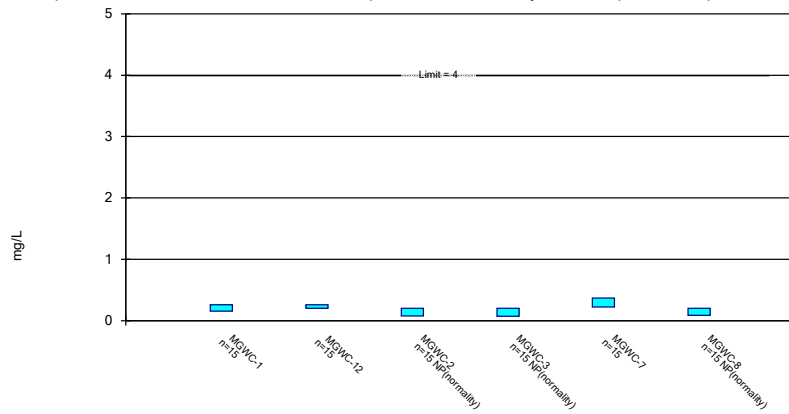
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/28/2020 9:57 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

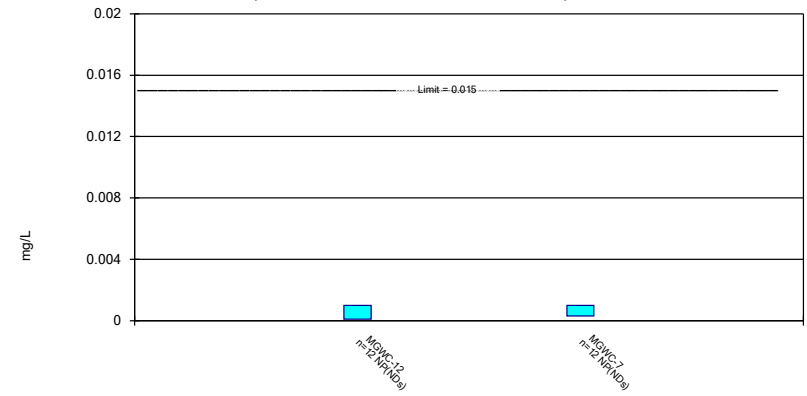
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

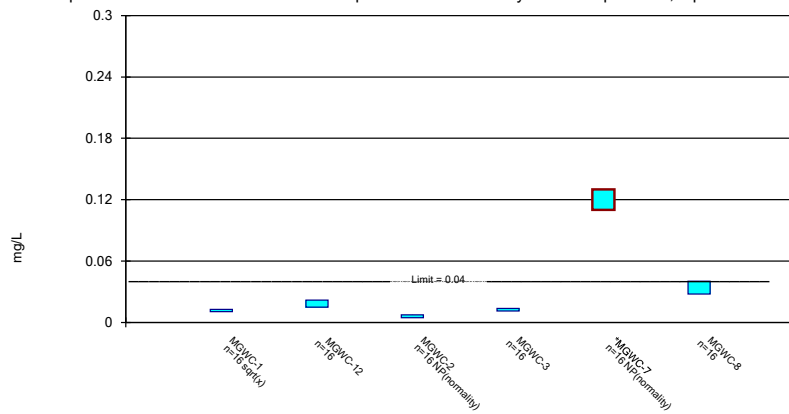
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

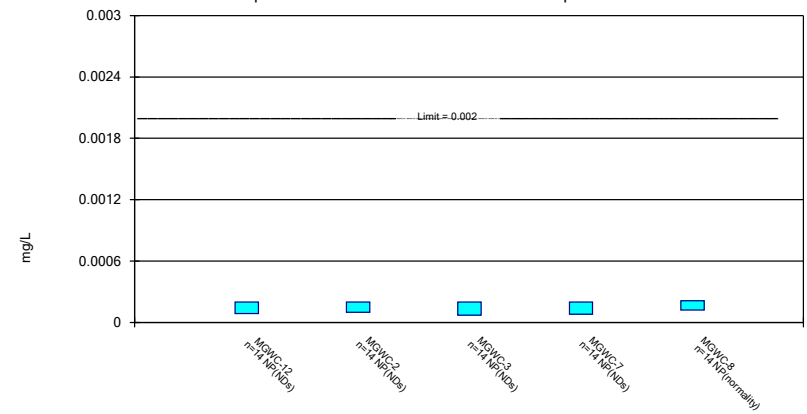
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

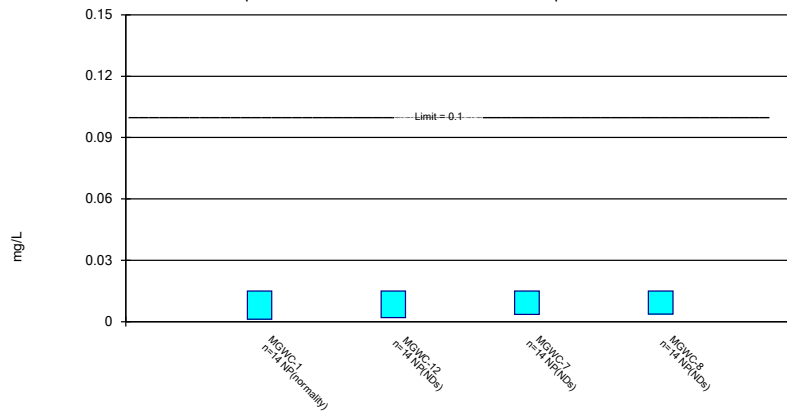
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

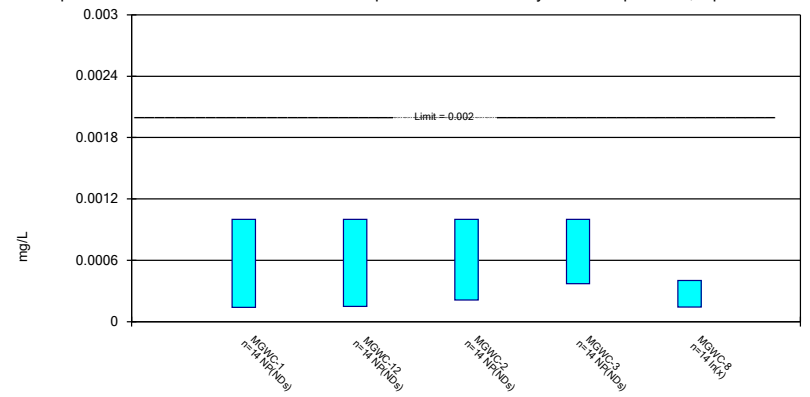
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 5/28/2020 9:57 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 5/28/2020 9:57 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE J.

State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-2	0.00349	0.002952	0.0025	Yes 16	0.003221	0.0004134	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.0025	Yes 16	0.009375	0.002034	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.0025	Yes 16	0.01121	0.007422	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 16	0.1208	0.02225	0	None	No	0.01	NP (normality)

State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:41 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	12	0.001867	0.0004619	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	12	0.001858	0.0004907	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	12	0.001998	0.00000866	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.003041	0.002155	0.035	No	16	0.002621	0.0007343	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.0019	0.00053	0.035	No	16	0.001732	0.001673	18.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-2	0.005	0.00065	0.035	No	16	0.003881	0.002004	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.0018	0.0013	0.035	No	16	0.001721	0.000926	6.25	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-7	0.005	0.00066	0.035	No	16	0.002664	0.00214	43.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	MGWC-8	0.005	0.00059	0.035	No	16	0.004164	0.001798	81.25	None	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	16	0.1071	0.01877	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06203	0.04733	2	No	16	0.05468	0.01129	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-2	0.05588	0.0498	2	No	16	0.05284	0.004671	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1519	0.136	2	No	16	0.1439	0.0122	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No	16	0.01324	0.007627	6.25	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03769	0.03386	2	No	16	0.03578	0.00294	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.013	0.00018	0.004	No	14	0.01208	0.003426	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.013	0.00031	0.004	No	14	0.01209	0.003392	92.86	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.0019	0.00049	0.004	No	14	0.002679	0.004398	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	MGWC-1	0.013	0.0005	0.005	No	16	0.01061	0.005134	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003546	0.001353	0.005	No	16	0.002607	0.001997	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-8	0.013	0.00044	0.005	No	16	0.005282	0.006178	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	14	0.002114	0.0004276	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	14	0.002086	0.0003207	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	14	0.002093	0.0003474	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	14	0.002071	0.0002673	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	14	0.002064	0.0004069	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	14	0.002079	0.000294	92.86	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.0025	No	16	0.001765	0.0009996	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.00016	0.0025	No	16	0.002354	0.000585	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.00349	0.002952	0.0025	Yes	16	0.003221	0.0004134	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.0025	No	16	0.0009387	0.0007782	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.0107	0.008314	0.0025	Yes	16	0.009375	0.002034	0	None	x*2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.0025	Yes	16	0.01121	0.007422	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.64	1.08	5	No	16	1.327	0.3151	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6982	0.3727	5	No	16	0.5354	0.2501	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.726	0.4138	5	No	16	0.5699	0.24	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.641	1.369	5	No	16	1.505	0.2091	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.309	0.8683	5	No	16	1.089	0.339	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	2.009	1.423	5	No	16	1.716	0.45	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2569	0.1556	4	No	15	0.2063	0.07479	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.258	0.2006	4	No	15	0.2293	0.04234	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	15	0.1464	0.06142	46.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No	15	0.1416	0.06414	40	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3654	0.2204	4	No	15	0.2929	0.107	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.2	0.088	4	No	15	0.1245	0.04492	20	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No	12	0.000925	0.0002598	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No	12	0.0009417	0.0002021	91.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01278	0.01041	0.03	No	16	0.01163	0.001897	6.25	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02189	0.01478	0.03	No	16	0.01834	0.005465	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0074	0.0047	0.03	No	16	0.006061	0.002012	6.25	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01368	0.01097	0.03	No	16	0.01233	0.002076	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes	16	0.1208	0.02225	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04014	0.02762	0.03	No	16	0.03388	0.009623	0	None	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	14	0.0001829	0.00004364	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	14	0.0001841	0.00004054	85.71	None	No	0.01	NP (NDs)

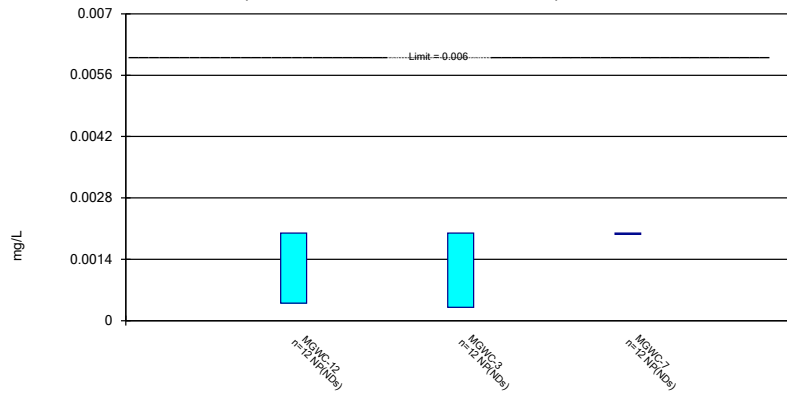
State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/28/2020, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No 14	0.0001907	0.00003474	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No 14	0.0001914	0.00003207	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00012	0.002	No 14	0.0002097	0.0001581	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.015	No 14	0.005391	0.006316	28.57	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.015	No 14	0.01211	0.005737	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No 14	0.01418	0.003071	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No 14	0.01419	0.00302	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No 14	0.0007604	0.0003966	71.43	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00015	0.002	No 14	0.0009393	0.0002272	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No 14	0.0009436	0.0002111	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No 14	0.000895	0.0002701	85.71	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0004022	0.0001433	0.002	No 14	0.00032	0.0003001	14.29	None	In(x)	0.01	Param.

Non-Parametric Confidence Interval

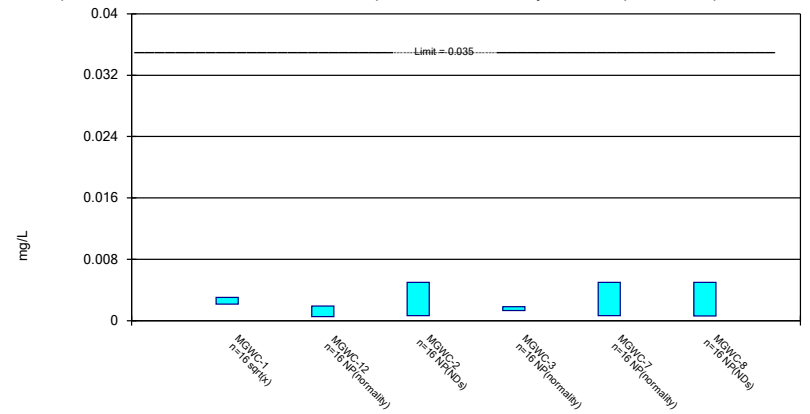
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 5/28/2020 9:38 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

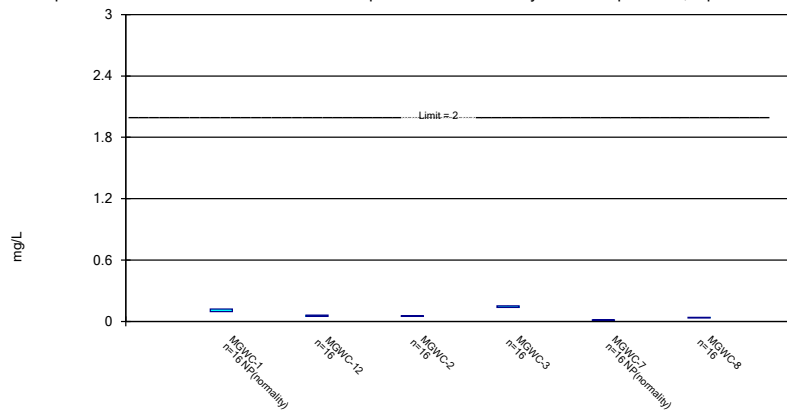
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/28/2020 9:38 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

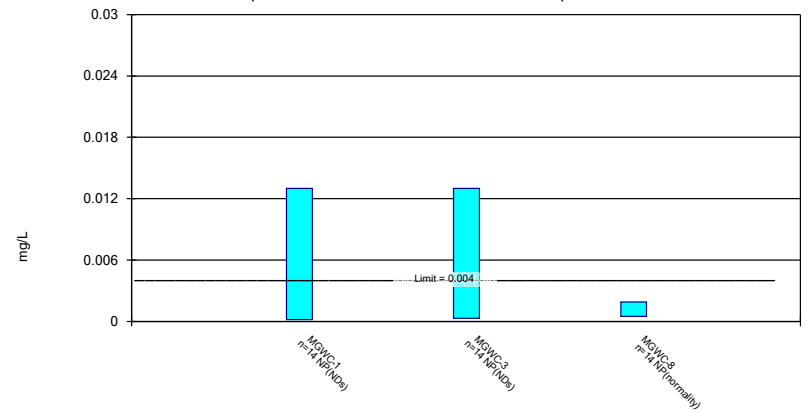
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/28/2020 9:38 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

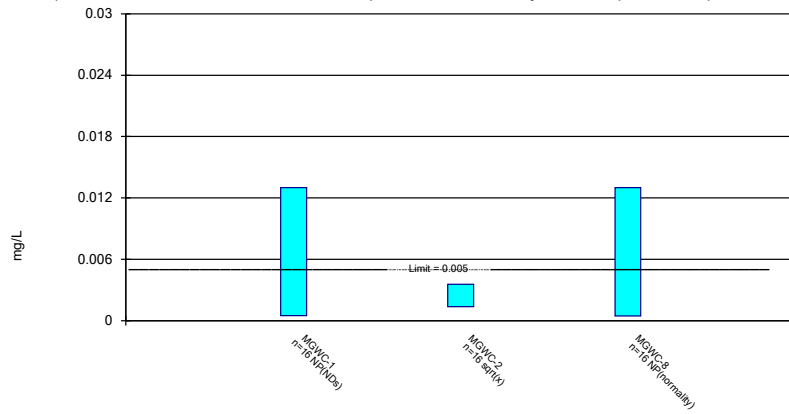
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 5/28/2020 9:38 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

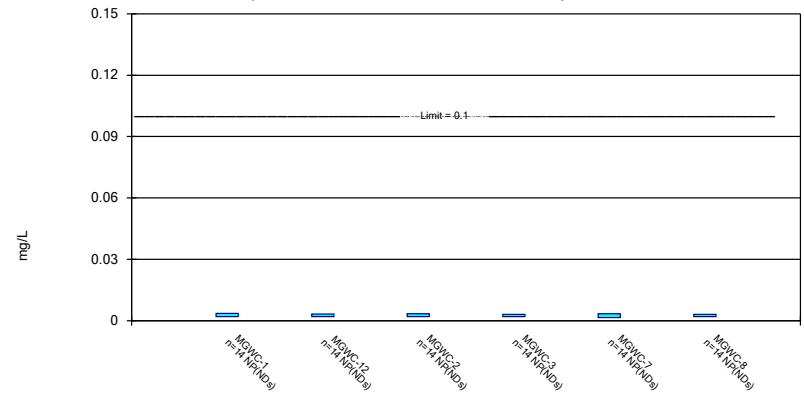
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

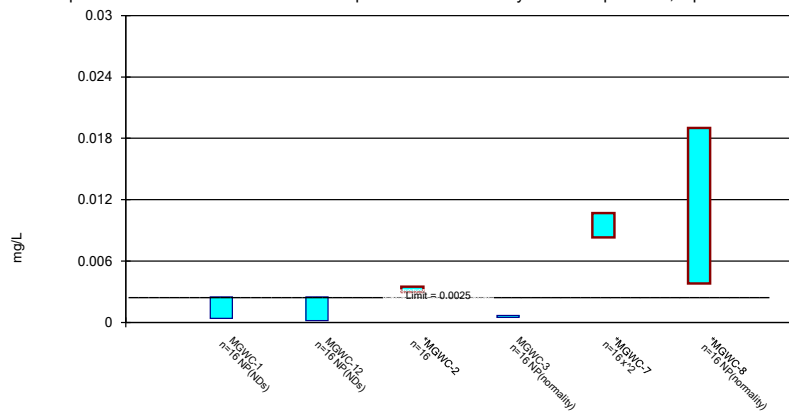
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

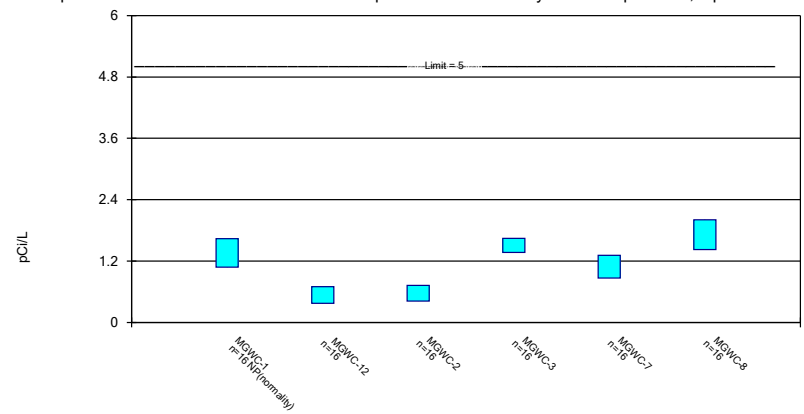
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

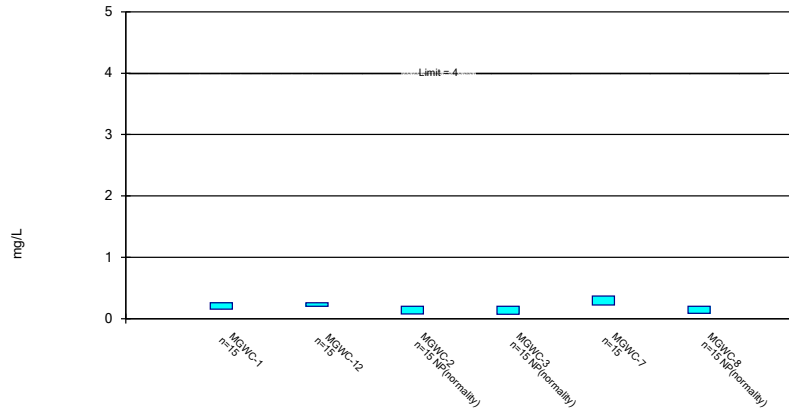
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

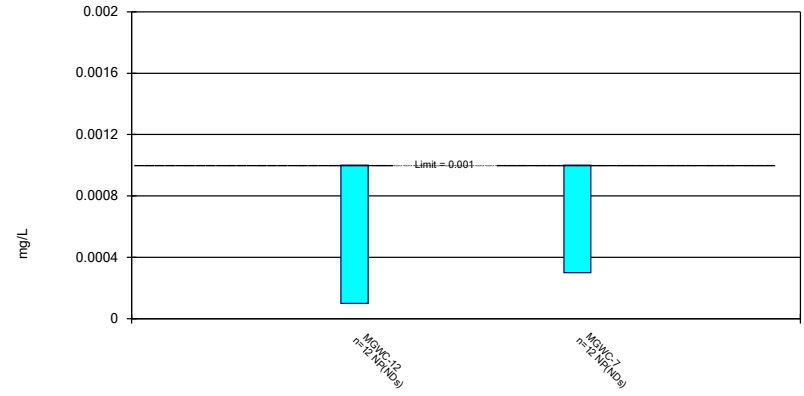
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

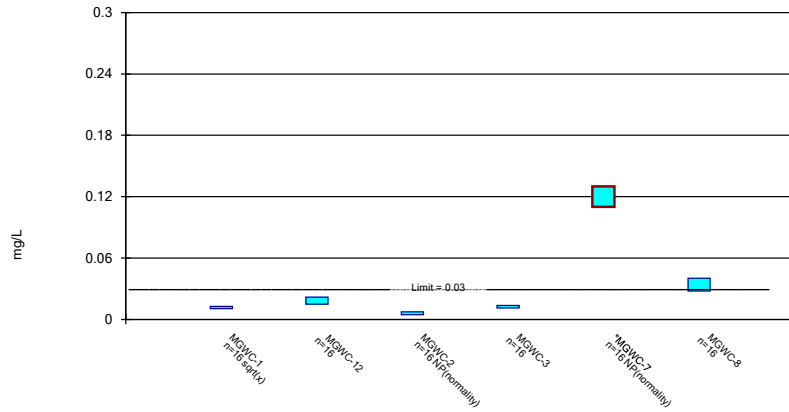
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

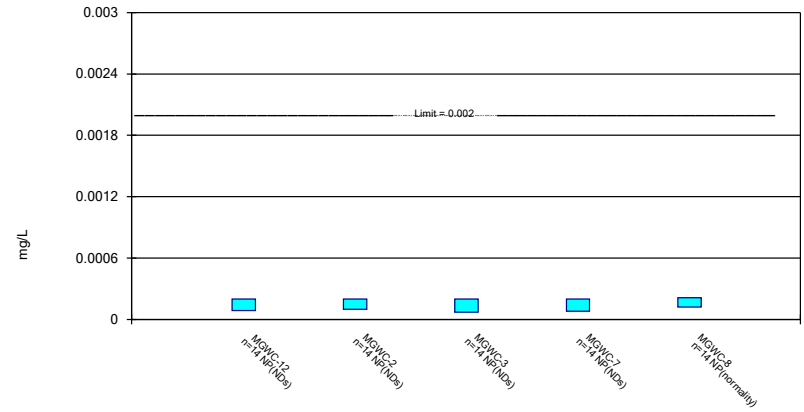
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

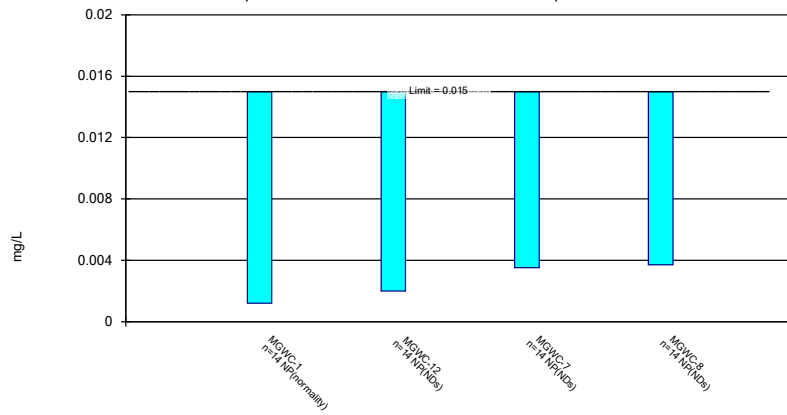
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/28/2020 9:38 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

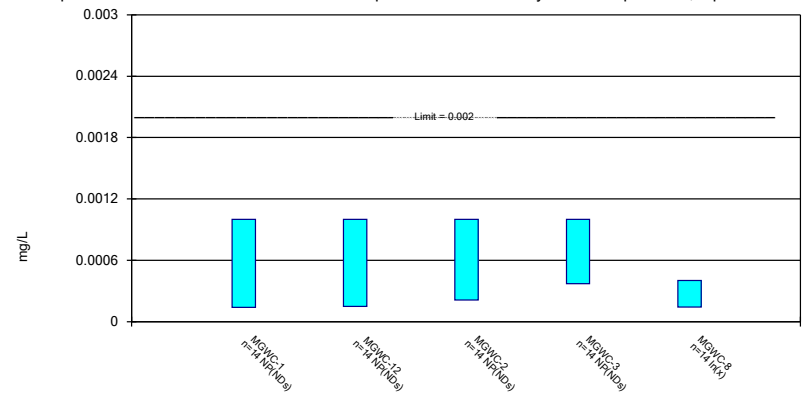
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 5/28/2020 9:38 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

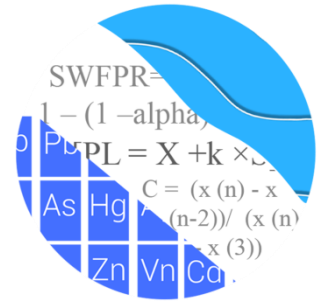
Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 5/28/2020 9:38 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

GROUNDWATER STATS CONSULTING



January 27, 2021

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant McIntosh Ash Pond 1 (AP-1)
Statistical Analysis September 2020

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2020 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of the analysis of groundwater data 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 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 Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting.

The 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 well/constituent pairs with 100% nondetects follows this letter. Additionally, annual Scan events are conducted to determine which Appendix IV constituents are detected in downgradient wells and, therefore, require statistical analysis. Any constituents that are not detected do not require statistical analysis. Selenium was not detected in any of the downgradient wells during the Scan event conducted in January 2020; therefore, no statistical analyses are included for this constituent. A substitution of the most recent reporting limit is used for nondetect data.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

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 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 nondetects, 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% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit

utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect 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% nondetects.

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 – September 2020

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2020 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

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. Several prediction limit exceedances were noted for Appendix III parameters. It was noted that the reported measurement for pH at well MGWC-12 was higher than all other measurements at this well. Further research would be needed to determine if this was a

result of analytical or sampling procedures. A summary table of the interwell prediction limits follows this letter.

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 increasing trends were noted for the following well/constituent pairs:

- Boron: MGWC-1, MGWC-7, and MGWC-8
- Sulfate: MGWC-3 and MGWC-8
- TDS: MGWC-8

Statistically significant decreasing trends were noted for the following well/constituent pairs:

- Boron: MGWA-6 (upgradient) and MGWC-2
- Chloride: MGWA-5 (upgradient), MGWA-6 (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 Analysis of Appendix IV Parameters – September 2020

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% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR §257.95(h) (1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified levels have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR Rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements and the CCR Rule, State and Federal GWPS were established for statistical comparison of Appendix IV constituents for the September 2020 sample event (Figures G and H, respectively). To complete the statistical comparison to GWPS, State and Federal confidence intervals were constructed for the Appendix IV constituents in accordance with the State and Federal requirements in each downgradient well (Figures I and J, respectively). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. The confidence intervals were compared to the GWPS established using the CCR Rules for the Federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Complete graphical results of the confidence intervals follow this letter and the following exceedances were identified for State and Federal confidence intervals:

State:

- Cobalt: MGWC-2, MGWC-7, and MGWC-8
- Lithium: MGWC-7

Federal:

- Cobalt: MGWC-7
- Lithium: MGWC-7

Resample Reports – December 2020

Additional data were collected in December 2020 for combined radium 226 + 228 and pH in upgradient well MGWA-6 and downgradient wells MGWC-1 and MGWC-3. Interwell prediction limits were constructed for pH, using pooled upgradient well data through December 2020, to compare the December 2020 sample at these downgradient wells (Figure K). No exceedances were identified for pH in wells MGWC-1 and MGWC-3; therefore, no further action is necessary.

For combined radium 226 + 228, interwell upper tolerance limits were constructed using pooled upgradient well data through December 2020 to create site-specific background limits (Figure L). As mentioned above, the site-specific background limits were compared to the respective MCL to determine the GWPS according to State and Federal requirements (Figure M). When confidence intervals for combined radium 226 + 228 in wells MGWC-1 and MGWC-3 were compared to the established GWPS, no exceedances were identified (Figure N).

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,



Easton Rayner
Groundwater Analyst



Kristina L. Rayner
Groundwater Statistician

100% Non-Detects

Analysis Run 1/27/2021 11:19 AM 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, MGWC-8

Mercury (mg/L)
MGWC-1

Molybdenum (mg/L)
MGWC-2, MGWC-3

Thallium (mg/L)
MGWC-7

Interwell Prediction Limit Summary - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	9/17/2020	1.8	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	9/16/2020	2.1	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	9/17/2020	1.2	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	9/17/2020	1.4	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	9/17/2020	4.4	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Chloride (mg/L)	MGWC-1	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-2	9.442	n/a	9/16/2020	12	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-3	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-7	9.442	n/a	9/17/2020	9.6	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-8	9.442	n/a	9/17/2020	10	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	MGWC-12	0.19	n/a	9/16/2020	0.26	Yes	69	n/a	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...
Fluoride (mg/L)	MGWC-7	0.19	n/a	9/17/2020	0.25	Yes	69	n/a	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...
pH (SU)	MGWC-12	8.02	5.27	9/16/2020	11.03	Yes	78	n/a	n/a	0	n/a	n/a	n/a	0.000633	NP Inter (normality) ...
pH (SU)	MGWC-8	8.02	5.27	9/17/2020	5.22	Yes	78	n/a	n/a	0	n/a	n/a	n/a	0.000633	NP Inter (normality) ...
Sulfate (mg/L)	MGWC-1	22.86	n/a	9/17/2020	150	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-2	22.86	n/a	9/16/2020	160	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-3	22.86	n/a	9/17/2020	120	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-7	22.86	n/a	9/17/2020	160	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-8	22.86	n/a	9/17/2020	380	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-1	347.4	n/a	9/17/2020	460	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-2	347.4	n/a	9/16/2020	530	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-3	347.4	n/a	9/17/2020	410	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-8	347.4	n/a	9/17/2020	740	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	

Interwell Prediction Limit Summary - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	9/17/2020	1.8	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-12	0.18	n/a	9/16/2020	0.08ND	No	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-2	0.18	n/a	9/16/2020	2.1	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-3	0.18	n/a	9/17/2020	1.2	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-7	0.18	n/a	9/17/2020	1.4	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-8	0.18	n/a	9/17/2020	4.4	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	MGWC-1	110	n/a	9/17/2020	110	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-12	110	n/a	9/16/2020	25	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-2	110	n/a	9/16/2020	110	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-3	110	n/a	9/17/2020	110	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-7	110	n/a	9/17/2020	48	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-8	110	n/a	9/17/2020	100	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Chloride (mg/L)	MGWC-1	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-12	9.442	n/a	9/16/2020	5.1	No	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-2	9.442	n/a	9/16/2020	12	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-3	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-7	9.442	n/a	9/17/2020	9.6	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-8	9.442	n/a	9/17/2020	10	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	MGWC-1	0.19	n/a	9/17/2020	0.15	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-12	0.19	n/a	9/16/2020	0.26	Yes	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-2	0.19	n/a	9/16/2020	0.076J	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-3	0.19	n/a	9/17/2020	0.083J	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-7	0.19	n/a	9/17/2020	0.25	Yes	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-8	0.19	n/a	9/17/2020	0.11	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
pH (SU)	MGWC-1	8.02	5.27	9/17/2020	6.95	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-12	8.02	5.27	9/16/2020	11.03	Yes	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-2	8.02	5.27	9/16/2020	7.16	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-3	8.02	5.27	9/17/2020	6.68	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-7	8.02	5.27	9/17/2020	6.39	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-8	8.02	5.27	9/17/2020	5.22	Yes	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
Sulfate (mg/L)	MGWC-1	22.86	n/a	9/17/2020	150	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-12	22.86	n/a	9/16/2020	4.4	No	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-2	22.86	n/a	9/16/2020	160	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-3	22.86	n/a	9/17/2020	120	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-7	22.86	n/a	9/17/2020	160	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-8	22.86	n/a	9/17/2020	380	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-1	347.4	n/a	9/17/2020	460	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-12	347.4	n/a	9/16/2020	190	No	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-2	347.4	n/a	9/16/2020	530	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-3	347.4	n/a	9/17/2020	410	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-7	347.4	n/a	9/17/2020	320	No	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-8	347.4	n/a	9/17/2020	740	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	

Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:07 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>
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-77	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	58	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3389	-60	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.06512	64	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.222	69	48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3102	-66	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.342	-84	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.173	-97	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8277	-78	-48	Yes	15	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-7	-0.07283	-83	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4171	-51	-48	Yes	15	13.33	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.9117	-54	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.986	-85	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-31.92	-92	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	6.847	72	48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	82.37	76	48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-44.22	-76	-48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	117.2	72	48	Yes	15	0	n/a	n/a	0.02	NP

Trend Test - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	26	48	No	15	60	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-11 (bg)	0	26	48	No	15	66.67	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-5 (bg)	0	23	48	No	15	86.67	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-77	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6A (bg)	-0.01225	-4	-10	No	5	60	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	58	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3389	-60	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-3	0.1696	40	48	No	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.06512	64	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.222	69	48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-10 (bg)	-0.07242	-20	-48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-11 (bg)	0	5	48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3102	-66	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.342	-84	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.4814	-10	-10	No	5	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-1	0	-19	-48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.173	-97	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-3	0.2445	43	48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8277	-78	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-8	0.2322	32	48	No	15	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-10 (bg)	0	-27	-53	No	16	68.75	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-11 (bg)	0.02056	34	53	No	16	6.25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-5 (bg)	-0.009066	-29	-53	No	16	18.75	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6 (bg)	0	-11	-53	No	16	37.5	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6A (bg)	-0.02608	-4	-10	No	5	20	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-12	-0.01681	-34	-53	No	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-7	-0.07283	-83	-53	Yes	16	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-10 (bg)	-0.02316	-18	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-11 (bg)	-0.03437	-11	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-5 (bg)	-0.01763	-15	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-6 (bg)	-0.03935	-51	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-6A (bg)	-0.0245	-1	-13	No	6	0	n/a	n/a	0.02	NP
pH (SU)	MGWC-12	0.1193	55	58	No	17	0	n/a	n/a	0.02	NP
pH (SU)	MGWC-8	-0.0521	-33	-63	No	18	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4171	-51	-48	Yes	15	13.33	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-11 (bg)	0.4345	40	48	No	15	40	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.9117	-54	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.986	-85	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6A (bg)	-2.641	-4	-10	No	5	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-1	5.637	33	48	No	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-31.92	-92	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	6.847	72	48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-7	0	25	48	No	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	82.37	76	48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-10 (bg)	-7.604	-34	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-11 (bg)	-5.456	-15	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-5 (bg)	2.801	8	48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6 (bg)	-1.302	-12	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6A (bg)	17.45	2	10	No	5	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-1	13.03	15	48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-44.22	-76	-48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-3	-0.5376	-8	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	117.2	72	48	Yes	15	0	n/a	n/a	0.02	NP

Upper Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:08 AM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	n/a	n/a	56	n/a	n/a	89.29	n/a	n/a	0.05656	NP Inter(NDs)
Arsenic (mg/L)	0.0352	n/a	n/a	74	n/a	n/a	35.14	n/a	n/a	0.02247	NP Inter(normality)
Barium (mg/L)	0.13	n/a	n/a	74	n/a	n/a	0	n/a	n/a	0.02247	NP Inter(normality)
Beryllium (mg/L)	0.0025	n/a	n/a	64	n/a	n/a	93.75	n/a	n/a	0.03752	NP Inter(NDs)
Cadmium (mg/L)	0.0025	n/a	n/a	74	n/a	n/a	98.65	n/a	n/a	0.02247	NP Inter(NDs)
Chromium (mg/L)	0.0063	n/a	n/a	64	n/a	n/a	68.75	n/a	n/a	0.03752	NP Inter(NDs)
Cobalt (mg/L)	0.0025	n/a	n/a	74	n/a	n/a	75.68	n/a	n/a	0.02247	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.137	n/a	n/a	74	0.544	0.3002	0	None	No	0.05	Inter
Fluoride (mg/L)	0.19	n/a	n/a	69	n/a	n/a	31.88	n/a	n/a	0.02904	NP Inter(normality)
Lead (mg/L)	0.001	n/a	n/a	56	n/a	n/a	94.64	n/a	n/a	0.05656	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	74	n/a	n/a	28.38	n/a	n/a	0.02247	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	64	n/a	n/a	95.31	n/a	n/a	0.03752	NP Inter(NDs)
Molybdenum (mg/L)	0.015	n/a	n/a	64	n/a	n/a	65.63	n/a	n/a	0.03752	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	54	n/a	n/a	88.89	n/a	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	64	n/a	n/a	84.38	n/a	n/a	0.03752	NP Inter(NDs)

PLANT MCINTOSH AP 1 GWPS - STATE				
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		0.035	0.035
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	0.0025
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	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
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 Residual*

PLANT MCINTOSH AP 1 GWPS - FEDERAL				
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		0.035	0.035
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 Residual*

State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:20 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-2	0.003461	0.002837	0.0025	Yes 17	0.003149	0.000498	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.0025	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.004	0.0025	Yes 17	0.01196	0.007827	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)

State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:20 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 13	0.001877	0.0004438	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No 13	0.001869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No 13	0.001998	0.00008321	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002963	0.002141	0.035	No 17	0.002585	0.0007267	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001118	0.0006332	0.035	No 17	0.0009829	0.0003988	23.53	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No 17	0.0008876	0.0002208	76.47	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001663	0.001328	0.035	No 17	0.001472	0.0003189	5.882	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0009323	0.0005711	0.035	No 17	0.0008871	0.0002599	41.18	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00059	0.035	No 17	0.0009188	0.0001821	82.35	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No 17	0.1072	0.01818	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06605	0.04759	2	No 17	0.05735	0.01551	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05548	0.04963	2	No 17	0.05255	0.004672	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1527	0.1371	2	No 17	0.1449	0.01244	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No 17	0.013	0.007453	5.882	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03746	0.03318	2	No 17	0.03532	0.003415	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No 15	0.002345	0.000599	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No 15	0.002354	0.0005655	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001724	0.0007306	0.004	No 15	0.001227	0.000733	13.33	None	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No 17	0.002106	0.0008811	82.35	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.00336	0.001254	0.005	No 17	0.002485	0.001998	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No 17	0.002366	0.0005506	94.12	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No 17	0.001307	0.0009285	35.29	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No 15	0.002107	0.0004131	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No 15	0.00388	0.006956	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No 15	0.002087	0.0003357	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No 15	0.002067	0.0002582	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No 15	0.00206	0.0003924	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No 15	0.002073	0.000284	93.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.0025	No 17	0.001673	0.00104	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.0025	No 17	0.002304	0.0006031	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003461	0.002837	0.0025	Yes 17	0.003149	0.000498	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.0025	No 17	0.0009147	0.00076	17.65	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.0025	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.004	0.0025	Yes 17	0.01196	0.007827	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.521	1.147	5	No 17	1.354	0.3252	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.7416	0.3945	5	No 17	0.5681	0.277	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7688	0.4345	5	No 17	0.6017	0.2667	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.636	1.276	5	No 17	1.456	0.2871	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.308	0.8924	5	No 17	1.1	0.3315	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.981	1.433	5	No 17	1.707	0.4374	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2506	0.1549	4	No 16	0.2028	0.07361	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2583	0.2042	4	No 16	0.2313	0.04161	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No 16	0.142	0.0619	43.75	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No 16	0.1379	0.06368	37.5	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3579	0.2226	4	No 16	0.2903	0.1039	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No 16	0.1236	0.04354	18.75	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No 13	0.0009308	0.0002496	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No 13	0.0009462	0.0001941	92.31	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01269	0.01021	0.03	No 17	0.01145	0.001978	5.882	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.0222	0.01526	0.03	No 17	0.01873	0.005533	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.03	No 17	0.006028	0.001953	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01357	0.01105	0.03	No 17	0.01231	0.002012	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04007	0.02829	0.03	No 17	0.03418	0.0094	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:20 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	15	0.000184	0.00004228	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	15	0.0001852	0.00003928	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	15	0.000192	0.00003098	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	15	0.0002051	0.0001534	40	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.015	No	15	0.005111	0.006182	26.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.015	No	15	0.01147	0.00607	73.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	15	0.01423	0.002967	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	15	0.01425	0.002918	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-1	0.005	0.0005	0.05	No	13	0.004654	0.001248	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-12	0.005	0.00027	0.05	No	13	0.004636	0.001312	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-2	0.005	0.00045	0.05	No	13	0.00465	0.001262	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-3	0.005	0.00044	0.05	No	13	0.004649	0.001265	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-7	0.005	0.00026	0.05	No	13	0.004635	0.001315	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-8	0.005	0.00033	0.05	No	13	0.003722	0.002062	69.23	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	15	0.0007203	0.0004124	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	15	0.0008947	0.0002789	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	15	0.0009473	0.000204	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	15	0.000902	0.0002616	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0003938	0.0001514	0.002	No	15	0.0003193	0.0002892	13.33	None	ln(x)	0.01	Param.

Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:23 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. 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>
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.006	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)

Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:23 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 13	0.001877	0.0004438	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No 13	0.001869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No 13	0.001998	0.00008321	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002963	0.002141	0.035	No 17	0.002585	0.0007267	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001118	0.0006332	0.035	No 17	0.0009829	0.0003988	23.53	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No 17	0.0008876	0.0002208	76.47	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001663	0.001328	0.035	No 17	0.001472	0.0003189	5.882	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0009323	0.0005711	0.035	No 17	0.0008871	0.0002599	41.18	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00059	0.035	No 17	0.0009188	0.0001821	82.35	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No 17	0.1072	0.01818	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06605	0.04759	2	No 17	0.05735	0.01551	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05548	0.04963	2	No 17	0.05255	0.004672	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1527	0.1371	2	No 17	0.1449	0.01244	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No 17	0.013	0.007453	5.882	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03746	0.03318	2	No 17	0.03532	0.003415	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No 15	0.002345	0.000599	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No 15	0.002354	0.0005655	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001724	0.0007306	0.004	No 15	0.001227	0.000733	13.33	None	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No 17	0.002106	0.0008811	82.35	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.00336	0.001254	0.005	No 17	0.002485	0.001998	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No 17	0.002366	0.0005506	94.12	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No 17	0.001307	0.0009285	35.29	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No 15	0.002107	0.0004131	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No 15	0.00388	0.006956	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No 15	0.002087	0.0003357	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No 15	0.002067	0.0002582	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No 15	0.00206	0.0003924	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No 15	0.002073	0.000284	93.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No 17	0.001673	0.00104	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No 17	0.002304	0.0006031	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003461	0.002837	0.006	No 17	0.003149	0.000498	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.006	No 17	0.0009147	0.00076	17.65	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.006	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.004	0.006	No 17	0.01196	0.007827	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.521	1.147	5	No 17	1.354	0.3252	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.7416	0.3945	5	No 17	0.5681	0.277	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7688	0.4345	5	No 17	0.6017	0.2667	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.636	1.276	5	No 17	1.456	0.2871	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.308	0.8924	5	No 17	1.1	0.3315	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.981	1.433	5	No 17	1.707	0.4374	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2506	0.1549	4	No 16	0.2028	0.07361	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2583	0.2042	4	No 16	0.2313	0.04161	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No 16	0.142	0.0619	43.75	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No 16	0.1379	0.06368	37.5	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3579	0.2226	4	No 16	0.2903	0.1039	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No 16	0.1236	0.04354	18.75	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No 13	0.0009308	0.0002496	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No 13	0.0009462	0.0001941	92.31	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01269	0.01021	0.04	No 17	0.01145	0.001978	5.882	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.0222	0.01526	0.04	No 17	0.01873	0.005533	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.04	No 17	0.006028	0.001953	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01357	0.01105	0.04	No 17	0.01231	0.002012	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04007	0.02829	0.04	No 17	0.03418	0.0094	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	15	0.000184	0.00004228	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	15	0.0001852	0.00003928	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	15	0.000192	0.00003098	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	15	0.0002051	0.0001534	40	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.1	No	15	0.005111	0.006182	26.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No	15	0.01147	0.00607	73.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	15	0.01423	0.002967	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	15	0.01425	0.002918	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-1	0.005	0.0005	0.05	No	13	0.004654	0.001248	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-12	0.005	0.00027	0.05	No	13	0.004636	0.001312	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-2	0.005	0.00045	0.05	No	13	0.00465	0.001262	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-3	0.005	0.00044	0.05	No	13	0.004649	0.001265	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-7	0.005	0.00026	0.05	No	13	0.004635	0.001315	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-8	0.005	0.00033	0.05	No	13	0.003722	0.002062	69.23	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	15	0.0007203	0.0004124	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	15	0.0008947	0.0002789	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	15	0.0009473	0.000204	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	15	0.000902	0.0002616	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0003938	0.0001514	0.002	No	15	0.0003193	0.0002892	13.33	None	ln(x)	0.01	Param.

Interwell Prediction Limits - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 10:55 AM

<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>TransformAlpha</u>	<u>Method</u>
pH (SU)	MGWC-1	8.02	5.27	12/8/2020	7.41	No	79	n/a	n/a	0	n/a	n/a	0.0006153 NP Inter (normality) 1 of 2
pH (SU)	MGWC-3	8.02	5.27	12/8/2020	7.04	No	79	n/a	n/a	0	n/a	n/a	0.0006153 NP Inter (normality) 1 of 2

Upper Tolerance Limit Summary Table - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:26 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</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>
Combined Radium 226 + 228 (pCi/L)	1.146	n/a	n/a	75	0.5498	0.3024	0	None	No	0.05	Inter

PLANT MCINTOSH AP 1 GWPS - STATE (RESAMPLE)

Constituent Name	MCL	CCR-Rule Specified	Background Limit	Federal GWPS	State GWPS
Combined Radium, Total (pCi/L)	5		1.15	5	5

**GWPS = Groundwater Protection Standard*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

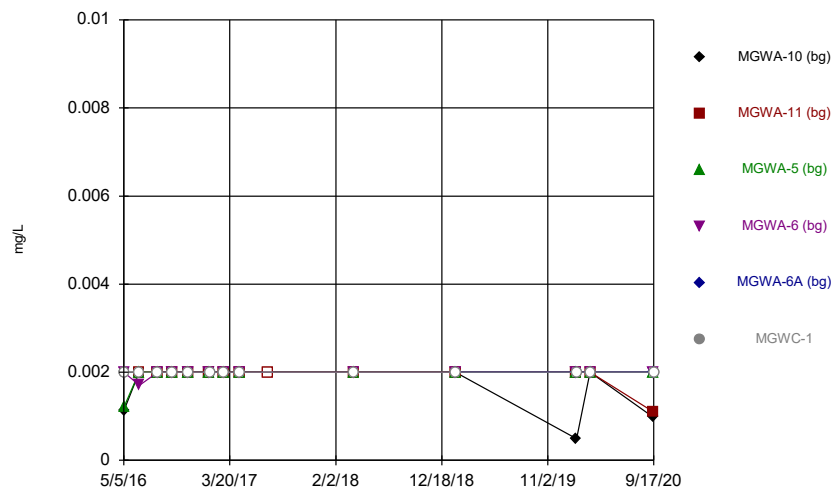
Federal & State Confidence Intervals - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:30 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>
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.79	1.09	5	No	18	1.383	0.3381	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.637	1.296	5	No	18	1.466	0.2822	0	None	No	0.01	Param.

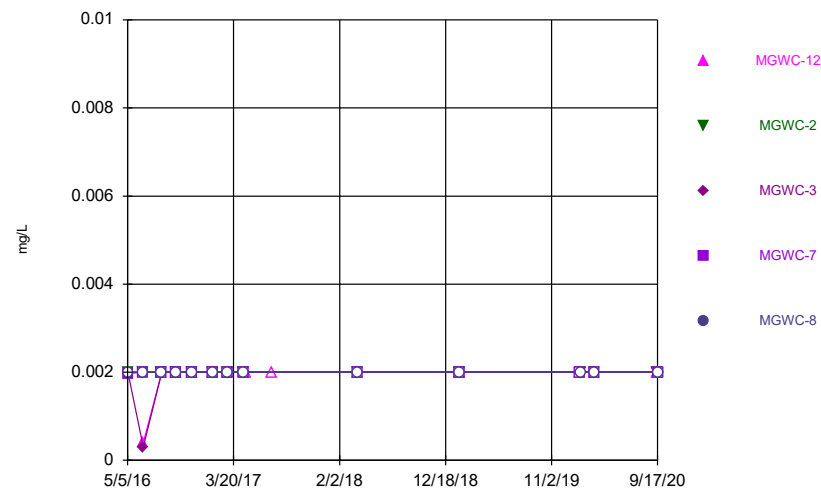
FIGURE A.

Time Series



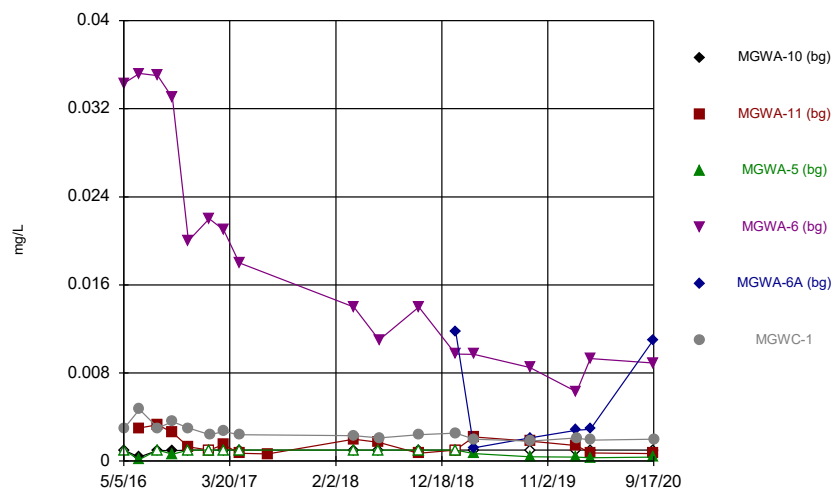
Constituent: Antimony Analysis Run 1/27/2021 10:31 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



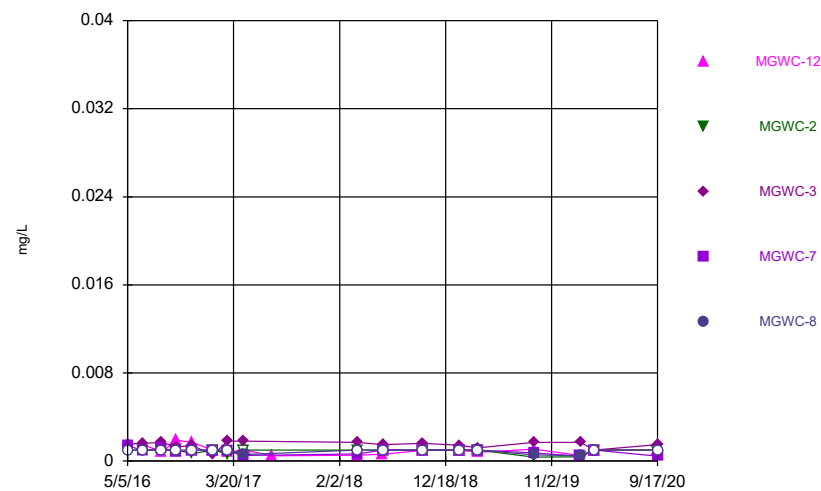
Constituent: Antimony Analysis Run 1/27/2021 10:31 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



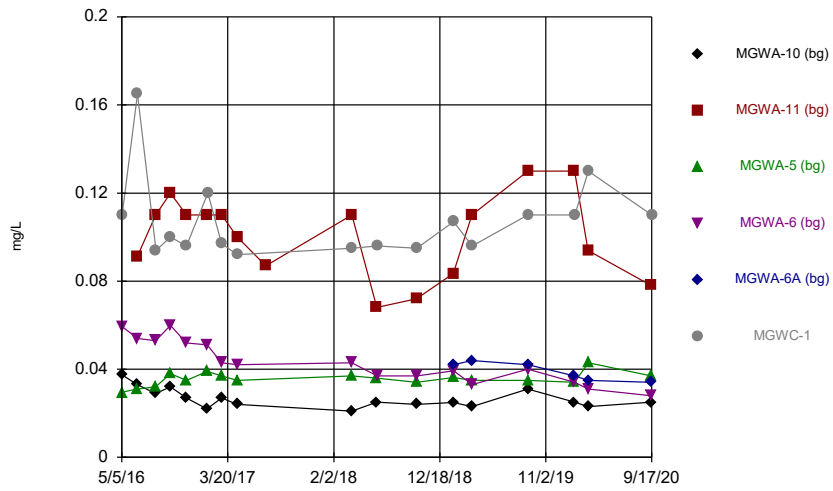
Constituent: Arsenic Analysis Run 1/27/2021 10:31 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Arsenic Analysis Run 1/27/2021 10:31 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

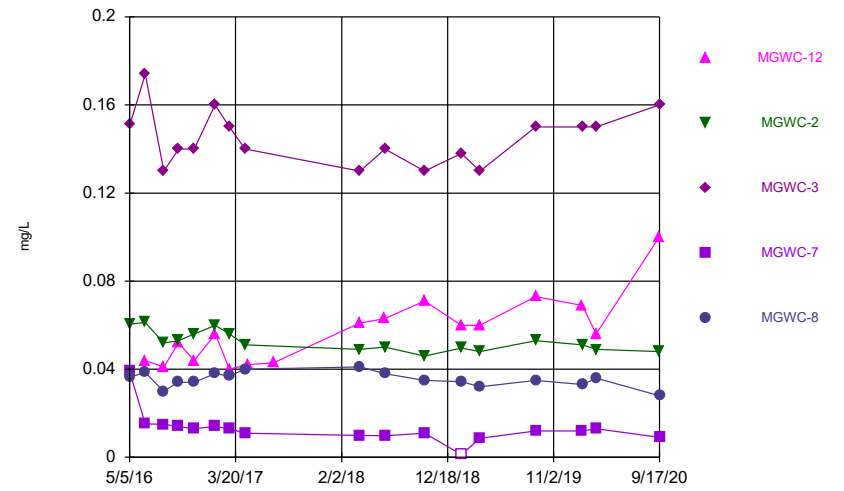
Time Series



Constituent: Barium Analysis Run 1/27/2021 10:31 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

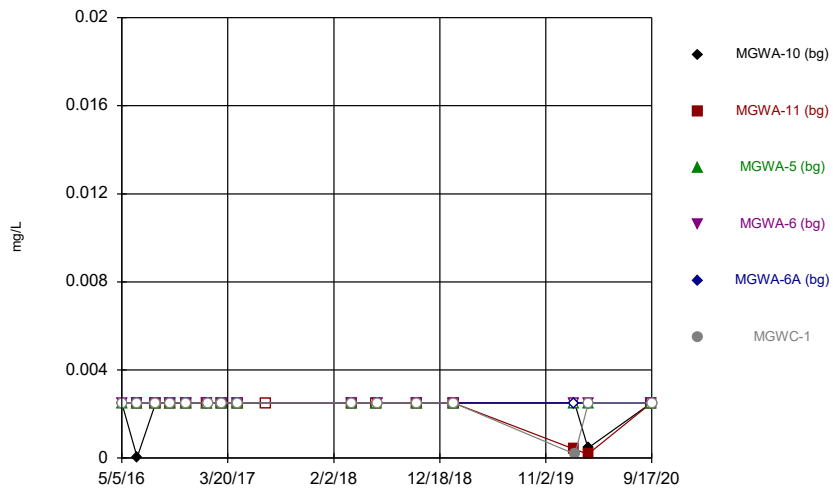
Time Series



Constituent: Barium Analysis Run 1/27/2021 10:31 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

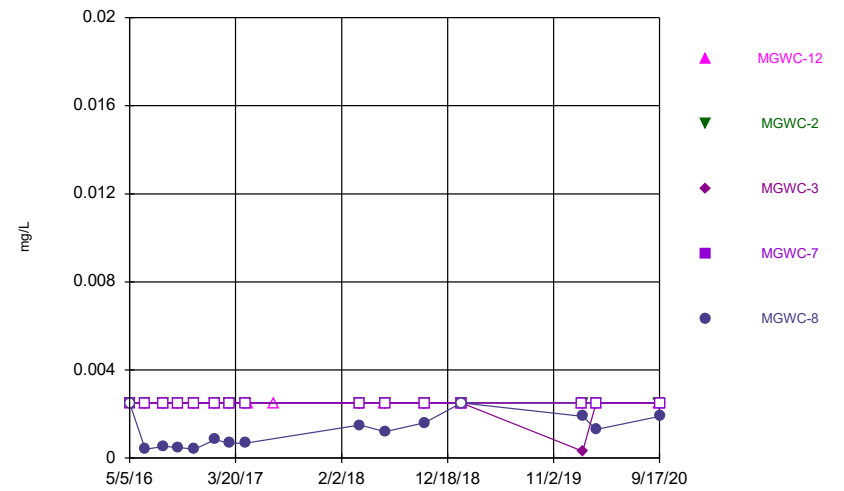
Time Series



Constituent: Beryllium Analysis Run 1/27/2021 10:31 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

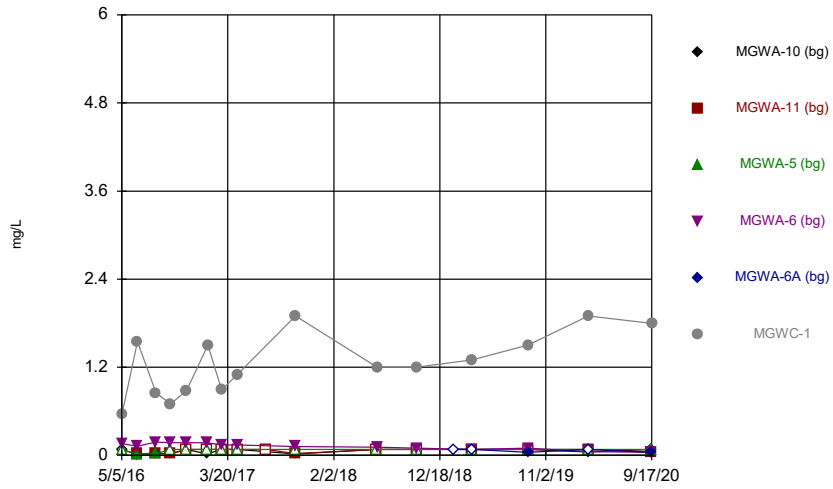
Hollow symbols indicate censored values.

Time Series



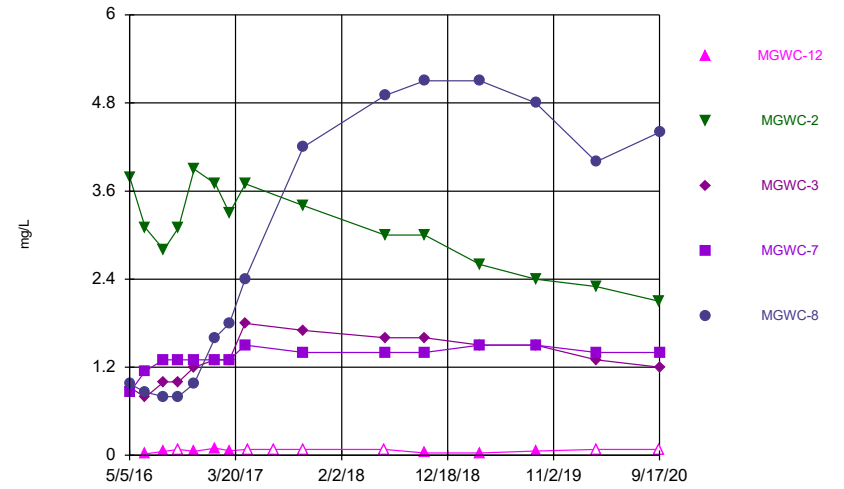
Constituent: Beryllium Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



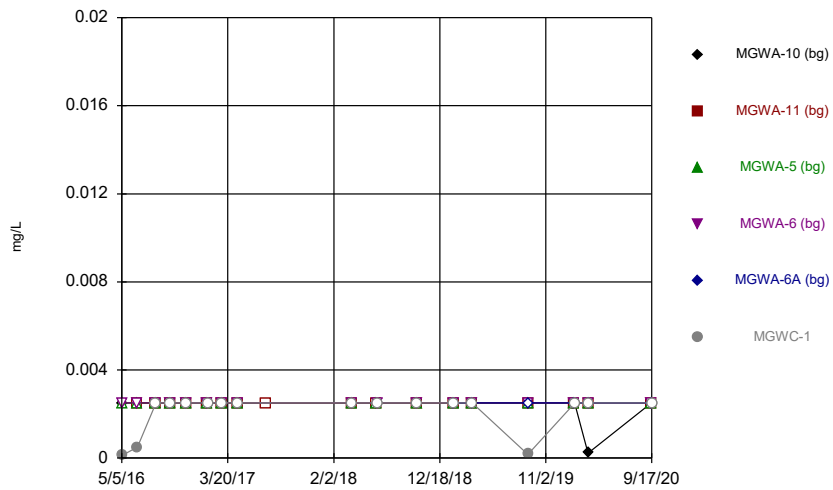
Constituent: Boron Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



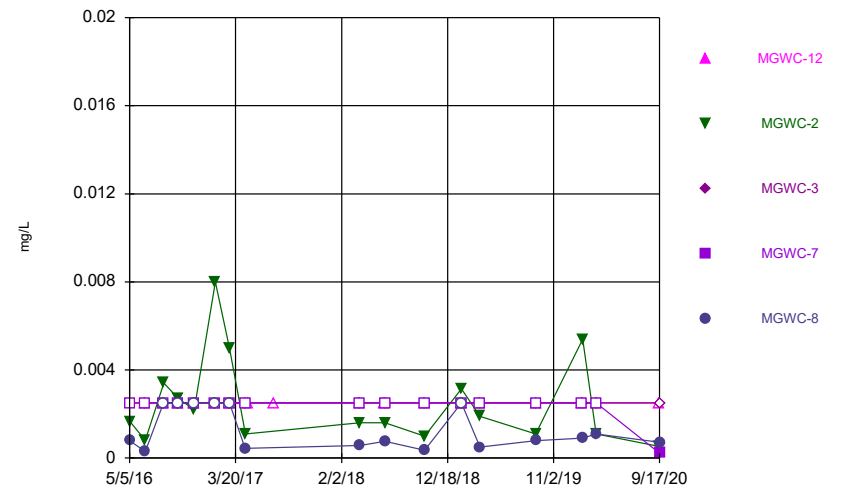
Constituent: Boron Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



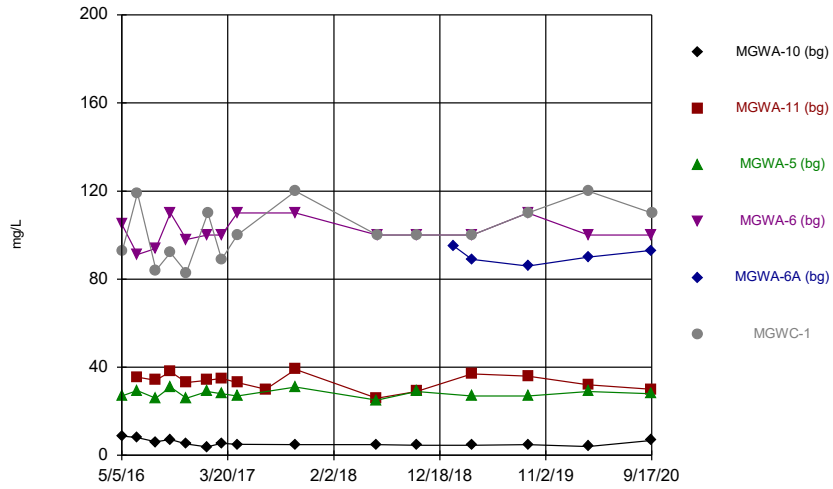
Constituent: Cadmium Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



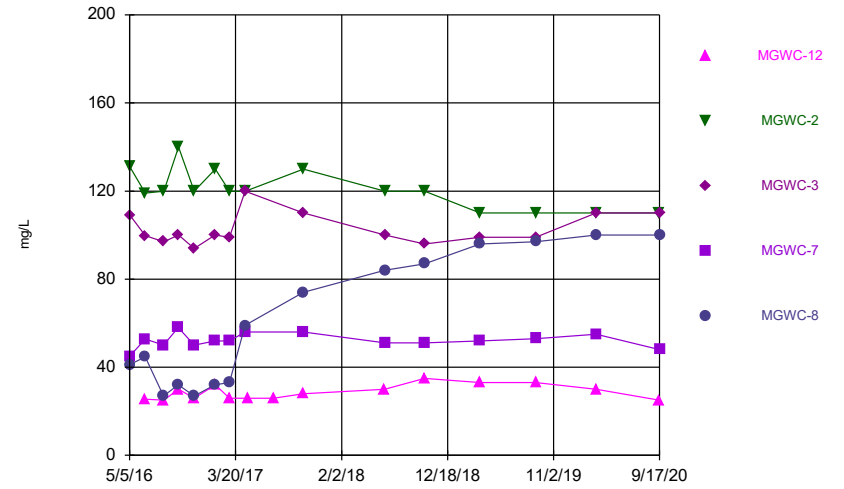
Constituent: Cadmium Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



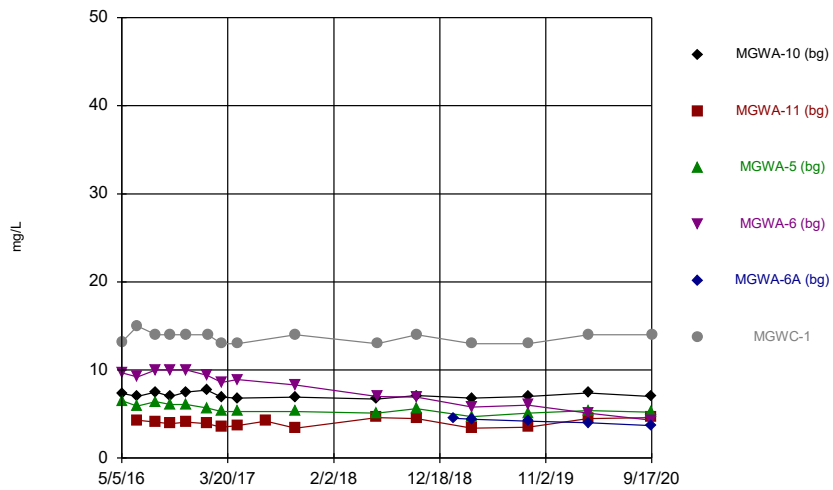
Constituent: Calcium Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



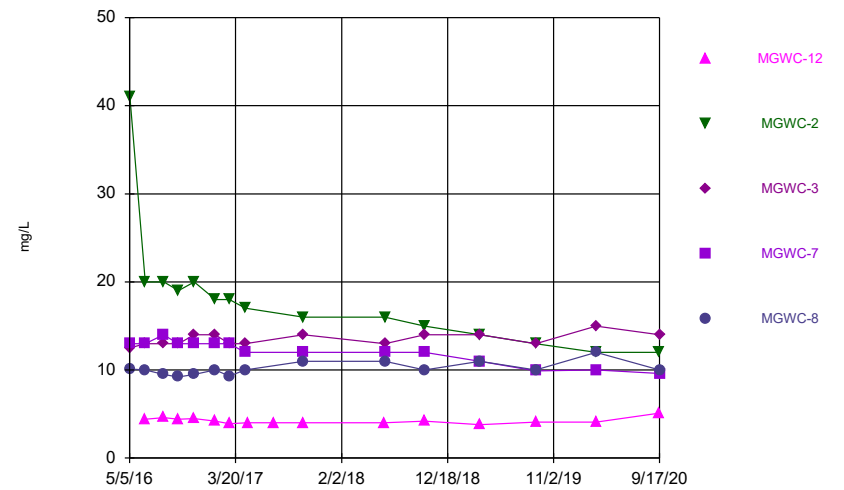
Constituent: Calcium Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



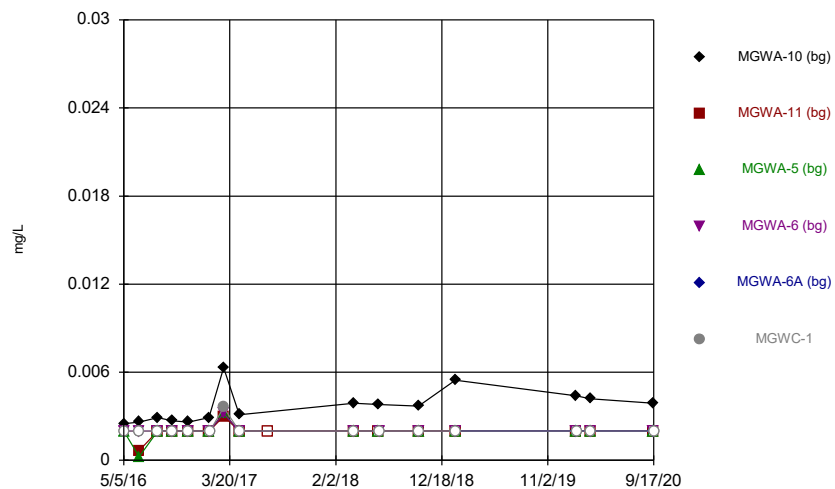
Constituent: Chloride Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



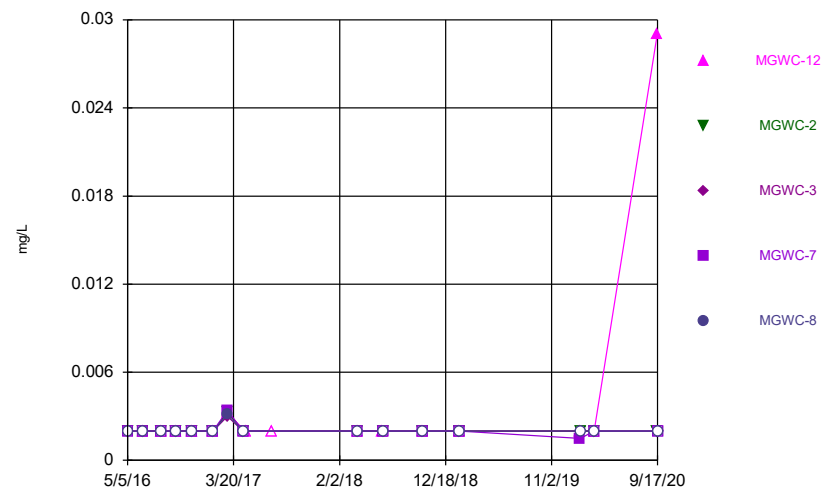
Constituent: Chloride Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



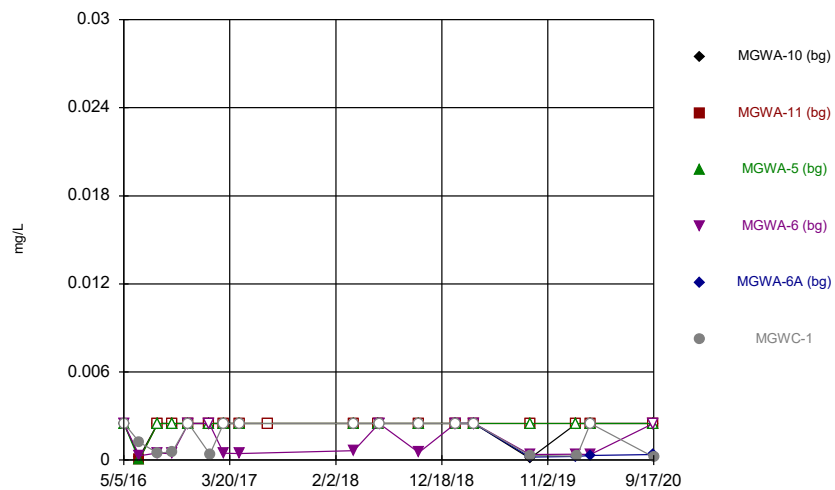
Constituent: Chromium Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



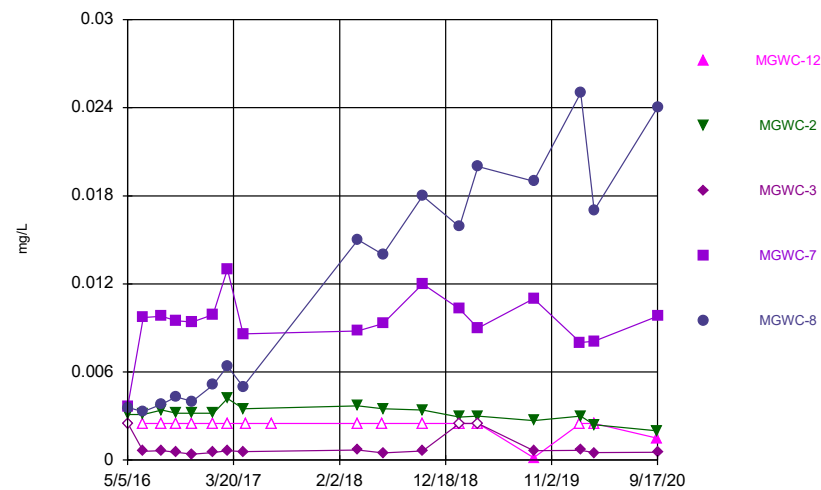
Constituent: Chromium Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



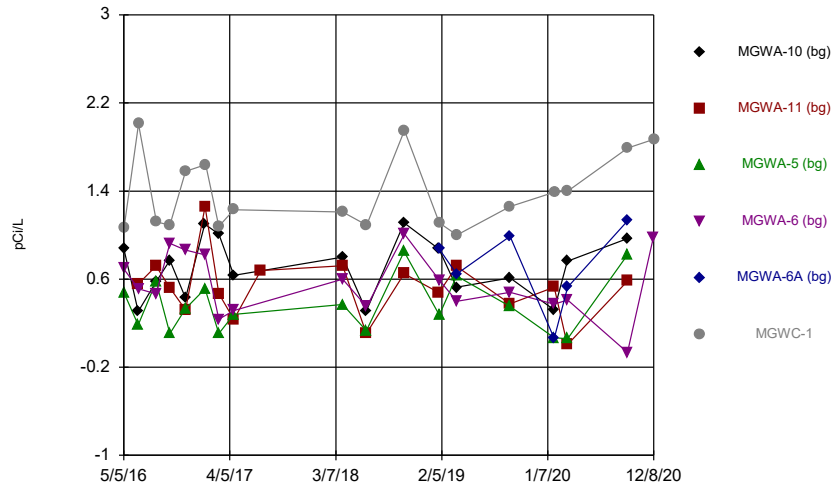
Constituent: Cobalt Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



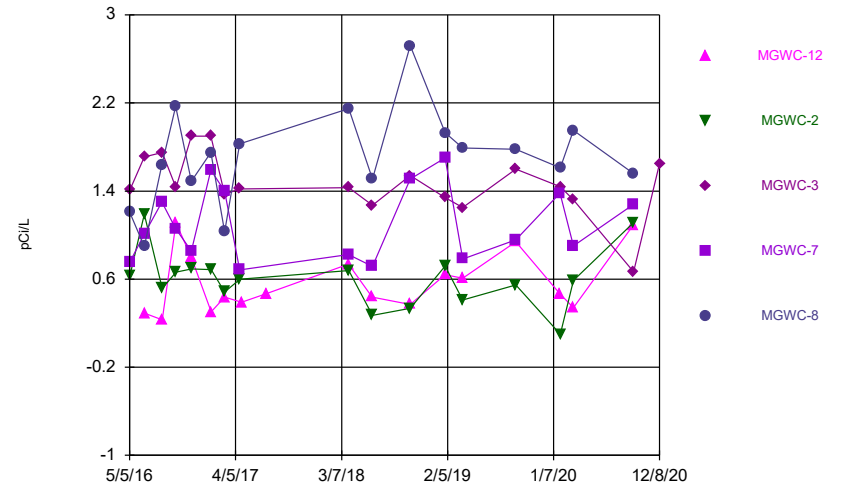
Constituent: Cobalt Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



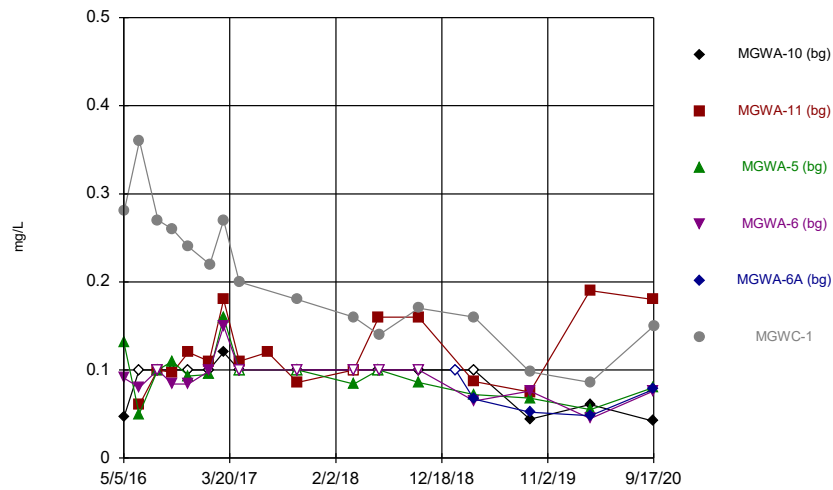
Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



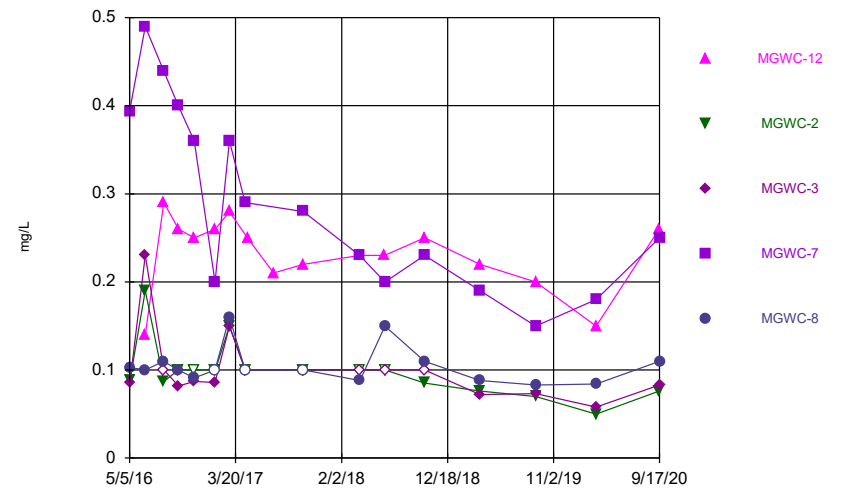
Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



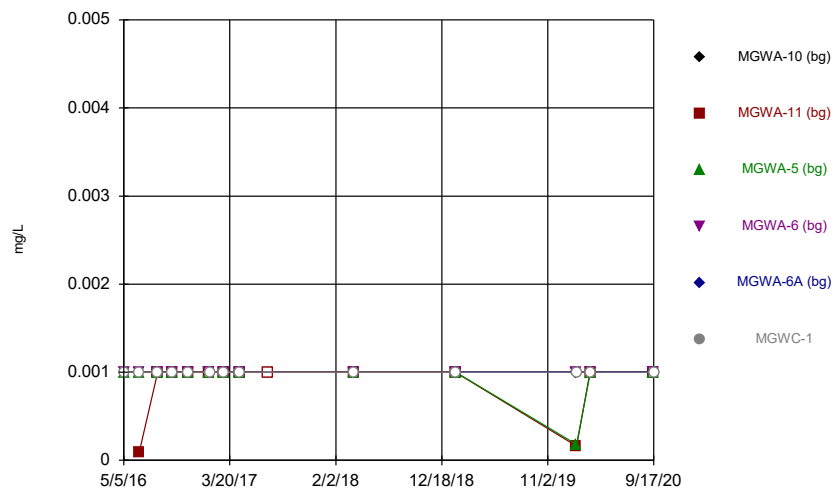
Constituent: Fluoride Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



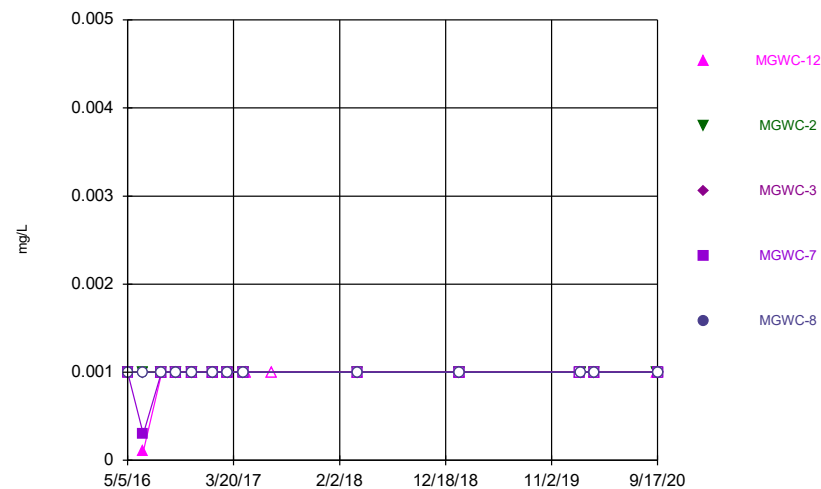
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



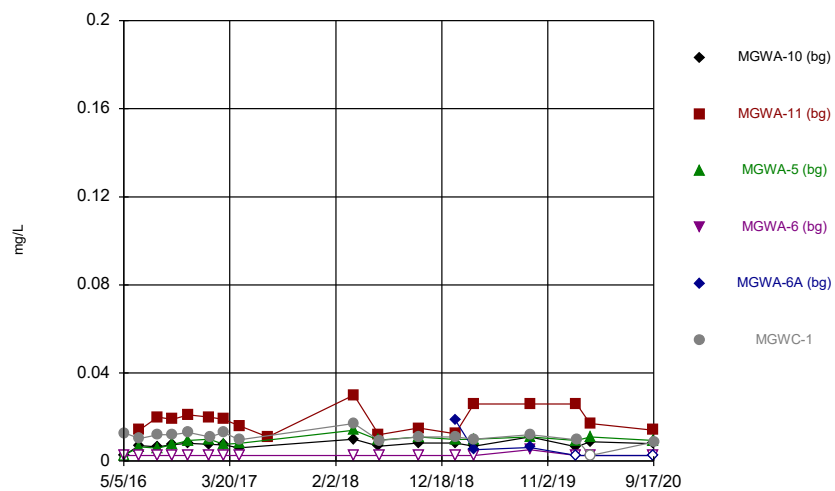
Constituent: Lead Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



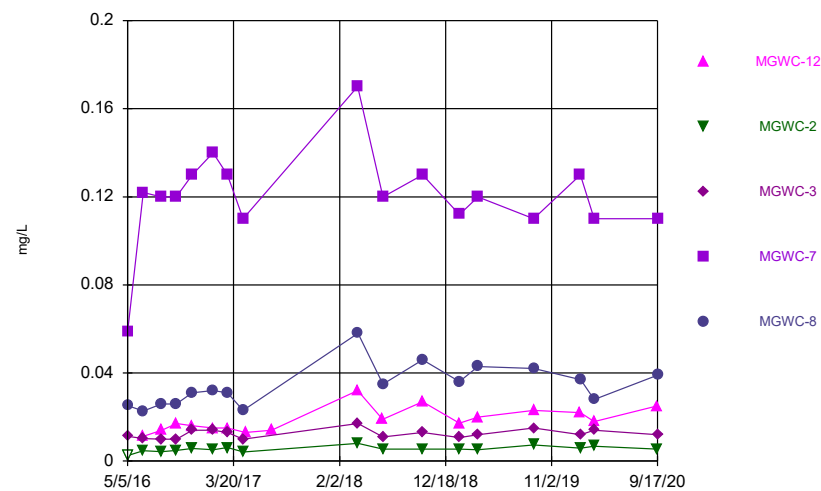
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



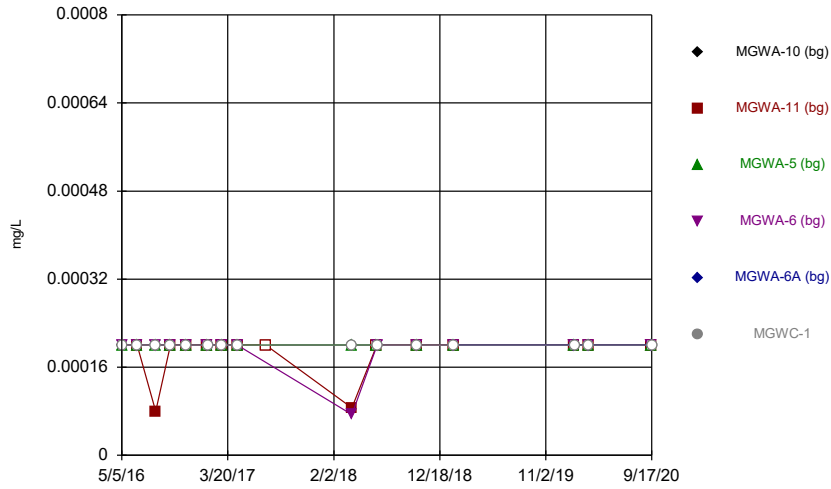
Constituent: Lithium Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



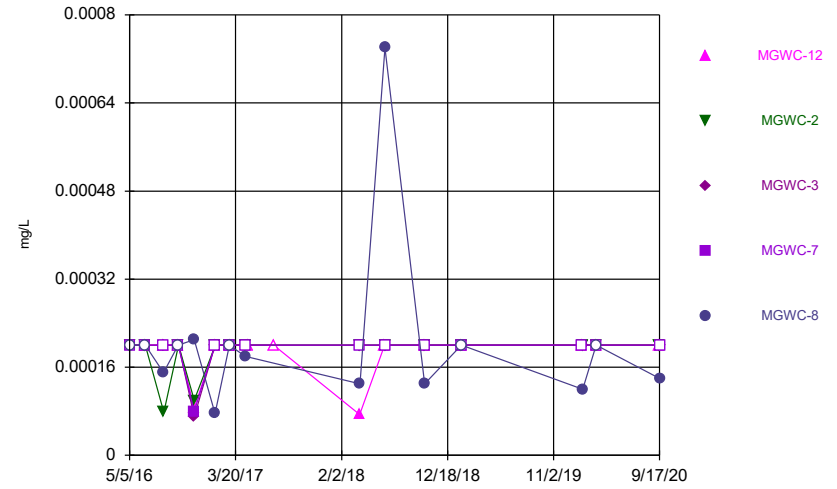
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



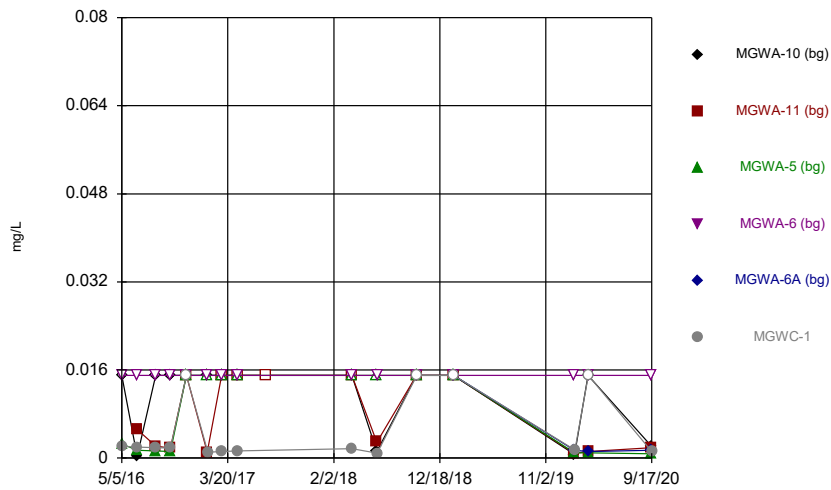
Constituent: Mercury Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



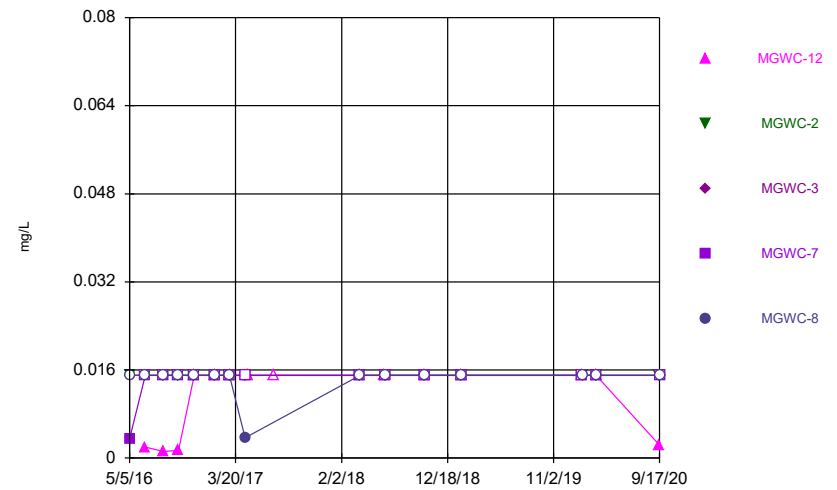
Constituent: Mercury Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



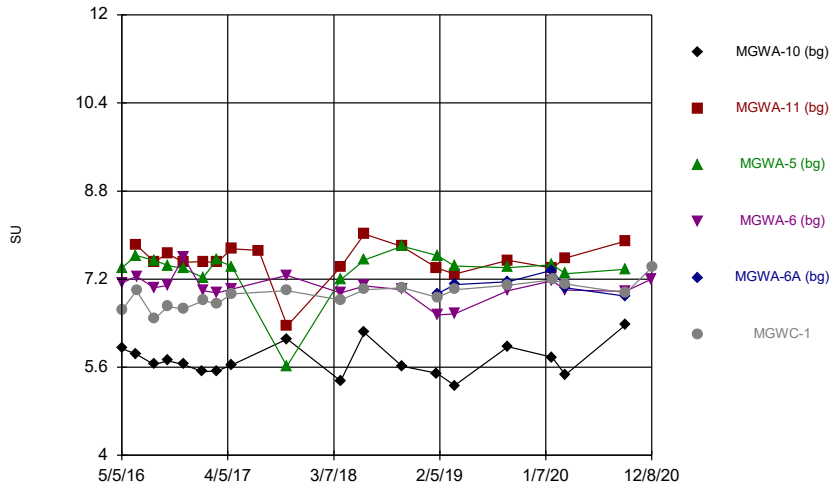
Constituent: Molybdenum Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



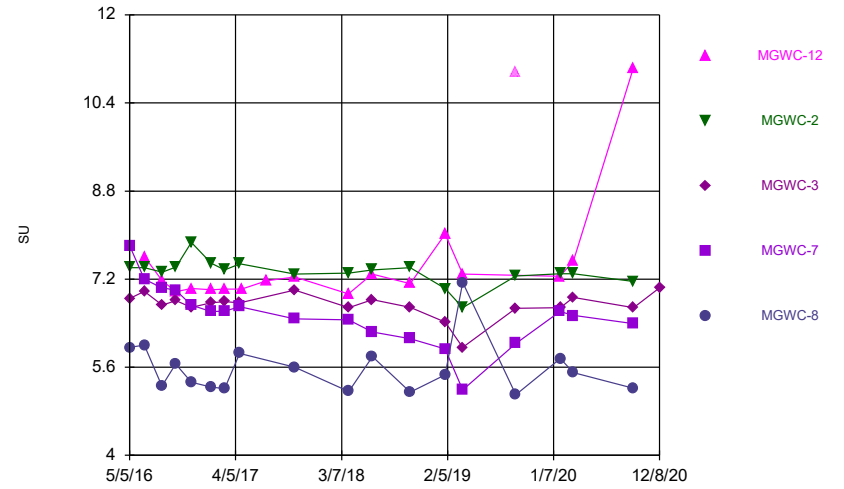
Constituent: Molybdenum Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



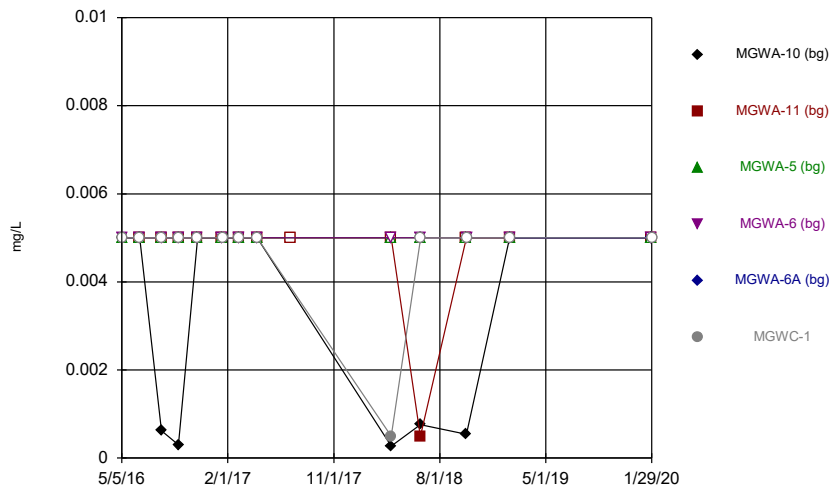
Constituent: pH Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



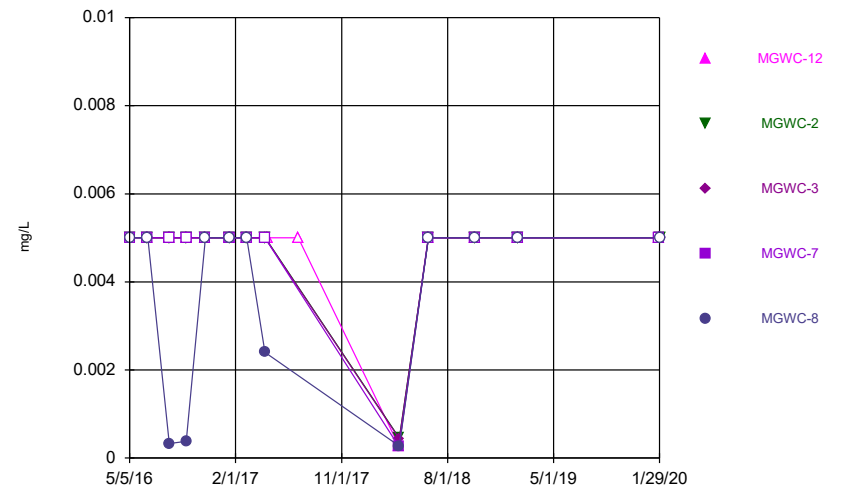
Constituent: pH Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



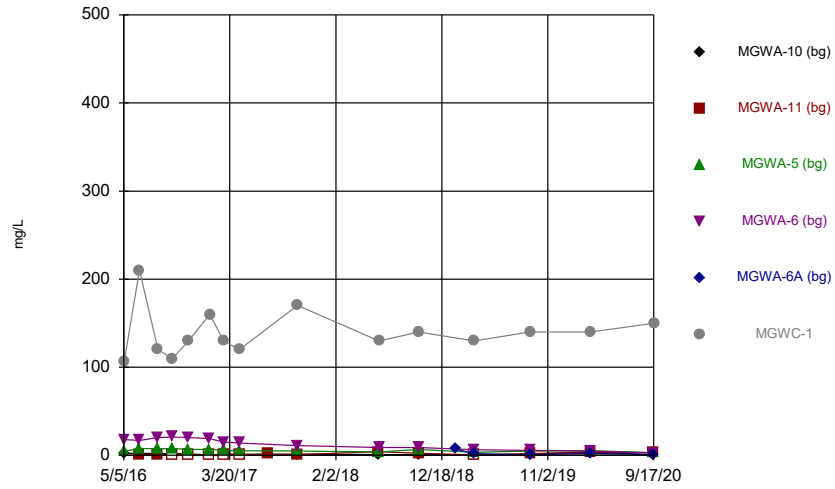
Constituent: Selenium Analysis Run 1/27/2021 10:32 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



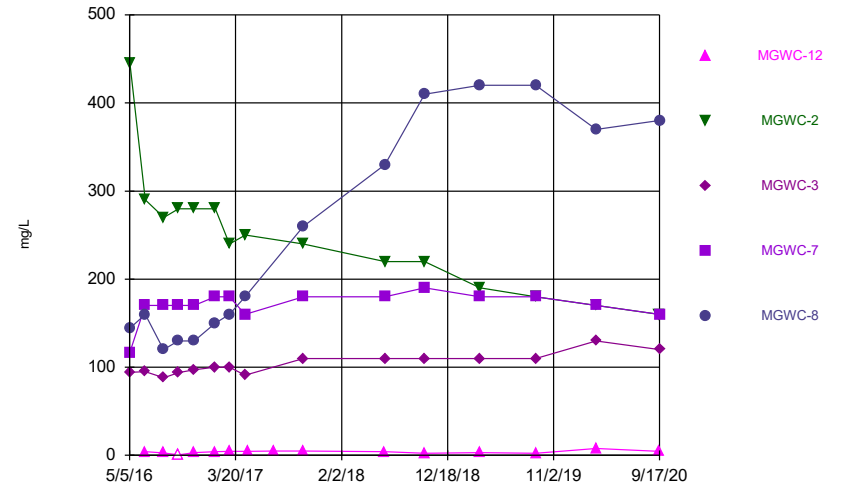
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



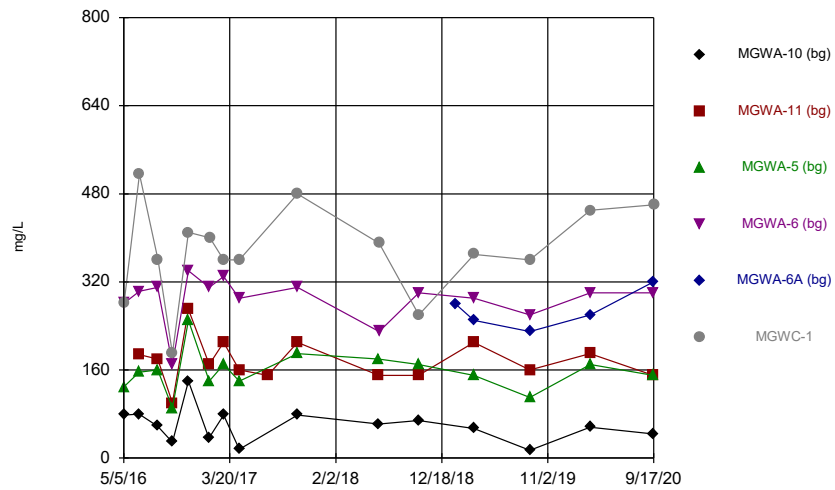
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



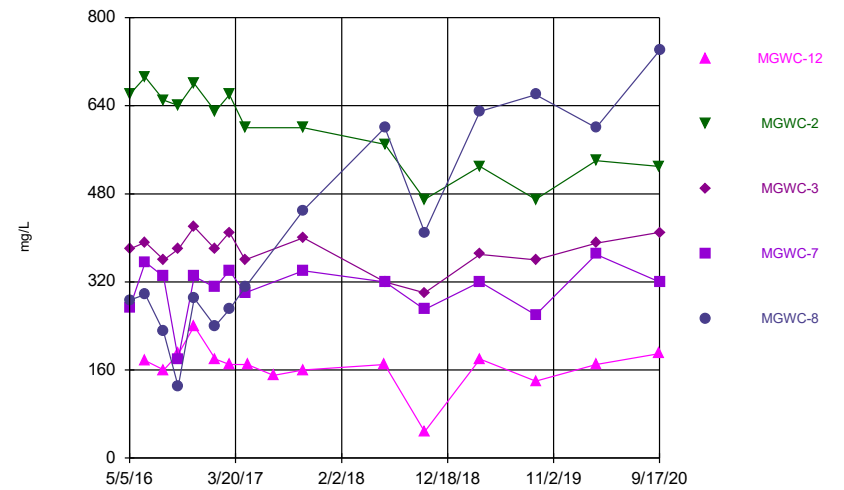
Constituent: Sulfate Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



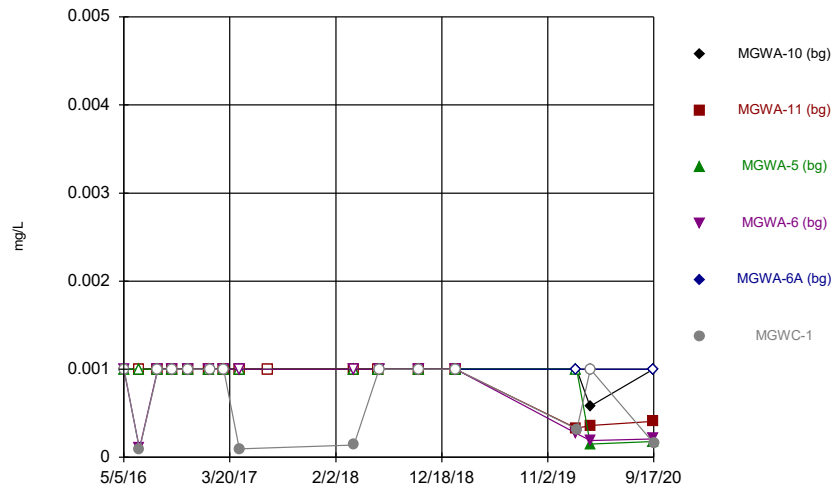
Constituent: TDS Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



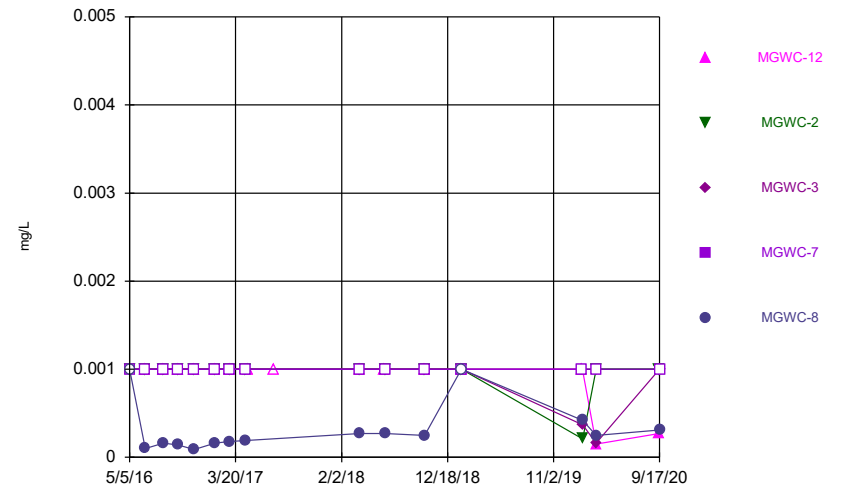
Constituent: TDS Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Thallium Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Thallium Analysis Run 1/27/2021 10:32 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/27/2021 10:32 AM
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	0.00112 (J)		0.0012 (J)	<0.002		
5/6/2016						<0.002
6/20/2016	<0.002	<0.002	<0.002			
6/21/2016				0.0017 (J)		<0.002
8/15/2016	<0.002	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	<0.002	<0.002	<0.002	<0.002		<0.002
11/16/2016	<0.002	<0.002	<0.002	<0.002		<0.002
1/16/2017	<0.002					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	<0.002	<0.002	<0.002	<0.002		<0.002
4/18/2017	<0.002	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002	<0.002	<0.002		<0.002
1/28/2019	<0.002	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.00049 (J)	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	<0.002	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002
9/16/2020	0.00098 (J)	0.0011 (J)	<0.002	<0.002	<0.002	
9/17/2020						<0.002

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Barium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Barium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/27/2021 10:32 AM
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	3.3E-05 (J)	<0.0025	<0.0025			
6/21/2016				<0.0025		<0.0025
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
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						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<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				<0.0025		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025	0.0004 (J)	<0.0025	<0.0025	<0.0025	
1/29/2020						0.00018 (J)
3/9/2020	0.00045 (J)	0.00018 (J)				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/17/2020						<0.0025

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/27/2021 10:32 AM
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)

Time Series

Constituent: Boron (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Boron (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/27/2021 10:32 AM
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						0.000126 (J)
6/20/2016	<0.0025	<0.0025	<0.0025			
6/21/2016				<0.0025		0.0005 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
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						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<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				<0.0025		<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	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.00017 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
1/29/2020						<0.0025
3/9/2020	0.00023 (J)	<0.0025				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/17/2020						<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/27/2021 10:32 AM
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)

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/27/2021 10:32 AM
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)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/27/2021 10:32 AM

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

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/27/2021 10:32 AM

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		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Lead (mg/L) Analysis Run 1/27/2021 10:32 AM
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	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	8.7E-05 (J)	<0.001			
6/21/2016				<0.001		<0.001
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		<0.001
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00016 (J)	0.00018 (J)	<0.001	<0.001	
1/29/2020						<0.001
3/9/2020	<0.001	<0.001				
3/10/2020			<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001	<0.001	<0.001	<0.001	
9/17/2020						<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/27/2021 10:32 AM
 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

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/27/2021 10:32 AM

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

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/27/2021 10:32 AM
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	<0.0002		<0.0002	<0.0002		
5/6/2016						<0.0002
6/20/2016	<0.0002	<0.0002	<0.0002			
6/21/2016				<0.0002		<0.0002
8/15/2016	<0.0002	8E-05 (J)	<0.0002	<0.0002		
8/16/2016						<0.0002
9/28/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/16/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
1/16/2017	<0.0002					
1/17/2017		<0.0002	<0.0002	<0.0002		
1/19/2017						<0.0002
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
4/18/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
7/13/2017		<0.0002				
3/29/2018	<0.0002	8.6E-05 (J)	<0.0002	7.4E-05 (J)		<0.0002
6/12/2018	<0.0002	<0.0002	<0.0002			
6/13/2018				<0.0002		<0.0002
10/9/2018	<0.0002	<0.0002	<0.0002			
10/10/2018				<0.0002		<0.0002
1/28/2019	<0.0002	<0.0002				
1/29/2019			<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
1/29/2020						<0.0002
3/9/2020	<0.0002	<0.0002				
3/10/2020			<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
9/17/2020						<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/27/2021 10:32 AM
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)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/27/2021 10:32 AM
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)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: pH (SU) Analysis Run 1/27/2021 10:32 AM
 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

Time Series

Constituent: pH (SU) Analysis Run 1/27/2021 10:32 AM
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	7.16			
9/17/2020			6.68	6.39	5.22
12/8/2020			7.04		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/27/2021 10:32 AM
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						<0.005
6/20/2016	<0.005	<0.005	<0.005			
6/21/2016				<0.005		<0.005
8/15/2016	0.00062 (J)	<0.005	<0.005	<0.005		
8/16/2016						<0.005
9/28/2016	0.0003 (J)	<0.005	<0.005	<0.005		<0.005
11/16/2016	<0.005	<0.005	<0.005	<0.005		<0.005
1/16/2017	<0.005					
1/17/2017		<0.005	<0.005	<0.005		
1/19/2017						<0.005
3/2/2017	<0.005	<0.005	<0.005	<0.005		<0.005
4/18/2017	<0.005	<0.005	<0.005	<0.005		<0.005
7/13/2017		<0.005				
3/29/2018	0.00027 (J)	<0.005	<0.005	<0.005		0.0005 (J)
6/12/2018	0.00076 (J)	0.00049 (J)	<0.005			
6/13/2018				<0.005		<0.005
10/9/2018	0.00054 (J)	<0.005	<0.005			
10/10/2018				<0.005		<0.005
1/28/2019	<0.005	<0.005				
1/29/2019			<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005	<0.005	<0.005	<0.005	<0.005	
1/29/2020						<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/27/2021 10:32 AM
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	<1.3	7.8	21		110
11/16/2016	1.7	<1.3	6.7	20		130
1/16/2017	<1.3					
1/17/2017		<1.3	6.7	19		
1/19/2017						160
3/2/2017	1.4	<1.3	5.6	15		130
4/18/2017	1.3	<1.3	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	<1.3	<1.3	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

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/27/2021 10:32 AM
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	<1.3	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

Time Series

Constituent: TDS (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: TDS (mg/L) Analysis Run 1/27/2021 10:32 AM
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

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/27/2021 10:32 AM
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	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	<0.001	<0.001			
6/21/2016				0.0001 (J)		9E-05 (J)
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		9.5E-05 (J)
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		0.00014 (J)
6/12/2018	<0.001	<0.001	<0.001			
6/13/2018				<0.001		<0.001
10/9/2018	<0.001	<0.001	<0.001			
10/10/2018				<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00033 (J)	<0.001	0.00027 (J)	<0.001	
1/29/2020						0.00032 (J)
3/9/2020	0.00058 (J)	0.00036 (J)				
3/10/2020			0.00015 (J)	0.00019 (J)	<0.001	<0.001
9/16/2020	<0.001	0.00041 (J)	0.00018 (J)	0.00021 (J)	<0.001	
9/17/2020						0.00016 (J)

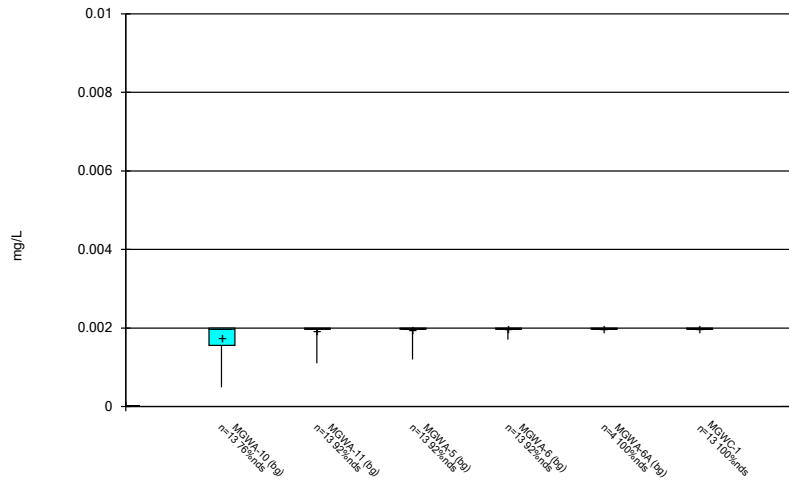
Time Series

Constituent: Thallium (mg/L) Analysis Run 1/27/2021 10:32 AM
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)

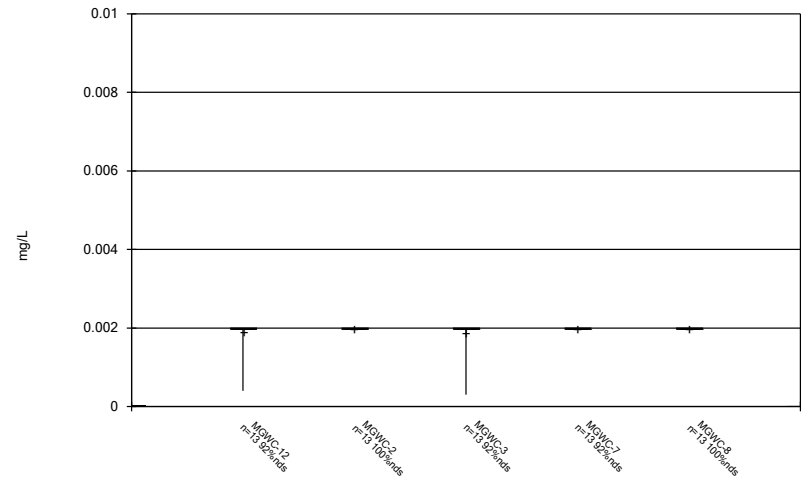
FIGURE B.

Box & Whiskers Plot



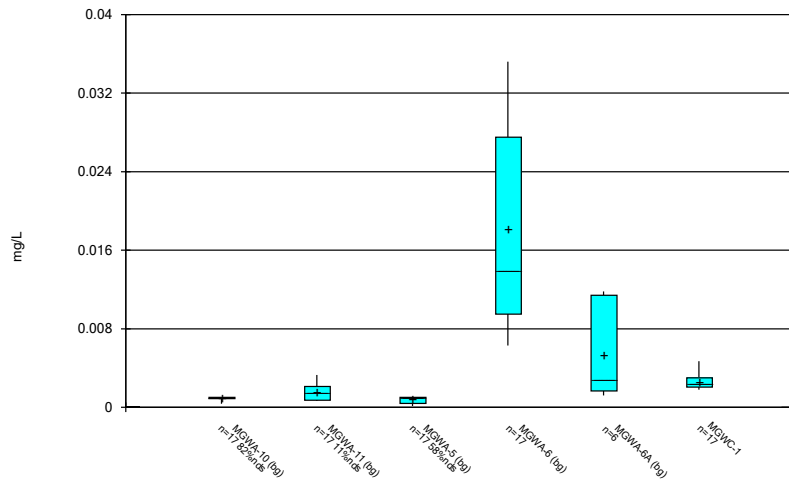
Constituent: Antimony Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



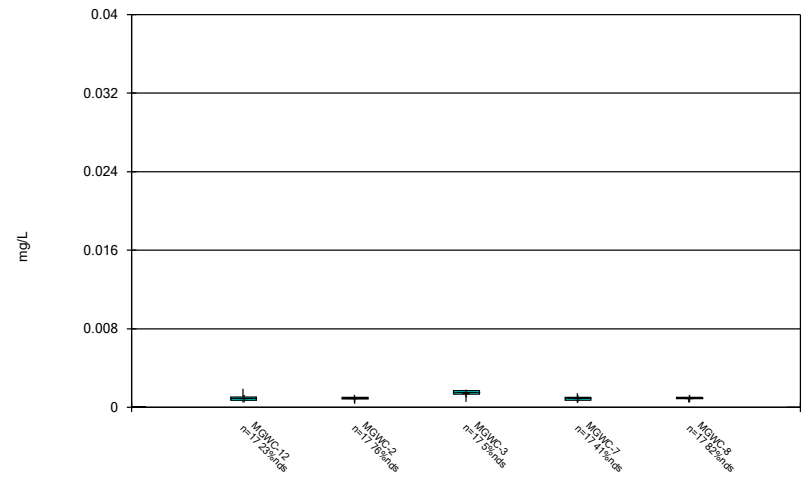
Constituent: Antimony Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



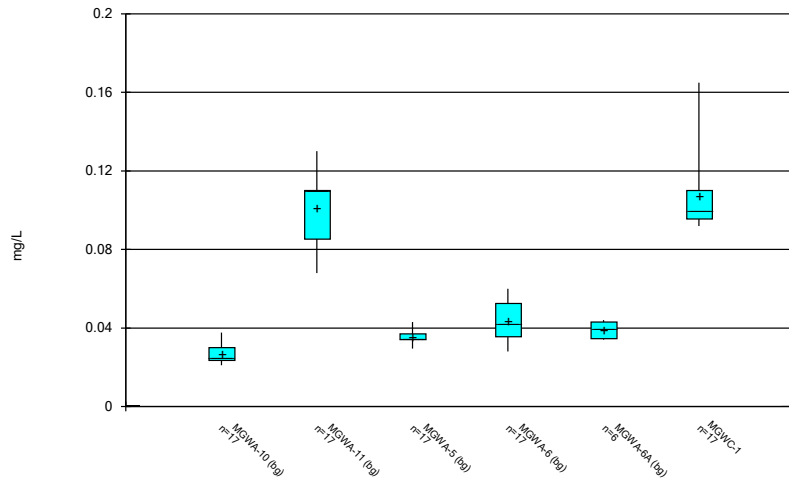
Constituent: Arsenic Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



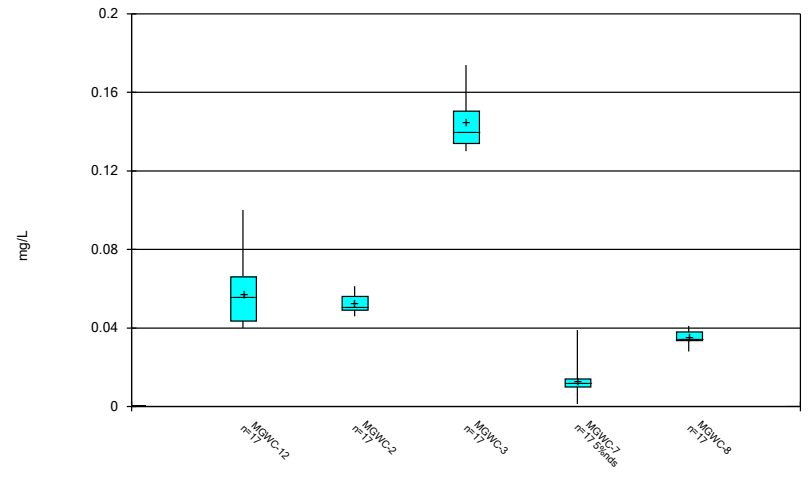
Constituent: Arsenic Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



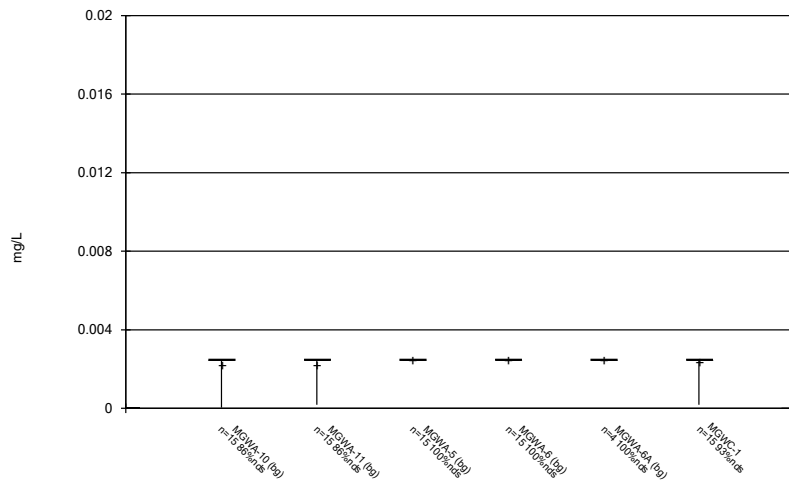
Constituent: Barium Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



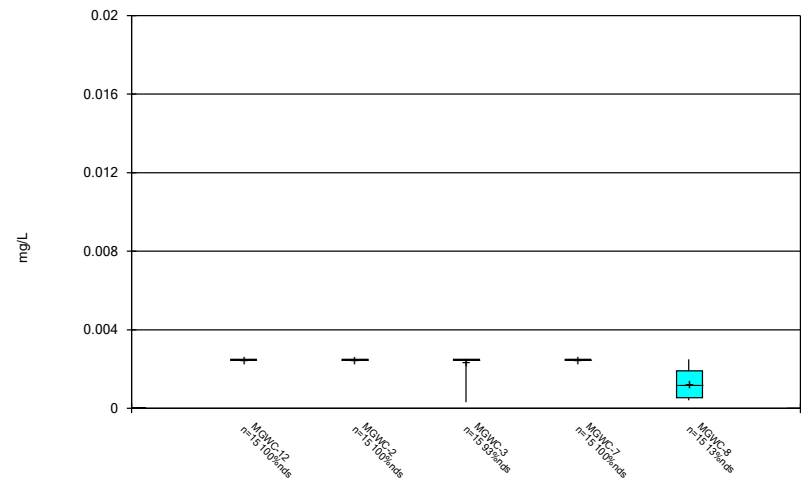
Constituent: Barium Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



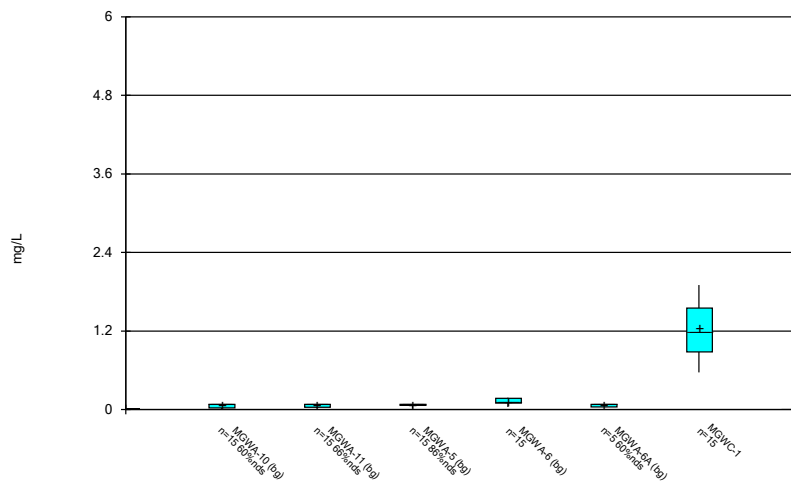
Constituent: Beryllium Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



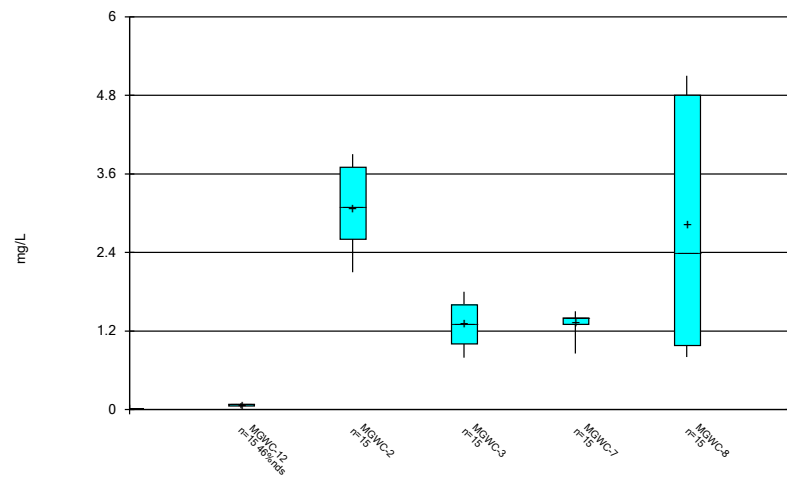
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



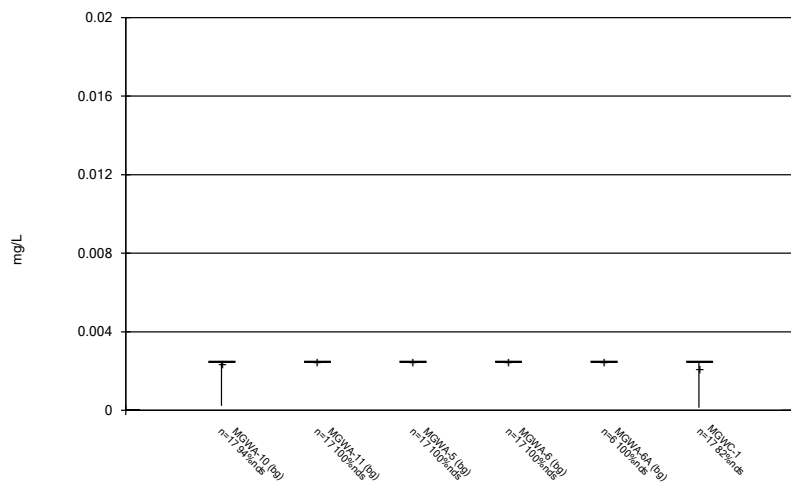
Constituent: Boron Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



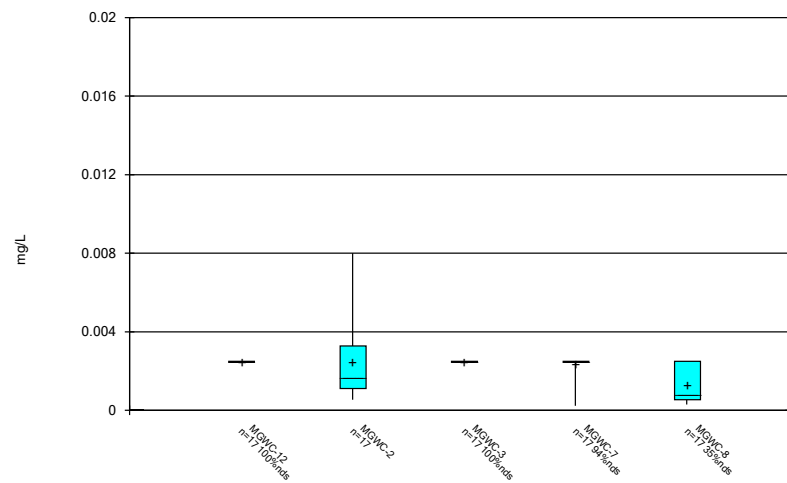
Constituent: Boron Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



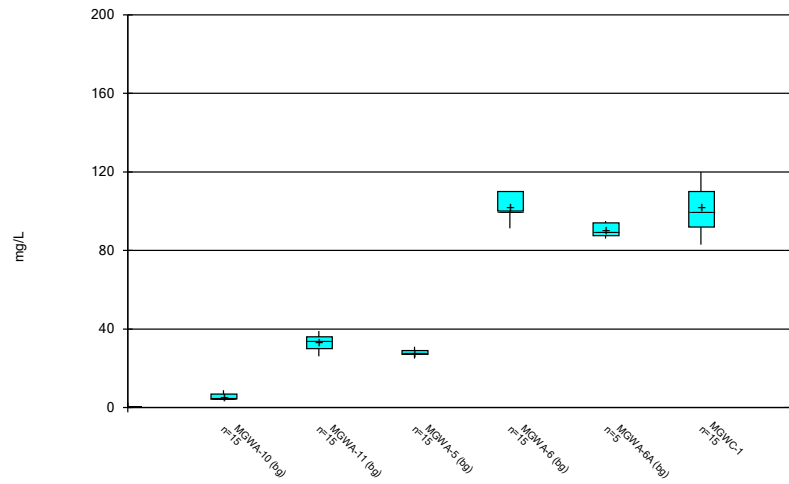
Constituent: Cadmium Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



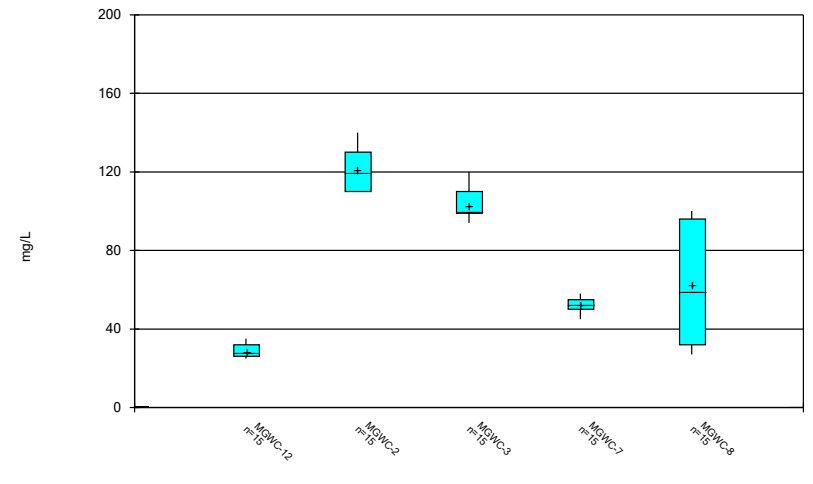
Constituent: Cadmium Analysis Run 1/27/2021 10:36 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



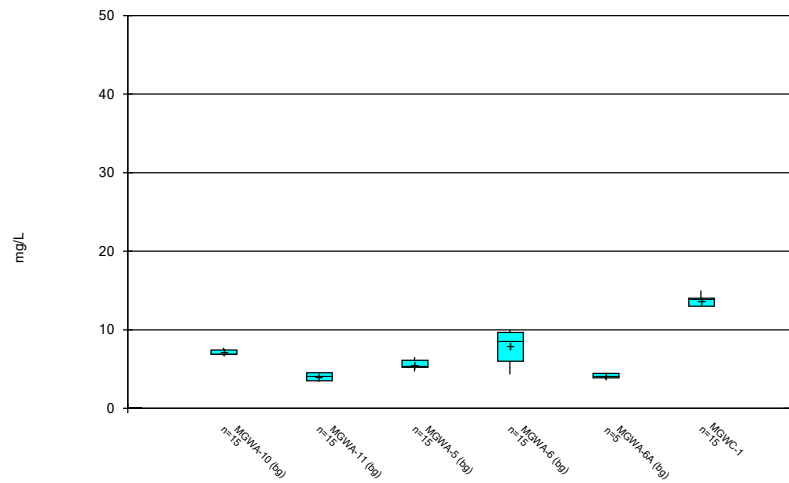
Constituent: Calcium Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



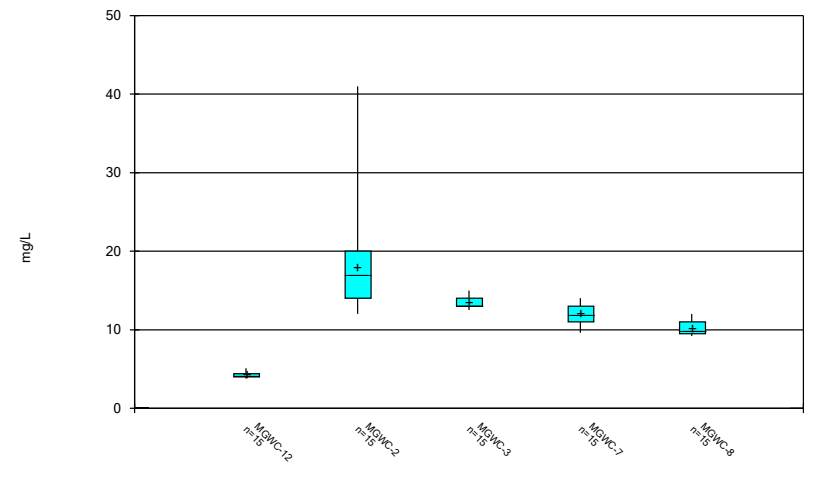
Constituent: Calcium Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



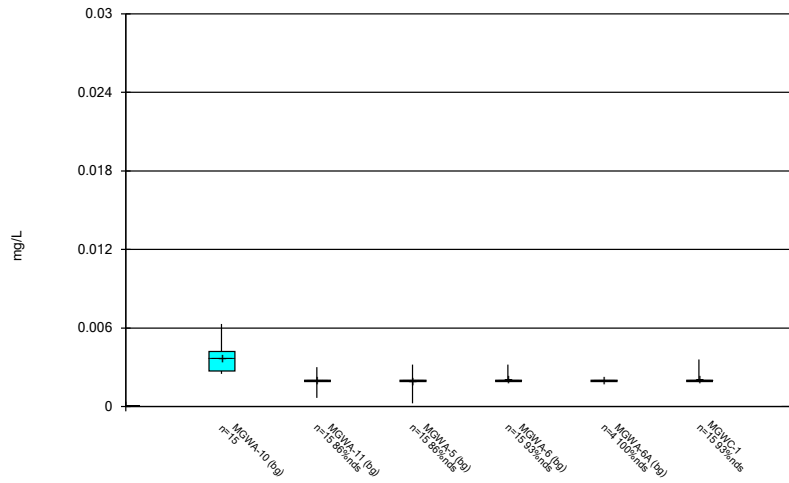
Constituent: Chloride Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



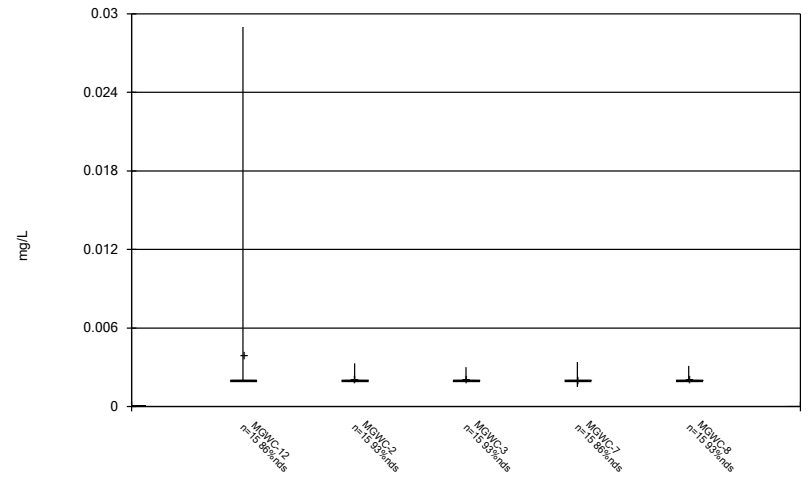
Constituent: Chloride Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



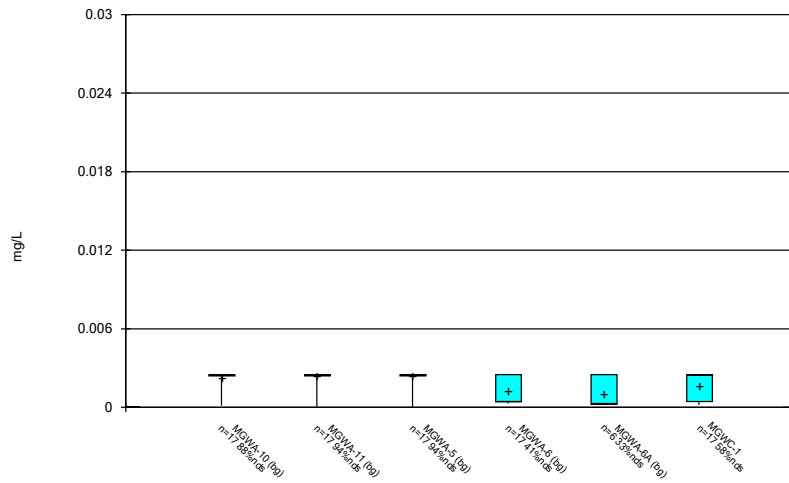
Constituent: Chromium Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



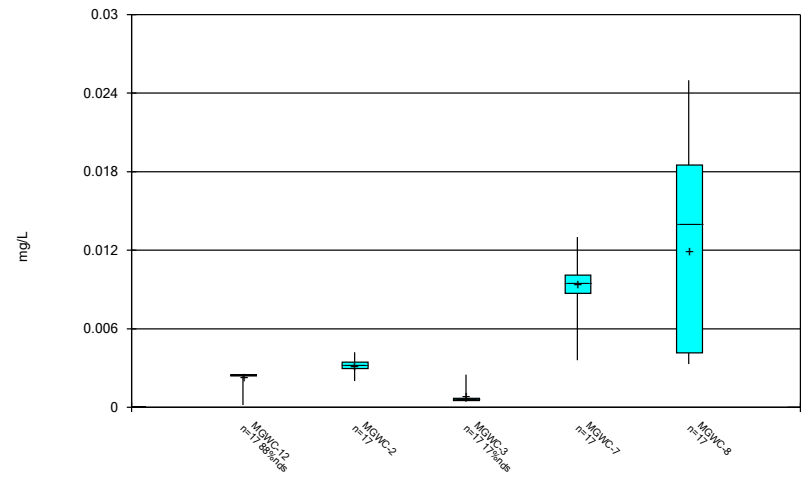
Constituent: Chromium Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



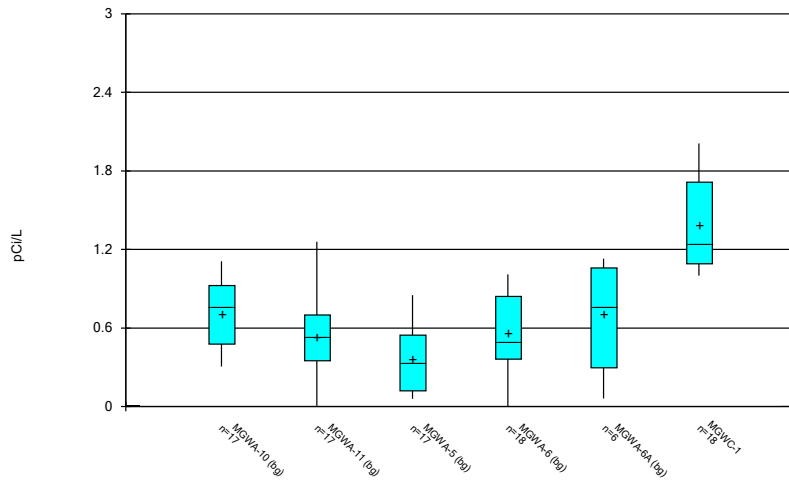
Constituent: Cobalt Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



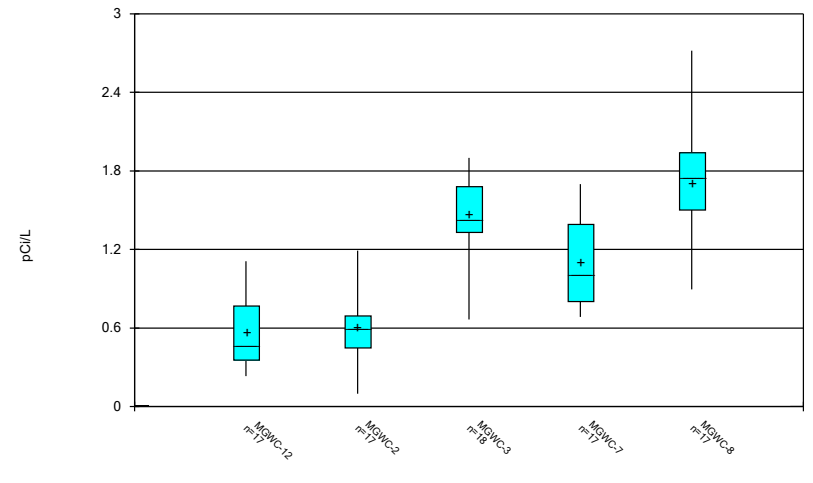
Constituent: Cobalt Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



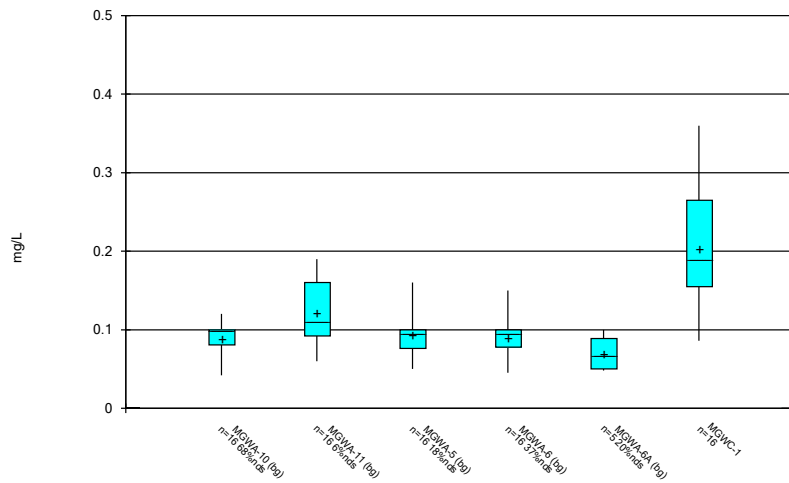
Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



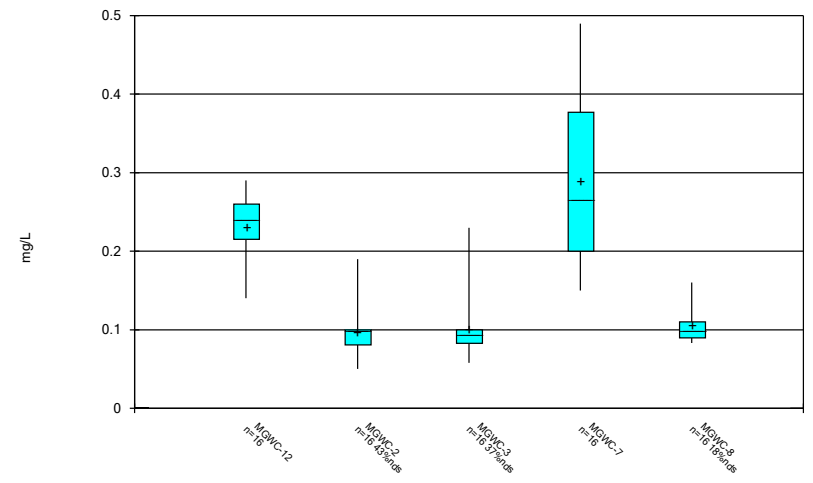
Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



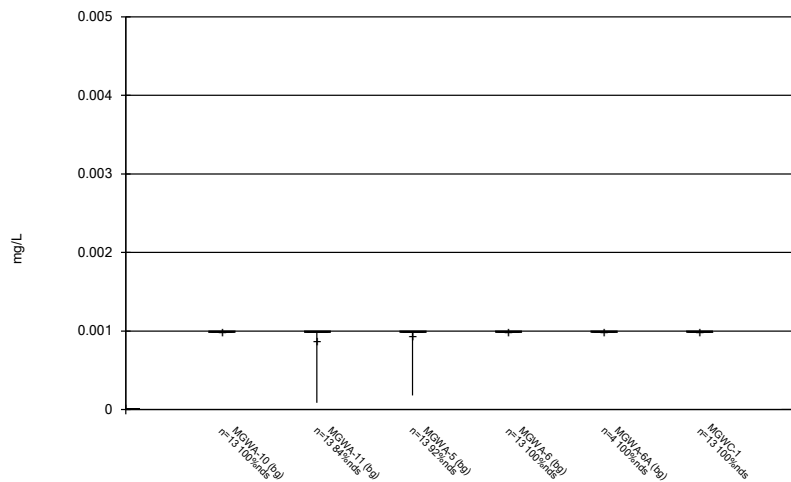
Constituent: Fluoride Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



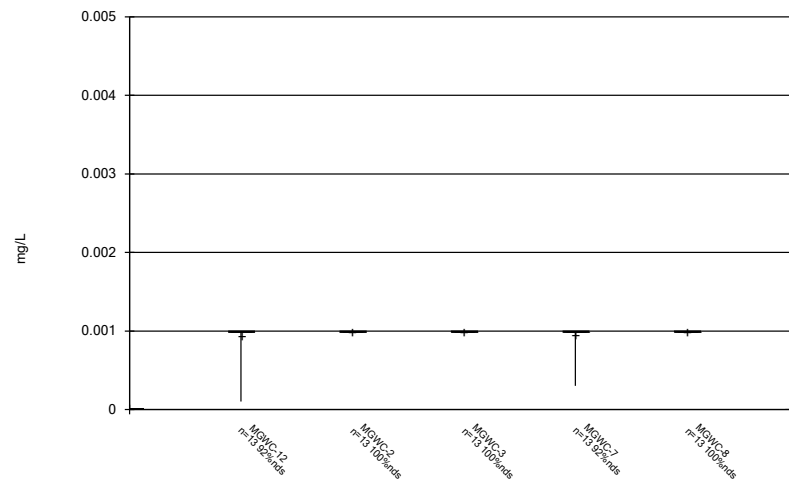
Constituent: Fluoride Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



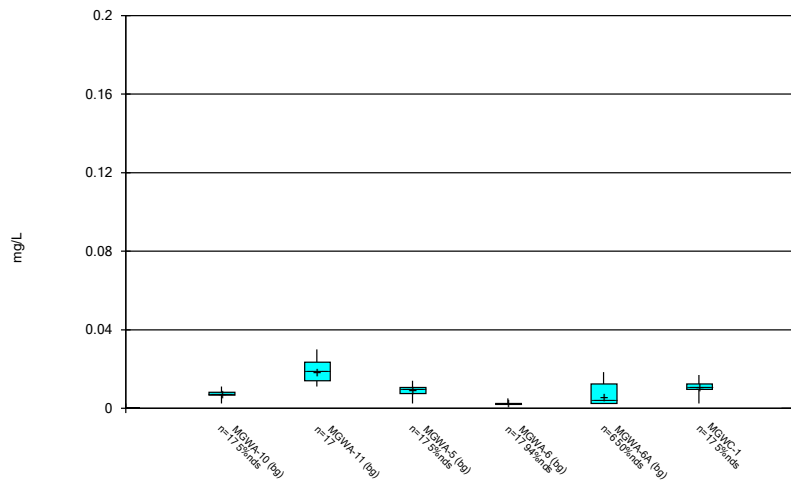
Constituent: Lead Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



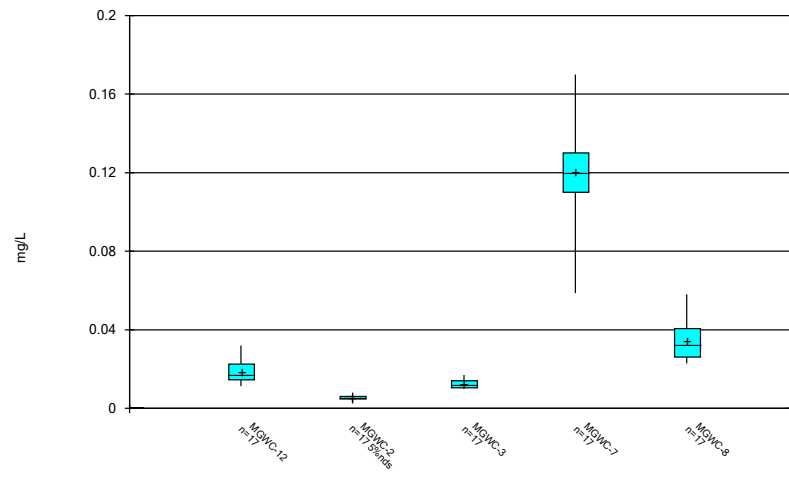
Constituent: Lead Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



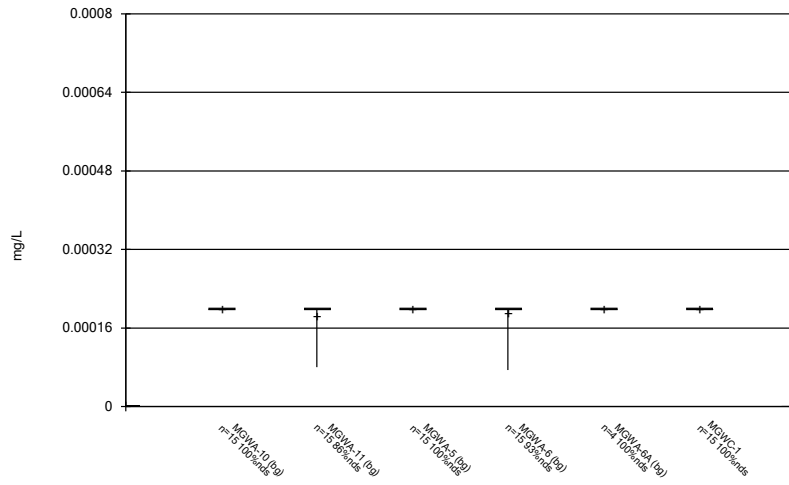
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



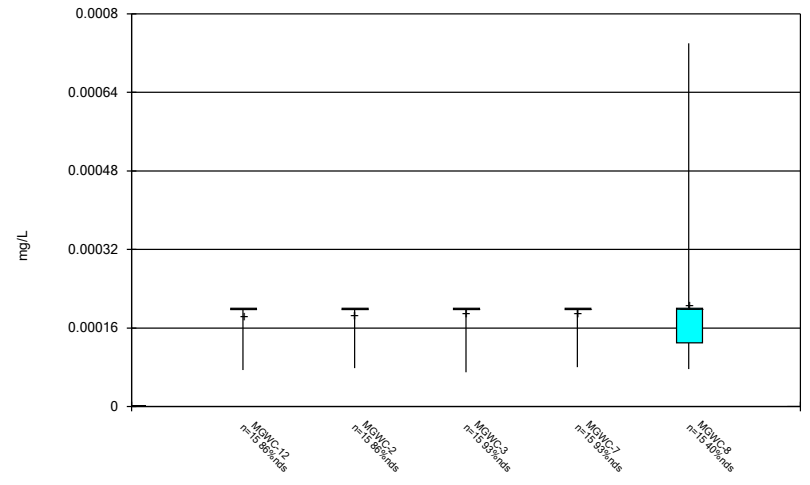
Constituent: Lithium Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



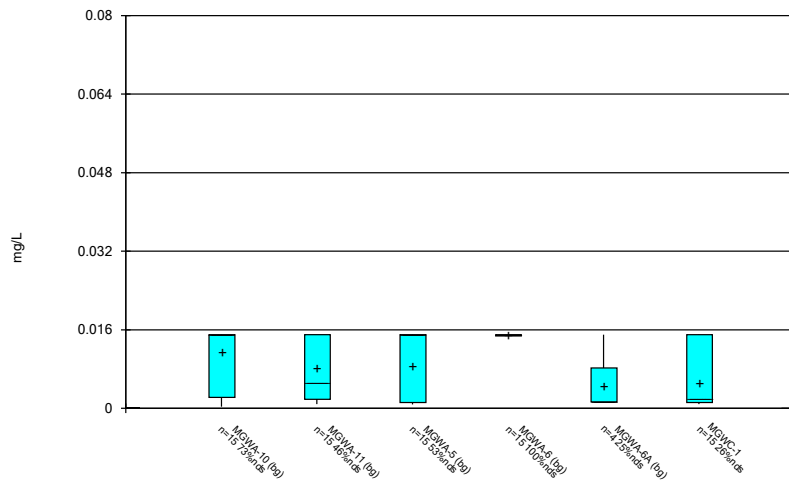
Constituent: Mercury Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



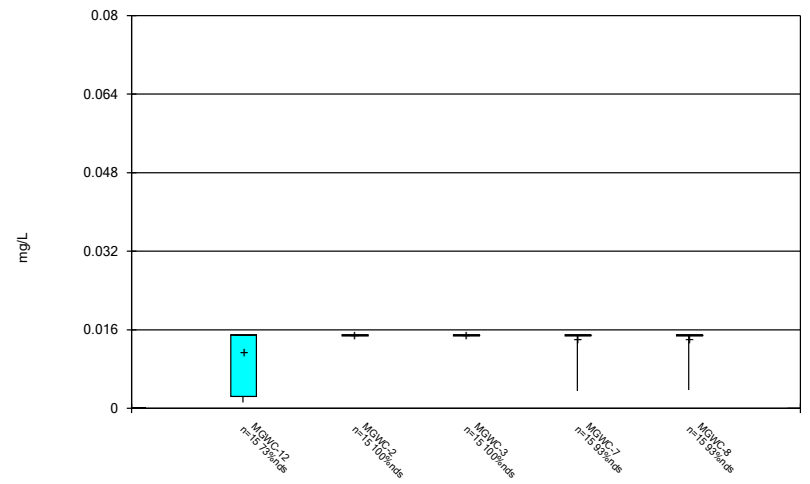
Constituent: Mercury Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



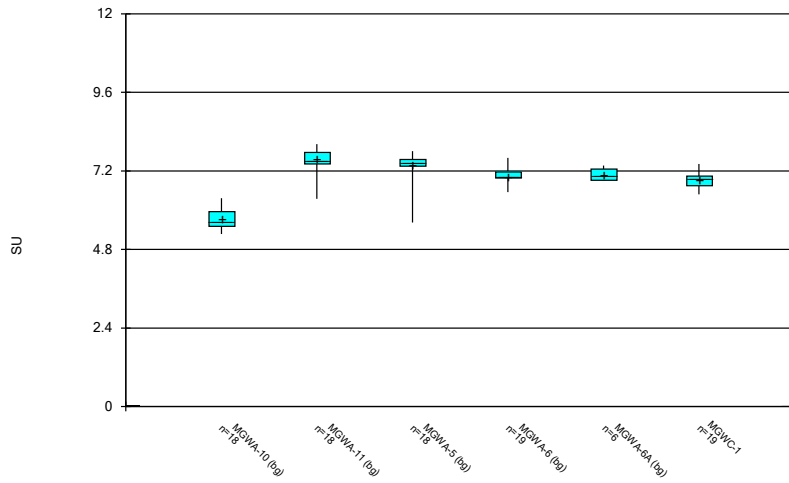
Constituent: Molybdenum Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



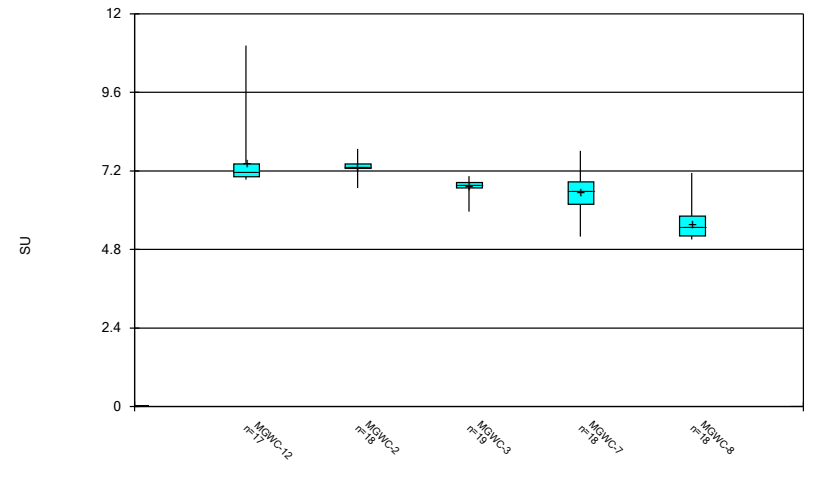
Constituent: Molybdenum Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



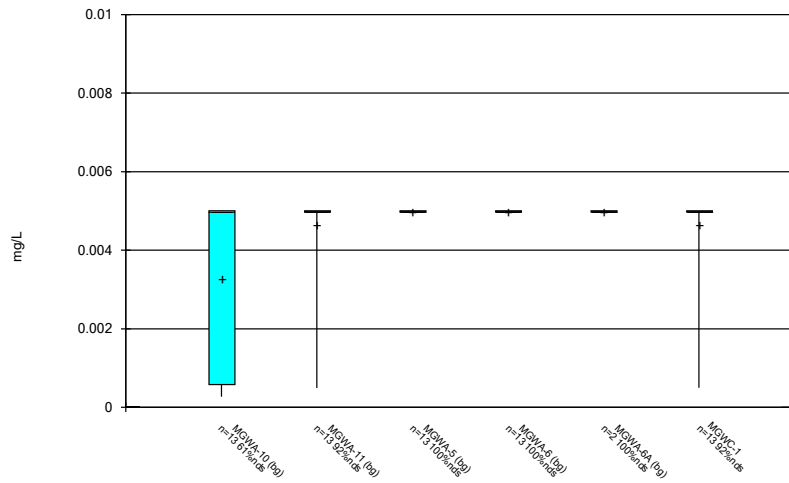
Constituent: pH Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



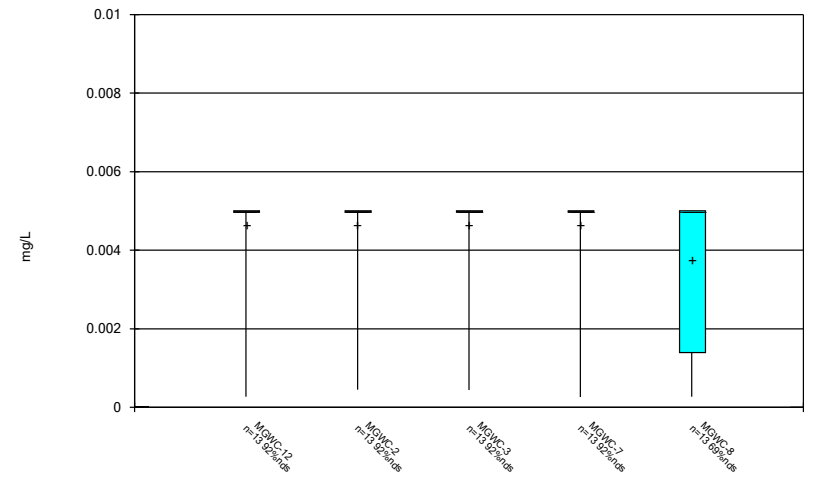
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



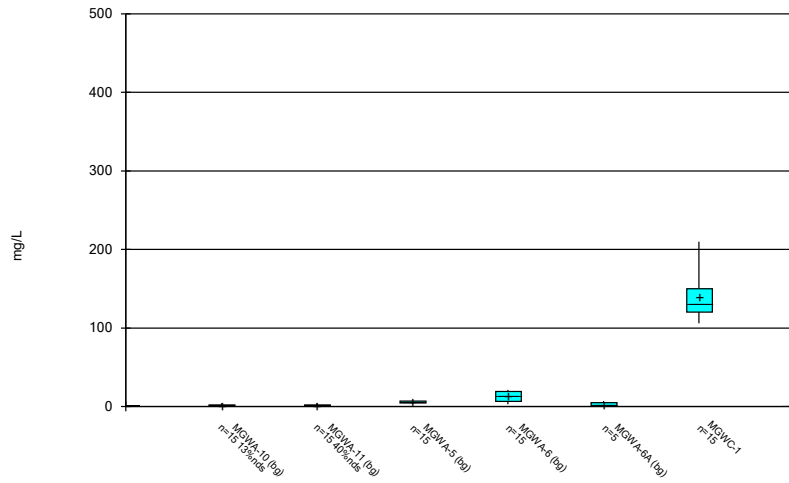
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



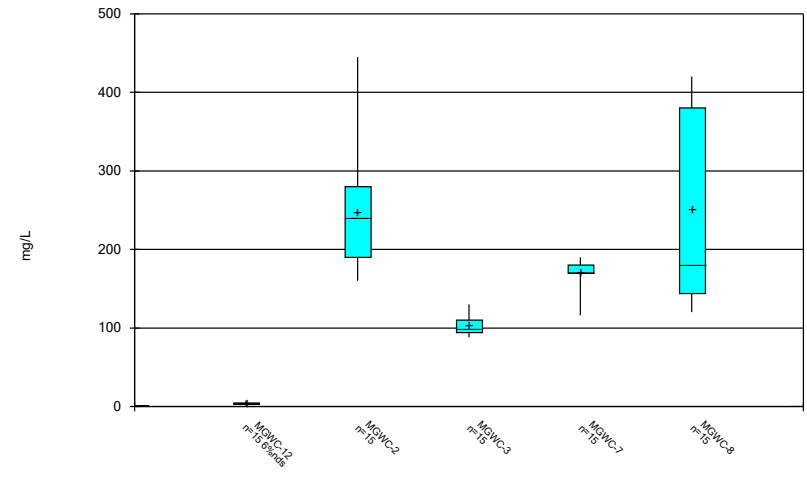
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 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



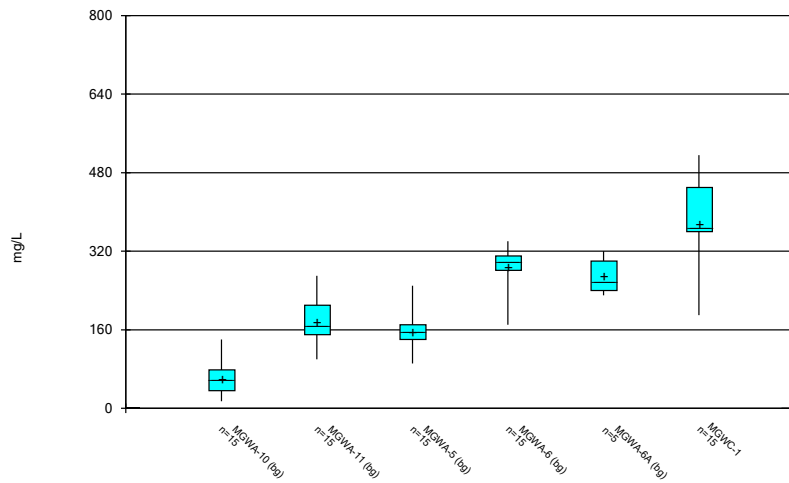
Constituent: Sulfate Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



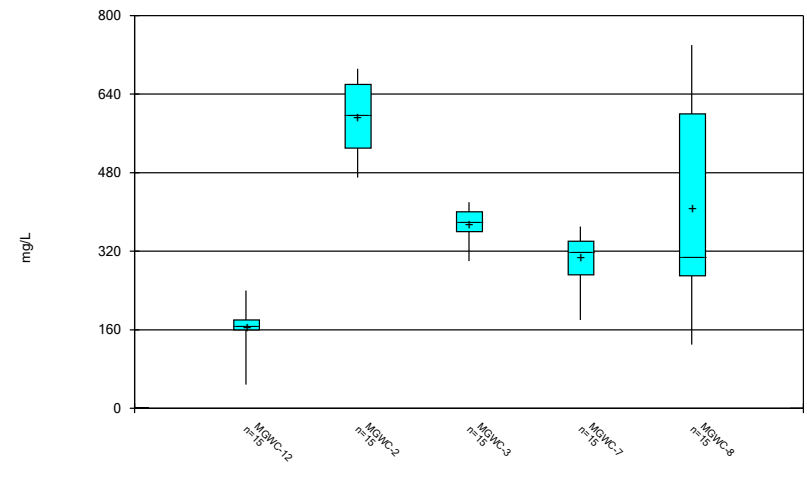
Constituent: Sulfate Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



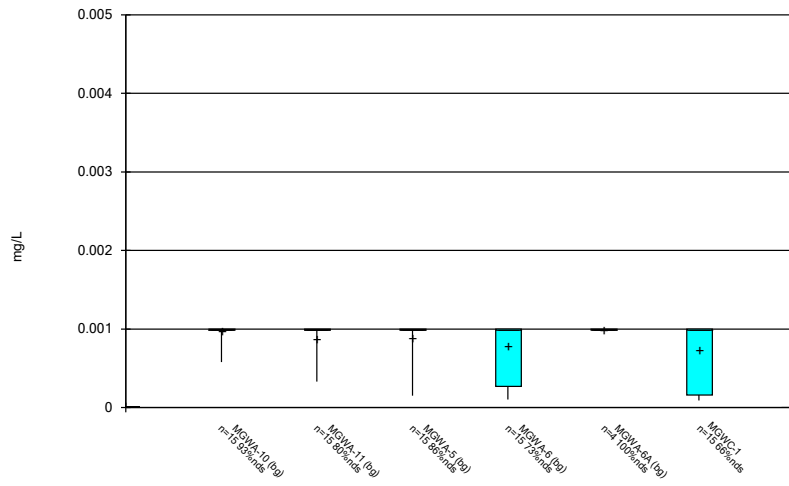
Constituent: TDS Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



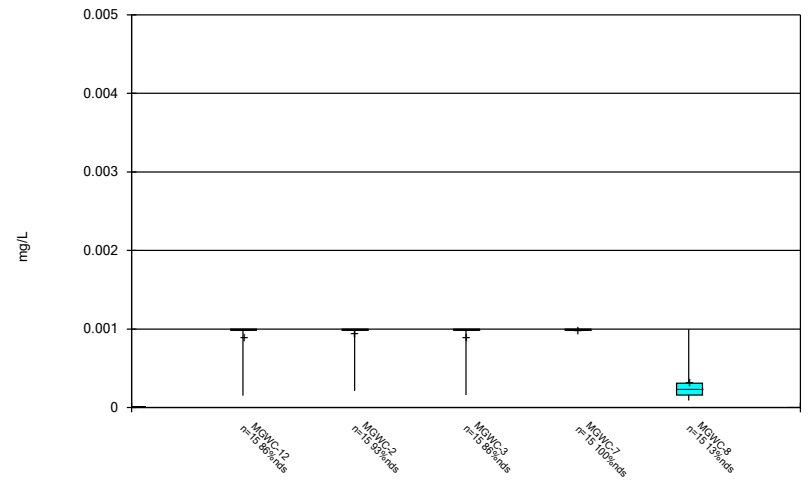
Constituent: TDS Analysis Run 1/27/2021 10:37 AM
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 1/27/2021 10:37 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 1/27/2021 10:37 AM
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE C.

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 1:58 PM

MGWC-12 pH (SU)

9/10/2019

10.96 (o)

FIGURE D.

Interwell Prediction Limit Summary - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	9/17/2020	1.8	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	9/16/2020	2.1	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	9/17/2020	1.2	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	9/17/2020	1.4	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	9/17/2020	4.4	Yes	65	n/a	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2
Chloride (mg/L)	MGWC-1	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-2	9.442	n/a	9/16/2020	12	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-3	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-7	9.442	n/a	9/17/2020	9.6	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-8	9.442	n/a	9/17/2020	10	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	MGWC-12	0.19	n/a	9/16/2020	0.26	Yes	69	n/a	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...
Fluoride (mg/L)	MGWC-7	0.19	n/a	9/17/2020	0.25	Yes	69	n/a	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...
pH (SU)	MGWC-12	8.02	5.27	9/16/2020	11.03	Yes	78	n/a	n/a	0	n/a	n/a	n/a	0.000633	NP Inter (normality) ...
pH (SU)	MGWC-8	8.02	5.27	9/17/2020	5.22	Yes	78	n/a	n/a	0	n/a	n/a	n/a	0.000633	NP Inter (normality) ...
Sulfate (mg/L)	MGWC-1	22.86	n/a	9/17/2020	150	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-2	22.86	n/a	9/16/2020	160	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-3	22.86	n/a	9/17/2020	120	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-7	22.86	n/a	9/17/2020	160	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-8	22.86	n/a	9/17/2020	380	Yes	65	1.087	1.09	12.31	None	ln(x)	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-1	347.4	n/a	9/17/2020	460	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-2	347.4	n/a	9/16/2020	530	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-3	347.4	n/a	9/17/2020	410	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-8	347.4	n/a	9/17/2020	740	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	

Interwell Prediction Limit Summary - All Results

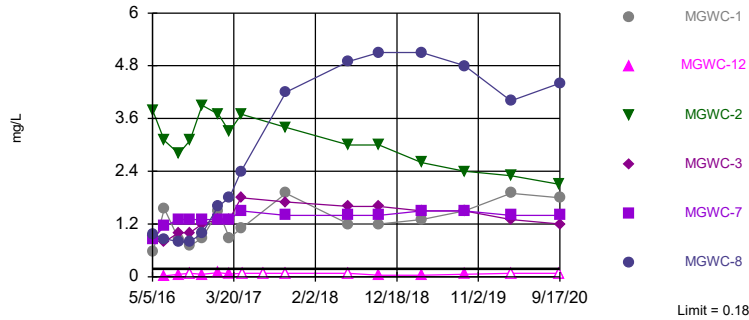
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	9/17/2020	1.8	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-12	0.18	n/a	9/16/2020	0.08ND	No	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-2	0.18	n/a	9/16/2020	2.1	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-3	0.18	n/a	9/17/2020	1.2	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-7	0.18	n/a	9/17/2020	1.4	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Boron (mg/L)	MGWC-8	0.18	n/a	9/17/2020	4.4	Yes	65	n/a	n/a	53.85	n/a	n/a	0.0004546	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	MGWC-1	110	n/a	9/17/2020	110	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-12	110	n/a	9/16/2020	25	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-2	110	n/a	9/16/2020	110	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-3	110	n/a	9/17/2020	110	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-7	110	n/a	9/17/2020	48	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Calcium (mg/L)	MGWC-8	110	n/a	9/17/2020	100	No	65	n/a	n/a	0	n/a	n/a	0.0004546	NP Inter (normality) ...	
Chloride (mg/L)	MGWC-1	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-12	9.442	n/a	9/16/2020	5.1	No	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-2	9.442	n/a	9/16/2020	12	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-3	9.442	n/a	9/17/2020	14	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-7	9.442	n/a	9/17/2020	9.6	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Chloride (mg/L)	MGWC-8	9.442	n/a	9/17/2020	10	Yes	65	6.008	1.832	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	MGWC-1	0.19	n/a	9/17/2020	0.15	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-12	0.19	n/a	9/16/2020	0.26	Yes	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-2	0.19	n/a	9/16/2020	0.076J	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-3	0.19	n/a	9/17/2020	0.083J	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-7	0.19	n/a	9/17/2020	0.25	Yes	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
Fluoride (mg/L)	MGWC-8	0.19	n/a	9/17/2020	0.11	No	69	n/a	n/a	31.88	n/a	n/a	0.0004008	NP Inter (normality) ...	
pH (SU)	MGWC-1	8.02	5.27	9/17/2020	6.95	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-12	8.02	5.27	9/16/2020	11.03	Yes	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-2	8.02	5.27	9/16/2020	7.16	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-3	8.02	5.27	9/17/2020	6.68	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-7	8.02	5.27	9/17/2020	6.39	No	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
pH (SU)	MGWC-8	8.02	5.27	9/17/2020	5.22	Yes	78	n/a	n/a	0	n/a	n/a	0.000633	NP Inter (normality) ...	
Sulfate (mg/L)	MGWC-1	22.86	n/a	9/17/2020	150	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-12	22.86	n/a	9/16/2020	4.4	No	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-2	22.86	n/a	9/16/2020	160	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-3	22.86	n/a	9/17/2020	120	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-7	22.86	n/a	9/17/2020	160	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
Sulfate (mg/L)	MGWC-8	22.86	n/a	9/17/2020	380	Yes	65	1.087	1.09	12.31	None	In(x)	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-1	347.4	n/a	9/17/2020	460	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-12	347.4	n/a	9/16/2020	190	No	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-2	347.4	n/a	9/16/2020	530	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-3	347.4	n/a	9/17/2020	410	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-7	347.4	n/a	9/17/2020	320	No	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	
TDS (mg/L)	MGWC-8	347.4	n/a	9/17/2020	740	Yes	65	177.8	90.49	0	None	No	0.001254	Param Inter 1 of 2	

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit
Interwell Non-parametric



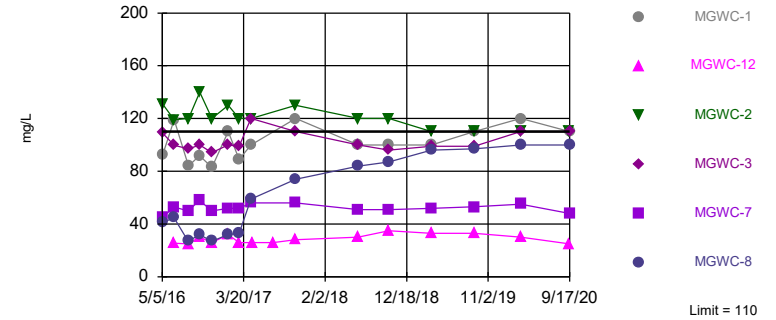
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 65 background values. 53.85% NDs. Annual per-constituent alpha = 0.005441. Individual comparison alpha = 0.0004546 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 11/18/2020 2:02 PM View: All
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit
Interwell Non-parametric



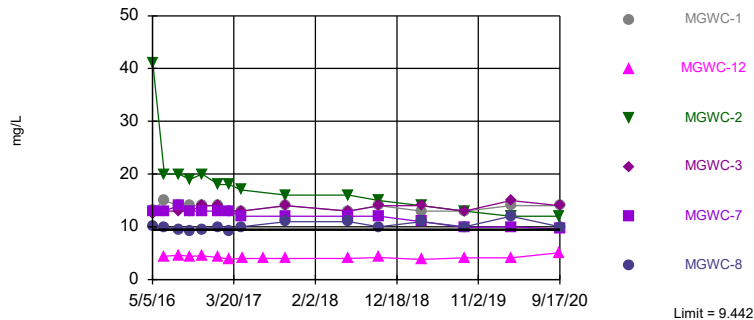
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. Annual per-constituent alpha = 0.005441. Individual comparison alpha = 0.0004546 (1 of 2). Comparing 6 points to limit.

Constituent: Calcium Analysis Run 11/18/2020 2:02 PM View: All
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sanitas™ v.9.6.27 . UG

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit
Interwell Parametric

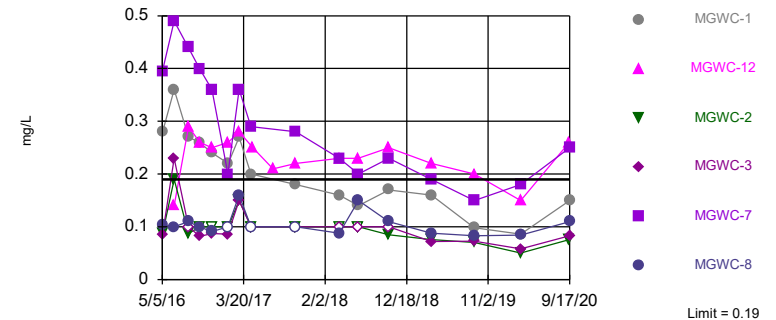


Background Data Summary: Mean=6.008, Std. Dev.=1.832, n=65. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.953, critical = 0.948. Kappa = 1.874 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Chloride Analysis Run 11/18/2020 2:02 PM View: All
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Exceeds Limit: MGWC-12, MGWC-7

Prediction Limit
Interwell Non-parametric

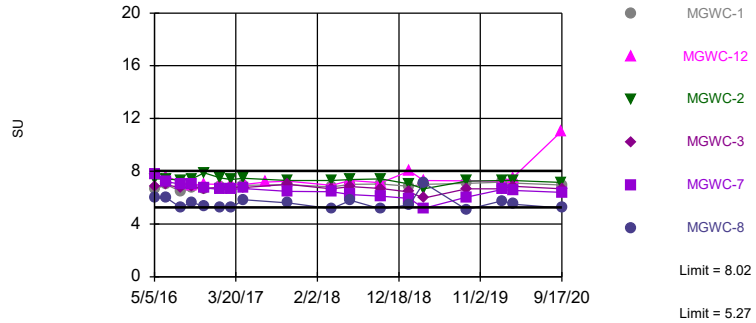


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 69 background values. 31.88% NDs. Annual per-constituent alpha = 0.004799. Individual comparison alpha = 0.0004008 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 11/18/2020 2:02 PM View: All
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limits: MGWC-12, MGWC-8

Prediction Limit
Interwell Non-parametric



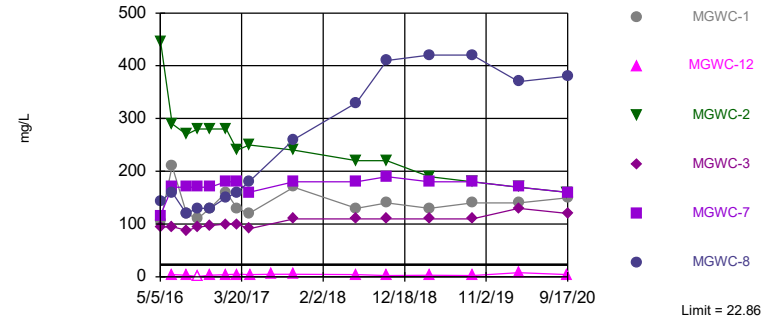
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 78 background values. Annual per-constituent alpha = 0.007583. Individual comparison alpha = 0.000633 (1 of 2). Comparing 6 points to limit.

Constituent: pH Analysis Run 11/18/2020 2:02 PM View: All
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

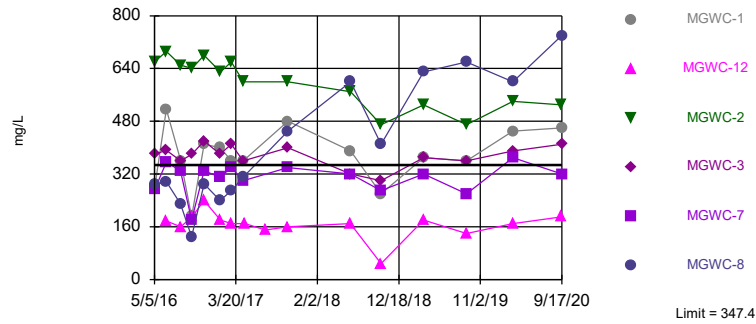


Background Data Summary (based on natural log transformation): Mean=1.087, Std. Dev.=1.09, n=65, 12.31% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9586, critical = 0.948. Kappa = 1.874 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 11/18/2020 2:02 PM View: All
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-8

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=177.8, Std. Dev.=90.49, n=65. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9705, critical = 0.948. Kappa = 1.874 (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 11/18/2020 2:02 PM View: All
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/18/2020 2:04 PM View: All

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	<0.08	0.976	0.157	<0.08	0.855				
5/6/2016						0.926	0.567	3.78	
6/20/2016	0.011 (J)			0.013 (J)					0.017 (J)
6/21/2016		0.862	0.124		1.15	0.792	1.55	3.1	
8/15/2016	0.022 (J)	0.8	0.18	0.023 (J)	1.3				0.032 (J)
8/16/2016						1	0.85	2.8	
9/28/2016	0.023 (J)	0.8	0.17	<0.08	1.3		0.7		0.021 (J)
9/29/2016						1		3.1	
11/16/2016	<0.08	0.98	0.17	<0.08	1.3	1.2	0.88	3.9	<0.08
1/16/2017	0.021 (J)								
1/17/2017		1.6	0.17	<0.08	1.3	1.3			<0.08
1/18/2017								3.7	
1/19/2017							1.5		
3/2/2017	<0.08	1.8	0.14	<0.08	1.3	1.3	0.89	3.3	<0.08
4/18/2017	<0.08	2.4	0.14	<0.08	1.5	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)	4.2	0.12	<0.08	1.4	1.7	1.9	3.4	0.025 (J)
6/12/2018	<0.08			<0.08					<0.08
6/13/2018		4.9	0.11		1.4	1.6	1.2	3	
10/9/2018	<0.08			<0.08					<0.08
10/10/2018		5.1	0.096 (J)		1.4	1.6	1.2	3	
1/29/2019									
3/25/2019	<0.08			<0.08					<0.08
3/26/2019		5.1	0.079 (J)		1.5	1.5	1.3	2.6	
9/10/2019	<0.08	4.8	0.097	<0.08	1.5	1.5	1.5	2.4	<0.08
3/9/2020	0.045 (J)								<0.08
3/10/2020		4	0.051 (J)	<0.08	1.4	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		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/18/2020 2:04 PM View: All
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		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/18/2020 2:04 PM View: All

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	8.83	41.2	105	27	45				
5/6/2016						109	92.5	131	
6/20/2016	8.1			29.4					35.5
6/21/2016		44.7	91.2		52.8	99.7	119	119	
8/15/2016	6.1	27	94	26	50				34
8/16/2016						97	84	120	
9/28/2016	7.2	32	110	31	58		92		38
9/29/2016						100		140	
11/16/2016	5.2	27	98	26	50	94	83	120	33
1/16/2017	3.8								
1/17/2017		32	100	29	52	100			34
1/18/2017								130	
1/19/2017							110		
3/2/2017	5.4	33	100	28	52	99	89	120	35
4/18/2017	5	59	110	27	56	120	100		33
4/19/2017								120	
4/25/2017									
7/13/2017									30
10/10/2017	4.8	74	110	31	56	110	120	130	39
6/12/2018	4.8			25					26
6/13/2018		84	100		51	100	100	120	
10/9/2018	4.5			29					29
10/10/2018		87	100		51	96	100	120	
1/29/2019									
3/25/2019	4.6			27					37
3/26/2019		96	100		52	99	100	110	
9/10/2019	4.9	97	110	27	53	99	110	110	36
3/9/2020	4								32
3/10/2020		100	100	29	55	110	120	110	
9/16/2020	6.8		100	28				110	30
9/17/2020		100			48	110	110		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/18/2020 2:04 PM View: All
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		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/18/2020 2:04 PM View: All

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	7.35	10.1	9.67	6.51	13				
5/6/2016						12.5	13.2	41	
6/20/2016	7			5.9					4.3
6/21/2016		10	9.2		13	13	15	20	
8/15/2016	7.5	9.5	10	6.4	14				4.1
8/16/2016						13	14	20	
9/28/2016	7	9.2	10	6.1	13		14		3.9
9/29/2016						13		19	
11/16/2016	7.5	9.5	10	6.1	13	14	14	20	4.1
1/16/2017	7.7								
1/17/2017		10	9.4	5.7	13	14			3.9
1/18/2017								18	
1/19/2017							14		
3/2/2017	6.9	9.3	8.6	5.3	13	13	13	18	3.5
4/18/2017	6.8	10	8.9	5.3	12	13	13		3.7
4/19/2017								17	
4/25/2017									
7/13/2017									4.2
10/10/2017	6.9	11	8.3	5.3	12	14	14	16	3.4
6/12/2018	6.7			5.1					4.6
6/13/2018		11	7		12	13	13	16	
10/9/2018	7.1			5.6					4.5
10/10/2018		10	6.9		12	14	14	15	
1/29/2019									
3/25/2019	6.8			4.7					3.4
3/26/2019		11	5.8		11	14	13	14	
9/10/2019	7	10	6	5.1	9.9	13	13	13	3.5
3/9/2020	7.4								4.5
3/10/2020		12	5.1	5.4	10	15	14	12	
9/16/2020	7		4.3	5.2				12	4.6
9/17/2020		10			9.6	14	14		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/18/2020 2:04 PM View: All
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		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/18/2020 2:04 PM View: All

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	0.046 (J)	0.103 (J)	0.091 (J)	0.132 (J)	0.394				
5/6/2016						0.28 (J)	0.086 (J)	0.088 (J)	
6/20/2016	<0.1			0.05 (J)					0.06 (J)
6/21/2016		0.1 (J)	0.08 (J)		0.49	0.36	0.23 (J)	0.19 (J)	
8/15/2016	<0.1	0.11 (J)	<0.1	0.1 (J)	0.44				0.1 (J)
8/16/2016						0.27	<0.1	0.087 (J)	
9/28/2016	<0.1	0.1 (J)	0.084 (J)	0.11 (J)	0.4	0.26			0.097 (J)
9/29/2016							0.082 (J)	<0.1	
11/16/2016	<0.1	0.091 (J)	0.084 (J)	0.093 (J)	0.36	0.24	0.087 (J)	<0.1	0.12 (J)
1/16/2017	<0.1								
1/17/2017		<0.1	0.099 (J)	0.095 (J)	0.2		0.086 (J)		0.11 (J)
1/18/2017								<0.1	
1/19/2017						0.22			
3/2/2017	0.12 (J)	0.16 (J)	0.15 (J)	0.16 (J)	0.36	0.27	0.15 (J)	0.15 (J)	0.18 (J)
4/18/2017	<0.1	<0.1	<0.1	<0.1	0.29	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	<0.1	<0.1	<0.1	0.28	0.18 (J)	<0.1	<0.1	0.086 (J)
3/29/2018	<0.1		<0.1	0.084 (J)	0.23	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		0.15 (J)	<0.1		0.2	0.14 (J)	<0.1	<0.1	
10/9/2018	<0.1			0.086 (J)					0.16 (J)
10/10/2018		0.11 (J)	<0.1		0.23	0.17 (J)	<0.1	0.085 (J)	
1/29/2019									
3/25/2019	<0.1			0.072 (J)					0.087 (J)
3/26/2019		0.088 (J)	0.065 (J)		0.19 (J)	0.16	0.072 (J)	0.076 (J)	
9/10/2019	0.044 (J)	0.083 (J)	0.076 (J)	0.068 (J)	0.15	0.098 (J)	0.073 (J)	0.07 (J)	0.075 (J)
3/9/2020	0.061 (J)								0.19
3/10/2020		0.084 (J)	0.045 (J)	0.055 (J)	0.18	0.086 (J)	0.058 (J)	0.05 (J)	
9/16/2020	0.042 (J)		0.076 (J)	0.08 (J)				0.076 (J)	0.18
9/17/2020		0.11			0.25	0.15	0.083 (J)		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/18/2020 2:04 PM View: All
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		

Prediction Limit

Constituent: pH (SU) Analysis Run 11/18/2020 2:04 PM View: All
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWC-7	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	5.94	5.96	7.81	7.13	7.4				
5/6/2016						6.85	6.64	7.41	
6/20/2016	5.84 (D)				7.63				7.82
6/21/2016		6	7.2	7.25		6.98	6.99	7.41	
8/15/2016	5.65	5.26	7.04	7.04	7.54				7.52
8/16/2016						6.73	6.48	7.33	
9/28/2016	5.72	5.66	7	7.09	7.45		6.7		7.66
9/29/2016						6.81		7.42	
11/16/2016	5.65	5.33	6.73	7.6	7.39	6.69	6.66	7.87	7.51
1/16/2017	5.52								
1/17/2017		5.24	6.61	6.99	7.23	6.77			7.52
1/18/2017								7.49	
1/19/2017							6.81		
3/2/2017	5.53	5.21	6.62	6.95	7.55	6.79	6.75	7.37	7.5
4/18/2017	5.64	5.85	6.7	7.02	7.43	6.77	6.93		7.75
4/19/2017								7.48	
4/25/2017									
7/13/2017									7.72
10/10/2017		5.6	6.48	7.27	5.62	7	6.99	7.29	
10/11/2017	6.11								6.35
3/29/2018	5.35		6.46	6.95	7.19		6.82		7.42
3/30/2018		5.16				6.68		7.31	
6/12/2018	6.23				7.55				8.02
6/13/2018		5.79	6.24	7.08		6.83	7.01	7.37	
10/9/2018	5.62 (D)				7.8 (D)				7.79 (D)
10/10/2018		5.15 (D)	6.12 (D)	7.01 (D)		6.69 (D)	7.04 (D)	7.41 (D)	
1/28/2019	5.49 (D)								7.4 (D)
1/29/2019		5.46 (D)	5.93 (D)	6.55 (D)	7.63 (D)	6.42 (D)	6.87 (D)	7.03 (D)	
3/25/2019	5.27 (D)				7.44 (D)				7.29 (D)
3/26/2019		7.14 (D)	5.19 (D)	6.57 (D)		5.96 (D)	7.01 (D)	6.68 (D)	
9/10/2019	5.97	5.1	6.03	6.99	7.41	6.67	7.09	7.26	7.54
1/28/2020	5.78		6.61	7.17	7.46				7.4
1/29/2020		5.76				6.68	7.19	7.3	
3/9/2020	5.46								7.58
3/10/2020		5.5	6.54	7	7.3	6.87	7.11	7.3	
9/16/2020	6.37			6.98	7.38			7.16	7.89
9/17/2020		5.22	6.39			6.68	6.95		

Prediction Limit

Constituent: pH (SU) Analysis Run 11/18/2020 2:04 PM View: All
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	6.89
9/17/2020		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/18/2020 2:04 PM View: All

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	2.46	144	17.8	4.47	116				
5/6/2016						94.2	106	445	
6/20/2016	2.5			7.7					1
6/21/2016		160	17		170	95	210	290	
8/15/2016	1.9	120	20	7.5	170				0.73 (J)
8/16/2016						88	120	270	
9/28/2016	1.9	130	21	7.8	170		110		<1.3
9/29/2016						94		280	
11/16/2016	1.7	130	20	6.7	170	97	130	280	<1.3
1/16/2017	<1.3								
1/17/2017		150	19	6.7	180	100			<1.3
1/18/2017								280	
1/19/2017							160		
3/2/2017	1.4	160	15	5.6	180	100	130	240	<1.3
4/18/2017	1.3	180	14	5.1	160	91	120		<1.3
4/19/2017								250	
4/25/2017									
7/13/2017									1.4
10/10/2017	1.1	260	11	4.9	180	110	170	240	0.87 (J)
6/12/2018	0.82 (J)			3.8					4.1
6/13/2018		330	8.7		180	110	130	220	
10/9/2018	0.82 (J)			6.7					2.2
10/10/2018		410	8.7		190	110	140	220	
1/29/2019									
3/25/2019	<1.3			3.4 (J)					<1.3
3/26/2019		420	6.3 (J)		180	110	130	190	
9/10/2019	1.1	420	5.6	4.7	180	110	140	180	1.8
3/9/2020	4.2								3.4
3/10/2020		370	5	5.2	170	130	140	170	
9/16/2020	0.69 (J)		2.7	3.2				160	3
9/17/2020		380			160	120	150		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/18/2020 2:04 PM View: All
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	<1.3	
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		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/18/2020 2:04 PM View: All

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-3	MGWC-1	MGWC-2	MGWA-11 (bg)
5/5/2016	78	287	281	129	272				
5/6/2016						380	282	661	
6/20/2016	80			156					188
6/21/2016		297	303		356	392	516	692	
8/15/2016	58	230	310	160	330				180
8/16/2016						360	360	650	
9/28/2016	29	130	170	91	180		190		100
9/29/2016						380		640	
11/16/2016	140	290	340	250	330	420	410	680	270
1/16/2017	36								
1/17/2017		240	310	140	310	380			170
1/18/2017								630	
1/19/2017							400		
3/2/2017	78	270	330	170	340	410	360	660	210
4/18/2017	16	310	290	140	300	360	360		160
4/19/2017								600	
4/25/2017									
7/13/2017									150
10/10/2017	78	450	310	190	340	400	480	600	210
6/12/2018	62			180					150
6/13/2018		600	230		320	320	390	570	
10/9/2018	68			170					150
10/10/2018		410	300		270	300	260	470	
1/29/2019									
3/25/2019	54			150					210
3/26/2019		630	290		320	370	370	530	
9/10/2019	14	660	260	110	260	360	360	470	160
3/9/2020	56								190
3/10/2020		600	300	170	370	390	450	540	
9/16/2020	44		300	150				530	150
9/17/2020		740			320	410	460		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/18/2020 2:04 PM View: All
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		

FIGURE E.

Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:07 PM

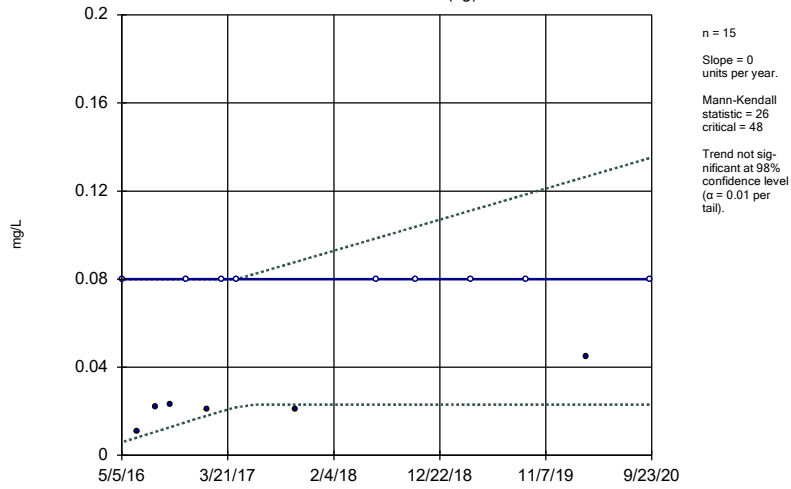
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-77	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	58	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3389	-60	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.06512	64	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.222	69	48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3102	-66	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.342	-84	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.173	-97	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8277	-78	-48	Yes	15	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-7	-0.07283	-83	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4171	-51	-48	Yes	15	13.33	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.9117	-54	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.986	-85	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-31.92	-92	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	6.847	72	48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	82.37	76	48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-44.22	-76	-48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	117.2	72	48	Yes	15	0	n/a	n/a	0.02	NP

Trend Test - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/18/2020, 2:07 PM

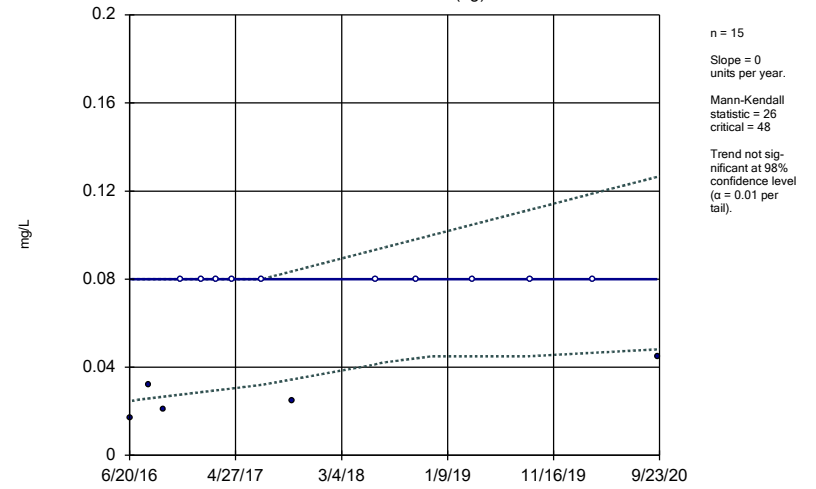
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	26	48	No	15	60	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-11 (bg)	0	26	48	No	15	66.67	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-5 (bg)	0	23	48	No	15	86.67	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6 (bg)	-0.02855	-77	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-6A (bg)	-0.01225	-4	-10	No	5	60	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2412	58	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3389	-60	-48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-3	0.1696	40	48	No	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.06512	64	48	Yes	15	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	1.222	69	48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-10 (bg)	-0.07242	-20	-48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-11 (bg)	0	5	48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.3102	-66	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.342	-84	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6A (bg)	-0.4814	-10	-10	No	5	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-1	0	-19	-48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.173	-97	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-3	0.2445	43	48	No	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.8277	-78	-48	Yes	15	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-8	0.2322	32	48	No	15	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-10 (bg)	0	-27	-53	No	16	68.75	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-11 (bg)	0.02056	34	53	No	16	6.25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-5 (bg)	-0.009066	-29	-53	No	16	18.75	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6 (bg)	0	-11	-53	No	16	37.5	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6A (bg)	-0.02608	-4	-10	No	5	20	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-12	-0.01681	-34	-53	No	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-7	-0.07283	-83	-53	Yes	16	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-10 (bg)	-0.02316	-18	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-11 (bg)	-0.03437	-11	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-5 (bg)	-0.01763	-15	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-6 (bg)	-0.03935	-51	-63	No	18	0	n/a	n/a	0.02	NP
pH (SU)	MGWA-6A (bg)	-0.0245	-1	-13	No	6	0	n/a	n/a	0.02	NP
pH (SU)	MGWC-12	0.1193	55	58	No	17	0	n/a	n/a	0.02	NP
pH (SU)	MGWC-8	-0.0521	-33	-63	No	18	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4171	-51	-48	Yes	15	13.33	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-11 (bg)	0.4345	40	48	No	15	40	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.9117	-54	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.986	-85	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6A (bg)	-2.641	-4	-10	No	5	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-1	5.637	33	48	No	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-31.92	-92	-48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	6.847	72	48	Yes	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-7	0	25	48	No	15	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	82.37	76	48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-10 (bg)	-7.604	-34	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-11 (bg)	-5.456	-15	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-5 (bg)	2.801	8	48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6 (bg)	-1.302	-12	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6A (bg)	17.45	2	10	No	5	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-1	13.03	15	48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-44.22	-76	-48	Yes	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-3	-0.5376	-8	-48	No	15	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	117.2	72	48	Yes	15	0	n/a	n/a	0.02	NP

Sen's Slope and 95% Confidence Band
MGWA-10 (bg)



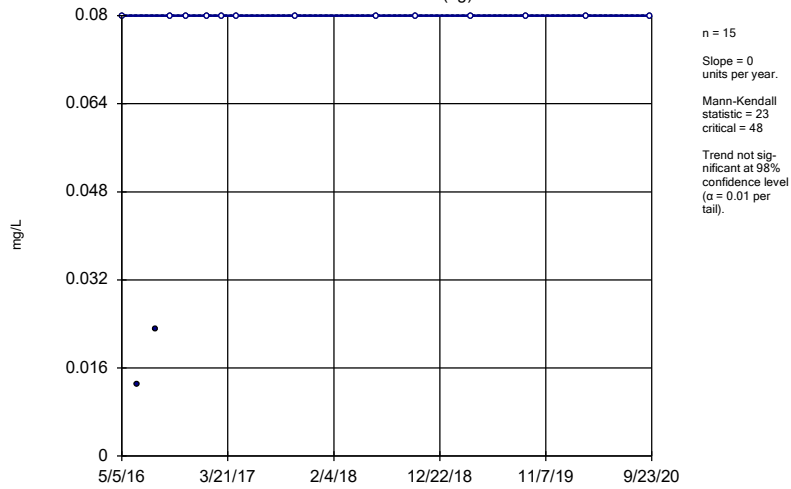
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-11 (bg)



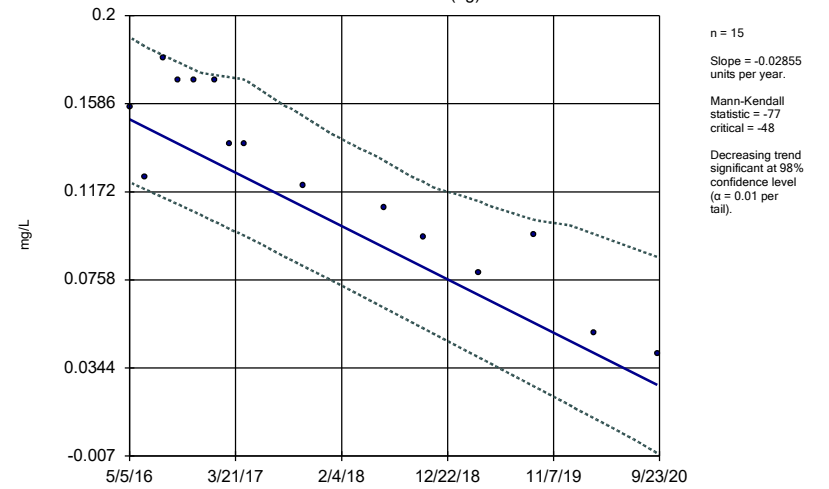
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-5 (bg)



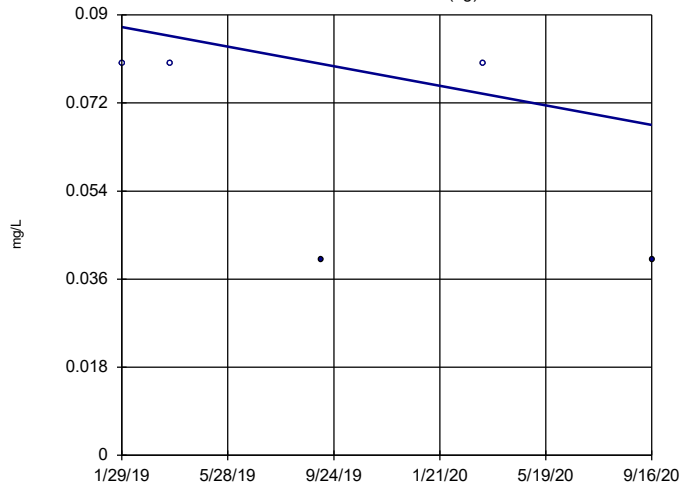
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-6 (bg)



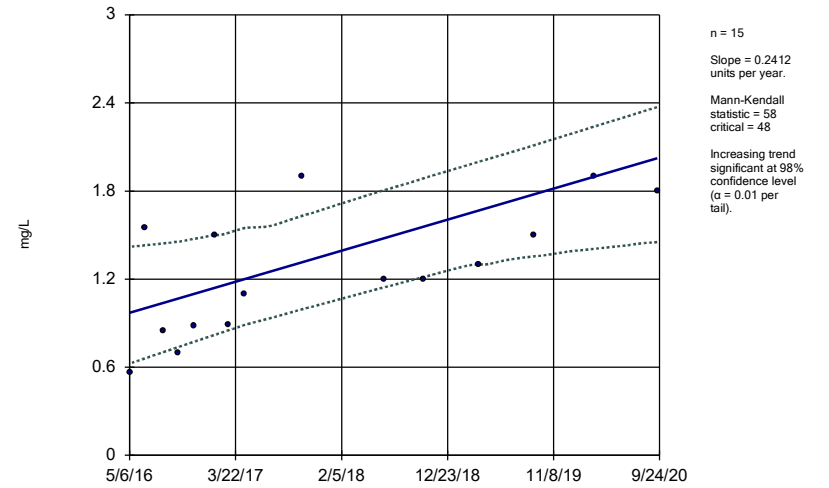
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)



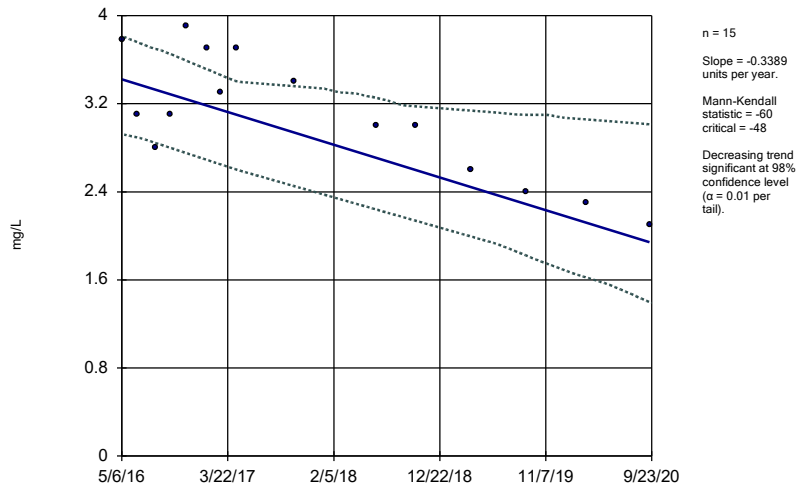
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-1



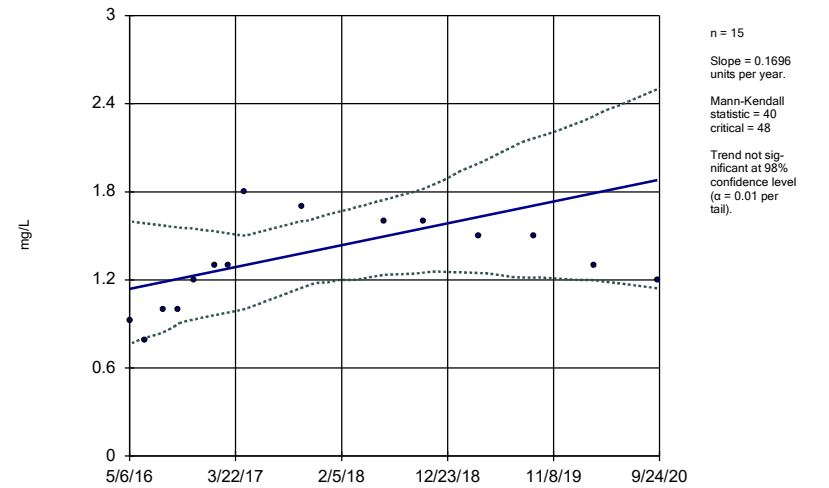
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-2



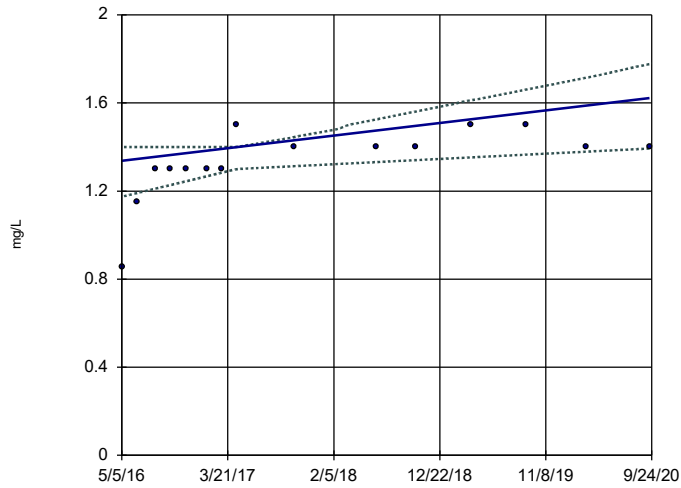
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-3



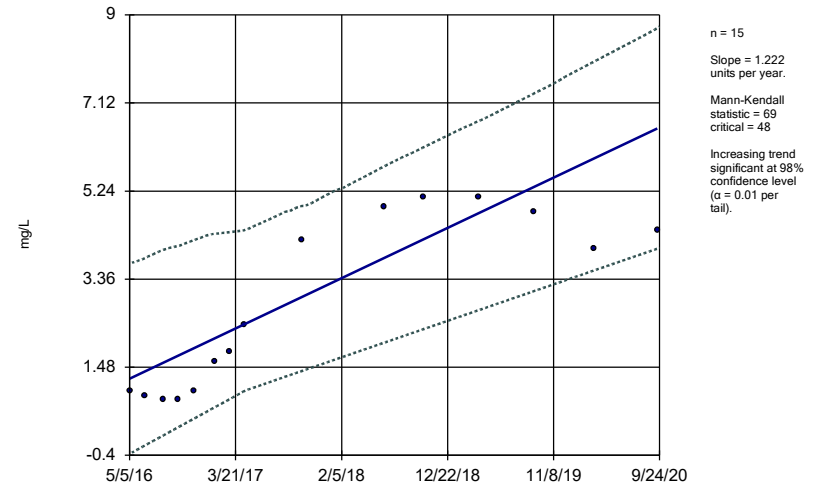
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-7



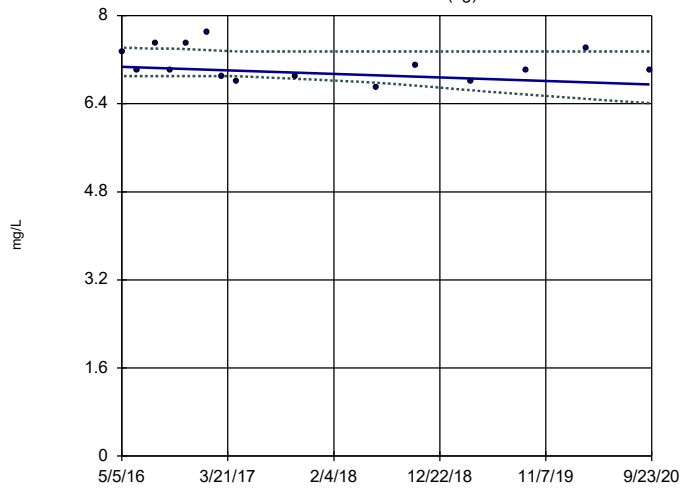
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-8



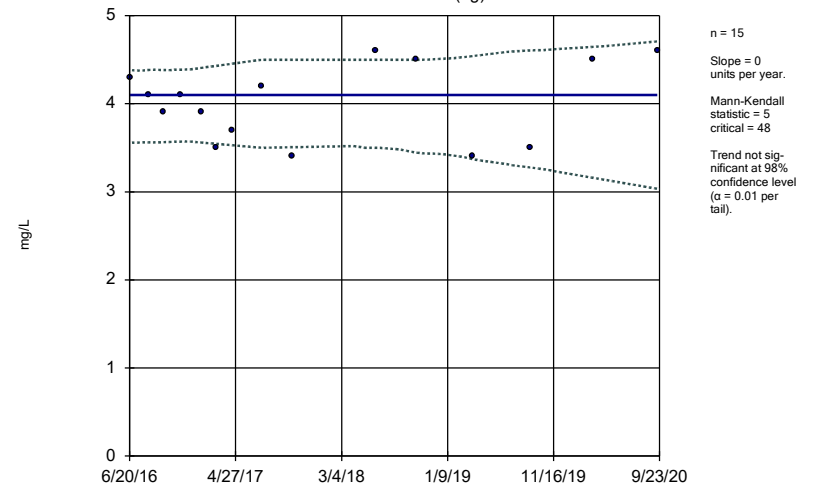
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-10 (bg)



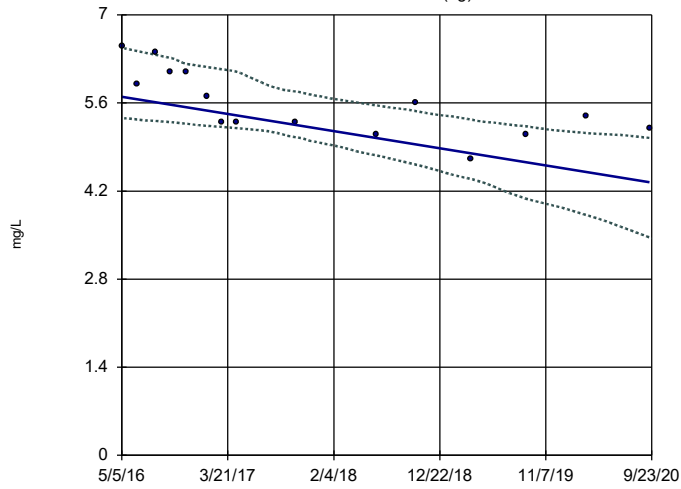
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-11 (bg)



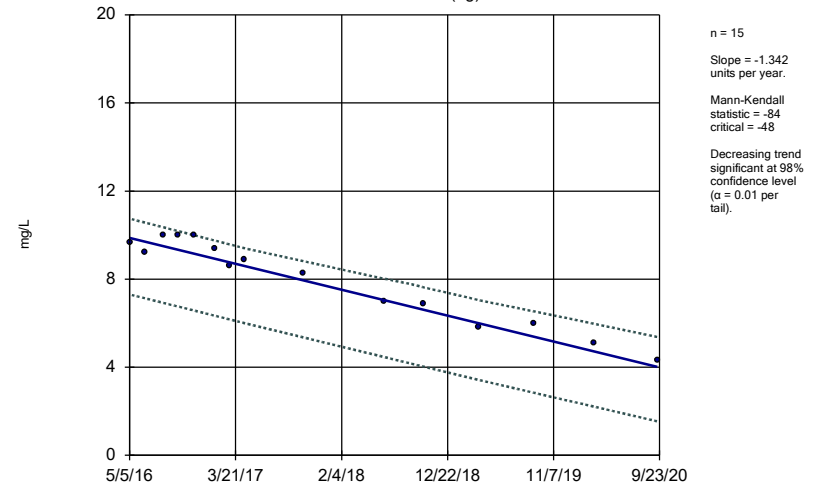
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-5 (bg)



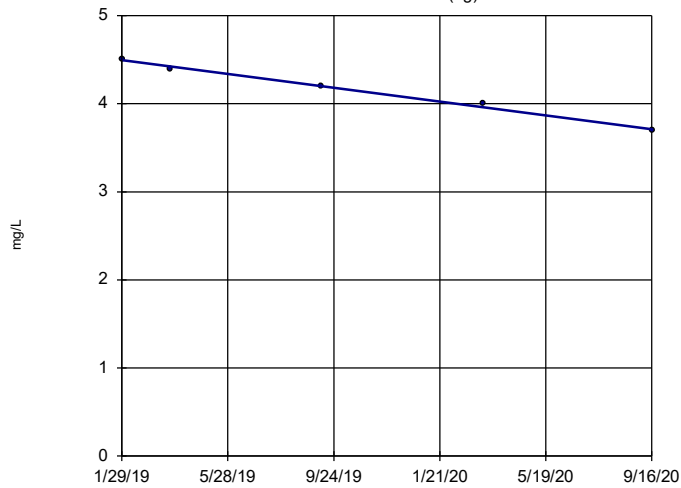
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-6 (bg)



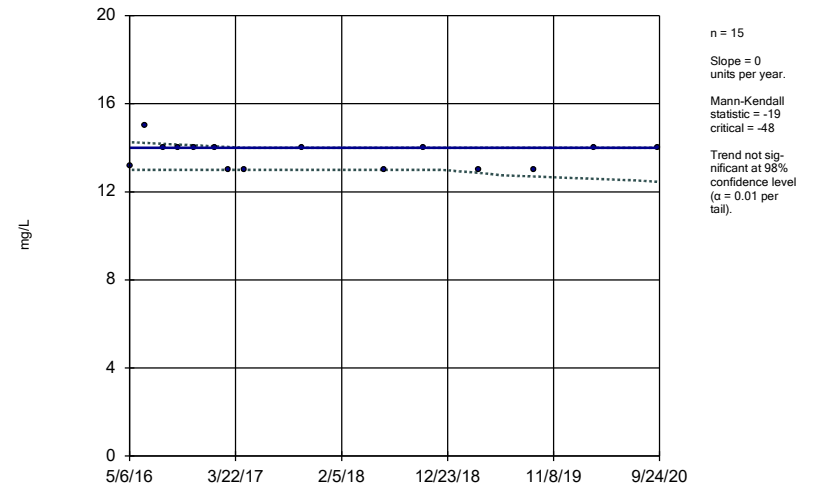
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)



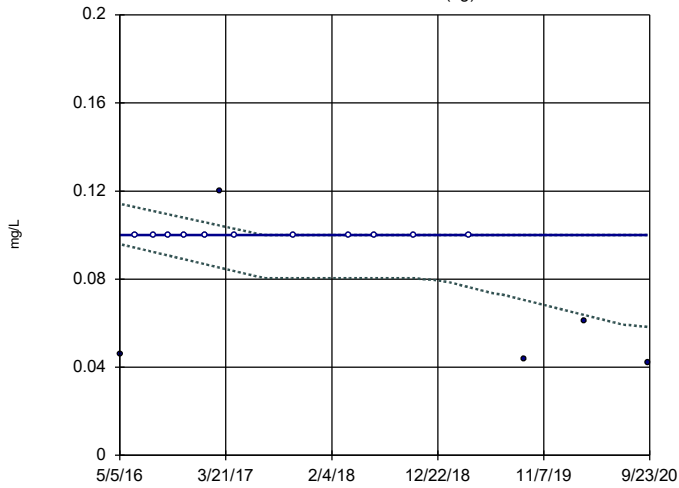
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-1



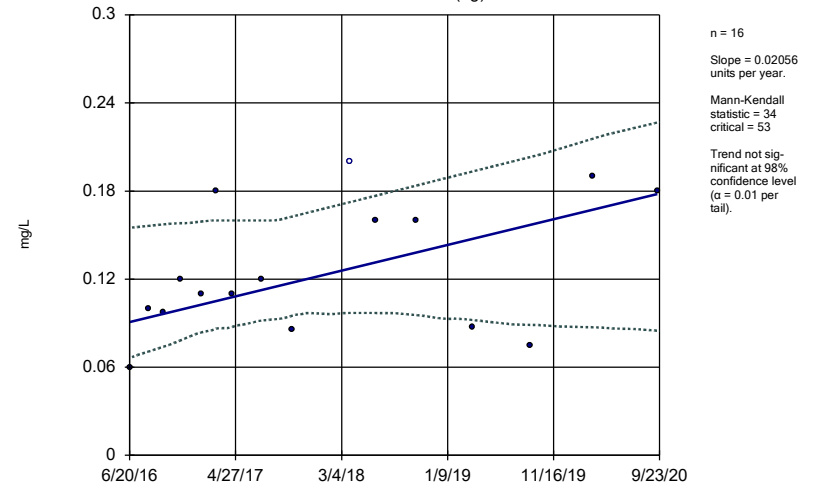
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-10 (bg)



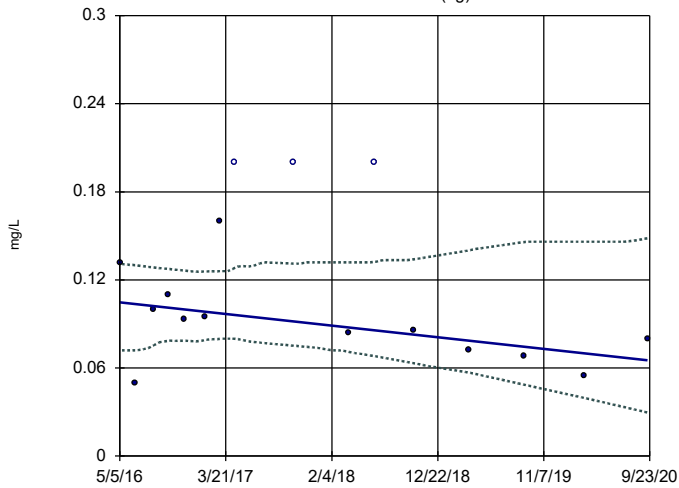
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-11 (bg)



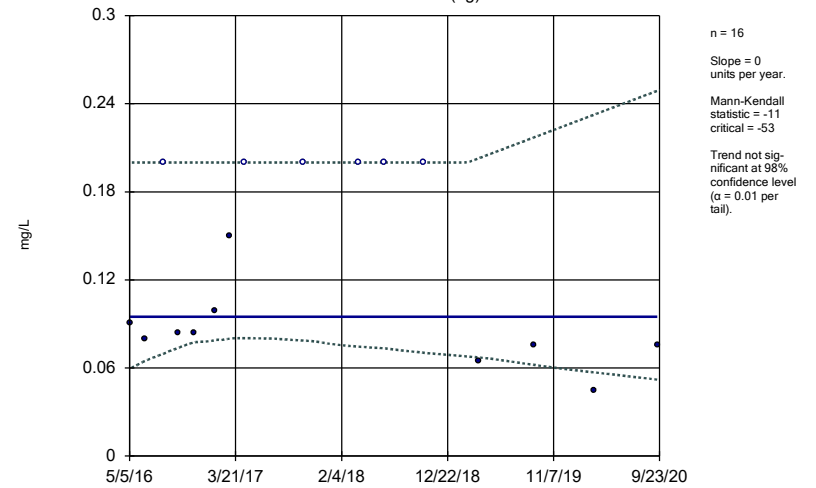
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-5 (bg)



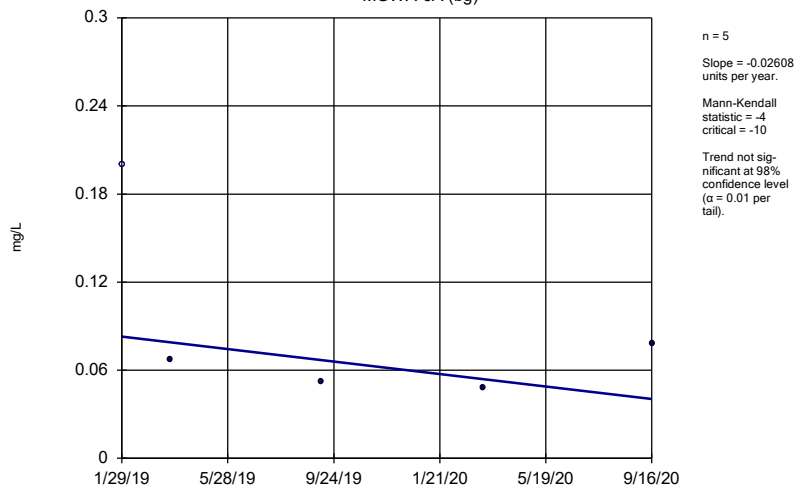
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWA-6 (bg)



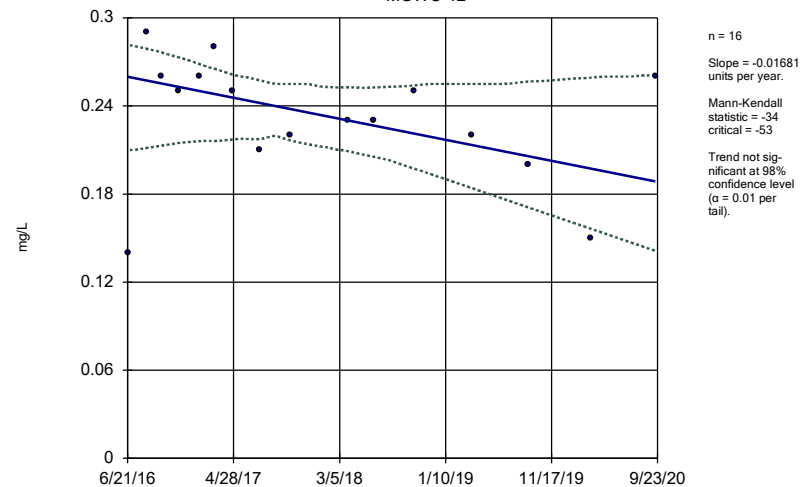
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)

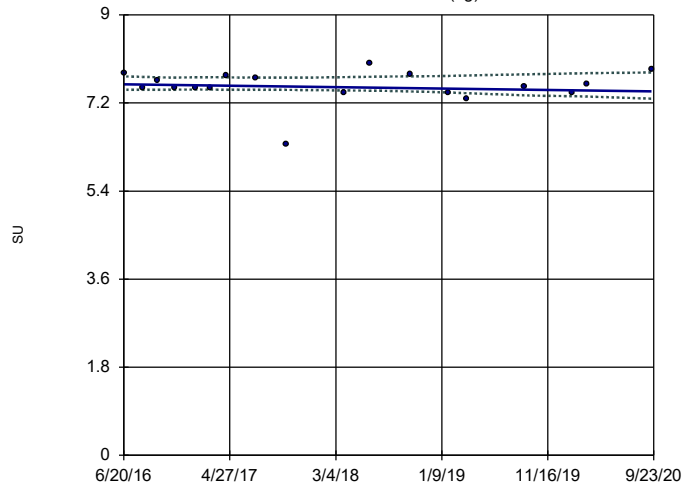


Constituent: Fluoride Analysis Run 11/18/2020 2:06 PM View: All Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-12



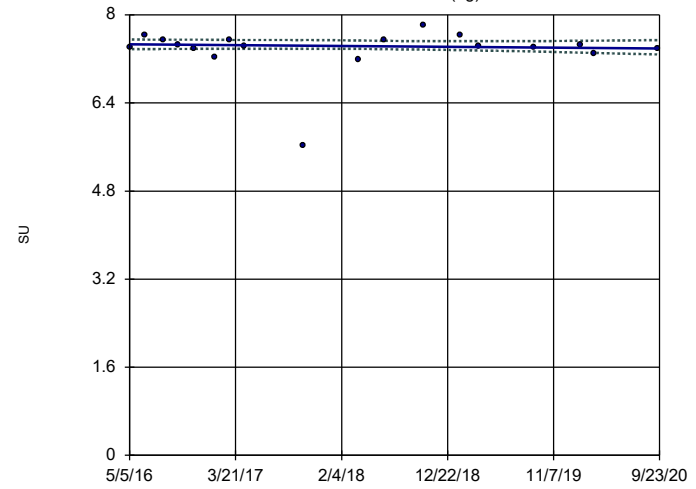
Sen's Slope and 95% Confidence Band
MGWA-11 (bg)



n = 18
 Slope = -0.03437
 units per year.
 Mann-Kendall
 statistic = -11
 critical = -63
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: pH Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

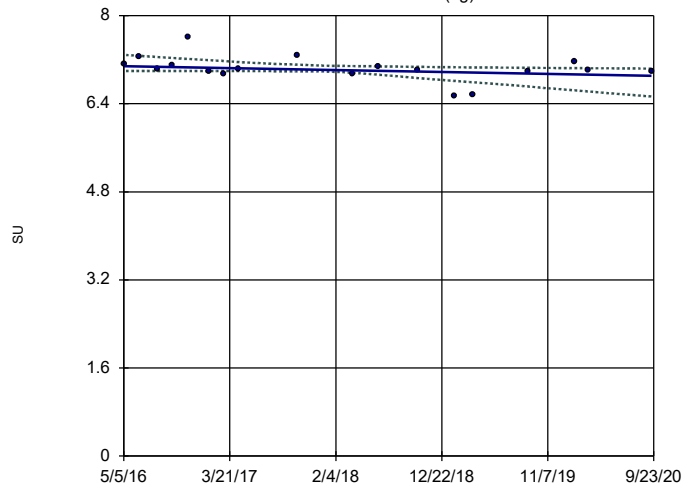
Sen's Slope and 95% Confidence Band
MGWA-5 (bg)



n = 18
 Slope = -0.01763
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -63
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: pH Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

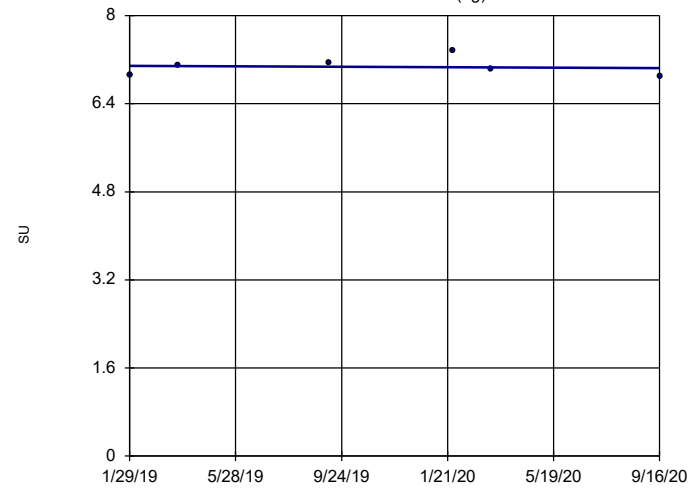
Sen's Slope and 95% Confidence Band
MGWA-6 (bg)



n = 18
 Slope = -0.03935
 units per year.
 Mann-Kendall
 statistic = -51
 critical = -63
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: pH Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)

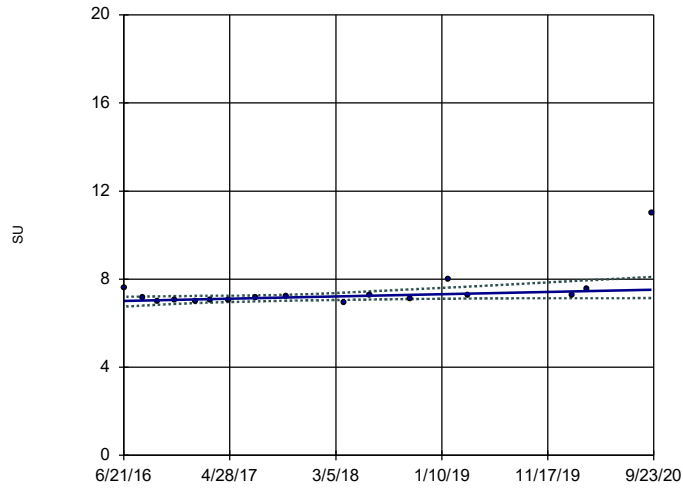


n = 6
 Slope = -0.0245
 units per year.
 Mann-Kendall
 statistic = -1
 critical = -13
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: pH Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWC-12

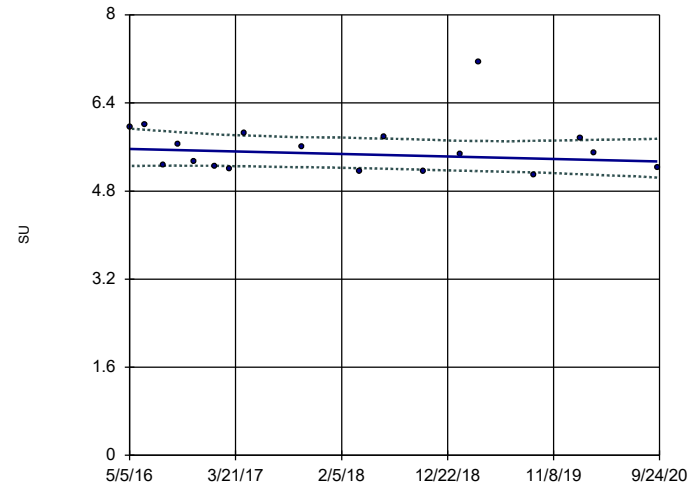


n = 17
 Slope = 0.1193
 units per year.
 Mann-Kendall
 statistic = 55
 critical = 58
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: pH Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWC-8

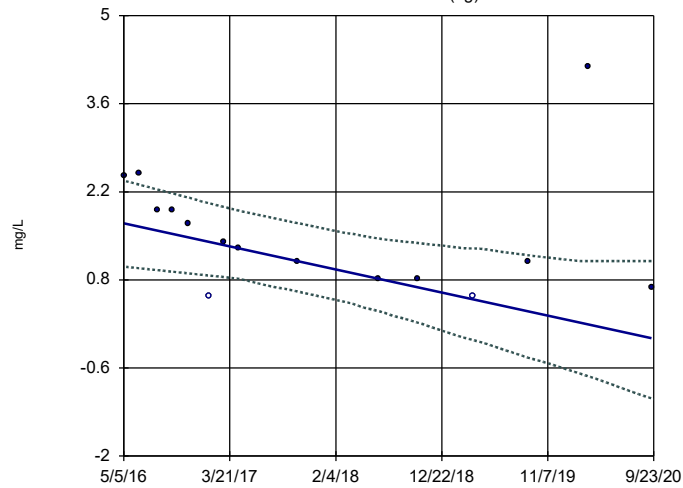


n = 18
 Slope = -0.0521
 units per year.
 Mann-Kendall
 statistic = -33
 critical = -63
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: pH Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWA-10 (bg)

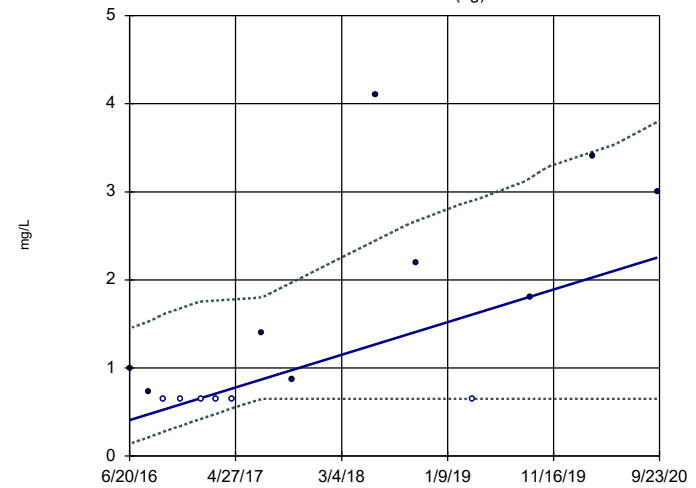


n = 15
 Slope = -0.4171
 units per year.
 Mann-Kendall
 statistic = -51
 critical = -48
 Decreasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

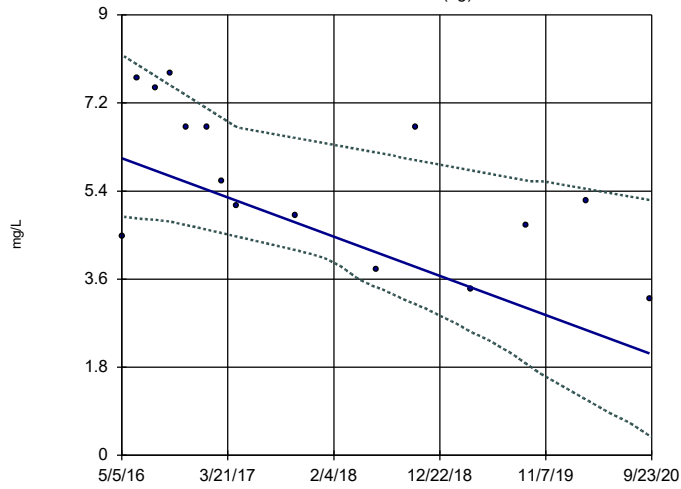
MGWA-11 (bg)



n = 15
 Slope = 0.4345
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

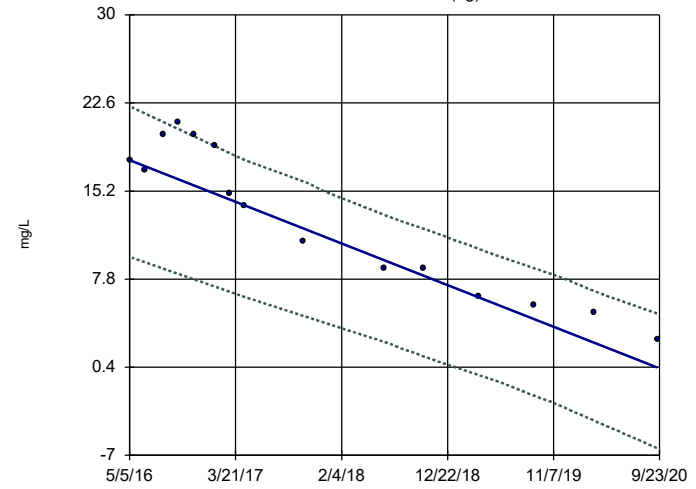
Sen's Slope and 95% Confidence Band
MGWA-5 (bg)



n = 15
 Slope = -0.9117
 units per year.
 Mann-Kendall
 statistic = -54
 critical = -48
 Decreasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

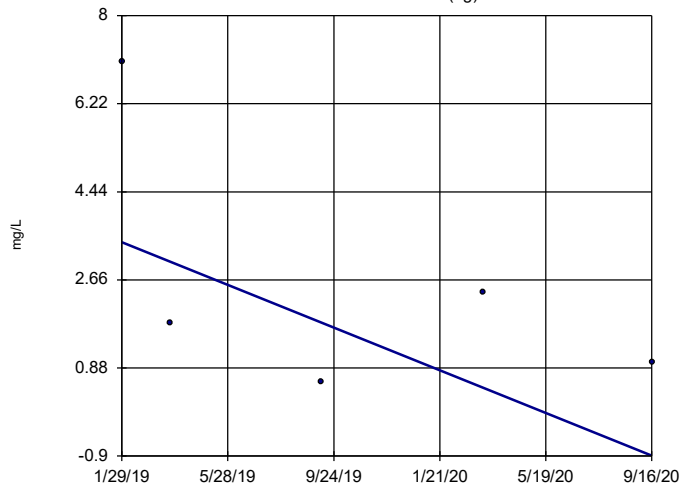
Sen's Slope and 95% Confidence Band
MGWA-6 (bg)



n = 15
 Slope = -3.986
 units per year.
 Mann-Kendall
 statistic = -85
 critical = -48
 Decreasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

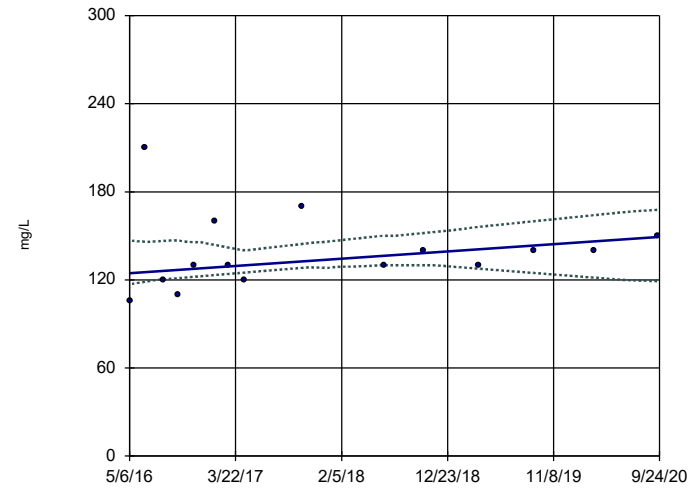
Sen's Slope Estimator
MGWA-6A (bg)



n = 5
 Slope = -2.641
 units per year.
 Mann-Kendall
 statistic = -4
 critical = -10
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-1

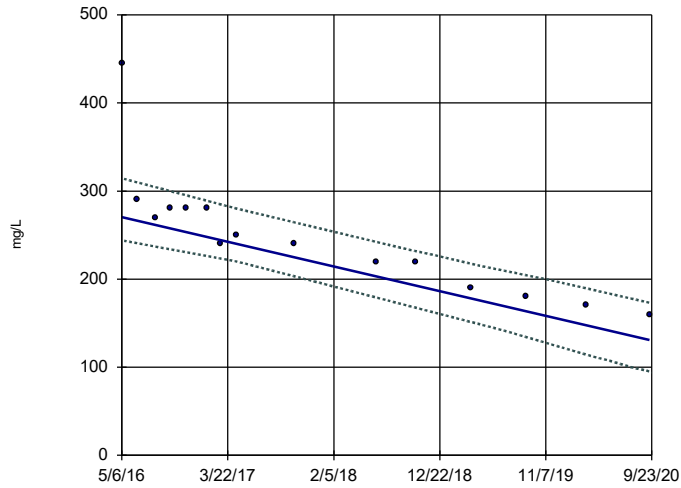


n = 15
 Slope = 5.637
 units per year.
 Mann-Kendall
 statistic = 33
 critical = 48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWC-2

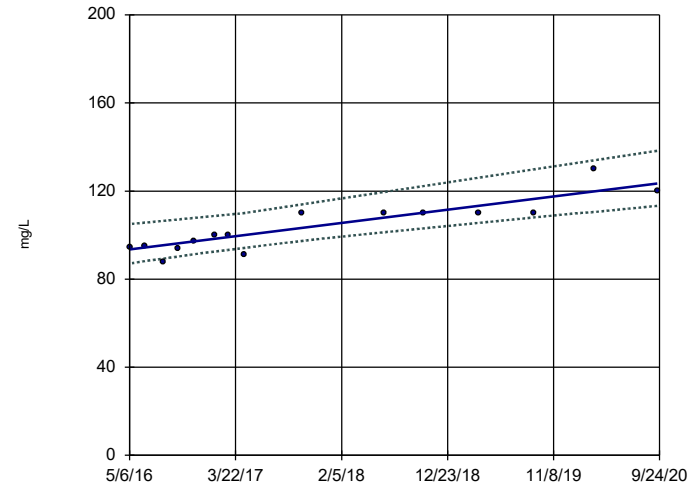


n = 15
 Slope = -31.92
 units per year.
 Mann-Kendall
 statistic = -92
 critical = -48
 Decreasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWC-3

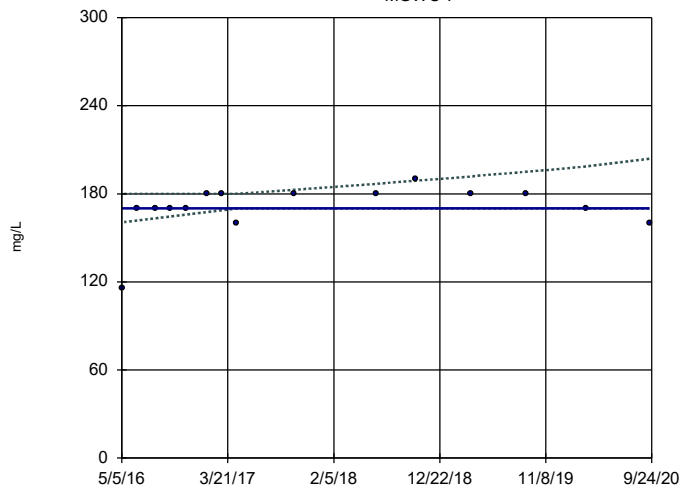


n = 15
 Slope = 6.847
 units per year.
 Mann-Kendall
 statistic = 72
 critical = 48
 Increasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWC-7

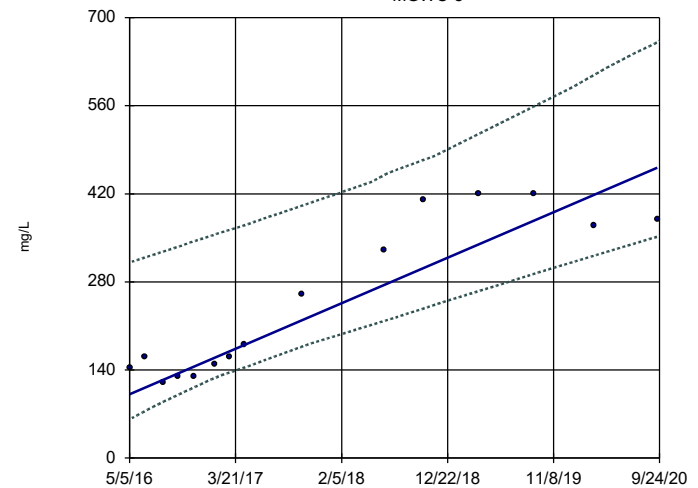


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 25
 critical = 48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

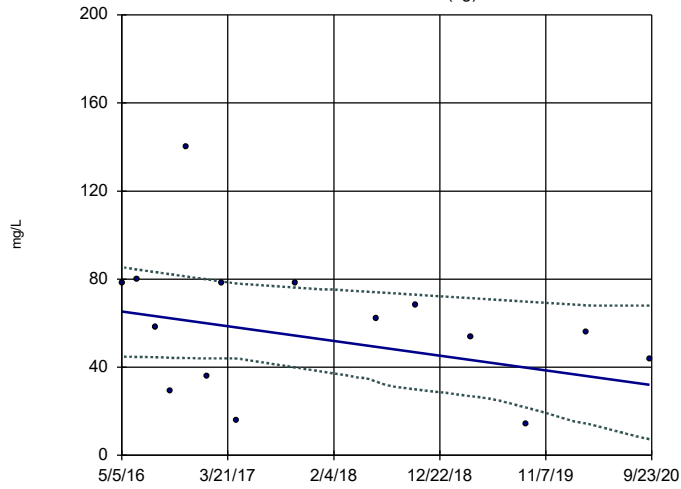
MGWC-8



n = 15
 Slope = 82.37
 units per year.
 Mann-Kendall
 statistic = 76
 critical = 48
 Increasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Sulfate Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

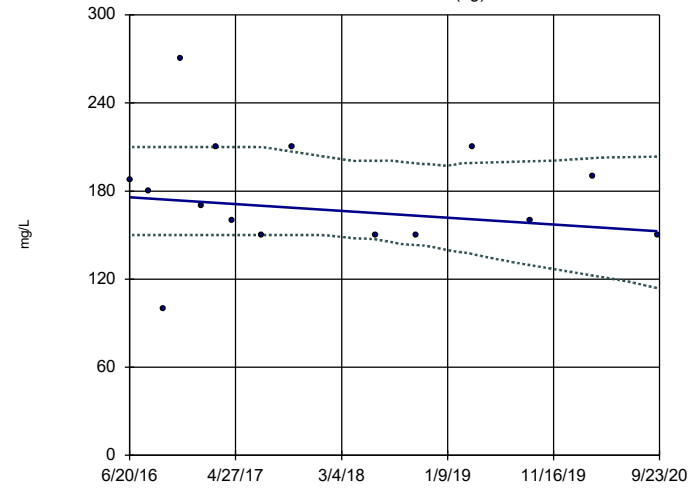
Sen's Slope and 95% Confidence Band
MGWA-10 (bg)



n = 15
 Slope = -7.604
 units per year.
 Mann-Kendall
 statistic = -34
 critical = -48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

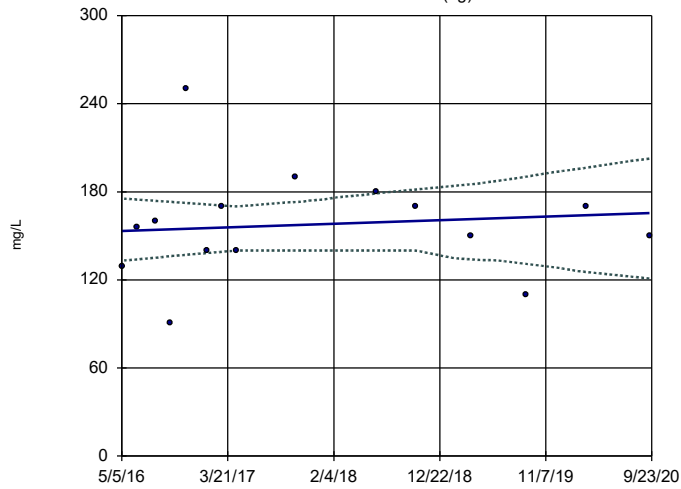
Sen's Slope and 95% Confidence Band
MGWA-11 (bg)



n = 15
 Slope = -5.456
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

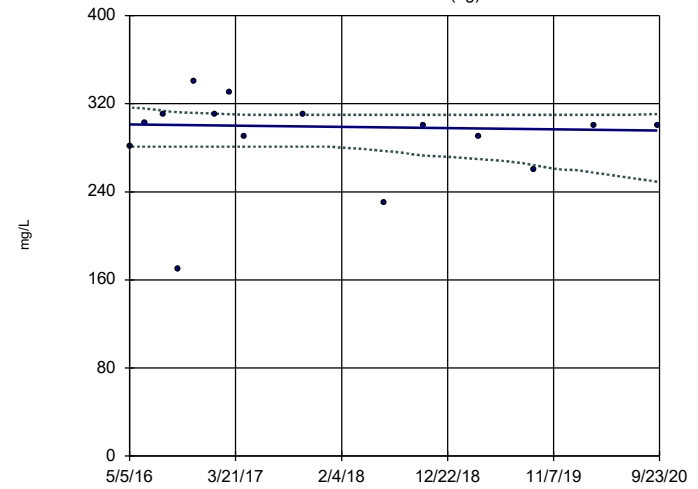
Sen's Slope and 95% Confidence Band
MGWA-5 (bg)



n = 15
 Slope = 2.801
 units per year.
 Mann-Kendall
 statistic = 8
 critical = 48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

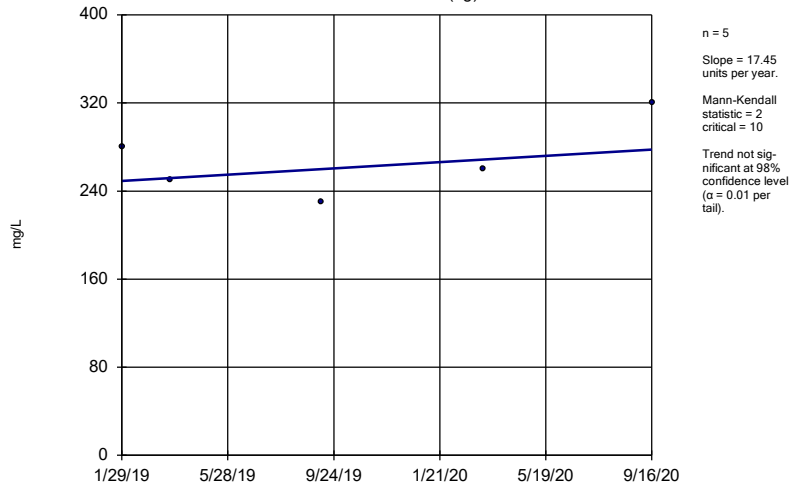
Sen's Slope and 95% Confidence Band
MGWA-6 (bg)



n = 15
 Slope = -1.302
 units per year.
 Mann-Kendall
 statistic = -12
 critical = -48
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

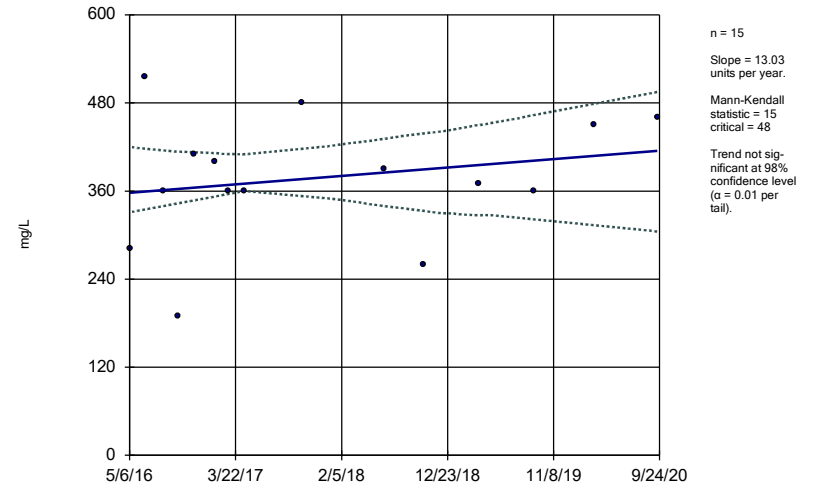
Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator
MGWA-6A (bg)



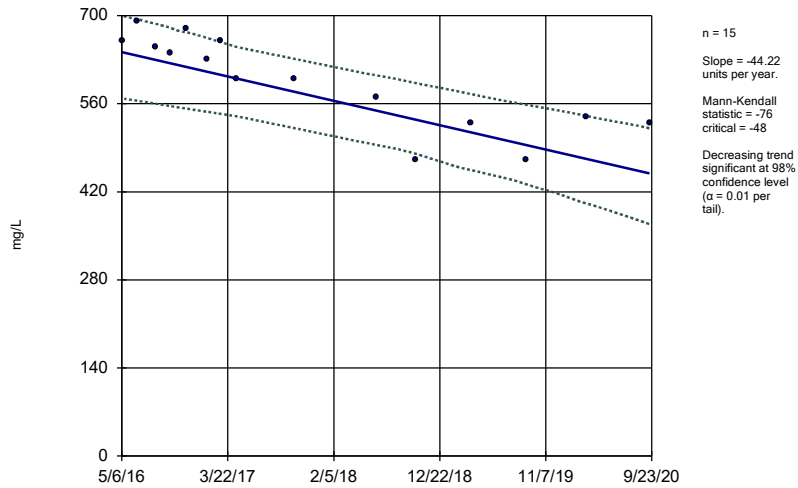
Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-1



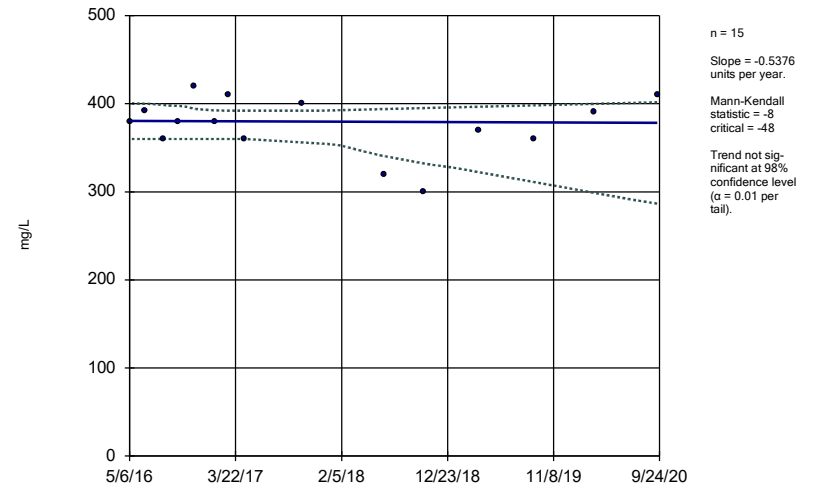
Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band
MGWC-2



Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

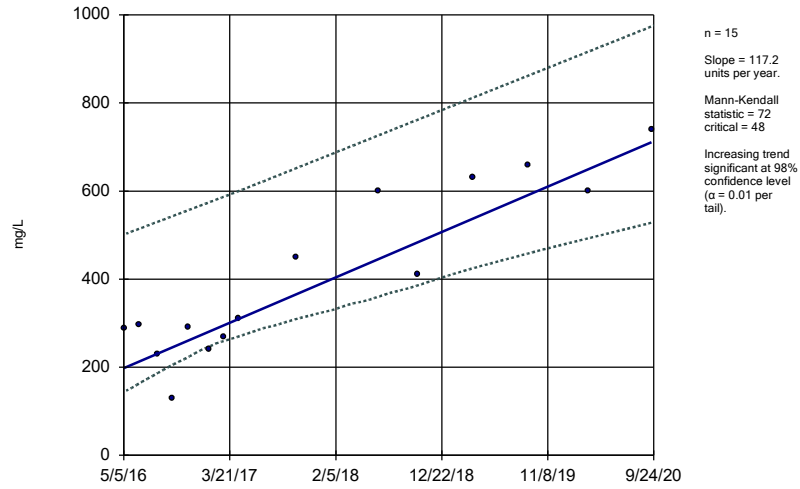
Sen's Slope and 95% Confidence Band
MGWC-3



Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope and 95% Confidence Band

MGWC-8



Constituent: TDS Analysis Run 11/18/2020 2:06 PM View: All Exceedances
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 1/27/2021, 11:08 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</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)	0.002	n/a	n/a	56	n/a	n/a	89.29	n/a	n/a	0.05656	NP Inter(NDs)
Arsenic (mg/L)	0.0352	n/a	n/a	74	n/a	n/a	35.14	n/a	n/a	0.02247	NP Inter(normality)
Barium (mg/L)	0.13	n/a	n/a	74	n/a	n/a	0	n/a	n/a	0.02247	NP Inter(normality)
Beryllium (mg/L)	0.0025	n/a	n/a	64	n/a	n/a	93.75	n/a	n/a	0.03752	NP Inter(NDs)
Cadmium (mg/L)	0.0025	n/a	n/a	74	n/a	n/a	98.65	n/a	n/a	0.02247	NP Inter(NDs)
Chromium (mg/L)	0.0063	n/a	n/a	64	n/a	n/a	68.75	n/a	n/a	0.03752	NP Inter(NDs)
Cobalt (mg/L)	0.0025	n/a	n/a	74	n/a	n/a	75.68	n/a	n/a	0.02247	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.137	n/a	n/a	74	0.544	0.3002	0	None	No	0.05	Inter
Fluoride (mg/L)	0.19	n/a	n/a	69	n/a	n/a	31.88	n/a	n/a	0.02904	NP Inter(normality)
Lead (mg/L)	0.001	n/a	n/a	56	n/a	n/a	94.64	n/a	n/a	0.05656	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	74	n/a	n/a	28.38	n/a	n/a	0.02247	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	64	n/a	n/a	95.31	n/a	n/a	0.03752	NP Inter(NDs)
Molybdenum (mg/L)	0.015	n/a	n/a	64	n/a	n/a	65.63	n/a	n/a	0.03752	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	54	n/a	n/a	88.89	n/a	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	64	n/a	n/a	84.38	n/a	n/a	0.03752	NP Inter(NDs)

FIGURE G.

PLANT MCINTOSH AP 1 GWPS - STATE				
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		0.035	0.035
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	0.0025
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	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
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 Residual*

FIGURE H.

PLANT MCINTOSH AP 1 GWPS - FEDERAL				
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		0.035	0.035
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 Residual*

FIGURE I.

State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:20 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. 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>
Cobalt (mg/L)	MGWC-2	0.003461	0.002837	0.0025	Yes 17	0.003149	0.000498	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.0025	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.004	0.0025	Yes 17	0.01196	0.007827	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)

State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:20 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 13	0.001877	0.0004438	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No 13	0.001869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No 13	0.001998	0.00008321	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002963	0.002141	0.035	No 17	0.002585	0.0007267	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001118	0.0006332	0.035	No 17	0.0009829	0.0003988	23.53	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No 17	0.0008876	0.0002208	76.47	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001663	0.001328	0.035	No 17	0.001472	0.0003189	5.882	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0009323	0.0005711	0.035	No 17	0.0008871	0.0002599	41.18	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00059	0.035	No 17	0.0009188	0.0001821	82.35	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No 17	0.1072	0.01818	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06605	0.04759	2	No 17	0.05735	0.01551	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05548	0.04963	2	No 17	0.05255	0.004672	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1527	0.1371	2	No 17	0.1449	0.01244	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No 17	0.013	0.007453	5.882	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03746	0.03318	2	No 17	0.03532	0.003415	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No 15	0.002345	0.000599	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No 15	0.002354	0.0005655	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001724	0.0007306	0.004	No 15	0.001227	0.000733	13.33	None	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No 17	0.002106	0.0008811	82.35	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.00336	0.001254	0.005	No 17	0.002485	0.001998	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No 17	0.002366	0.0005506	94.12	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No 17	0.001307	0.0009285	35.29	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No 15	0.002107	0.0004131	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No 15	0.00388	0.006956	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No 15	0.002087	0.0003357	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No 15	0.002067	0.0002582	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No 15	0.00206	0.0003924	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No 15	0.002073	0.000284	93.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.0025	No 17	0.001673	0.00104	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.0025	No 17	0.002304	0.0006031	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003461	0.002837	0.0025	Yes 17	0.003149	0.000498	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.0025	No 17	0.0009147	0.00076	17.65	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.0025	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.004	0.0025	Yes 17	0.01196	0.007827	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.521	1.147	5	No 17	1.354	0.3252	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.7416	0.3945	5	No 17	0.5681	0.277	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7688	0.4345	5	No 17	0.6017	0.2667	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.636	1.276	5	No 17	1.456	0.2871	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.308	0.8924	5	No 17	1.1	0.3315	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.981	1.433	5	No 17	1.707	0.4374	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2506	0.1549	4	No 16	0.2028	0.07361	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2583	0.2042	4	No 16	0.2313	0.04161	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No 16	0.142	0.0619	43.75	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No 16	0.1379	0.06368	37.5	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3579	0.2226	4	No 16	0.2903	0.1039	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No 16	0.1236	0.04354	18.75	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No 13	0.0009308	0.0002496	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No 13	0.0009462	0.0001941	92.31	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01269	0.01021	0.03	No 17	0.01145	0.001978	5.882	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.0222	0.01526	0.03	No 17	0.01873	0.005533	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.03	No 17	0.006028	0.001953	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01357	0.01105	0.03	No 17	0.01231	0.002012	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04007	0.02829	0.03	No 17	0.03418	0.0094	0	None	No	0.01	Param.

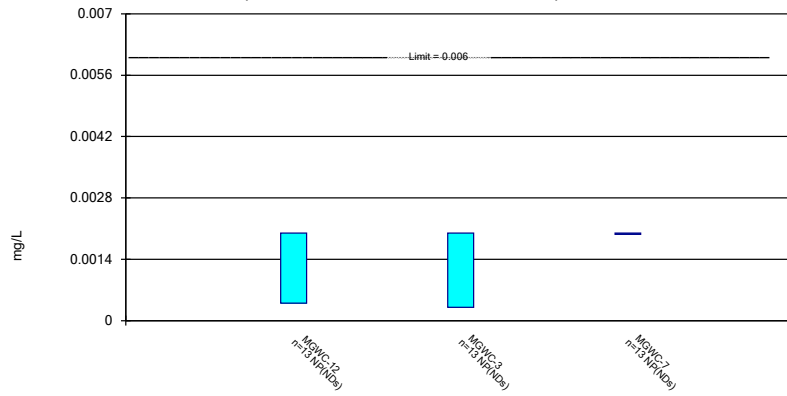
State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:20 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	15	0.000184	0.00004228	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	15	0.0001852	0.00003928	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	15	0.000192	0.00003098	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	15	0.0002051	0.0001534	40	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.015	No	15	0.005111	0.006182	26.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.015	No	15	0.01147	0.00607	73.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	15	0.01423	0.002967	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	15	0.01425	0.002918	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-1	0.005	0.0005	0.05	No	13	0.004654	0.001248	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-12	0.005	0.00027	0.05	No	13	0.004636	0.001312	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-2	0.005	0.00045	0.05	No	13	0.00465	0.001262	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-3	0.005	0.00044	0.05	No	13	0.004649	0.001265	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-7	0.005	0.00026	0.05	No	13	0.004635	0.001315	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-8	0.005	0.00033	0.05	No	13	0.003722	0.002062	69.23	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	15	0.0007203	0.0004124	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	15	0.0008947	0.0002789	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	15	0.0009473	0.000204	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	15	0.000902	0.0002616	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0003938	0.0001514	0.002	No	15	0.0003193	0.0002892	13.33	None	ln(x)	0.01	Param.

Non-Parametric Confidence Interval

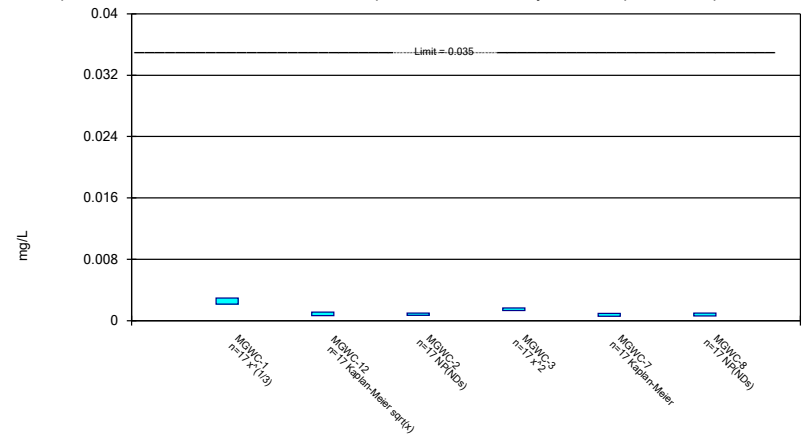
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

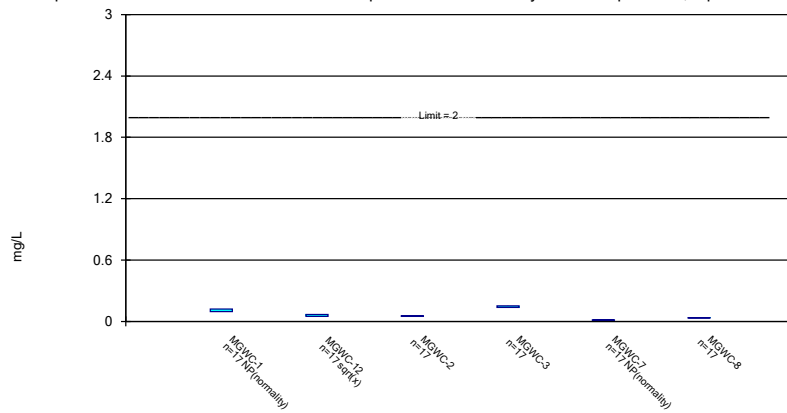
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

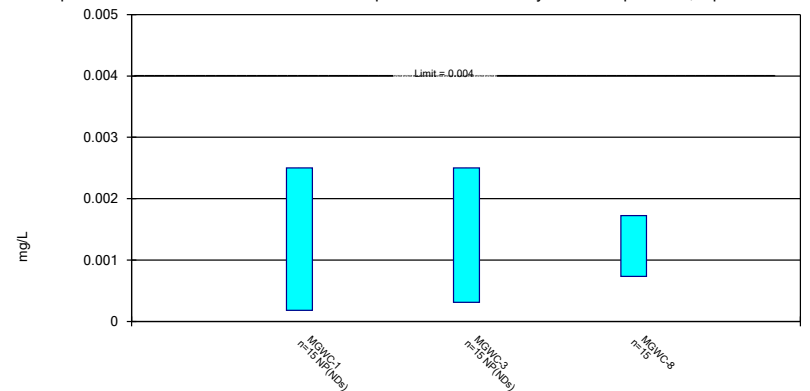
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

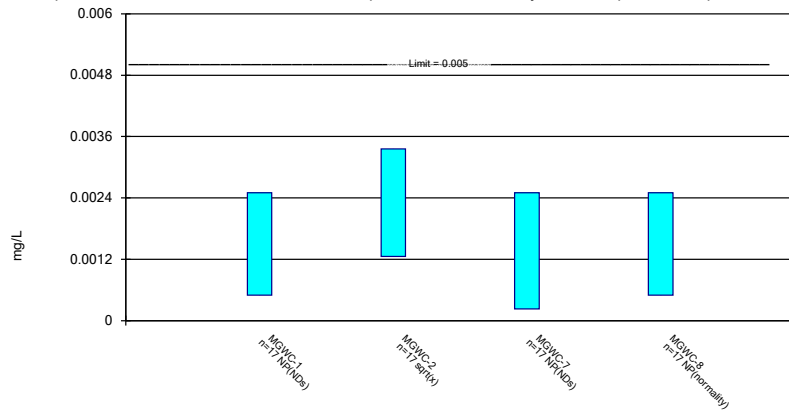
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

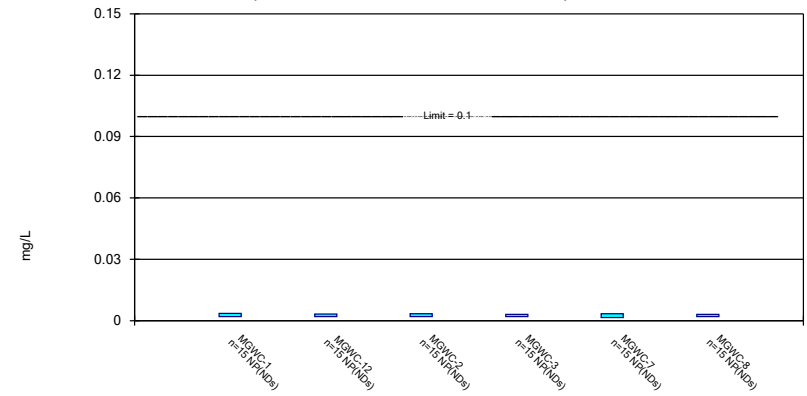
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/27/2021 11:19 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

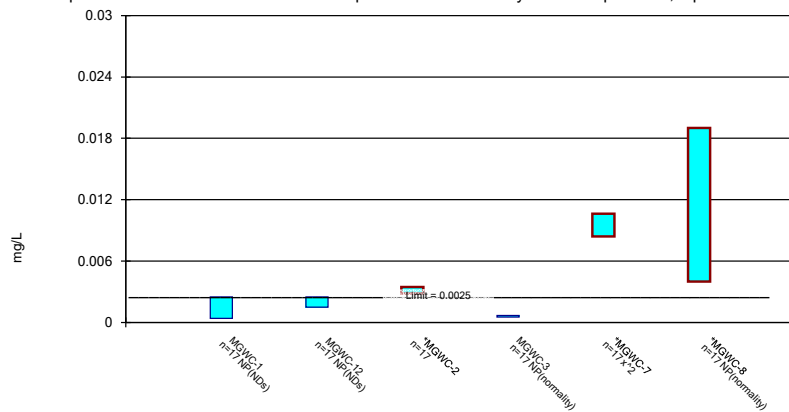
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 1/27/2021 11:19 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

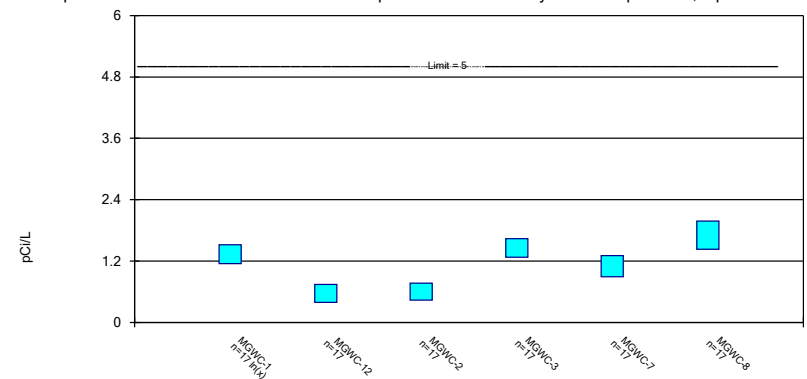
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/27/2021 11:19 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric Confidence Interval

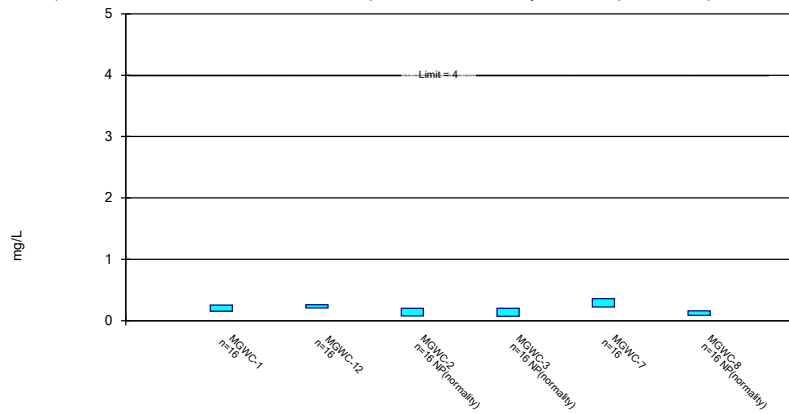
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 11:19 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

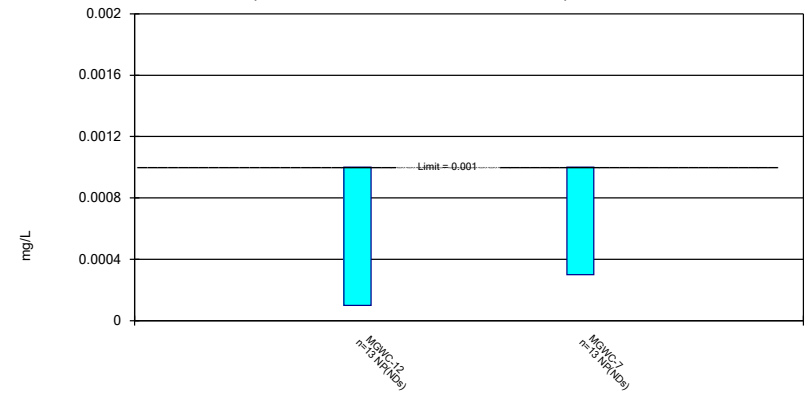
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

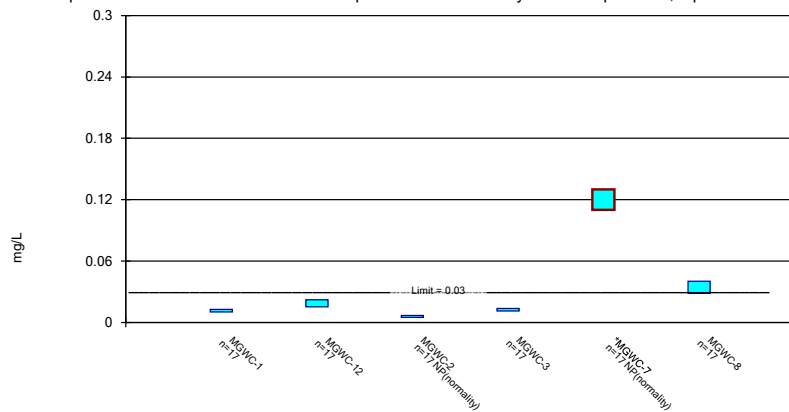
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

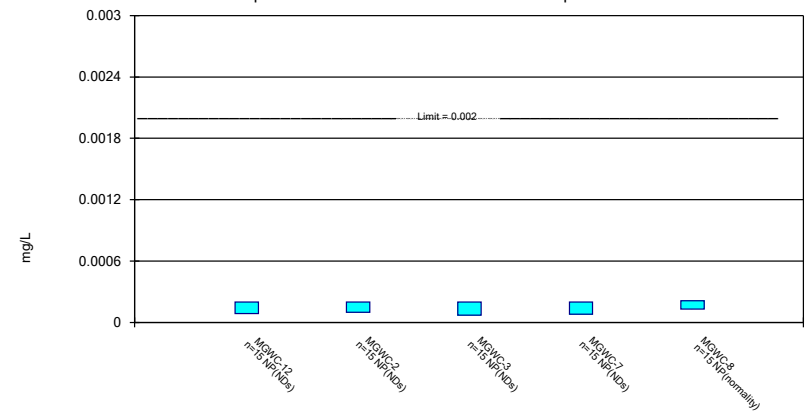
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

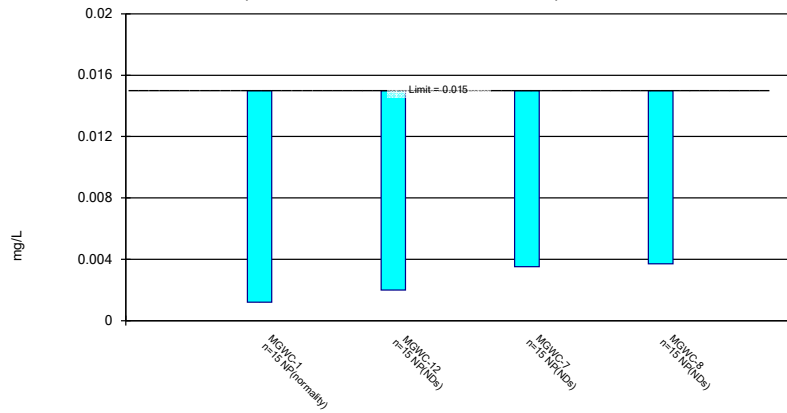
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

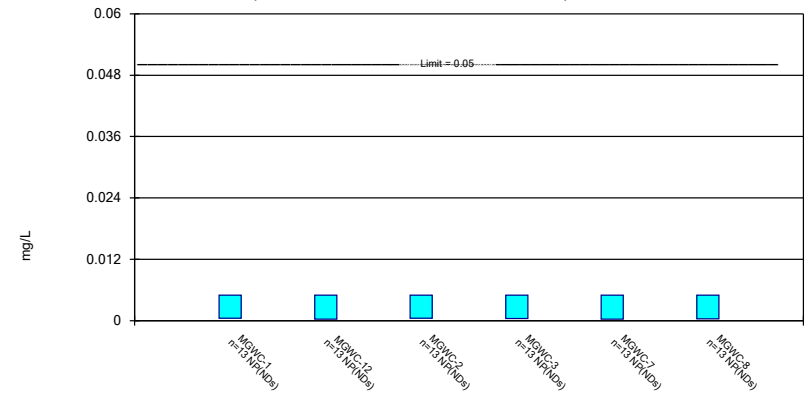
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

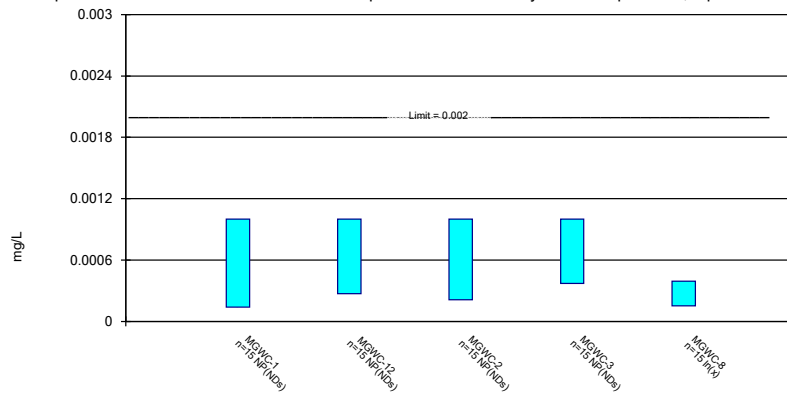
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 1/27/2021 11:19 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 1/27/2021 11:19 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE J.

Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:23 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. 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>
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.006	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)

Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:23 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 13	0.001877	0.0004438	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No 13	0.001869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No 13	0.001998	0.00008321	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002963	0.002141	0.035	No 17	0.002585	0.0007267	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001118	0.0006332	0.035	No 17	0.0009829	0.0003988	23.53	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No 17	0.0008876	0.0002208	76.47	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001663	0.001328	0.035	No 17	0.001472	0.0003189	5.882	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0009323	0.0005711	0.035	No 17	0.0008871	0.0002599	41.18	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00059	0.035	No 17	0.0009188	0.0001821	82.35	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No 17	0.1072	0.01818	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06605	0.04759	2	No 17	0.05735	0.01551	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05548	0.04963	2	No 17	0.05255	0.004672	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-3	0.1527	0.1371	2	No 17	0.1449	0.01244	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.015	0.0098	2	No 17	0.013	0.007453	5.882	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03746	0.03318	2	No 17	0.03532	0.003415	0	None	No	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No 15	0.002345	0.000599	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No 15	0.002354	0.0005655	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001724	0.0007306	0.004	No 15	0.001227	0.000733	13.33	None	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No 17	0.002106	0.0008811	82.35	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.00336	0.001254	0.005	No 17	0.002485	0.001998	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No 17	0.002366	0.0005506	94.12	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No 17	0.001307	0.0009285	35.29	None	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No 15	0.002107	0.0004131	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No 15	0.00388	0.006956	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No 15	0.002087	0.0003357	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No 15	0.002067	0.0002582	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No 15	0.00206	0.0003924	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No 15	0.002073	0.000284	93.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No 17	0.001673	0.00104	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No 17	0.002304	0.0006031	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003461	0.002837	0.006	No 17	0.003149	0.000498	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.006	No 17	0.0009147	0.00076	17.65	None	No	0.01	NP (normality)
Cobalt (mg/L)	MGWC-7	0.01064	0.00842	0.006	Yes 17	0.0094	0.001972	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.004	0.006	No 17	0.01196	0.007827	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.521	1.147	5	No 17	1.354	0.3252	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.7416	0.3945	5	No 17	0.5681	0.277	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7688	0.4345	5	No 17	0.6017	0.2667	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.636	1.276	5	No 17	1.456	0.2871	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.308	0.8924	5	No 17	1.1	0.3315	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.981	1.433	5	No 17	1.707	0.4374	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2506	0.1549	4	No 16	0.2028	0.07361	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2583	0.2042	4	No 16	0.2313	0.04161	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No 16	0.142	0.0619	43.75	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.073	4	No 16	0.1379	0.06368	37.5	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3579	0.2226	4	No 16	0.2903	0.1039	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No 16	0.1236	0.04354	18.75	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No 13	0.0009308	0.0002496	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No 13	0.0009462	0.0001941	92.31	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01269	0.01021	0.04	No 17	0.01145	0.001978	5.882	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.0222	0.01526	0.04	No 17	0.01873	0.005533	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.04	No 17	0.006028	0.001953	5.882	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01357	0.01105	0.04	No 17	0.01231	0.002012	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 17	0.1202	0.0217	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-8	0.04007	0.02829	0.04	No 17	0.03418	0.0094	0	None	No	0.01	Param.

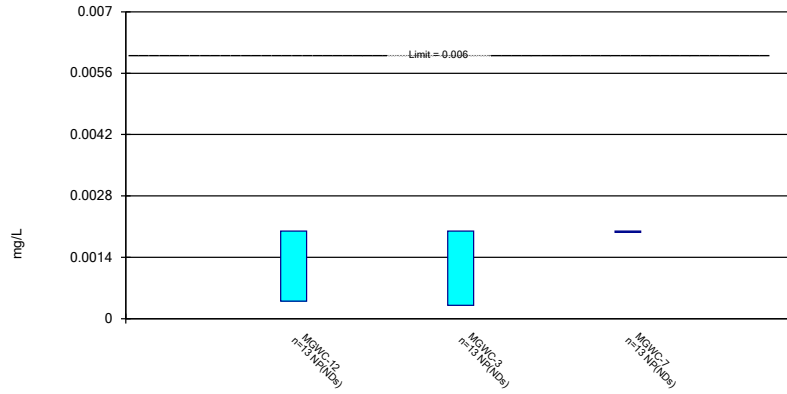
Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	15	0.000184	0.00004228	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	15	0.0001852	0.00003928	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	15	0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	15	0.000192	0.00003098	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	15	0.0002051	0.0001534	40	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.1	No	15	0.005111	0.006182	26.67	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No	15	0.01147	0.00607	73.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	15	0.01423	0.002967	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	15	0.01425	0.002918	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-1	0.005	0.0005	0.05	No	13	0.004654	0.001248	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-12	0.005	0.00027	0.05	No	13	0.004636	0.001312	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-2	0.005	0.00045	0.05	No	13	0.00465	0.001262	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-3	0.005	0.00044	0.05	No	13	0.004649	0.001265	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-7	0.005	0.00026	0.05	No	13	0.004635	0.001315	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	MGWC-8	0.005	0.00033	0.05	No	13	0.003722	0.002062	69.23	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	15	0.0007203	0.0004124	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	15	0.0008947	0.0002789	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	15	0.0009473	0.000204	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	15	0.000902	0.0002616	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0003938	0.0001514	0.002	No	15	0.0003193	0.0002892	13.33	None	ln(x)	0.01	Param.

Non-Parametric Confidence Interval

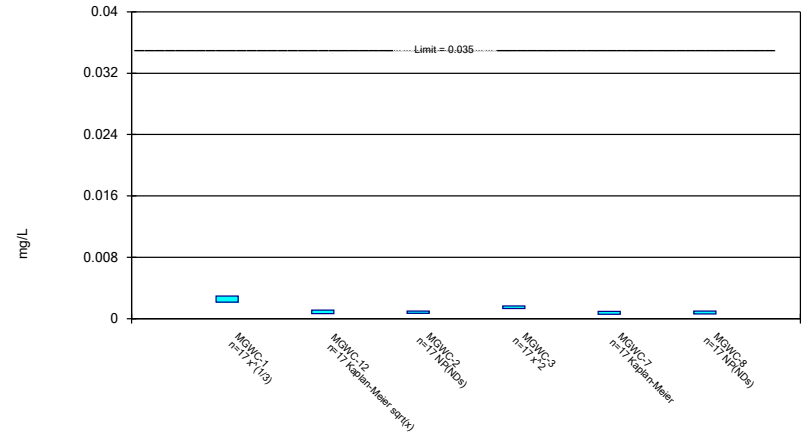
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

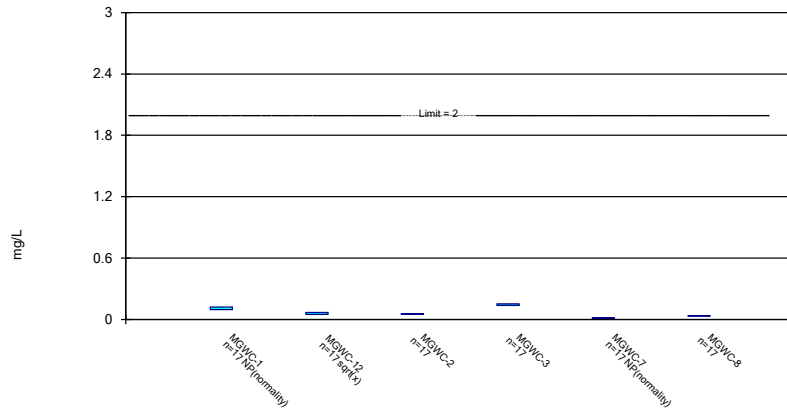
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

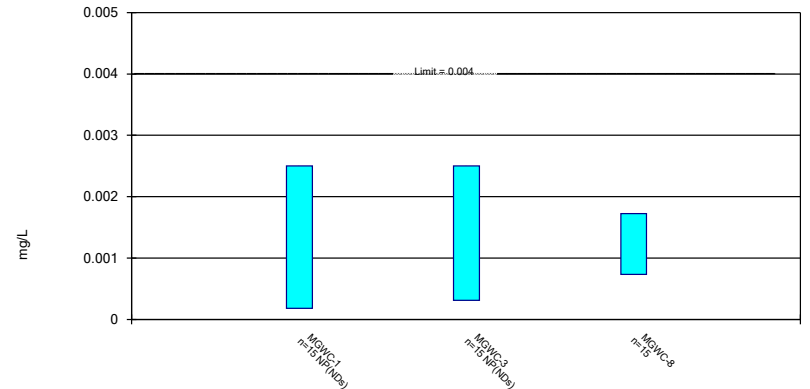
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

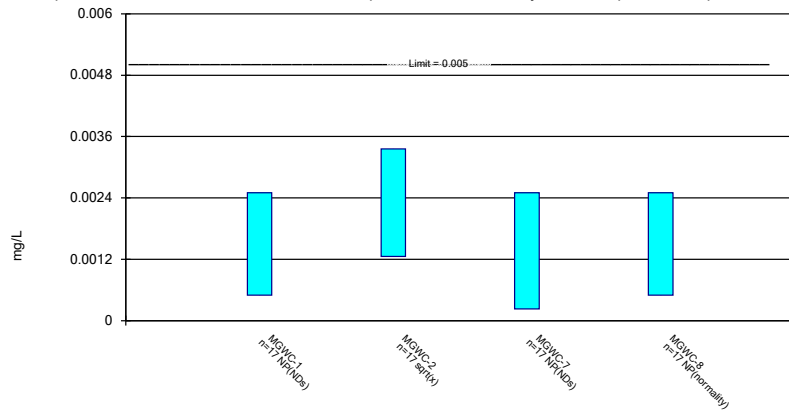
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

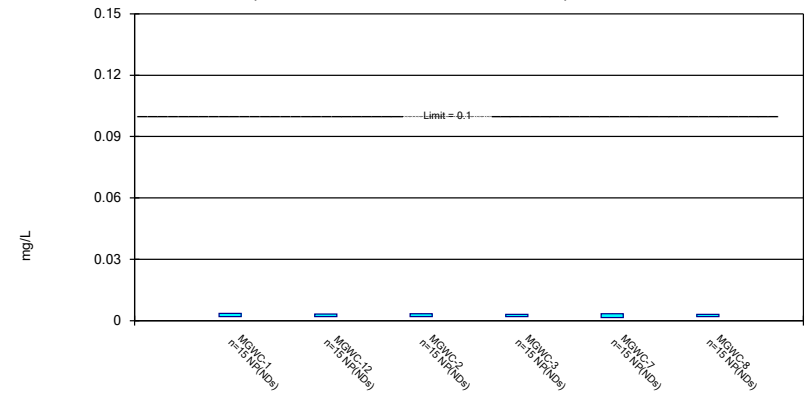
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/27/2021 11:22 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

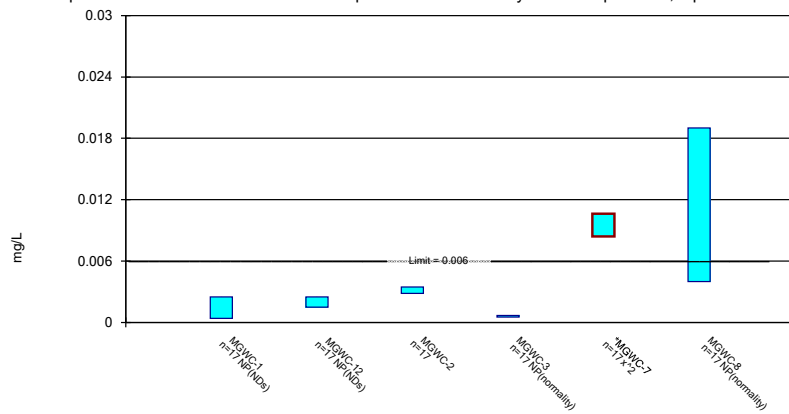
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 1/27/2021 11:22 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

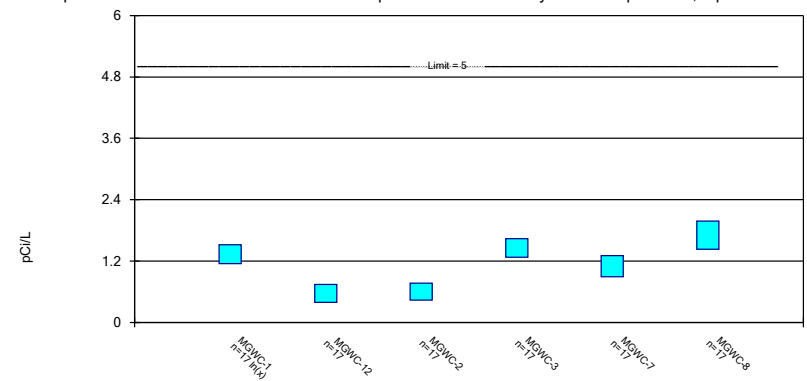
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/27/2021 11:22 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric Confidence Interval

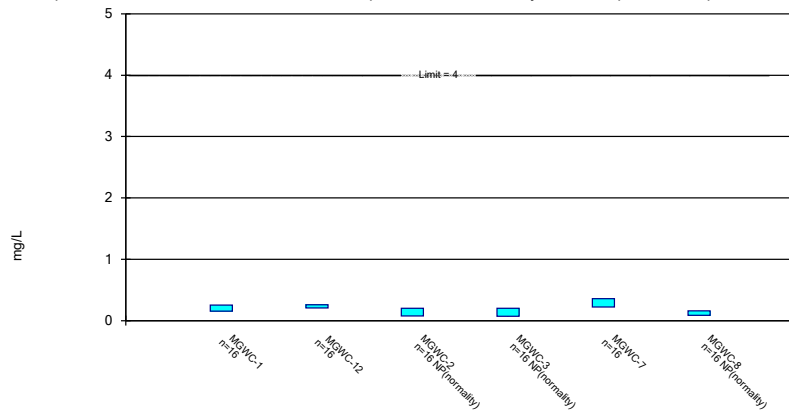
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 11:22 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

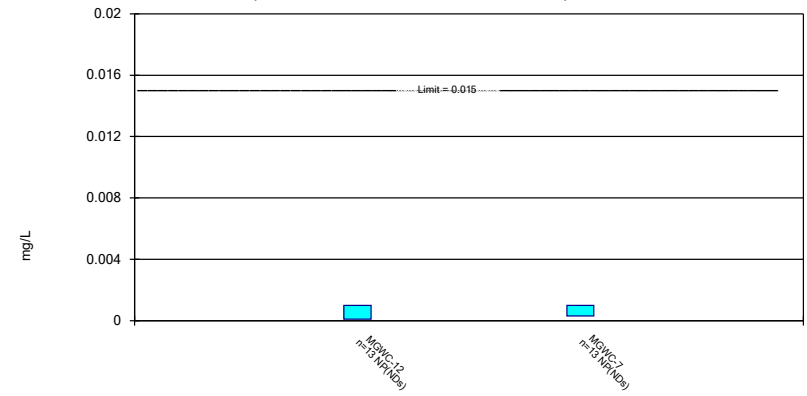
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

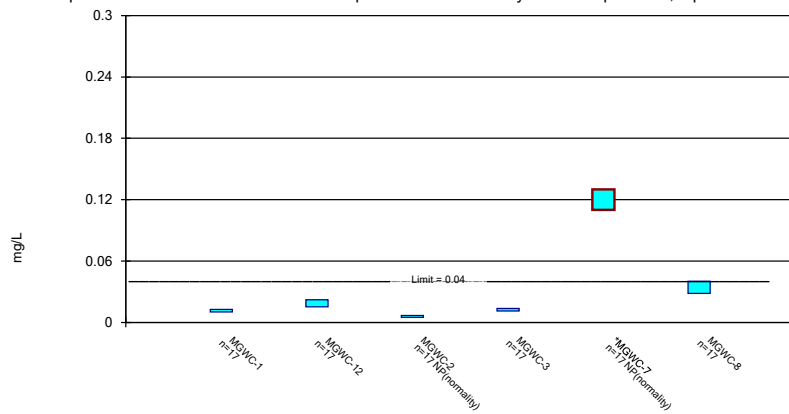
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

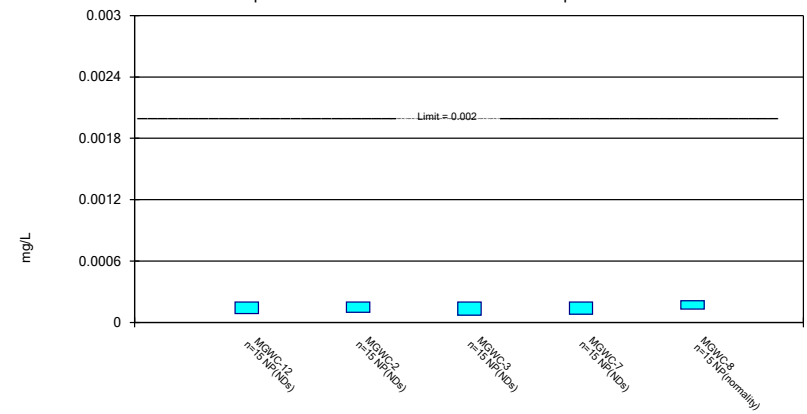
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

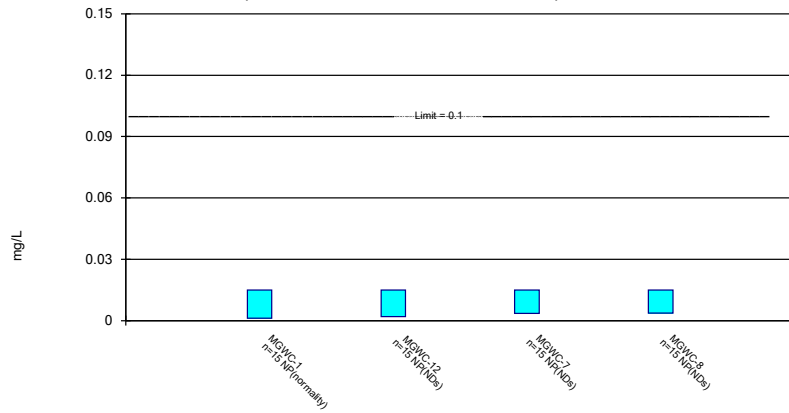
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 1/27/2021 11:22 AM View: Appendix IV
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

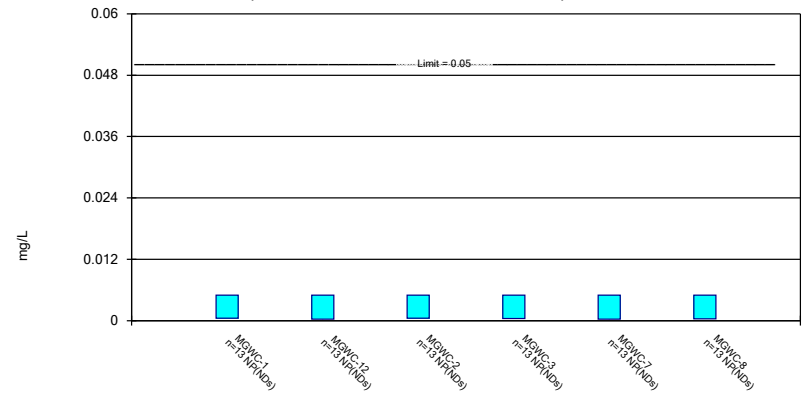
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 1/27/2021 11:22 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

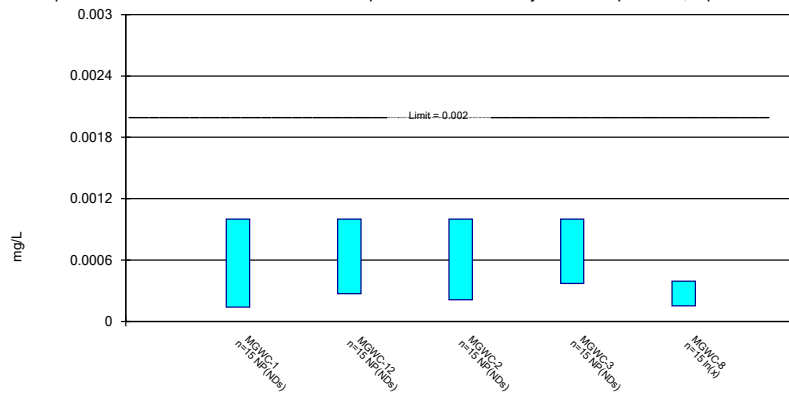
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 1/27/2021 11:22 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 1/27/2021 11:22 AM View: Appendix IV
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE K.

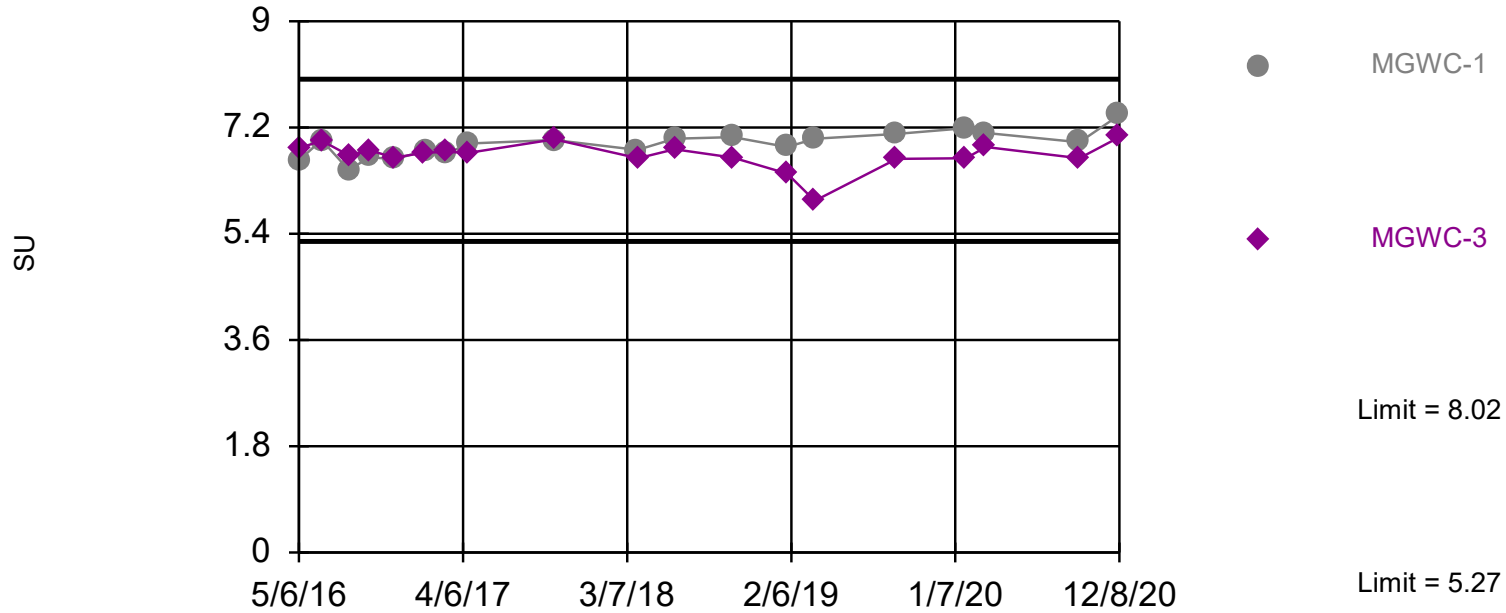
Interwell Prediction Limits - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 10:55 AM

<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>TransformAlpha</u>	<u>Method</u>
pH (SU)	MGWC-1	8.02	5.27	12/8/2020	7.41	No	79	n/a	n/a	0	n/a	n/a	0.0006153 NP Inter (normality) 1 of 2
pH (SU)	MGWC-3	8.02	5.27	12/8/2020	7.04	No	79	n/a	n/a	0	n/a	n/a	0.0006153 NP Inter (normality) 1 of 2

Within Limits

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 79 background values. Annual per-constituent alpha = 0.007372. Individual comparison alpha = 0.0006153 (1 of 2). Comparing 2 points to limit. Assumes 4 future values.

Constituent: pH Analysis Run 1/27/2021 10:54 AM View: Appendix III
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Prediction Limit

Constituent: pH (SU) Analysis Run 1/27/2021 10:55 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-3	MGWC-1	MGWA-11 (bg)	MGWA-6A (bg)
5/5/2016	5.94	7.13	7.4				
5/6/2016				6.85	6.64		
6/20/2016	5.84 (D)		7.63			7.82	
6/21/2016		7.25		6.98	6.99		
8/15/2016	5.65	7.04	7.54			7.52	
8/16/2016				6.73	6.48		
9/28/2016	5.72	7.09	7.45		6.7	7.66	
9/29/2016				6.81			
11/16/2016	5.65	7.6	7.39	6.69	6.66	7.51	
1/16/2017	5.52						
1/17/2017		6.99	7.23	6.77		7.52	
1/19/2017					6.81		
3/2/2017	5.53	6.95	7.55	6.79	6.75	7.5	
4/18/2017	5.64	7.02	7.43	6.77	6.93	7.75	
7/13/2017						7.72	
10/10/2017		7.27	5.62	7	6.99		
10/11/2017	6.11					6.35	
3/29/2018	5.35	6.95	7.19		6.82	7.42	
3/30/2018				6.68			
6/12/2018	6.23		7.55			8.02	
6/13/2018		7.08		6.83	7.01		
10/9/2018	5.62 (D)		7.8 (D)			7.79 (D)	
10/10/2018		7.01 (D)		6.69 (D)	7.04 (D)		
1/28/2019	5.49 (D)					7.4 (D)	
1/29/2019		6.55 (D)	7.63 (D)	6.42 (D)	6.87 (D)		6.93 (D)
3/25/2019	5.27 (D)		7.44 (D)			7.29 (D)	7.1 (D)
3/26/2019		6.57 (D)		5.96 (D)	7.01 (D)		
9/10/2019	5.97	6.99	7.41	6.67	7.09	7.54	7.15
1/28/2020	5.78	7.17	7.46			7.4	7.36
1/29/2020				6.68	7.19		
3/9/2020	5.46					7.58	
3/10/2020		7	7.3	6.87	7.11		7.04
9/16/2020	6.37	6.98	7.38			7.89	6.89
9/17/2020				6.68	6.95		
12/7/2020		7.2					
12/8/2020				7.04	7.41		

FIGURE L.

Upper Tolerance Limit Summary Table - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:26 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</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>
Combined Radium 226 + 228 (pCi/L)	1.146	n/a	n/a	75	0.5498	0.3024	0	None	No	0.05	Inter

FIGURE M.

PLANT MCINTOSH AP 1 GWPS - STATE (RESAMPLE)

Constituent Name	MCL	CCR-Rule Specified	Background Limit	Federal GWPS	State GWPS
Combined Radium, Total (pCi/L)	5		1.15	5	5

**GWPS = Groundwater Protection Standard*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

FIGURE N.

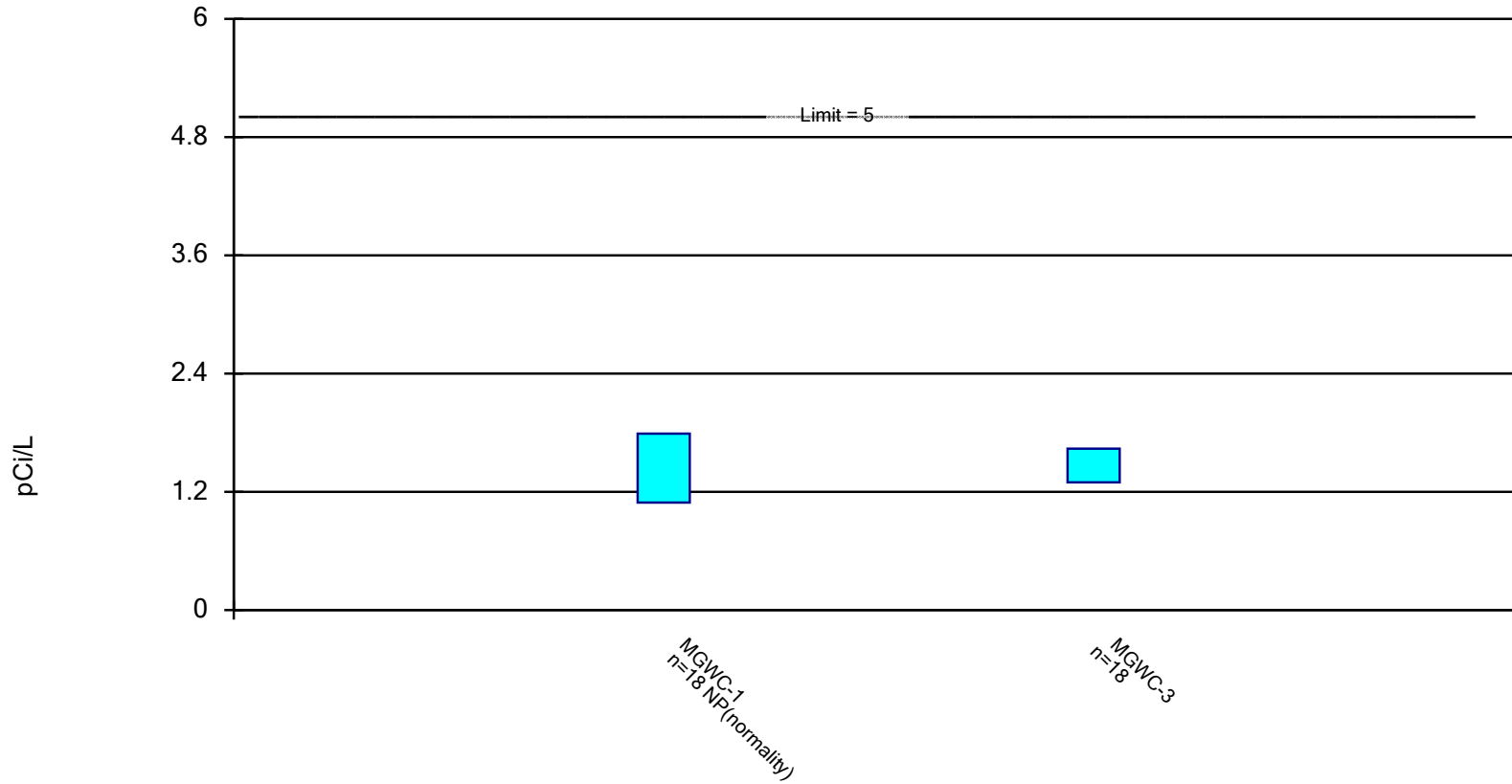
Federal & State Confidence Intervals - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 1/27/2021, 11:30 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>
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.79	1.09	5	No	18	1.383	0.3381	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.637	1.296	5	No	18	1.466	0.2822	0	None	No	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/27/2021 11:30 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



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