

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

**MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
ASH POND B**

January 31, 2023

Prepared for

Mississippi Power Company
Gulfport, Mississippi

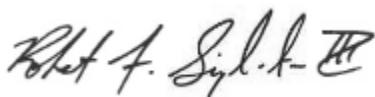
By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

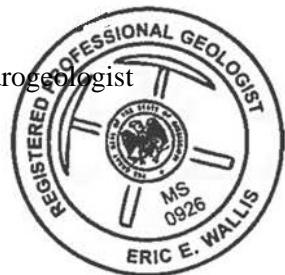
This *2022 Annual Groundwater Monitoring and Corrective Action Report*, Mississippi Power Company – Plant Daniel Ash Pond B has been prepared to comply with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D) under the supervision of a licensed Professional Geologist with Southern Company Services.



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SITE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), this *2022 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document 2022 semi-annual assessment groundwater monitoring activities at the Plant Daniel Ash Pond B (AP-B) and to satisfy the requirements of § 257.90(e). Semi-annual assessment monitoring and associated reporting for Plant Daniel AP-B is performed in accordance with the monitoring requirements § 257.90 through § 257.95.

The CCR unit began the monitoring period in assessment monitoring pursuant to §257.95. Statistically significant increases (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSLs) of Appendix IV parameters were identified in BAW-5 for lithium during the first and second semi-annual monitoring events of 2022. However, an alternate source demonstration (ASD) was prepared for lithium at AP-B. The ASD was completed July 12, 2019 and submitted in the *2019 Annual Groundwater Monitoring and Corrective Action Report*. Therefore, pursuant to §257.95(g)(3)(ii), an assessment of corrective measures is not required, and AP-B remained in assessment monitoring.

Pursuant to 40 CFR 257.90(e)(6), the table titled **Monitoring Period Summary** has been prepared to describe the status of groundwater monitoring and corrective action during the monitoring period for this report.

Monitoring Period Summary Plant Daniel - Ash Pond B

Monitoring Period:	January 1 - December 31, 2022
Beginning Status:	Assessment
Ending Status:	Assessment

STATISTICAL ANALYSIS RESULTS*

Appendix III SSIs

Parameter	Wells
Boron	BAW-5, BAW-7
Calcium	BAW-4, BAW-5, BAW-7
Chloride	BAW-4
Fluoride	BAW-5
pH	BAW-3, BAW-4, BAW-5
Sulfate	BAW-3, BAW-4, BAW-5, BAW-7
TDS	BAW-4, BAW-5, BAW-7

Appendix IV SSLs

Parameter	Wells
Lithium	BAW-5

* See the attached report for further details regarding statistical exceedances and alternate source demonstrations.

ASSESSMENT OF CORRECTIVE MEASURES & GROUNDWATER REMEDY

Assessment of Corrective Measures

Site Remains in Assessment Monitoring § 257.95(d)

Groundwater Remedy

Site Remains in Assessment Monitoring § 257.95(d)

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) 257, Subpart D), Southern Company Services (SCS) has prepared this *2022 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities at Mississippi Power Company (MPC) Plant Daniel Ash Pond B (AP-B).

Groundwater monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements of 40 CFR 257.90 through 257.95 of the Federal CCR rule. This report has been prepared to document the 2022 the semi-annual groundwater monitoring events at the AP-B and to satisfy the requirements of § 257.90(e).

2.0 SITE DESCRIPTION

The Site is located within Section 35, Township 5 South, Range 6 West, Sections 37, 10, 15, East half of Section 9, Southwest ¼ of Section 2, Northwest ¼ and south half of Section 11, and the north half and northwest ¼ of the southwest ¼ of Section 14, all of Township 6 South, Range 6 West. The Site is situated immediately northwest of the intersection of Mississippi State Highways 63 and 613, between the Pascagoula River to the west and Highway 63 to the east. The site address is 13201 Highway 63 N, Escatawpa, Mississippi 39562.

AP-B is located to the north of the main plant. **Figure 1, Site Location Map**, depicts the location of Plant Daniel relative to site features and the surrounding area.

2.1 Regional Geology & Hydrogeologic Setting

Jackson County lies in the Pascagoula River Drainage Basin in the Gulf Coastal Plain physiographic province. Topographically, the province is gently rolling to flat with local salt marshes. Rock outcrops are sedimentary in origin and range in age from late Miocene to Recent (Gandl, 1982). A dominant regional structural feature which affects the sediments of Miocene and younger age is the Gulf Coast geosyncline. The sediments dip toward the Gulf of Mexico. Where formations are near the surface, dips are from 15 to 35 feet/mile. Further from the outcrop, dips increase dramatically with depth. Fresh-water aquifers in the Pascagoula area are sand or sand and gravel beds of Miocene age or younger, generally less than 1,000 feet below the surface.

The surface geology of soils near Plant Daniel results from present-day weathering processes dictated by southern Mississippi's semi-tropical climate and the parent geologic materials. The soil profile formed from a wide variety of sediments of recent age, and from Pleistocene terrace deposits. The soils therefore contain sand, silt, clay, gravel and organics.

Studies prepared by SCS, establish five geologic units underlying the immediate Plant Daniel property:

- Unit 1 is a sandy clay aquitard. The unit is discontinuous across the Plant Daniel site and extends from the surface to approximately 32 feet deep in some areas.
- Unit 2 is a sand aquifer, which extends to approximately 70 feet and is considered the uppermost aquifer for groundwater monitoring purposes.
- Unit 3 is a clay aquitard underlying Unit 2 with thicknesses ranging from 2.5 to 9.5 feet at Plant Daniel.
- Unit 4 is a sand and gravel aquifer with a thickness of 34 feet or greater.
- Unit 5 is a clay aquitard.

2.2 Uppermost Aquifer

Two aquifers supply water to the Pascagoula area. These are the Pliocene-age Citronelle and the Miocene Aquifer System, which includes the Graham Ferry Aquifer. Plant Daniel is located in the Citronelle outcrop area.

The Citronelle Aquifers are the shallowest aquifers in the Pascagoula area. Although principally a sand and gravel formation, the Citronelle is characterized by occasional lenses and layers of clay which may cause semi-artesian conditions. Sediments become coarse near the irregular contact with the underlying Pascagoula or Graham Ferry Formation. Also, the Citronelle and overlying coastal deposits are generally considered one hydrogeologic unit. The Citronelle is primarily a water table aquifer with a saturated thickness of about 45 feet. Recharge is primarily by rainfall which moves vertically and down dip to recharge underlying aquifers and to sustain local streams (Wasson, 1978).

For groundwater monitoring purposes, the Unit 2 sand is the uppermost aquifer screened by site monitoring wells.

3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY

Pursuant to § 257.91, MPC installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer (Unit 2). The Professional Engineer (PE)-certified groundwater monitoring system for AP-B is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. As required by § 257.90(e), the following also describes monitoring-related activities performed during the preceding year.

3.1 Groundwater Monitoring System

The groundwater monitoring network is comprised of 6 monitoring wells as presented on **Figure 2, Monitoring Well Location Map**. **Table 1, Monitoring Well Network Summary**, summarizes the monitoring well construction details and design purpose for the AP-B.

Monitoring well locations BAW-1 and BAW-2A serve as upgradient locations for the Ash Pond. Upgradient wells are screened within the same uppermost aquifer as downgradient locations and are representative of background groundwater quality at the site. Monitoring well locations BAW-3 through BAW-7 are utilized as downgradient locations for AP-B. Downgradient locations were determined by water level monitoring and potentiometric surface maps constructed for the site.

3.2 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2022 aside from one monitoring well modification at BAW-7; the network remained the same as in the previous reporting year. Monitoring well-related activities were limited to visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.

Due to closure-by-removal activities at AP-B, raising the well riser, well pad, and protective casing were required at monitoring well BAW-7. As part of the closure-by-removal efforts at AP-B, the existing grade in the vicinity of BAW-7 was raised approximately 5 feet from elevation 32 feet above mean sea level (ft MSL) to 37 ft MSL to accommodate for a constructed perimeter dike road. On June 2, 2022, the existing concrete pad, bollards, and protective casing at BAW-7 were carefully removed, and a 4-inch diameter steel drill casing was set around the polyvinyl chloride (PVC) riser approximately 4 feet below grade to approximately 6 feet above grade. The steel casing remained in place to protect the monitoring well as the surrounding grade was brought up during the closure process.

On January 20, 2023, modifications to BAW-7 were complete. A grout seal was installed around the PVC riser to the new ground surface as the steel drill casing was removed. The well was completed as a flush-mounted well with a 3-feet by 3-feet concrete pad and 12-inch well vault. Survey of the new ground surface

and top of casing is scheduled.

3.3 Assessment Monitoring

The AP-B began 2022 in assessment monitoring pursuant to 40 CFR § 257.95(a). The first semi-annual assessment monitoring event was completed by sampling wells for Appendix III and Appendix IV parameters in March 2022, and the semi-annual monitoring event was repeated in October 2022 pursuant to 40 CFR § 257.95(f). Analytical data from the semi-annual monitoring events are included as **Appendix A, Laboratory Analytical and Field Sampling Reports**, in accordance with the requirements of § 257.90(e)(3).

4.0 SAMPLE METHODOLOGY & ANALYSIS

The following describes the methods used to complete groundwater monitoring at AP-B.

4.1 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. Groundwater levels recorded during the monitoring events are summarized in **Table 2, Groundwater Elevations Summary - 2022**. Groundwater levels and top of casing elevations were used to calculate groundwater elevation.

Groundwater elevations and groundwater elevation contour maps presented here do not represent typical natural groundwater flow conditions. As part of AP-B closure a dewatering system was installed and in operation during the 2022 monitoring period. The dewatering system significantly lowered the groundwater level at AP-B to facilitate the excavation of CCR material and pond liner. In all, 22 extraction wells were installed around the perimeter of Ash Pond B. Extraction wells have been active since April 2021 and are planned to be shut off in 2023 upon completion of closure activities.

As shown in **Figure 3, Groundwater Elevations Map – March 14, 2022**, the average groundwater elevation at the pond was approximately -15 to 16 ft MSL during the March 2022 sampling event. During the October 2022 sampling event, the average groundwater elevation at AP-B was approximately -14 to -15 ft MSL, as shown on **Figure 4, Groundwater Elevations Map – October 3, 2022**. During both sampling events, groundwater flow conditions were heavily influenced by the extraction system and varied across AP-B. As described in Section 3.2, the surface completion at BAW-7 was modified beginning in June 2022 and was not completed until January 2023 when closure activities in the vicinity of the well were complete. Therefore, while depth to water was measured at BAW-7 during the October 2022 sampling event, groundwater elevations were not recorded. Additionally, water levels in BAW-2A were below the top of the pump during both gauging events; therefore, depth to water was not recorded.

Groundwater flow velocities at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Based on slug test data collected from AP-B wells, the average hydraulic conductivity at the site is 25 feet per day. The hydraulic gradient was calculated between well pairs shown on **Table 3, Groundwater Flow Velocity Calculations - 2022**. An effective porosity of 0.2 was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (U.S. USEPA, 1996).

Horizontal flow velocity was calculated using the commonly used derivative of Darcy's Law:

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

Where:

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

K = Average permeability of the aquifer ($\frac{\text{feet}}{\text{day}}$)

i = Horizontal hydraulic gradient

n_e = Effective porosity

Using this equation, groundwater flow velocities are calculated for various areas of the site and are tabulated on **Table 3**.

Groundwater monitoring wells BAW-1 and BAW-5 were used as points for calculating Flow Path A and BAW-3 and BAW-5 were used to calculate Flow Path B.

During the 2022 monitoring period, the groundwater extraction system was active and produced variable groundwater flow conditions that were not indicative of typical groundwater flow at the AP-B. The horizontal hydraulic gradients range from 0.0003 feet per foot (ft/ft) to 0.0023 ft/ft. As presented on **Table 3**, groundwater flow velocity at the site ranges from approximately 0.04 feet per day (ft/day) (or approximately 13.76 feet per year (ft/yr)) to 0.29 ft/day (or approximately 106.36 feet per year) across AP-B. These calculated groundwater flow velocities are not consistent with historical calculations and with expected velocities because of the influence of the groundwater extraction system. However, the groundwater extraction system is scheduled to be decommissioned in early 2023, and groundwater conditions are expected to return to pre-system conditions.

4.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with § 257.93(a). All monitoring wells at the Site are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen (DO)) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

- 0.2 standard units for pH
- 5% for specific conductance
- 0.2 milligrams per Liter (mg/L) or 10% for DO > 0.5 mg/L (whichever is greater)
- Turbidity measurements less than 5 nephelometric turbidity unit (NTU)
- Temperature and oxidation reduction potential (ORP) – record only, no stabilization criteria

During purging and sampling a SmarTroll instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol.

During the both the first and second semi-annual sampling events, water levels at BAW-2A were below the top of the pump and water level information was not recorded. During the first semi-annual event, there was enough water in the well for a sample to be collected using low-flow sampling procedures described above. During the second semi-annual event, BAW-2A was dry and a sample was not collected.

4.3 Laboratory Analysis

Laboratory analyses was performed by Eurofins Environmental Testing TestAmerica, Inc. (TAL) of Pittsburgh, Pennsylvania and St. Louis, Missouri. TAL is accredited by National Environmental Laboratory Accreditation Program (NELAP). TestAmerica maintains a NELAP certification for all parameters analyzed for this project. Groundwater analytical data and chain-of-custody records for the monitoring events are presented in **Appendix A**.

4.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 detection samples. Equipment blanks and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in **Appendix A**. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (RL). The estimated value is positively identified but is below lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples are used as measure of laboratory precision. For groundwater analytical data, quality control procedures include calculating the relative percent difference (where field duplicates are collected, the RPD) between the sample and duplicate sample concentrations. This is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2)/2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

RPD is calculated for all detected concentrations above the laboratory RL. Where the RPD is below 20%, the difference is considered acceptable, and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4, Relative Percent Difference Calculations**, provides the relative percent differences for sample and sample duplicates during 2022 sampling events.

RPD was below 20% for constituents analyzed during the first semi-annual sampling event of 2022 with the exception of fluoride. Fluoride was detected at an estimated (J-flagged) concentration of 0.0673 mg/L in the sample collected from PZ-8 and at an estimated (J-flagged) concentration of 0.0373 mg/L in the field duplicate. These concentrations resulted in an RPD of 57.4%. Validation procedures require further data qualification if the difference between the two concentrations (0.03 mg/L) exceeds the RL (0.1 mg/L) if either result is less than five times the RL. In this case, both concentrations are estimated (J-flagged) and therefore the difference does not exceed the RL. Further data qualification is not required.

RPD was below 20% for constituents analyzed during the second semi-annual sampling event of 2022 with the exception of boron. Boron was detected at an estimated (J-flagged) concentration of 0.0714 mg/L in the sample collected from BAW-7 and at a concentration of 0.132 in the field duplicate. These concentrations resulted in an RPD of 59.6%. Validation procedures require further data qualification if the difference between the two concentrations (0.0606 mg/L) exceeds the RL (0.08 mg/L) if either result is less than five times the RL. In this case, one concentration is estimated (J-flagged) and the difference does not exceed the RL. Further data qualification is not required.

Several constituents were detected in the field blank collected on October 6, 2022. Barium was detected at an estimated (J-flagged) concentration of 0.00634 mg/L, boron was detected at 0.107 mg/L, and calcium was detected at an estimated (J-flagged) concentration of 0.128 mg/L. Validation procedures require further data qualification for samples collected on the same day as the field blank if the sample result is less than five times the blank result. In this case, none of the sample results collected on October 6, 2022 resulted in concentrations less than five times the blank results. Further data qualification is not required.

5.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR § 257.93 and following the appropriate PE-certified method. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC. (GSC), in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (USEPA, 2009). Results are included in **Appendix B, Statistical Data Evaluation**.

5.1 Statistical Methodology and Test

The Sanitas Groundwater statistical software is 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 EPA regulations. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the EPA Unified Guidance (2009).

5.1.1 Appendix III Evaluation

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. When an initial (or apparent) statistically significant increase or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. If the second sample exceeds its respective background statistical limit, a statistically significant increase (SSI) is identified. If the second sample is below its respective background limit there is no SSI. A summary table of the statistical limits accompanies the prediction limits in **Appendix B**.

5.1.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are compared to GWPS. Unlike the statistical evaluation of Appendix III constituents (where single-sample results are compared to the statistical limit), Appendix IV analysis uses the pooled results from each downgradient well to develop a well-specific Confidence Interval that is compared to the statistical limit. The statistical limit is either the tolerance limit (i.e. background) calculated using the pool of all available upgradient well data (see Chapter 7 of the Unified Guidance), or an applicable groundwater protection standard such as the Maximum Contaminant Level (MCL). Appendix IV background data are screened for outliers and extreme trending patterns that would lead to artificially elevated statistical limits.

Parametric tolerance limits (i.e. Upper Tolerance Limits (UTLs)) were calculated using pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent on the number of background samples. The UTLs were then used as the Groundwater Protection Standards (GWPS).

As described in § 257.95(h)(1)-(3), the GWPS is:

- (1) The MCL established under § 141.62 and 141.66 of this title.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 milligrams per liter (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 were the background level is higher than the MCL or rule-identified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents.

5.2 Statistical Analysis Results

Analytical data from the 2022 semi-annual monitoring events in March and October were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017) and Statistical Background Updates performed by GSC (December 2019). Appendix III statistical analysis was performed 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.

5.2.1 Appendix III Constituents

A review of the Sanitas results presented in **Appendix B** identified the following Appendix III SSIs during the first semi-annual monitoring event:

- BAW-3: Sulfate
- BAW-4: Calcium, Chloride, pH, Sulfate, Total Dissolved Solids (TDS)
- BAW-5: Boron, Calcium, Fluoride, pH, Sulfate, and TDS
- BAW-7: Boron, Sulfate

During the second semi-annual monitoring event, the following SSIs were identified:

- BAW-3: pH, Sulfate

- BAW-4: Calcium, and pH
- BAW-5: Boron, Calcium, pH, Sulfate and TDS
- BAW-7: Boron, Calcium, Sulfate, and TDS

Since the site is performing assessment monitoring, no further action is required regarding these SSIs.

5.2.2 Appendix IV Constituents

Table 5, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS used for statistical comparison. To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard.

Using GWPS established according to 40 CFR §257.95(h), statistical analysis of Appendix IV data identified the following Statistically Significant Level (SSL) of a GWPS during the first and second semi-annual monitoring events at the listed well:

- BAW-5: Lithium

In accordance with §257.95(g), a notification identifying the SSLs for lithium was placed in the facility's Operating Record on November 14, 2018. As discussed below, an alternate source demonstration (ASD) was previously prepared for this SSL and no further action is required.

6.0 ALTERNATE SOURCE DEMONSTRATION

In accordance with 40 CFR § 257.95(g)(3)(ii), an ASD was prepared for lithium at AP-B. The ASD was completed by July 12, 2019 and submitted in the *2019 Annual Groundwater Monitoring and Corrective Action Report*. Therefore, pursuant to §257.95(g)(3)(ii), an assessment of corrective measures is not required, and AP-B will remain in assessment monitoring.

7.0 MONITORING PROGRAM STATUS

In accordance with § 257.94(e) MPC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at AP-B during sampling events conducted in 2021. An ASD was completed for the Appendix IV constituent exceeding the GWPS on July 12, 2019.

Removal of CCR material at AP-B was completed in September 2021 and the site was certified clean closed in early 2022. Construction activities continued as AP-B was repurposed into three lined settlement ponds for plant process water, and construction is scheduled to be completed in early 2023. MPC will continue groundwater monitoring until completion of closure in accordance with CCR rule 257.102(c).

Therefore, in accordance with § 257.95(g)(3)(ii), MPC will continue assessment monitoring.

8.0 CONCLUSIONS & FUTURE ACTIONS

Semi-annual assessment monitoring and associated reporting for Plant Daniel AP-B is performed in accordance with the monitoring requirements § 257.90 through § 257.95. The certified compliance monitoring well network was resampled on a semi-annual basis and were analyzed for Appendix III and IV parameters. Statistical evaluations of the March and October 2022 assessment monitoring data identified lithium SSLs of Appendix IV constituents above the GWPS. An ASD was prepared to address lithium GWPS exceedances at compliance well BAW-5. The ASD was completed by July 12, 2019 in accordance with § 257.95(g)(3)(ii) and submitted in the *2019 Annual Groundwater Monitoring and Corrective Action Report*. Therefore, in accordance with § 257.95(d), MPC will continue assessment monitoring.

The following future actions will be taken or are recommended for the Site:

- Continue semi-annual assessment monitoring in 2023.
- Submit the 2023 Annual Groundwater Monitoring and Corrective Report by January 31, 2024.

9.0 REFERENCES

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- Wasson, B.E., 1978, Availability of additional ground-water supplies in the Pascagoula area, Mississippi: Mississippi Research and Development Center Bulletin, 32 p.

Tables

Table 1.
Monitoring Well Network Summary

Well ID	Purpose	Installation Date	Latitude	Longitude	Total Well Depth (feet)	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Top of Screen Elevation (feet MSL)	Bottom of Screen Elevation (feet MSL)
BAW-1	Upgradient	7/23/2015	30.54178	-88.55594	60.72	32.24	29.22	-23.18	-28.18
BAW-2	Upgradient	7/23/2015	30.53975	-88.5559	64.53	42.43	39.70	-11.80	-21.80
BAW-2A	Upgradient	3/19/2018	30.53969	-88.5559	66.93	41.15	38.22	-15.28	-25.28
BAW-3	Downgradient	7/23/2015	30.53747	-88.55603	67.62	40.62	37.60	-16.70	-26.70
BAW-4	Downgradient	7/23/2015	30.5374	-88.55766	69.13	37.05	34.12	-21.78	-31.78
BAW-5	Downgradient	7/23/2015	30.53773	-88.55904	69.12	39.93	37.41	-18.89	-28.89
BAW-7	Downgradient	7/23/2015	NA	NA	NA	NA	NA	NA	NA
PZ-8	Piezometer	3/14/2018	30.53753	-88.55888	68.29	40.05	37.26	-17.74	-27.74
PZ-9	Piezometer	3/15/2018	30.53742	-88.55897	62.82	39.32	36.50	-13.00	-23.00

Notes:

1. BAW-2 was replaced by BAW-2A due to well damage.
2. Elevations shown are referenced Mean Sea Level (MSL) to NAVD 88 (G12) U.S. Survey Feet.
3. MSL refers to Mean Sea Level.
4. NA - information not available, BAW-7 to be re-surveyed

Table 2.
Groundwater Elevations Summary - 2022

Well ID	Top of Casing Elevation (feet MSL)	Groundwater Elevations (feet MSL)	
		March 14, 2022	October 3, 2022
BAW-1	32.24	-13.85	-14.25
BAW-2A	41.15	Dry	Dry
BAW-3	40.62	-16.61	-11.17
BAW-4	37.05	-15.97	-21.21
BAW-5	39.93	-14.38	-12.54
BAW-7	35.05	-17.36	NR
PZ-8	40.05	-16.47	-14.15
PZ-9	39.32	-15.08	-13.14

Notes:

1. MSL refers to Mean Sea Level
2. NR - information not recorded, BAW-7 well was modified in June 2022 and groundwater elevation data was not available for October 2022
3. BAW-2A water level was below top of pump during both gauging events

Table 3.
Groundwater Flow Velocity Calculations - 2022

Flow Path A								
	BAW-1	BAW-5	Distance	Hydraulic Gradient	Hydraulic Conductivity	Assumed Effective Porosity (ne)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K			
March 14, 2022	-13.85	-14.38	1764	0.0003	25.09	0.2	0.04	13.76
October 3, 2022	-14.25	-12.54	1764	0.0010	25.09	0.2	0.12	44.39

Flow Path B								
	BAW-3	BAW-5	Distance	Hydraulic Gradient	Hydraulic Conductivity	Assumed Effective Porosity (ne)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K			
March 14, 2022	-16.61	-14.38	960	0.0023	25.09	0.2	0.29	106.36
October 3, 2022	-11.17	-12.54	960	0.0014	25.09	0.2	0.18	65.35

Notes:

ft=feet

ft/d = feet/day

ft/ft = feet per foot

ft/yr = feet per year

Table 4.
Relative Percent Difference Calculations

1st Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		PZ-8	DUP-01	
Chloride	mg/L	9.88	8.19	18.7
Fluoride	mg/L	0.0673	0.0373	57.4
Sulfate	mg/L	51.4	43.5	16.6
Arsenic	mg/L	0.0130	0.0126	3.1
Barium	mg/L	0.0553	0.0566	2.3
Boron	mg/L	0.852	0.862	1.2
Calcium	mg/L	25.5	26.1	2.3
Chromium	mg/L	0.00171	0.00153	11.1
Cobalt	mg/L	0.00191	0.00183	4.3
Lithium	mg/L	0.0172	0.0183	6.2
Molybdenum	mg/L	0.00572	0.00512	11.1
TDS	mg/L	203	180	12.0

2nd Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BAW-4	DUP-03	
Chloride	mg/L	8.84	8.28	6.5
Fluoride	mg/L	0.0322	0.0284	12.5
Sulfate	mg/L	4.12	3.78	8.6
Arsenic	mg/L	0.00467	0.00472	1.1
Barium	mg/L	0.0248	0.0255	2.8
Boron	mg/L	0.0714	0.132	59.6
Calcium	mg/L	5.81	5.64	3.0
Cobalt	mg/L	0.00121	0.00120	0.8
Lithium	mg/L	0.00676	0.00757	11.3
Molybdenum	mg/L	0.000939	0.00108	14.0
TDS	mg/L	52	60.0	14.3
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BAW-7	DUP-04	
Chloride	mg/L	12.7	12.0	5.7
Sulfate	mg/L	61.4	57.4	6.7
Barium	mg/L	0.0937	0.103	9.5
Boron	mg/L	1.82	2.01	9.9
Calcium	mg/L	4.84	5.19	7.0
Cobalt	mg/L	0.00548	0.00566	3.2
Lithium	mg/L	0.0123	0.0143	15.0
TDS	mg/L	135	134	0.7

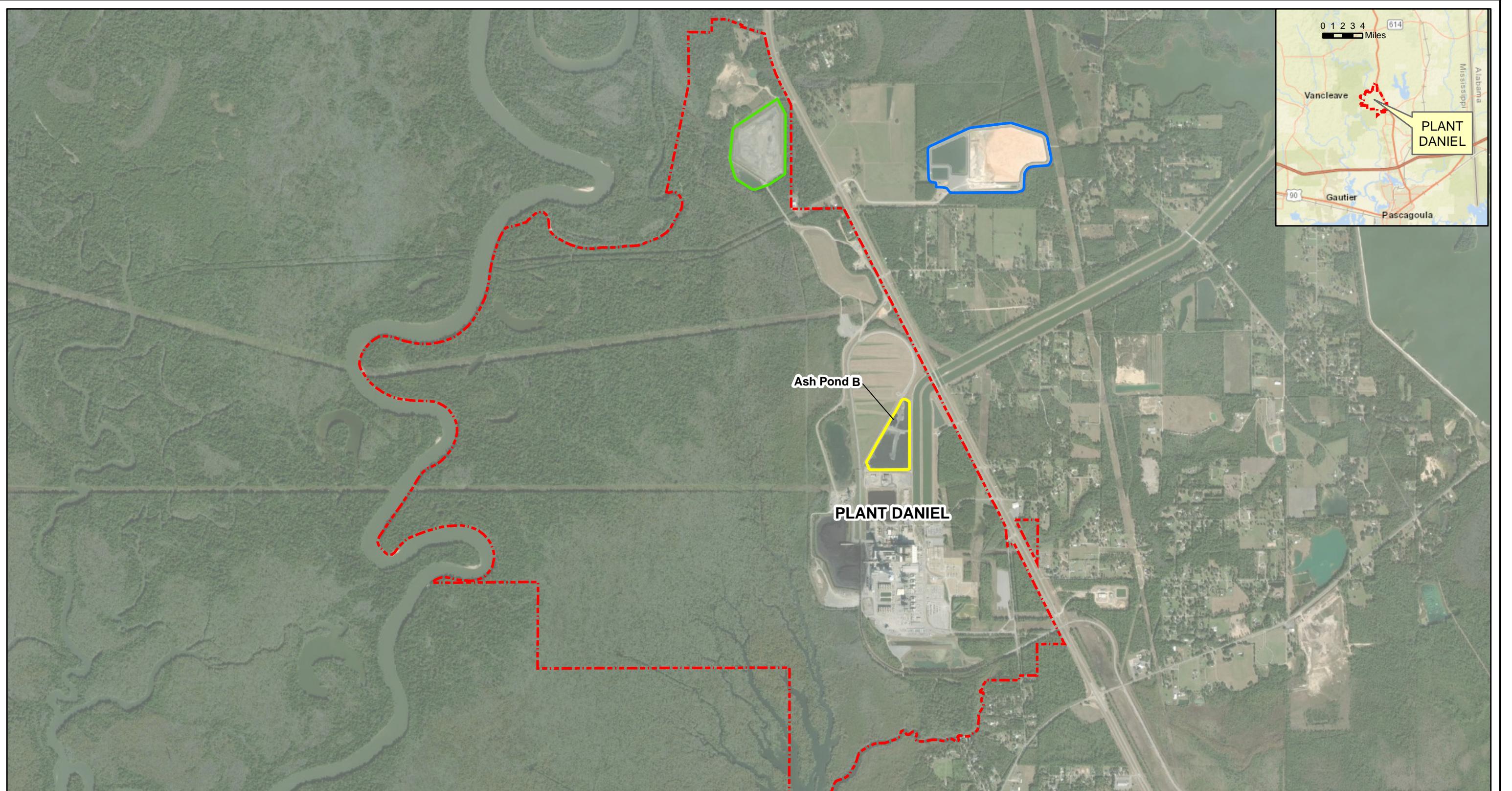
Table 5.
Summary of Background Levels and Groundwater Protection Standards

Analyte	Units	Background	Rule-Identified GWPS
Antimony	mg/L	0.002	0.006
Arsenic	mg/L	0.001	0.01
Barium	mg/L	0.051	2
Beryllium	mg/L	0.001	0.004
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.0029	0.1
Cobalt	mg/L	0.002	0.006
Combined Radium-226/228	pCi/L	2.5	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.001	0.015
Lithium	mg/L	0.0051	0.04
Mercury	mg/L	0.0002	0.002
Molybdenum	mg/L	0.005	0.1
Selenium	mg/L	0.005	0.05
Thallium	mg/L	0.001	0.002

Note:

1. Where 2 numbers are present, they denote the different background levels and background-derived GWPS for each of the 2 semi-annual monitoring events in the order that they were determined.
2. If background is less than the rule-identified GWPS; therefore, the rule-identified GWPS were used for statistical analysis.

Figures



Legend

- [Green Box] North Ash Management Unit (NAMU) Boundary
- [Blue Box] Gypsum Storage Area (GSA) Boundary
- [Yellow Box] Ash Pond B Boundary
- [Red Dashed Box] Property Boundary (Approximate)



0 1,000 2,000 4,000 6,000 8,000 Feet

SCALE 1:24000

DATE 12/28/2020

DRAWN BY KAR

CHECKED BY LMP

DRAWING TITLE

SITE LOCATION MAP PLANT DANIEL ASH POND B

FIGURE NO

FIGURE 1

Southern Company



Legend

- Monitoring Well Location

 Ash Pond B Boundary

 Property Boundary (Approximate)



0 250 500 1,000 Feet

SCALE 1:3000

DATE 12/28/2020

DRAWN BY KAR

CHECKED BY LMP

DRAWING TITLE

WELL LOCATION MAP PLANT DANIEL ASH POND B

FIGURE NO

FIGURE 2

 Southern Company



Legend

● Monitoring Well Location

BAW-1 Well Name
-13.85 Groundwater Elevation (ft NAVD88)

▲ Dewatering Well

■ Ash Pond B Boundary

□ Property Boundary (Approximate)



0 250 500 1,000 Feet

SCALE 1:3000

DATE 1/18/2023

DRAWN BY KAR

CHECKED BY RFS

DRAWING TITLE

GROUNDWATER ELEVATIONS MAP

MARCH 14, 2022

PLANT DANIEL ASH POND B

FIGURE NO

FIGURE 3

Southern Company

Notes:

1. ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.
2. DRY indicates water level was below top of instrumentation/pump.



Legend

- Monitoring Well Location
- ▲ Dewatering Well
- Ash Pond B Boundary
- Property Boundary (Approximate)

BAW-1 Well Name
-14.25 Groundwater Elevation (ft NAVD88)



0 250 500 1,000
Feet

Notes:
 1. ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.
 2. DRY indicates water level was below top of instrumentation/pump.
 3. NR indicates water elevation was not recorded due to surface modification.

SCALE
1:3000

DATE
1/20/2023

DRAWN BY
KAR

CHECKED BY
RFS

DRAWING TITLE
GROUNDWATER ELEVATIONS MAP
OCTOBER 3, 2022
PLANT DANIEL ASH POND B

FIGURE NO

FIGURE 4

Southern Company

Appendix A

1st

Semi-Annual

Monitoring Event



eurofins

Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-135319-1

Client Project/Site: Plant Daniel Ash Pond B

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
4/6/2022 6:37:57 PM

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

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

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

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Job ID: 180-135319-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative 180-135319-1

Comments

No additional comments.

Receipt

The samples were received on 3/17/2022 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.0° C and 4.1° C.

GC Semi VOA

Methods 300.0, 9056A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-394098 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 9056A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-394098 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Metals

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

General Chemistry

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

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

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

Accreditation/Certification Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kansas	NELAP	E-10350	03-31-22 *
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-02-22 *
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22 *
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21 *
South Carolina	State	89014	06-30-22
Texas	NELAP	T104704528	03-31-23
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-22

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

Eurofins Pittsburgh

Sample Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
180-135319-1	BAW-1	Water	03/16/22 08:53	03/17/22 09:15	1
180-135319-2	BAW-2A	Water	03/16/22 09:48	03/17/22 09:15	2
180-135319-3	BAW-3	Water	03/16/22 10:52	03/17/22 09:15	3
180-135319-4	BAW-4	Water	03/16/22 12:58	03/17/22 09:15	4
180-135319-5	BAW-5	Water	03/16/22 11:59	03/17/22 09:15	5
180-135319-6	BAW-7	Water	03/16/22 07:52	03/17/22 09:15	6
180-135319-7	BAW-8	Water	03/16/22 12:35	03/17/22 09:15	7
180-135319-8	BAW-9	Water	03/16/22 13:25	03/17/22 09:15	8
180-135319-9	DUP-01	Water	03/16/22 11:35	03/17/22 09:15	9
180-135319-10	EB-3	Water	03/16/22 11:15	03/17/22 09:15	10
180-135319-11	FB-3	Water	03/16/22 11:00	03/17/22 09:15	11

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	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:

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

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

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-1

Date Collected: 03/16/22 08:53

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 19:19	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:14	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:15	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392458	03/21/22 15:16	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-2A

Date Collected: 03/16/22 09:48

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 21:49	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:16	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:21	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392458	03/21/22 15:16	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Date Collected: 03/16/22 10:52

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 20:27	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:19	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:22	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392458	03/21/22 15:16	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-4

Lab Sample ID: 180-135319-4

Matrix: Water

Date Collected: 03/16/22 12:58

Date Received: 03/17/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 20:40	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:22	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:23	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392458	03/21/22 15:16	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-5

Lab Sample ID: 180-135319-5

Matrix: Water

Date Collected: 03/16/22 11:59

Date Received: 03/17/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 20:54	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:24	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:24	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392458	03/21/22 15:16	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-7

Lab Sample ID: 180-135319-6

Matrix: Water

Date Collected: 03/16/22 07:52

Date Received: 03/17/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 22:02	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:27	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:25	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392458	03/21/22 15:16	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-8

Lab Sample ID: 180-135319-7

Matrix: Water

Date Collected: 03/16/22 12:35

Date Received: 03/17/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 21:35	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:29	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:26	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392459	03/21/22 15:17	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-9

Lab Sample ID: 180-135319-8

Matrix: Water

Date Collected: 03/16/22 13:25

Date Received: 03/17/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			393986	04/02/22 22:58	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:32	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:27	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392459	03/21/22 15:17	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: DUP-01

Lab Sample ID: 180-135319-9

Matrix: Water

Date Collected: 03/16/22 11:35

Date Received: 03/17/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			393986	04/02/22 23:13	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:35	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:28	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392459	03/21/22 15:17	JCR	TAL PIT
		Instrument ID: NOEQUIP								

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: EB-3

Date Collected: 03/16/22 11:15

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-10

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 9056A		1			393986	04/02/22 23:29	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:42	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:29	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392459	03/21/22 15:17	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FB-3

Date Collected: 03/16/22 11:00

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			394098	04/04/22 22:43	JRB	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	392733	03/23/22 10:51	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			392994	03/24/22 13:45	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			25 mL	25 mL	393254	03/28/22 08:58	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			393481	03/29/22 13:30	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	392459	03/21/22 15:17	JCR	TAL PIT
		Instrument ID: NOEQUIP								

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

RGM = Rebecca Manns

RJR = Ron Rosenbaum

Batch Type: Analysis

JCR = Jessica Rodgers

JRB = James Burzio

RJR = Ron Rosenbaum

RSK = Robert Kurtz

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-1

Date Collected: 03/16/22 08:53
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-1

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.85		1.00	0.713	mg/L			04/04/22 19:19	1
Fluoride	<0.0260	F1	0.100	0.0260	mg/L			04/04/22 19:19	1
Sulfate	3.60	F1 B	1.00	0.756	mg/L			04/04/22 19:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	<0.000282		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	0.0500		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	<0.0601		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	1.32		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	0.00177		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1
Lithium	0.00171 J		0.00500	0.000831	mg/L			03/23/22 10:51	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L			03/23/22 10:51	1
Selenium	<0.000739		0.00500	0.000739	mg/L			03/23/22 10:51	1
Thallium	<0.000472		0.00100	0.000472	mg/L			03/23/22 10:51	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30.0		10.0	10.0	mg/L			03/21/22 15:16	1

Client Sample ID: BAW-2A

Date Collected: 03/16/22 09:48
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-2

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.5		1.00	0.713	mg/L			04/04/22 21:49	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/04/22 21:49	1
Sulfate	5.37		1.00	0.756	mg/L			04/04/22 21:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	<0.000282		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	0.0314		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	0.0717 J		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	0.539		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	0.000658		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-2A

Lab Sample ID: 180-135319-2

Matrix: Water

Date Collected: 03/16/22 09:48

Date Received: 03/17/22 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.00165	J	0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:16	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:16	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:16	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26.0		10.0	10.0	mg/L		03/21/22 15:16		1

Client Sample ID: BAW-3

Lab Sample ID: 180-135319-3

Matrix: Water

Date Collected: 03/16/22 10:52

Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.94		1.00	0.713	mg/L		04/04/22 20:27		1
Fluoride	0.0307	J	0.100	0.0260	mg/L		04/04/22 20:27		1
Sulfate	6.85		1.00	0.756	mg/L		04/04/22 20:27		1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		03/23/22 10:51	03/24/22 13:19	1
Arsenic	<0.000282		0.00100	0.000282	mg/L		03/23/22 10:51	03/24/22 13:19	1
Barium	0.0370		0.0100	0.00314	mg/L		03/23/22 10:51	03/24/22 13:19	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		03/23/22 10:51	03/24/22 13:19	1
Boron	<0.0601		0.0800	0.0601	mg/L		03/23/22 10:51	03/24/22 13:19	1
Cadmium	0.000252	J	0.00100	0.000217	mg/L		03/23/22 10:51	03/24/22 13:19	1
Calcium	0.780		0.500	0.127	mg/L		03/23/22 10:51	03/24/22 13:19	1
Chromium	<0.00153		0.00200	0.00153	mg/L		03/23/22 10:51	03/24/22 13:19	1
Cobalt	0.00289		0.000500	0.000261	mg/L		03/23/22 10:51	03/24/22 13:19	1
Lead	<0.000167		0.00100	0.000167	mg/L		03/23/22 10:51	03/24/22 13:19	1
Lithium	0.00380	J	0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:19	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:19	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:19	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26.0		10.0	10.0	mg/L		03/21/22 15:16		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-4

Date Collected: 03/16/22 12:58

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-4

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.9		1.00	0.713	mg/L			04/04/22 20:40	1
Fluoride	0.0462 J		0.100	0.0260	mg/L			04/04/22 20:40	1
Sulfate	5.64		1.00	0.756	mg/L			04/04/22 20:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	0.00411		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	0.0326		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	0.0840		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	8.94		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	0.00182		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1
Lithium	0.0112		0.00500	0.000831	mg/L			03/23/22 10:51	1
Molybdenum	0.000916 J		0.00500	0.000610	mg/L			03/23/22 10:51	1
Selenium	<0.000739		0.00500	0.000739	mg/L			03/23/22 10:51	1
Thallium	<0.000472		0.00100	0.000472	mg/L			03/23/22 10:51	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			03/28/22 08:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66.0		10.0	10.0	mg/L			03/21/22 15:16	1

Client Sample ID: BAW-5

Date Collected: 03/16/22 11:59

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-5

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.6		1.00	0.713	mg/L			04/04/22 20:54	1
Fluoride	0.176		0.100	0.0260	mg/L			04/04/22 20:54	1
Sulfate	23.1		1.00	0.756	mg/L			04/04/22 20:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	0.0101		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	0.0688		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	0.695		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	23.8		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	0.000967		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-5

Lab Sample ID: 180-135319-5

Matrix: Water

Date Collected: 03/16/22 11:59

Date Received: 03/17/22 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0629		0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:24	1
Molybdenum	0.00533		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:24	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:24	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:24	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	133		10.0	10.0	mg/L		03/21/22 15:16		1

Client Sample ID: BAW-7

Lab Sample ID: 180-135319-6

Matrix: Water

Date Collected: 03/16/22 07:52

Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.0	F1	1.00	0.713	mg/L			04/04/22 22:02	1
Fluoride	0.0266	J F1	0.100	0.0260	mg/L			04/04/22 22:02	1
Sulfate	5.93	F1	1.00	0.756	mg/L			04/04/22 22:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		03/23/22 10:51	03/24/22 13:27	1
Arsenic	<0.000282		0.00100	0.000282	mg/L		03/23/22 10:51	03/24/22 13:27	1
Barium	0.0245		0.0100	0.00314	mg/L		03/23/22 10:51	03/24/22 13:27	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		03/23/22 10:51	03/24/22 13:27	1
Boron	0.247		0.0800	0.0601	mg/L		03/23/22 10:51	03/24/22 13:27	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		03/23/22 10:51	03/24/22 13:27	1
Calcium	1.28		0.500	0.127	mg/L		03/23/22 10:51	03/24/22 13:27	1
Chromium	<0.00153		0.00200	0.00153	mg/L		03/23/22 10:51	03/24/22 13:27	1
Cobalt	0.00141		0.000500	0.000261	mg/L		03/23/22 10:51	03/24/22 13:27	1
Lead	<0.000167		0.00100	0.000167	mg/L		03/23/22 10:51	03/24/22 13:27	1
Lithium	0.00437 J		0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:27	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:27	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:27	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:27	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00120		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	37.0		10.0	10.0	mg/L		03/21/22 15:16		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-8

Lab Sample ID: 180-135319-7

Matrix: Water

Date Collected: 03/16/22 12:35

Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.88		1.00	0.713	mg/L			04/04/22 21:35	1
Fluoride	0.0673 J		0.100	0.0260	mg/L			04/04/22 21:35	1
Sulfate	51.4		1.00	0.756	mg/L			04/04/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	0.0130		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	0.0553		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	0.852		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	25.5		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	0.00171 J		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	0.00191		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1
Lithium	0.0172		0.00500	0.000831	mg/L			03/23/22 10:51	1
Molybdenum	0.00527		0.00500	0.000610	mg/L			03/23/22 10:51	1
Selenium	<0.000739		0.00500	0.000739	mg/L			03/23/22 10:51	1
Thallium	<0.000472		0.00100	0.000472	mg/L			03/23/22 10:51	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			03/28/22 08:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	203		10.0	10.0	mg/L			03/21/22 15:17	1

Client Sample ID: BAW-9

Lab Sample ID: 180-135319-8

Matrix: Water

Date Collected: 03/16/22 13:25

Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.4		1.00	0.713	mg/L			04/02/22 22:58	1
Fluoride	0.0697 J		0.100	0.0260	mg/L			04/02/22 22:58	1
Sulfate	45.0		1.00	0.756	mg/L			04/02/22 22:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	0.00400		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	0.0686		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	0.972		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	17.6		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	0.000881		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: BAW-9

Lab Sample ID: 180-135319-8

Matrix: Water

Date Collected: 03/16/22 13:25

Date Received: 03/17/22 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0544		0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:32	1
Molybdenum	0.00445 J		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:32	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:32	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:32	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	194		10.0	10.0	mg/L		03/21/22 15:17		1

Client Sample ID: DUP-01

Lab Sample ID: 180-135319-9

Matrix: Water

Date Collected: 03/16/22 11:35

Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.19		1.00	0.713	mg/L		04/02/22 23:13		1
Fluoride	0.0373 J		0.100	0.0260	mg/L		04/02/22 23:13		1
Sulfate	43.5		1.00	0.756	mg/L		04/02/22 23:13		1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		03/23/22 10:51	03/24/22 13:35	1
Arsenic	0.0126		0.00100	0.000282	mg/L		03/23/22 10:51	03/24/22 13:35	1
Barium	0.0566		0.0100	0.00314	mg/L		03/23/22 10:51	03/24/22 13:35	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		03/23/22 10:51	03/24/22 13:35	1
Boron	0.862		0.0800	0.0601	mg/L		03/23/22 10:51	03/24/22 13:35	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		03/23/22 10:51	03/24/22 13:35	1
Calcium	26.1		0.500	0.127	mg/L		03/23/22 10:51	03/24/22 13:35	1
Chromium	<0.00153		0.00200	0.00153	mg/L		03/23/22 10:51	03/24/22 13:35	1
Cobalt	0.00183		0.000500	0.000261	mg/L		03/23/22 10:51	03/24/22 13:35	1
Lead	<0.000167		0.00100	0.000167	mg/L		03/23/22 10:51	03/24/22 13:35	1
Lithium	0.0183		0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:35	1
Molybdenum	0.00512		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:35	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:35	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:35	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		10.0	10.0	mg/L		03/21/22 15:17		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: EB-3

Lab Sample ID: 180-135319-10

Matrix: Water

Date Collected: 03/16/22 11:15
Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			04/02/22 23:29	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/02/22 23:29	1
Sulfate	<0.756		1.00	0.756	mg/L			04/02/22 23:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	<0.000282		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	<0.00314		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	<0.0601		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	<0.127		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	<0.000261		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1
Lithium	<0.000831		0.00500	0.000831	mg/L			03/23/22 10:51	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L			03/23/22 10:51	1
Selenium	<0.000739		0.00500	0.000739	mg/L			03/23/22 10:51	1
Thallium	<0.000472		0.00100	0.000472	mg/L			03/23/22 10:51	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			03/28/22 08:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			03/21/22 15:17	1

Client Sample ID: FB-3

Lab Sample ID: 180-135319-11

Matrix: Water

Date Collected: 03/16/22 11:00
Date Received: 03/17/22 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			04/04/22 22:43	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/04/22 22:43	1
Sulfate	0.822 J		1.00	0.756	mg/L			04/04/22 22:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			03/23/22 10:51	1
Arsenic	<0.000282		0.00100	0.000282	mg/L			03/23/22 10:51	1
Barium	<0.00314		0.0100	0.00314	mg/L			03/23/22 10:51	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			03/23/22 10:51	1
Boron	<0.0601		0.0800	0.0601	mg/L			03/23/22 10:51	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/23/22 10:51	1
Calcium	<0.127		0.500	0.127	mg/L			03/23/22 10:51	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/23/22 10:51	1
Cobalt	<0.000261		0.000500	0.000261	mg/L			03/23/22 10:51	1
Lead	<0.000167		0.00100	0.000167	mg/L			03/23/22 10:51	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Client Sample ID: FB-3

Lab Sample ID: 180-135319-11

Date Collected: 03/16/22 11:00

Matrix: Water

Date Received: 03/17/22 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.000831		0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 13:45	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 13:45	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 13:45	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 13:45	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L		03/21/22 15:17		1

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-393986/7

Matrix: Water

Analysis Batch: 393986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			04/02/22 11:38	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/02/22 11:38	1
Sulfate	<0.756		1.00	0.756	mg/L			04/02/22 11:38	1

Lab Sample ID: LCS 180-393986/6

Matrix: Water

Analysis Batch: 393986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Chloride	50.0	49.14		mg/L		98	80 - 120
Fluoride	2.50	2.442		mg/L		98	80 - 120
Sulfate	50.0	48.28		mg/L		97	80 - 120

Lab Sample ID: MB 180-394098/7

Matrix: Water

Analysis Batch: 394098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			04/04/22 19:05	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/04/22 19:05	1
Sulfate	<0.756		1.00	0.756	mg/L			04/04/22 19:05	1

Lab Sample ID: LCS 180-394098/6

Matrix: Water

Analysis Batch: 394098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
						Limits	Limits
Chloride	50.0	51.83		mg/L		104	80 - 120
Fluoride	2.50	2.701		mg/L		108	80 - 120
Sulfate	50.0	52.71		mg/L		105	80 - 120

Lab Sample ID: 180-135319-1 MS

Matrix: Water

Analysis Batch: 394098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec
									Limits
Chloride	7.85		50.0	66.71		mg/L		118	80 - 120
Fluoride	<0.0260	F1	2.50	3.121	F1	mg/L		125	80 - 120
Sulfate	3.60	F1 B	50.0	64.27	F1	mg/L		121	80 - 120

Lab Sample ID: 180-135319-1 MSD

Matrix: Water

Analysis Batch: 394098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec
									Limits
Chloride	7.85		50.0	65.05		mg/L		114	80 - 120
Fluoride	<0.0260	F1	2.50	3.016	F1	mg/L		121	80 - 120
Sulfate	3.60	F1 B	50.0	61.77		mg/L		116	80 - 120

Client Sample ID: BAW-1

Prep Type: Total/NA

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-135319-6 MS

Matrix: Water

Analysis Batch: 394098

Client Sample ID: BAW-7
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Chloride	13.0	F1	50.0	73.99	F1	mg/L	122	80 - 120	
Fluoride	0.0266	J F1	2.50	3.299	F1	mg/L	131	80 - 120	
Sulfate	5.93	F1	50.0	68.75	F1	mg/L	126	80 - 120	

Lab Sample ID: 180-135319-6 MSD

Matrix: Water

Analysis Batch: 394098

Client Sample ID: BAW-7
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Chloride	13.0	F1	50.0	73.20		mg/L	120	80 - 120		1	15
Fluoride	0.0266	J F1	2.50	3.244	F1	mg/L	129	80 - 120		2	15
Sulfate	5.93	F1	50.0	67.73	F1	mg/L	124	80 - 120		1	15

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

Lab Sample ID: MB 180-392733/1-A

Matrix: Water

Analysis Batch: 392994

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 392733

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.000506		0.00200	0.000506	mg/L		03/23/22 10:51	03/24/22 12:28	1
Arsenic	<0.000282		0.00100	0.000282	mg/L		03/23/22 10:51	03/24/22 12:28	1
Barium	<0.00314		0.0100	0.00314	mg/L		03/23/22 10:51	03/24/22 12:28	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		03/23/22 10:51	03/24/22 12:28	1
Boron	<0.0601		0.0800	0.0601	mg/L		03/23/22 10:51	03/24/22 12:28	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		03/23/22 10:51	03/24/22 12:28	1
Calcium	<0.127		0.500	0.127	mg/L		03/23/22 10:51	03/24/22 12:28	1
Chromium	<0.00153		0.00200	0.00153	mg/L		03/23/22 10:51	03/24/22 12:28	1
Cobalt	<0.000261		0.000500	0.000261	mg/L		03/23/22 10:51	03/24/22 12:28	1
Lead	<0.000167		0.00100	0.000167	mg/L		03/23/22 10:51	03/24/22 12:28	1
Lithium	<0.000831		0.00500	0.000831	mg/L		03/23/22 10:51	03/24/22 12:28	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		03/23/22 10:51	03/24/22 12:28	1
Selenium	<0.000739		0.00500	0.000739	mg/L		03/23/22 10:51	03/24/22 12:28	1
Thallium	<0.000472		0.00100	0.000472	mg/L		03/23/22 10:51	03/24/22 12:28	1

Lab Sample ID: LCS 180-392733/2-A

Matrix: Water

Analysis Batch: 392994

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 392733

Analyte	Spike	LCS		Unit	D	%Rec	%Rec
		Result	Qualifier				
Antimony	0.250	0.2556		mg/L		102	80 - 120
Arsenic	1.00	1.034		mg/L		103	80 - 120
Barium	1.00	1.068		mg/L		107	80 - 120
Beryllium	0.500	0.5382		mg/L		108	80 - 120
Boron	1.25	1.252		mg/L		100	80 - 120
Cadmium	0.500	0.5447		mg/L		109	80 - 120
Calcium	25.0	28.37		mg/L		113	80 - 120
Chromium	0.500	0.5264		mg/L		105	80 - 120
Cobalt	0.500	0.5263		mg/L		105	80 - 120

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

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

Lab Sample ID: LCS 180-392733/2-A

Matrix: Water

Analysis Batch: 392994

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 392733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Lead	0.500	0.5337		mg/L	107	80 - 120	
Lithium	0.500	0.5049		mg/L	101	80 - 120	
Molybdenum	0.500	0.5548		mg/L	111	80 - 120	
Selenium	1.00	1.037		mg/L	104	80 - 120	
Thallium	1.00	1.094		mg/L	109	80 - 120	

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-393254/1-A

Matrix: Water

Analysis Batch: 393481

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 393254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		03/28/22 08:58	03/29/22 13:13	1

Lab Sample ID: LCS 180-393254/2-A

Matrix: Water

Analysis Batch: 393481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 393254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.002473		mg/L		99	80 - 120

Lab Sample ID: 180-135319-1 MS

Matrix: Water

Analysis Batch: 393481

Client Sample ID: BAW-1

Prep Type: Total/NA

Prep Batch: 393254

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000130		0.00100	0.001022		mg/L	102	75 - 125	

Lab Sample ID: 180-135319-1 MSD

Matrix: Water

Analysis Batch: 393481

Client Sample ID: BAW-1

Prep Type: Total/NA

Prep Batch: 393254

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Mercury	<0.000130		0.00100	0.001027		mg/L	103	75 - 125	0	20

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

Lab Sample ID: MB 180-392458/2

Matrix: Water

Analysis Batch: 392458

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	<10.0		10.0	10.0	mg/L		03/21/22 15:16		1

Lab Sample ID: LCS 180-392458/1

Matrix: Water

Analysis Batch: 392458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	469	440.0		mg/L	94	85 - 115	

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QC Sample Results

Client: Southern Company

Job ID: 180-135319-1

Project/Site: Plant Daniel Ash Pond B

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

Lab Sample ID: MB 180-392459/2

Matrix: Water

Analysis Batch: 392459

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			03/21/22 15:17	1

Lab Sample ID: LCS 180-392459/1

Matrix: Water

Analysis Batch: 392459

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec Limits
Total Dissolved Solids	469	452.0		mg/L	96	85 - 115

Lab Sample ID: 180-135319-7 DU

Matrix: Water

Analysis Batch: 392459

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	203		193.0		mg/L		5	10

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

HPLC/IC

Analysis Batch: 393986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-8	BAW-9	Total/NA	Water	EPA 9056A	
180-135319-9	DUP-01	Total/NA	Water	EPA 9056A	
180-135319-10	EB-3	Total/NA	Water	EPA 9056A	
MB 180-393986/7	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-393986/6	Lab Control Sample	Total/NA	Water	EPA 9056A	

Analysis Batch: 394098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total/NA	Water	EPA 9056A	
180-135319-2	BAW-2A	Total/NA	Water	EPA 9056A	
180-135319-3	BAW-3	Total/NA	Water	EPA 9056A	
180-135319-4	BAW-4	Total/NA	Water	EPA 9056A	
180-135319-5	BAW-5	Total/NA	Water	EPA 9056A	
180-135319-6	BAW-7	Total/NA	Water	EPA 9056A	
180-135319-7	BAW-8	Total/NA	Water	EPA 9056A	
180-135319-11	FB-3	Total/NA	Water	EPA 9056A	
MB 180-394098/7	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-394098/6	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-135319-1 MS	BAW-1	Total/NA	Water	EPA 9056A	
180-135319-1 MSD	BAW-1	Total/NA	Water	EPA 9056A	
180-135319-6 MS	BAW-7	Total/NA	Water	EPA 9056A	
180-135319-6 MSD	BAW-7	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 392733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total Recoverable	Water	3005A	
180-135319-2	BAW-2A	Total Recoverable	Water	3005A	
180-135319-3	BAW-3	Total Recoverable	Water	3005A	
180-135319-4	BAW-4	Total Recoverable	Water	3005A	
180-135319-5	BAW-5	Total Recoverable	Water	3005A	
180-135319-6	BAW-7	Total Recoverable	Water	3005A	
180-135319-7	BAW-8	Total Recoverable	Water	3005A	
180-135319-8	BAW-9	Total Recoverable	Water	3005A	
180-135319-9	DUP-01	Total Recoverable	Water	3005A	
180-135319-10	EB-3	Total Recoverable	Water	3005A	
180-135319-11	FB-3	Total Recoverable	Water	3005A	
MB 180-392733/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-392733/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 392994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total Recoverable	Water	EPA 6020B	392733
180-135319-2	BAW-2A	Total Recoverable	Water	EPA 6020B	392733
180-135319-3	BAW-3	Total Recoverable	Water	EPA 6020B	392733
180-135319-4	BAW-4	Total Recoverable	Water	EPA 6020B	392733
180-135319-5	BAW-5	Total Recoverable	Water	EPA 6020B	392733
180-135319-6	BAW-7	Total Recoverable	Water	EPA 6020B	392733
180-135319-7	BAW-8	Total Recoverable	Water	EPA 6020B	392733
180-135319-8	BAW-9	Total Recoverable	Water	EPA 6020B	392733

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QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

Metals (Continued)

Analysis Batch: 392994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-9	DUP-01	Total Recoverable	Water	EPA 6020B	392733
180-135319-10	EB-3	Total Recoverable	Water	EPA 6020B	392733
180-135319-11	FB-3	Total Recoverable	Water	EPA 6020B	392733
MB 180-392733/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	392733
LCS 180-392733/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	392733

Prep Batch: 393254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total/NA	Water	7470A	8
180-135319-2	BAW-2A	Total/NA	Water	7470A	9
180-135319-3	BAW-3	Total/NA	Water	7470A	10
180-135319-4	BAW-4	Total/NA	Water	7470A	11
180-135319-5	BAW-5	Total/NA	Water	7470A	12
180-135319-6	BAW-7	Total/NA	Water	7470A	13
180-135319-7	BAW-8	Total/NA	Water	7470A	
180-135319-8	BAW-9	Total/NA	Water	7470A	
180-135319-9	DUP-01	Total/NA	Water	7470A	
180-135319-10	EB-3	Total/NA	Water	7470A	
180-135319-11	FB-3	Total/NA	Water	7470A	
MB 180-393254/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-393254/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-135319-1 MS	BAW-1	Total/NA	Water	7470A	
180-135319-1 MSD	BAW-1	Total/NA	Water	7470A	

Analysis Batch: 393481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total/NA	Water	EPA 7470A	393254
180-135319-2	BAW-2A	Total/NA	Water	EPA 7470A	393254
180-135319-3	BAW-3	Total/NA	Water	EPA 7470A	393254
180-135319-4	BAW-4	Total/NA	Water	EPA 7470A	393254
180-135319-5	BAW-5	Total/NA	Water	EPA 7470A	393254
180-135319-6	BAW-7	Total/NA	Water	EPA 7470A	393254
180-135319-7	BAW-8	Total/NA	Water	EPA 7470A	393254
180-135319-8	BAW-9	Total/NA	Water	EPA 7470A	393254
180-135319-9	DUP-01	Total/NA	Water	EPA 7470A	393254
180-135319-10	EB-3	Total/NA	Water	EPA 7470A	393254
180-135319-11	FB-3	Total/NA	Water	EPA 7470A	393254
MB 180-393254/1-A	Method Blank	Total/NA	Water	EPA 7470A	393254
LCS 180-393254/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	393254
180-135319-1 MS	BAW-1	Total/NA	Water	EPA 7470A	393254
180-135319-1 MSD	BAW-1	Total/NA	Water	EPA 7470A	393254

General Chemistry

Analysis Batch: 392458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total/NA	Water	SM 2540C	
180-135319-2	BAW-2A	Total/NA	Water	SM 2540C	
180-135319-3	BAW-3	Total/NA	Water	SM 2540C	
180-135319-4	BAW-4	Total/NA	Water	SM 2540C	
180-135319-5	BAW-5	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-1

General Chemistry (Continued)

Analysis Batch: 392458 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-6	BAW-7	Total/NA	Water	SM 2540C	
MB 180-392458/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-392458/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 392459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-7	BAW-8	Total/NA	Water	SM 2540C	
180-135319-8	BAW-9	Total/NA	Water	SM 2540C	
180-135319-9	DUP-01	Total/NA	Water	SM 2540C	
180-135319-10	EB-3	Total/NA	Water	SM 2540C	
180-135319-11	FB-3	Total/NA	Water	SM 2540C	
MB 180-392459/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-392459/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-135319-7 DU	BAW-8	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information		Sampler: Brett Suckles / Phil Evans	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:								
Client Contact: SCS Contacts		Phone: 550 350 3458	E-Mail: shali.brown@eurofinset.com	Page: 1 - 1									
Company: SCS		Analysis Requested				Job #:							
Address: 3535 Colonnade Pkwy Bin S 530 EC		Due Date Requested:						Preservation Codes:					
City: Birmingham		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	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S03 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)				
State, Zip: Alabama		PO #: SCS10382606						Other:					
Phone: 205.992.6283		WO #:											
Email: SCS Contacts		Project #: 18020047											
Project Name: Plant Daniel Ash Pond B		SSOW#:											
Site:													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Custom 14 (Appli and IV) + Mercury	Chloride Fluoride and Sulfate	Total Dissolved Solids	Radium 226 Radium 228 + Combined	Total Number of Containers	Special Instructions/Note:
BAW-1		3/16/22	0853	G W		X	X	X	X				180-13539 Chain of Custody
BAW-2A			0948										LOTH HNB-3 0000258832
BAW-3			1052										
BAW-4			1258										
BAW-5			1159										
BAW-7			0752										
BAW-8			1235										
BAW-9			1325										
Dop-01			1135										
EB-3			1115										
FB-3		3/16/22	1100	G	W			X	X	X			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:							
Relinquished by:		Date/Time: 3/16/22 1400		Company: RDH		Received by:		Date/Time: 3/17/22 915		Company: PERL/PIT			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:							

SHIPPING NUMBER (850) 336-0192
TESTAMERICA PITTSBURGH-LAB
SEE CHEERS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

SHIP DATE: 16MAR22
WEIGHT: 54.60 LB
CAD: 6994563/SSFE2300
DIMS: 24x12x14 IN
BILL THIR

TO: EUROFINS TEST AMERICA

301 ALPHA DR

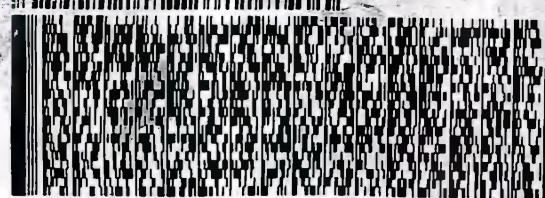
PITTSBURGH PA 15238

(412) 963-7068

TNU:

PO:

REF:



FedEx. 1 PCS
MPS# 0263 2709 4501 0014

THU - 17 MAR AA
PRIORITY OVERNIGHT

XN AGCA

15238
PA-US
PIT

Uncorrected temp
Thermometer ID

4.5 °C

CF B Initials S

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

4023362 16Mar2022 MOBA 56DG5/EB02/C0B8



180-135319 Waybill

label here.

© 1042/1043

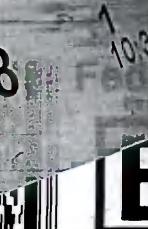
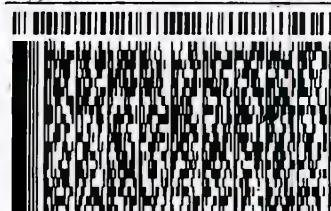
TESTAMERICA
SEE CHEERS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

TO: EUROFINS TEST AMERICA

301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7068
TNU:
PO:



1 of 4
TRK# 0201 2709 4500 9992

MASTER

XN AGCA

15238
PA-US
PIT

Uncorrected temp
Thermometer ID

34
16

CF -4 Initials S

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



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-135319-1

Login Number: 135319

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

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



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Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-135319-2

Client Project/Site: Plant Daniel Ash Pond B

For:

Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
4/14/2022 3:38:04 PM

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

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

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

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Job ID: 180-135319-2

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative 180-135319-2

Receipt

The samples were received on 3/17/2022 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.0°C and 4.1°C

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 556453 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. BAW-1 (180-135319-1), BAW-2A (180-135319-2), BAW-3 (180-135319-3), BAW-4 (180-135319-4), BAW-5 (180-135319-5), BAW-7 (180-135319-6), BAW-8 (180-135319-7), (LCS 160-556453/1-A), (LCSD 160-556453/2-A) and (MB 160-556453/23-A)

Method 9315_Ra226: Radium-226 batch 556462 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. BAW-9 (180-135319-8), DUP-01 (180-135319-9), EB-3 (180-135319-10), FB-3 (180-135319-11), (LCS 160-556462/1-A), (LCSD 160-556462/2-A) and (MB 160-556462/16-A)

Method 9320_Ra228: Radium-228 prep batch 160-556470: The LCS/LCSD recovered at 64%/59%. The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS/LCSD are not from this agency and are therefore held to our in-house statistical limits of 61-138% per method requirements. The LCS passes, and the precision is within acceptance limits for the LCSD, no further action is required. (LCS 160-556470/1-A) and (LCSD 160-556470/2-A)

Method 9320_Ra228: Radium-228 prep batch 160-556470: 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. BAW-9 (180-135319-8), DUP-01 (180-135319-9), EB-3 (180-135319-10), FB-3 (180-135319-11), (LCS 160-556470/1-A), (LCSD 160-556470/2-A) and (MB 160-556470/16-A)

Method 9320_Ra228: Radium 228 Batch 160-556460: 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. BAW-1 (180-135319-1), BAW-2A (180-135319-2), BAW-3 (180-135319-3), BAW-4 (180-135319-4), BAW-5 (180-135319-5), BAW-7 (180-135319-6), BAW-8 (180-135319-7), (LCS 160-556460/1-A), (LCSD 160-556460/2-A) and (MB 160-556460/23-A)

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

Rad

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

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Qualifiers

Rad

Qualifier

Qualifier Description

*	LCS or LCSD is outside acceptance limits.
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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Laboratory: Eurofins St. Louis

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

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

Sample Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-135319-1	BAW-1	Water	03/16/22 08:53	03/17/22 09:15
180-135319-2	BAW-2A	Water	03/16/22 09:48	03/17/22 09:15
180-135319-3	BAW-3	Water	03/16/22 10:52	03/17/22 09:15
180-135319-4	BAW-4	Water	03/16/22 12:58	03/17/22 09:15
180-135319-5	BAW-5	Water	03/16/22 11:59	03/17/22 09:15
180-135319-6	BAW-7	Water	03/16/22 07:52	03/17/22 09:15
180-135319-7	BAW-8	Water	03/16/22 12:35	03/17/22 09:15
180-135319-8	BAW-9	Water	03/16/22 13:25	03/17/22 09:15
180-135319-9	DUP-01	Water	03/16/22 11:35	03/17/22 09:15
180-135319-10	EB-3	Water	03/16/22 11:15	03/17/22 09:15
180-135319-11	FB-3	Water	03/16/22 11:00	03/17/22 09:15

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

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

Protocol References:

None = None

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

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

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-1

Date Collected: 03/16/22 08:53

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			992.06 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:29	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			992.06 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559798	04/11/22 12:32	CLP	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-2A

Date Collected: 03/16/22 09:48

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1004.59 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:29	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1004.59 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559798	04/11/22 12:32	CLP	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Date Collected: 03/16/22 10:52

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1008.08 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:33	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1008.08 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559798	04/11/22 12:32	CLP	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-4

Date Collected: 03/16/22 12:58

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.43 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:33	FLC	TAL SL
		Instrument ID: GFPCRED								

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-4

Date Collected: 03/16/22 12:58

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.43 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559798	04/11/22 12:32	CLP	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-5

Date Collected: 03/16/22 11:59

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1002.21 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:33	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1002.21 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559797	04/11/22 12:26	CLP	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Analysis	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-7

Date Collected: 03/16/22 07:52

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-6

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			1006.32 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:34	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1006.32 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559797	04/11/22 12:26	CLP	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Analysis	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-8

Date Collected: 03/16/22 12:35

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-7

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			994.43 mL	1.0 g	556453	03/22/22 09:48	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 08:34	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			994.43 mL	1.0 g	556460	03/22/22 10:30	LPS	TAL SL
Total/NA	Analysis	9320		1			559797	04/11/22 12:26	CLP	TAL SL
		Instrument ID: GFPCBLUE								

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-8

Date Collected: 03/16/22 12:35

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-7

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	Ra226_Ra228		1			560198	04/13/22 12:57	SCB	TAL SL

Client Sample ID: BAW-9

Date Collected: 03/16/22 13:25

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-8

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			1002.75 mL	1.0 g	556462	03/22/22 10:33	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 10:39	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1002.75 mL	1.0 g	556470	03/22/22 11:06	LPS	TAL SL
Total/NA	Analysis	9320		1			559310	04/08/22 11:37	FLC	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560437	04/14/22 14:48	EMH	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: DUP-01

Date Collected: 03/16/22 11:35

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-9

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			1000.27 mL	1.0 g	556462	03/22/22 10:33	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 10:39	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1000.27 mL	1.0 g	556470	03/22/22 11:06	LPS	TAL SL
Total/NA	Analysis	9320		1			559310	04/08/22 11:36	FLC	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560437	04/14/22 14:48	EMH	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: EB-3

Date Collected: 03/16/22 11:15

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-10

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			994.52 mL	1.0 g	556462	03/22/22 10:33	LPS	TAL SL
Total/NA	Analysis	9315		1			560046	04/13/22 10:39	FLC	TAL SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			994.52 mL	1.0 g	556470	03/22/22 11:06	LPS	TAL SL
Total/NA	Analysis	9320		1			559310	04/08/22 11:37	FLC	TAL SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			560437	04/14/22 14:48	EMH	TAL SL
		Instrument ID: NOEQUIP								

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: FB-3

Lab Sample ID: 180-135319-11

Matrix: Water

Date Collected: 03/16/22 11:00

Date Received: 03/17/22 09:15

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			1004.66 mL	1.0 g	556462	03/22/22 10:33	LPS	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCRED		1			560046	04/13/22 10:40	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1004.66 mL	1.0 g	556470	03/22/22 11:06	LPS	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			559310	04/08/22 11:37	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			560437	04/14/22 14:48	EMH	TAL SL

Laboratory References:

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

Analyst References:

Lab: TAL SL

Batch Type: Prep

LPS = Lauren Szostak

Batch Type: Analysis

CLP = Cassandra Park

EMH = Elizabeth Hoerchler

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-1

Date Collected: 03/16/22 08:53
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.391		0.193	0.196	1.00	0.250	pCi/L	03/22/22 09:48	04/13/22 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.3		40 - 110					03/22/22 09:48	04/13/22 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.738		0.289	0.296	1.00	0.396	pCi/L	03/22/22 10:30	04/11/22 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.3		40 - 110					03/22/22 10:30	04/11/22 12:32	1
Y Carrier	78.9		40 - 110					03/22/22 10:30	04/11/22 12:32	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.13		0.348	0.355	5.00	0.396	pCi/L		04/13/22 12:57	1

Client Sample ID: BAW-2A

Date Collected: 03/16/22 09:48
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.202	U	0.147	0.149	1.00	0.215	pCi/L	03/22/22 09:48	04/13/22 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/22/22 09:48	04/13/22 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.256	U	0.226	0.228	1.00	0.362	pCi/L	03/22/22 10:30	04/11/22 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/22/22 10:30	04/11/22 12:32	1
Y Carrier	81.5		40 - 110					03/22/22 10:30	04/11/22 12:32	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-2A

Date Collected: 03/16/22 09:48
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-2

Matrix: Water

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.458		0.270	0.272	5.00	0.362	pCi/L		04/13/22 12:57	1

Client Sample ID: BAW-3

Date Collected: 03/16/22 10:52
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0675	U	0.103	0.103	1.00	0.178	pCi/L	03/22/22 09:48	04/13/22 08:33	1
Carrier										
Ba Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
	97.8		40 - 110					03/22/22 09:48	04/13/22 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.218	U	0.234	0.235	1.00	0.383	pCi/L	03/22/22 10:30	04/11/22 12:32	1
Carrier										
Ba Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Y Carrier	97.8		40 - 110					03/22/22 10:30	04/11/22 12:32	1
	80.7		40 - 110					03/22/22 10:30	04/11/22 12:32	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.286	U	0.256	0.257	5.00	0.383	pCi/L		04/13/22 12:57	1
Carrier										

Client Sample ID: BAW-4

Date Collected: 03/16/22 12:58
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.206		0.125	0.126	1.00	0.155	pCi/L	03/22/22 09:48	04/13/22 08:33	1
Carrier										
Ba Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
	99.3		40 - 110					03/22/22 09:48	04/13/22 08:33	1

Eurofins Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-4

Lab Sample ID: 180-135319-4

Matrix: Water

Date Collected: 03/16/22 12:58

Date Received: 03/17/22 09:15

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.108	U	0.250	0.250	1.00	0.429	pCi/L	03/22/22 10:30	04/11/22 12:32	1
Carrier										
Ba Carrier	99.3		40 - 110					03/22/22 10:30	04/11/22 12:32	1
Y Carrier	78.9		40 - 110					03/22/22 10:30	04/11/22 12:32	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.314	U	0.280	0.280	5.00	0.429	pCi/L	04/13/22 12:57		1

Client Sample ID: BAW-5

Lab Sample ID: 180-135319-5

Matrix: Water

Date Collected: 03/16/22 11:59

Date Received: 03/17/22 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.251		0.143	0.145	1.00	0.184	pCi/L	03/22/22 09:48	04/13/22 08:33	1
Carrier										
Ba Carrier	99.0		40 - 110					03/22/22 09:48	04/13/22 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.14		0.314	0.331	1.00	0.381	pCi/L	03/22/22 10:30	04/11/22 12:26	1
Carrier										
Ba Carrier	99.0		40 - 110					03/22/22 10:30	04/11/22 12:26	1
Y Carrier	74.8		40 - 110					03/22/22 10:30	04/11/22 12:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.39		0.345	0.361	5.00	0.381	pCi/L	04/13/22 12:57		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-7

Date Collected: 03/16/22 07:52

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.290		0.135	0.138	1.00	0.140	pCi/L	03/22/22 09:48	04/13/22 08:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/22/22 09:48	04/13/22 08:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.10		0.305	0.321	1.00	0.380	pCi/L	03/22/22 10:30	04/11/22 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/22/22 10:30	04/11/22 12:26	1
Y Carrier	78.9		40 - 110					03/22/22 10:30	04/11/22 12:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.39		0.334	0.349	5.00	0.380	pCi/L		04/13/22 12:57	1

Client Sample ID: BAW-8

Date Collected: 03/16/22 12:35

Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.378		0.161	0.164	1.00	0.170	pCi/L	03/22/22 09:48	04/13/22 08:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.8		40 - 110					03/22/22 09:48	04/13/22 08:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.864		0.297	0.308	1.00	0.401	pCi/L	03/22/22 10:30	04/11/22 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.8		40 - 110					03/22/22 10:30	04/11/22 12:26	1
Y Carrier	80.7		40 - 110					03/22/22 10:30	04/11/22 12:26	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: BAW-8

Date Collected: 03/16/22 12:35
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-7

Matrix: Water

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.24		0.338	0.349	5.00	0.401	pCi/L		04/13/22 12:57	1

Client Sample ID: BAW-9

Date Collected: 03/16/22 13:25
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.245		0.130	0.132	1.00	0.174	pCi/L	03/22/22 10:33	04/13/22 10:39	1
Carrier										
Ba Carrier	92.1	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
				40 - 110				03/22/22 10:33	04/13/22 10:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.458	*	0.224	0.228	1.00	0.320	pCi/L	03/22/22 11:06	04/08/22 11:37	1
Carrier										
Ba Carrier	92.1	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Y Carrier	83.7			40 - 110				03/22/22 11:06	04/08/22 11:37	1
								03/22/22 11:06	04/08/22 11:37	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.702		0.259	0.263	5.00	0.320	pCi/L		04/14/22 14:48	1

Client Sample ID: DUP-01

Date Collected: 03/16/22 11:35
Date Received: 03/17/22 09:15

Lab Sample ID: 180-135319-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.331		0.135	0.139	1.00	0.161	pCi/L	03/22/22 10:33	04/13/22 10:39	1
Carrier										
Ba Carrier	96.8	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
				40 - 110				03/22/22 10:33	04/13/22 10:39	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: DUP-01

Lab Sample ID: 180-135319-9

Matrix: Water

Date Collected: 03/16/22 11:35

Date Received: 03/17/22 09:15

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.233	U *	0.207	0.208	1.00	0.332	pCi/L	03/22/22 11:06	04/08/22 11:36	1
Carrier										
Ba Carrier	96.8		Limits					Prepared	Analyzed	Dil Fac
Y Carrier	85.6		40 - 110					03/22/22 11:06	04/08/22 11:36	1
40 - 110										

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.564		0.247	0.250	5.00	0.332	pCi/L	04/14/22 14:48		1

Client Sample ID: EB-3

Lab Sample ID: 180-135319-10

Matrix: Water

Date Collected: 03/16/22 11:15

Date Received: 03/17/22 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.0576	U	0.0624	0.0626	1.00	0.153	pCi/L	03/22/22 10:33	04/13/22 10:39	1
Carrier										
Ba Carrier	95.6		Limits					Prepared	Analyzed	Dil Fac
			40 - 110					03/22/22 10:33	04/13/22 10:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.0183	U *	0.189	0.189	1.00	0.344	pCi/L	03/22/22 11:06	04/08/22 11:37	1
Carrier										
Ba Carrier	95.6		Limits					Prepared	Analyzed	Dil Fac
Y Carrier	85.6		40 - 110					03/22/22 11:06	04/08/22 11:37	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	-0.0760	U	0.199	0.199	5.00	0.344	pCi/L	04/14/22 14:48		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Client Sample ID: FB-3

Lab Sample ID: 180-135319-11

Matrix: Water

Date Collected: 03/16/22 11:00
Date Received: 03/17/22 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0153	U	0.0792	0.0792	1.00	0.156	pCi/L	03/22/22 10:33	04/13/22 10:40	1
<i>Carrier</i>	%Yield	Qualifier	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	70.6		40 - 110					03/22/22 10:33	04/13/22 10:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.0191	U *	0.225	0.225	1.00	0.414	pCi/L	03/22/22 11:06	04/08/22 11:37	1
<i>Carrier</i>	%Yield	Qualifier	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	70.6		40 - 110					03/22/22 11:06	04/08/22 11:37	1
Y Carrier	85.6		40 - 110					03/22/22 11:06	04/08/22 11:37	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	-0.00380	U	0.239	0.239	5.00	0.414	pCi/L		04/14/22 14:48	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-556453/23-A

Matrix: Water

Analysis Batch: 560046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 556453

Analyte	Result	MB MB Qualifer	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.05665	U	0.0920	0.0921	1.00	0.161	pCi/L	03/22/22 09:48	04/13/22 08:34	1
Carrier		MB MB Qualifer	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/22/22 09:48	04/13/22 08:34	1

Lab Sample ID: LCS 160-556453/1-A

Matrix: Water

Analysis Batch: 560040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 556453

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	Limits	
				Uncert. (2σ+/-)						
Radium-226	11.3	10.96		1.25	1.00	0.226	pCi/L	97	75 - 125	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	95.1		40 - 110							

Lab Sample ID: LCSD 160-556453/2-A

Matrix: Water

Analysis Batch: 560040

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556453

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	Limits	RER
				Uncert. (2σ+/-)						
Radium-226	11.3	9.315		1.11	1.00	0.235	pCi/L	82	75 - 125	0.69
Carrier	LCSD %Yield	LCSD Qualifier	Limits							
Ba Carrier	92.3		40 - 110							

Lab Sample ID: MB 160-556462/16-A

Matrix: Water

Analysis Batch: 560040

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 556462

Analyte	MB Result	MB Qualifer	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.008053	U	0.0679	0.0679	1.00	0.142	pCi/L	03/22/22 10:33	04/13/22 10:36	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		40 - 110					03/22/22 10:33	04/13/22 10:36	1

Lab Sample ID: LCS 160-556462/1-A

Matrix: Water

Analysis Batch: 560046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 556462

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	Limits	
				Uncert. (2σ+/-)						
Radium-226	11.3	9.821		1.06	1.00	0.116	pCi/L	87	75 - 125	

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QC Sample Results

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-556462/1-A

Matrix: Water

Analysis Batch: 560046

	LCS	LCS
Carrier	%Yield	Qualifier
Ba Carrier	97.0	40 - 110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 556462

Lab Sample ID: LCSD 160-556462/2-A

Matrix: Water

Analysis Batch: 560046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556462

Analyte	Spike Added	LCSD		LCSD		Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
		Result	Qual	Result	Qual								
Radium-226	11.3	9.393		1.02		1.00		0.102	pCi/L	83	75 - 125	0.21	1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-556460/23-A

Matrix: Water

Analysis Batch: 559797

Analyte	MB		Count		Total		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	(2σ+/-)	Uncert.	(2σ+/-)	Total Uncert.						
Radium-228	0.1584	U	0.201		0.202	0.202	1.00	0.334	pCi/L	03/22/22 10:30	04/11/22 12:27	1

Carrier	MB		MB		Prepared	Analyzed	Dil Fac
	%Yield	Qualifier	Limits	Limits			
Ba Carrier	101		40 - 110		03/22/22 10:30	04/11/22 12:27	1
Y Carrier	84.1		40 - 110		03/22/22 10:30	04/11/22 12:27	1

Lab Sample ID: LCS 160-556460/1-A

Matrix: Water

Analysis Batch: 559798

Analyte	Spike		LCS		Total		RL	MDC	Unit	%Rec	%Rec Limits	Dil Fac
	Added	Result	Result	Qual	Uncert. (2σ+/-)	Total Uncert.						
Radium-228	0.872	0.7662	0.7662		0.284	0.284	1.00	0.371	pCi/L	88	75 - 125	1

Carrier	LCS		LCS		Prepared	Analyzed	Dil Fac
	%Yield	Qualifier	Limits	Limits			
Ba Carrier	95.1		40 - 110		03/22/22 10:30	04/11/22 12:27	1
Y Carrier	82.2		40 - 110		03/22/22 10:30	04/11/22 12:27	1

Lab Sample ID: LCSD 160-556460/2-A

Matrix: Water

Analysis Batch: 559798

Analyte	Spike		LCSD		Total		RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
	Added	Result	Result	Qual	Uncert. (2σ+/-)	Total Uncert.							
Radium-228	0.872	0.9613	0.9613		0.295	0.295	1.00	0.342	pCi/L	110	75 - 125	0.34	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

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

Lab Sample ID: LCSD 160-556460/2-A

Matrix: Water

Analysis Batch: 559798

Carrier	LCSD	LCSD	%Yield	Qualifier	Limits
Ba Carrier	92.3				40 - 110
Y Carrier	82.6				40 - 110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556460

Lab Sample ID: MB 160-556470/16-A

Matrix: Water

Analysis Batch: 559296

Analyte	Result	MB	MB	Count	Total		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
					Uncert.	(2σ+/-)						
Radium-228	-0.1246	U		0.217		0.217	1.00	0.408	pCi/L	03/22/22 11:06	04/08/22 11:42	1

Carrier	%Yield	MB	MB	Result	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.5					40 - 110	03/22/22 11:06	04/08/22 11:42	1
Y Carrier	82.2					40 - 110	03/22/22 11:06	04/08/22 11:42	1

Lab Sample ID: LCS 160-556470/1-A

Matrix: Water

Analysis Batch: 559310

Analyte	Spike Added	LCS Result	LCS Qual	Total		RL	MDC	Unit	%Rec	Limits	%Rec
				Uncert.	(2σ+/-)						
Radium-228	0.873	0.5565	*		0.243	1.00	0.334	pCi/L	64	75 - 125	

Carrier	%Yield	MB	MB	Result	Qualifier	Limits
Ba Carrier	97.0					40 - 110
Y Carrier	85.2					40 - 110

Lab Sample ID: LCSD 160-556470/2-A

Matrix: Water

Analysis Batch: 559310

Analyte	Spike Added	LCS Result	LCS Qual	Total		RL	MDC	Unit	%Rec	Limits	%Rec	RER
				Uncert.	(2σ+/-)							
Radium-228	0.873	0.4870	*		0.216	1.00	0.293	pCi/L	56	75 - 125	0.15	1

Carrier	%Yield	MB	MB	Result	Qualifier	Limits
Ba Carrier	101					40 - 110
Y Carrier	85.2					40 - 110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556470

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-135319-2

Rad

Prep Batch: 556453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total/NA	Water	PrecSep-21	
180-135319-2	BAW-2A	Total/NA	Water	PrecSep-21	
180-135319-3	BAW-3	Total/NA	Water	PrecSep-21	
180-135319-4	BAW-4	Total/NA	Water	PrecSep-21	
180-135319-5	BAW-5	Total/NA	Water	PrecSep-21	
180-135319-6	BAW-7	Total/NA	Water	PrecSep-21	
180-135319-7	BAW-8	Total/NA	Water	PrecSep-21	
MB 160-556453/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-556453/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-556453/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 556460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-1	BAW-1	Total/NA	Water	PrecSep_0	
180-135319-2	BAW-2A	Total/NA	Water	PrecSep_0	
180-135319-3	BAW-3	Total/NA	Water	PrecSep_0	
180-135319-4	BAW-4	Total/NA	Water	PrecSep_0	
180-135319-5	BAW-5	Total/NA	Water	PrecSep_0	
180-135319-6	BAW-7	Total/NA	Water	PrecSep_0	
180-135319-7	BAW-8	Total/NA	Water	PrecSep_0	
MB 160-556460/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-556460/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-556460/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 556462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-8	BAW-9	Total/NA	Water	PrecSep-21	
180-135319-9	DUP-01	Total/NA	Water	PrecSep-21	
180-135319-10	EB-3	Total/NA	Water	PrecSep-21	
180-135319-11	FB-3	Total/NA	Water	PrecSep-21	
MB 160-556462/16-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-556462/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-556462/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 556470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-135319-8	BAW-9	Total/NA	Water	PrecSep_0	
180-135319-9	DUP-01	Total/NA	Water	PrecSep_0	
180-135319-10	EB-3	Total/NA	Water	PrecSep_0	
180-135319-11	FB-3	Total/NA	Water	PrecSep_0	
MB 160-556470/16-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-556470/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-556470/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Chain of Custody Record

Client Information		Sampler: <i>Grettie Sackles / Phil Evans</i>	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:								
Client Contact: SCS Contacts		Phone: <i>850 380 3458</i>	E-Mail: <i>shali.brown@eurofinset.com</i>		Page: <i>i - 1</i>								
Company: SCS													
Address: 3535 Colonnade Pkwy Bin S 530 EC		Due Date Requested:											
City: Birmingham		TAT Requested (days):											
State, Zip: Alabama													
Phone: 205.992.6283		PO #: SCS10382606											
Email: SCS Contacts		WO #:											
Project Name: Plant Daniel Ash Pond B		Project #: 18020047											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Custom 14 (Appli and IV) + Mercury	Chloride Fluoride and Sulfate	Total Dissolved Solids	Radium 226 Radium 228 + Combined	Total Number of containers	Preservation Codes:
BAW-1		3/16/22	08553	G	W	X	X	X	X				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)
BAW-2A			0848										Other:
BAW-3			1052										
BAW-4			1358										
BAW-5			1159										
BAW-7			0752										
BAW-8			1235										
BAW-9			1325										
Dup-01			1135										
EB-3			1115										
FB-3		3/16/22	1100	G	W	X	X	X					
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:							
Empty Kit Relinquished by:			Date:	Time:		Method of Shipment:							
<i>[Signature]</i>			3/16/22 1400	Company: RDH		<i>[Signature]</i>		Date/Time: 3/17/22 915		Company: <i>[Signature]</i>			
Relinquished by:			Date/Time:	Company:		Received by:		Date/Time:		Company:			
Relinquished by:			Date/Time:	Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:							

SHIPPING NUMBER (850) 336-0192
TESTAMERICA PITTSBURGH-LAB
SEE CHEERS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

SHIP DATE: 16MAR22
WEIGHT: 54.60 LB
CAD: 6994563/SSFE2300
DIMS: 24x12x14 IN
BILL THIR

TO: EUROFINS TEST AMERICA

301 ALPHA DR

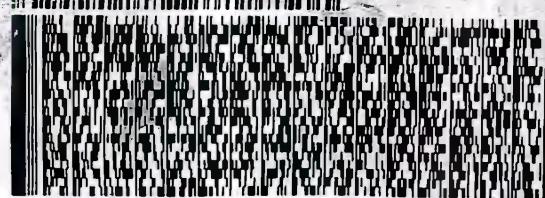
PITTSBURGH PA 15238

(412) 963-7068

TNU:

PO:

REF:



FedEx. 1 PCS
MPS# 0263 2709 4501 0014

THU - 17 MAR AA
PRIORITY OVERNIGHT

XN AGCA

15238
PA-US
PIT

Uncorrected temp
Thermometer ID

4.5 °C

CF B Initials S

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

4023362 16Mar2022 MOBA 56DG5/EB002/C0B8



180-135319 Waybill

label here.

© 1041/1041

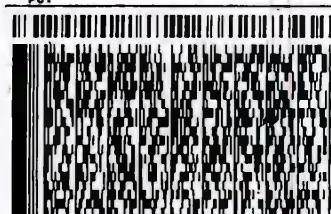
TESTAMERICA
SEE CHEERS 5 BEFORE BILL
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

TO: EUROFINS TEST AMERICA

301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7068
TNU:
PO:



© 1041/1041

1 of 4
TRK# 0201 2709 4500 9992
MASTER

THU - 17 MAR 10:30A
PRIORITY OVERNIGHT

XN AGCA

15238
PA-US
PIT

Uncorrected temp
Thermometer ID

3.7

CF -4 Initials S

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



Chain of Custody Record

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

Possible Hazard Identification

Unconfirmed
Deliverable Requested. I, II, III, IV, Other (specify)

Primary Deliverable Rank: 2

Return To Client *Disp.*

Special Instructions/QC Requirements:

By Lab Archive For _____ Month _____

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by:		Date/Time: <u>3-18-72 1700</u>	Company 	Received by 	Date/Time: 
Relinquished by:		Date/Time: 	Company	Received by 	Date/Time: 
Relinquished by:		Date/Time: 	Company	Received by 	Date/Time: 
Custody Seals Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.: 	Company	Cooler Temperature(s) °C and Other Remarks:	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-135319-2

Login Number: 135319

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

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

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-135319-2

Login Number: 135319

List Source: Eurofins St. Louis

List Number: 2

List Creation: 03/21/22 12:45 PM

Creator: Johnson, Autumn R

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	

Low-Flow Test Report:

Test Date / Time: 3/16/2022 8:26:34 AM

Project: Daniel BAW

Operator Name: Brett Surles

Location Name: Daniel BAW-1 Well Diameter: 2 in Casing Type: PE Screen Length: 5 ft Top of Screen: 55.6 ft Total Depth: 60.6 ft Initial Depth to Water: 46.3 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 58.1 ft Estimated Total Volume Pumped: 10 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 800306
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Test Notes:

Sample @0853

Weather Conditions:

Cloudy 65

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 8:26 AM	00:00	5.28 pH	18.85 °C	36.15 µS/cm	8.08 mg/L	1.40 NTU	259.8 mV	46.30 ft	400.00 ml/min
3/16/2022 8:31 AM	05:00	4.95 pH	21.11 °C	43.22 µS/cm	4.04 mg/L	2.16 NTU	200.9 mV	46.30 ft	400.00 ml/min
3/16/2022 8:36 AM	10:00	4.93 pH	21.12 °C	43.77 µS/cm	4.06 mg/L	2.04 NTU	251.0 mV	46.30 ft	400.00 ml/min
3/16/2022 8:41 AM	15:00	4.92 pH	21.12 °C	43.37 µS/cm	4.08 mg/L	1.87 NTU	161.9 mV	46.30 ft	400.00 ml/min
3/16/2022 8:46 AM	20:00	4.92 pH	21.13 °C	43.32 µS/cm	4.07 mg/L	1.64 NTU	151.0 mV	46.30 ft	400.00 ml/min
3/16/2022 8:51 AM	25:00	4.92 pH	21.09 °C	43.39 µS/cm	4.10 mg/L	1.47 NTU	141.1 mV	46.30 ft	400.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/16/2022 9:22:49 AM

Project: Daniel BAW

Operator Name: Brett Surles

Location Name: Daniel BAW-2a Well Diameter: 2 in Casing Type: PE Screen Length: 10 ft Top of Screen: 57.2 ft Total Depth: 67.2 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 62.2 ft Estimated Total Volume Pumped: 10 liter Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 800306
--	--	--

Test Notes:

Sample @0948

Weather Conditions:

Partly cloudy 63

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 9:22 AM	00:00	6.20 pH	18.70 °C	71.54 µS/cm	9.14 mg/L	0.60 NTU	134.4 mV		400.00 ml/min
3/16/2022 9:27 AM	05:00	5.03 pH	20.11 °C	60.94 µS/cm	4.87 mg/L	1.59 NTU	126.0 mV		400.00 ml/min
3/16/2022 9:32 AM	10:00	4.93 pH	20.55 °C	55.20 µS/cm	3.71 mg/L	1.07 NTU	176.4 mV		400.00 ml/min
3/16/2022 9:37 AM	15:00	4.92 pH	20.75 °C	52.52 µS/cm	3.77 mg/L	0.88 NTU	120.5 mV		400.00 ml/min
3/16/2022 9:42 AM	20:00	4.91 pH	20.59 °C	51.86 µS/cm	3.80 mg/L	0.77 NTU	115.9 mV		400.00 ml/min
3/16/2022 9:47 AM	25:00	4.91 pH	20.64 °C	51.98 µS/cm	3.79 mg/L	0.37 NTU	113.3 mV		400.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/16/2022 10:29:32 AM

Project: Daniel BAW

Operator Name: Brett Surles

Location Name: Daniel BAW-3 Well Diameter: 2 in Casing Type: PE Screen Length: 10 ft Top of Screen: 58.4 ft Total Depth: 68.4 ft Initial Depth to Water: 57.59 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 63.4 ft Estimated Total Volume Pumped: 8 liter Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.01 ft	Instrument Used: Aqua TROLL 400 Serial Number: 800306
--	--	--

Test Notes:

Sample@1052 FB-3@1100

Weather Conditions:

Partly cloudy 65

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 10:29 AM	00:00	5.52 pH	19.66 °C	34.45 µS/cm	9.03 mg/L	1.36 NTU	148.5 mV	57.60 ft	400.00 ml/min
3/16/2022 10:34 AM	05:00	4.66 pH	22.20 °C	43.29 µS/cm	1.16 mg/L	2.77 NTU	159.3 mV	57.60 ft	400.00 ml/min
3/16/2022 10:39 AM	10:00	4.64 pH	22.51 °C	43.56 µS/cm	0.40 mg/L	3.09 NTU	147.3 mV	57.60 ft	400.00 ml/min
3/16/2022 10:44 AM	15:00	4.63 pH	22.69 °C	43.58 µS/cm	0.38 mg/L	3.62 NTU	100.1 mV	57.60 ft	400.00 ml/min
3/16/2022 10:49 AM	20:00	4.64 pH	22.60 °C	43.74 µS/cm	0.43 mg/L	1.33 NTU	139.6 mV	57.60 ft	400.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/16/2022 12:37:02 PM

Project: Daniel BAW

Operator Name: Brett Surles

Location Name: Daniel BAW-4 Well Diameter: 2 in Casing Type: PE Screen Length: 10 ft Top of Screen: 59.9 ft Total Depth: 69.9 ft Initial Depth to Water: 53.02 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 64.9 ft Estimated Total Volume Pumped: 8 liter Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.23 ft	Instrument Used: Aqua TROLL 400 Serial Number: 800306
--	--	--

Test Notes:

Sample @1258

Weather Conditions:

Partly cloudy 70

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 12:37 PM	00:00	6.09 pH	22.00 °C	107.00 µS/cm	5.88 mg/L	1.60 NTU	31.2 mV	53.25 ft	400.00 ml/min
3/16/2022 12:42 PM	05:00	6.59 pH	22.56 °C	0.00 µS/cm	8.63 mg/L	3.92 NTU	37.3 mV	53.25 ft	400.00 ml/min
3/16/2022 12:47 PM	10:00	5.55 pH	23.15 °C	95.82 µS/cm	0.31 mg/L	5.25 NTU	-71.9 mV	53.25 ft	400.00 ml/min
3/16/2022 12:52 PM	15:00	5.55 pH	23.27 °C	94.86 µS/cm	0.26 mg/L	2.13 NTU	-70.9 mV	53.25 ft	400.00 ml/min
3/16/2022 12:57 PM	20:00	5.56 pH	22.91 °C	97.05 µS/cm	0.26 mg/L	1.89 NTU	-76.3 mV	53.25 ft	400.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/16/2022 11:38:16 AM

Project: Daniel BAW

Operator Name: Brett Surles

Location Name: Daniel BAW-5 Well Diameter: 2 in Casing Type: PE Screen Length: 10 ft Top of Screen: 59.1 ft Total Depth: 69.1 ft Initial Depth to Water: 54.3 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 64.1 m Estimated Total Volume Pumped: 8 liter Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.03 ft	Instrument Used: Aqua TROLL 400 Serial Number: 800306
---	---	--

Test Notes:

Sample @1159, EB-3@1115

Weather Conditions:

Partly cloudy 66

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 11:38 AM	00:00	6.20 pH	22.22 °C	195.71 µS/cm	1.30 mg/L	3.01 NTU	-44.7 mV	54.33 ft	400.00 ml/min
3/16/2022 11:43 AM	05:00	6.19 pH	21.94 °C	205.03 µS/cm	0.48 mg/L	1.12 NTU	-107.8 mV	54.33 ft	400.00 ml/min
3/16/2022 11:48 AM	10:00	6.19 pH	21.93 °C	206.18 µS/cm	0.31 mg/L	0.83 NTU	-64.0 mV	54.33 ft	400.00 ml/min
3/16/2022 11:53 AM	15:00	6.19 pH	22.38 °C	207.94 µS/cm	0.27 mg/L	0.62 NTU	-61.9 mV	54.33 ft	400.00 ml/min
3/16/2022 11:58 AM	20:00	6.20 pH	22.49 °C	207.40 µS/cm	0.26 mg/L	0.59 NTU	-60.6 mV	54.33 ft	400.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/16/2022 7:26:21 AM

Project: Daniel BAW

Operator Name: Brett Surles

Location Name: Daniel BAW-7 Well Diameter: 2 in Casing Type: PE Screen Length: 10 ft Top of Screen: 50 ft Total Depth: 60 ft Initial Depth to Water: 52.5 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 55 ft Estimated Total Volume Pumped: 10 liter Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 800306
--	--	--

Test Notes:

Sample@0752

Weather Conditions:

Cloudy 57

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 7:26 AM	00:00	4.72 pH	18.93 °C	60.14 µS/cm	2.01 mg/L	9.26 NTU	258.4 mV	52.54 ft	400.00 ml/min
3/16/2022 7:31 AM	05:00	4.78 pH	19.21 °C	59.65 µS/cm	2.00 mg/L	6.16 NTU	345.6 mV	52.54 ft	400.00 ml/min
3/16/2022 7:36 AM	10:00	4.76 pH	19.13 °C	58.57 µS/cm	1.75 mg/L	3.75 NTU	391.5 mV	52.54 ft	400.00 ml/min
3/16/2022 7:41 AM	15:00	4.75 pH	19.08 °C	58.14 µS/cm	1.64 mg/L	2.74 NTU	437.5 mV	52.54 ft	400.00 ml/min
3/16/2022 7:46 AM	20:00	4.74 pH	19.09 °C	57.67 µS/cm	1.54 mg/L	1.89 NTU	490.2 mV	52.54 ft	400.00 ml/min
3/16/2022 7:51 AM	25:00	4.75 pH	19.22 °C	57.03 µS/cm	1.47 mg/L	1.32 NTU	361.8 mV	52.54 ft	400.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/16/2022 12:11:39 PM

Project: Daniel BAW

Operator Name: Philip Evans

Location Name: Daniel BAW-8 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 58.7 ft Total Depth: 68.7 ft Initial Depth to Water: 56.52 ft	Pump Type: BP Tubing Type: Pe Pump Intake From TOC: 63.7 ft Estimated Total Volume Pumped: 8000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
--	---	--

Test Notes:

Sample time @ 1235. Sunny 75. DUP-01 @ fake time 1135.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 12:11 PM	00:00	5.62 pH	23.08 °C	284.63 µS/cm	0.30 mg/L	1.05 NTU	74.3 mV	56.56 ft	400.00 ml/min
3/16/2022 12:16 PM	05:00	5.68 pH	23.78 °C	289.16 µS/cm	0.20 mg/L	0.85 NTU	48.8 mV	56.56 ft	400.00 ml/min
3/16/2022 12:21 PM	10:00	5.73 pH	23.86 °C	288.17 µS/cm	0.17 mg/L	0.78 NTU	35.3 mV	56.56 ft	400.00 ml/min
3/16/2022 12:26 PM	15:00	5.78 pH	24.06 °C	287.33 µS/cm	0.15 mg/L	0.70 NTU	24.6 mV	56.56 ft	400.00 ml/min
3/16/2022 12:31 PM	20:00	5.81 pH	24.01 °C	290.05 µS/cm	0.13 mg/L	0.63 NTU	17.5 mV	56.56 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-8	Sample time @ 1235. Sunny 75. DUP-01 @ fake time 1135.

Low-Flow Test Report:

Test Date / Time: 3/16/2022 1:06:48 PM

Project: Daniel BAW

Operator Name: Philip Evans

Location Name: Daniel BAW-9 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 53.15 ft Total Depth: 63.15 ft Initial Depth to Water: 54.4 ft	Pump Type: BP Tubing Type: Pe Pump Intake From TOC: 58.15 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.08 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
---	--	--

Test Notes:

Sample time @ 1325. Sunny 75.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.2	
3/16/2022 1:06 PM	00:00	6.07 pH	23.53 °C	313.49 µS/cm	0.29 mg/L	1.53 NTU	41.1 mV	54.48 ft	400.00 ml/min
3/16/2022 1:11 PM	05:00	5.98 pH	24.87 °C	311.53 µS/cm	0.16 mg/L	0.83 NTU	38.9 mV	54.48 ft	400.00 ml/min
3/16/2022 1:16 PM	10:00	5.96 pH	24.84 °C	311.24 µS/cm	0.12 mg/L	0.56 NTU	39.8 mV	54.48 ft	400.00 ml/min
3/16/2022 1:21 PM	15:00	5.94 pH	24.95 °C	310.73 µS/cm	0.10 mg/L	0.54 NTU	40.9 mV	54.48 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-9	Sample time @ 1325. Sunny 75.

2nd

Semi-Annual

Monitoring Event



eurofins

Environment Testing



ANALYTICAL REPORT

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

Laboratory Job ID: 180-145835-1
Client Project/Site: Plant Daniel Ash Pond B

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert (Trey) Singleton

Authorized for release by:
10/31/2022 4:06:17 PM
Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@et.eurofinsus.com

LINKS

Review your project
results through



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www.eurofinsus.com/Env

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

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

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Job ID: 180-145835-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative 180-145835-1

Receipt

The samples were received on 10/7/2022 1:14 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.2°C, 2.6°C and 3.0°C

HPLC/IC

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

Metals

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 180-415670 and analytical batch 180-416345 were outside control limits for multiple analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020B: The post digestion spike % recovery for barium associated with batch 180-416345 was outside of control limits. The associated sample is: BAW-8 (180-145835-6).

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

General Chemistry

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

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

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
F1	MS and/or MSD recovery exceeds control 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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22 *
California	State	2891	04-30-23
Connecticut	State	PH-0688	09-30-22 *
Florida	NELAP	E871008	06-30-23
Georgia	State	PA 02-00416	04-30-23
Illinois	NELAP	004375	06-30-23
Kansas	NELAP	E-10350	03-31-23
Kentucky (UST)	State	162013	04-30-23
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
New Hampshire	NELAP	2030	04-04-23
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-01-23
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-23
Oregon	NELAP	PA-2151	02-07-23
Pennsylvania	NELAP	02-00416	04-30-23
Rhode Island	State	LAO00362	12-31-22
South Carolina	State	89014	04-20-23
Texas	NELAP	T104704528	03-31-23
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-23
Virginia	NELAP	10043	09-14-23
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-23

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

Eurofins Pittsburgh

Sample Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-145835-1	BAW-1	Water	10/05/22 17:14	10/07/22 13:14
180-145835-2	BAW-3	Water	10/05/22 18:20	10/07/22 13:14
180-145835-3	BAW-4	Water	10/05/22 15:10	10/07/22 13:14
180-145835-4	BAW-5	Water	10/06/22 11:23	10/07/22 13:14
180-145835-5	BAW-7	Water	10/06/22 12:07	10/07/22 13:14
180-145835-6	BAW-8	Water	10/06/22 10:02	10/07/22 13:14
180-145835-7	BAW-9	Water	10/06/22 08:36	10/07/22 13:14
180-145835-8	DUP-03	Water	10/05/22 14:10	10/07/22 13:14
180-145835-9	EB-03	Water	10/06/22 08:55	10/07/22 13:14
180-145835-10	DUP-04	Water	10/06/22 11:07	10/07/22 13:14
180-145835-11	FB-03	Water	10/06/22 09:31	10/07/22 13:14

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	EET PIT
EPA 6020B	Metals (ICP/MS)	SW846	EET PIT
EPA 7470A	Mercury (CVAA)	SW846	EET PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PIT
7470A	Preparation, Mercury	SW846	EET PIT

Protocol References:

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:

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

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-1

Date Collected: 10/05/22 17:14

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			414596	10/10/22 14:28	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415670	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416345	10/26/22 18:19	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:02	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414740	10/11/22 14:25	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Date Collected: 10/05/22 18:20

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			414596	10/10/22 15:13	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415670	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416345	10/26/22 18:22	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:03	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414740	10/11/22 14:25	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-4

Date Collected: 10/05/22 15:10

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			414596	10/10/22 15:28	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415670	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416345	10/26/22 18:26	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:07	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414747	10/11/22 15:42	LWM	EET PIT
		Instrument ID: NOEQUIP								

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-5

Date Collected: 10/06/22 11:23

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			414596	10/10/22 15:43	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415670	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416345	10/26/22 18:37	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:13	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-7

Date Collected: 10/06/22 12:07

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			414596	10/10/22 15:58	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415670	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416345	10/26/22 18:40	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:14	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-8

Date Collected: 10/06/22 10:02

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-6

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 9056A		1			414596	10/10/22 16:13	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415670	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416345	10/26/22 18:44	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:15	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-9

Date Collected: 10/06/22 08:36

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-7

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 9056A		1			414596	10/10/22 16:57	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416064	10/22/22 17:10	RSK	EET PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416090	10/22/22 17:10	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:16	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: DUP-03

Date Collected: 10/05/22 14:10

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-8

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 9056A		1			414596	10/10/22 17:12	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416064	10/22/22 17:14	RSK	EET PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416090	10/22/22 17:14	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:08	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414747	10/11/22 15:42	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EB-03

Date Collected: 10/06/22 08:55

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-9

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 9056A		1			414596	10/10/22 17:27	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416064	10/22/22 17:18	RSK	EET PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416090	10/22/22 17:18	RSK	EET PIT
		Instrument ID: A								

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: EB-03

Date Collected: 10/06/22 08:55

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-9

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			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:21	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: DUP-04

Date Collected: 10/06/22 11:07

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-10

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 9056A		1			414596	10/10/22 17:56	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416064	10/22/22 17:21	RSK	EET PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416090	10/22/22 17:21	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:22	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FB-03

Date Collected: 10/06/22 09:31

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			414596	10/10/22 17:42	SNL	EET PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416064	10/22/22 17:25	RSK	EET PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			25 mL	25 mL	415672	10/20/22 11:45	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			416090	10/22/22 17:25	RSK	EET PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	414695	10/11/22 11:45	HCY	EET PIT
Total/NA	Analysis	EPA 7470A		1			414877	10/12/22 15:23	SNR	EET PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	414950	10/13/22 10:01	LWM	EET PIT
		Instrument ID: NOEQUIP								

Laboratory References:

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

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Analyst References:

Lab: EET PIT

Batch Type: Prep

HCY = Harrison Yaeger

Batch Type: Analysis

LWM = Leslie McIntire

RSK = Robert Kurtz

SNL = Sean Lordo

SNR = Sabra Richart

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-1

Date Collected: 10/05/22 17:14

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-1

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.75		1.00	0.713	mg/L			10/10/22 14:28	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 14:28	1
Sulfate	1.34		1.00	0.756	mg/L			10/10/22 14:28	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	1
Arsenic	<0.000282		0.00100	0.000282	mg/L			10/20/22 11:45	1
Barium	0.0512		0.0100	0.00314	mg/L			10/20/22 11:45	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	1
Boron	<0.0601		0.0800	0.0601	mg/L			10/20/22 11:45	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	1
Calcium	1.42		0.500	0.127	mg/L			10/20/22 11:45	1
Chromium	<0.00153		0.00200	0.00153	mg/L			10/20/22 11:45	1
Cobalt	0.00200		0.000500	0.000261	mg/L			10/20/22 11:45	1
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	1
Lithium	<0.000831		0.00500	0.000831	mg/L			10/20/22 11:45	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L			10/20/22 11:45	1
Selenium	<0.000739		0.00500	0.000739	mg/L			10/20/22 11:45	1
Thallium	<0.000472		0.00100	0.000472	mg/L			10/20/22 11:45	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			10/11/22 11:45	10/12/22 15:02

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	30.0		10.0	10.0	mg/L			10/11/22 14:25	1

Client Sample ID: BAW-3

Date Collected: 10/05/22 18:20

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-2

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.04		1.00	0.713	mg/L			10/10/22 15:13	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 15:13	1
Sulfate	6.07		1.00	0.756	mg/L			10/10/22 15:13	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	1
Arsenic	<0.000282		0.00100	0.000282	mg/L			10/20/22 11:45	1
Barium	0.0415		0.0100	0.00314	mg/L			10/20/22 11:45	1
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	1
Boron	<0.0601		0.0800	0.0601	mg/L			10/20/22 11:45	1
Cadmium	0.000379 J		0.00100	0.000217	mg/L			10/20/22 11:45	1
Calcium	0.647		0.500	0.127	mg/L			10/20/22 11:45	1
Chromium	0.0191		0.00200	0.00153	mg/L			10/20/22 11:45	1
Cobalt	0.00821		0.000500	0.000261	mg/L			10/20/22 11:45	1
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-3

Lab Sample ID: 180-145835-2

Matrix: Water

Date Collected: 10/05/22 18:20

Date Received: 10/07/22 13:14

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.00322	J	0.00500	0.000831	mg/L		10/20/22 11:45	10/26/22 18:22	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/20/22 11:45	10/26/22 18:22	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/26/22 18:22	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/26/22 18:22	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	32.0		10.0	10.0	mg/L		10/11/22 14:25		1

Client Sample ID: BAW-4

Lab Sample ID: 180-145835-3

Matrix: Water

Date Collected: 10/05/22 15:10

Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.84		1.00	0.713	mg/L			10/10/22 15:28	1
Fluoride	0.0322	J	0.100	0.0260	mg/L			10/10/22 15:28	1
Sulfate	4.12		1.00	0.756	mg/L			10/10/22 15:28	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		10/20/22 11:45	10/26/22 18:26	1
Arsenic	0.00467		0.00100	0.000282	mg/L		10/20/22 11:45	10/26/22 18:26	1
Barium	0.0248		0.0100	0.00314	mg/L		10/20/22 11:45	10/26/22 18:26	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		10/20/22 11:45	10/26/22 18:26	1
Boron	0.0714	J	0.0800	0.0601	mg/L		10/20/22 11:45	10/26/22 18:26	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/20/22 11:45	10/26/22 18:26	1
Calcium	5.81		0.500	0.127	mg/L		10/20/22 11:45	10/26/22 18:26	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/20/22 11:45	10/26/22 18:26	1
Cobalt	0.00121		0.000500	0.000261	mg/L		10/20/22 11:45	10/26/22 18:26	1
Lead	<0.000167		0.00100	0.000167	mg/L		10/20/22 11:45	10/26/22 18:26	1
Lithium	0.00676		0.00500	0.000831	mg/L		10/20/22 11:45	10/26/22 18:26	1
Molybdenum	0.000939	J	0.00500	0.000610	mg/L		10/20/22 11:45	10/26/22 18:26	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/26/22 18:26	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/26/22 18:26	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	52.0		10.0	10.0	mg/L		10/11/22 15:42		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-5

Lab Sample ID: 180-145835-4

Matrix: Water

Date Collected: 10/06/22 11:23

Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.04		1.00	0.713	mg/L			10/10/22 15:43	1
Fluoride	0.0972 J		0.100	0.0260	mg/L			10/10/22 15:43	1
Sulfate	19.5		1.00	0.756	mg/L			10/10/22 15:43	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	10/26/22 18:37
Arsenic	0.0108		0.00100	0.000282	mg/L			10/20/22 11:45	10/26/22 18:37
Barium	0.0747		0.0100	0.00314	mg/L			10/20/22 11:45	10/26/22 18:37
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	10/26/22 18:37
Boron	0.631		0.0800	0.0601	mg/L			10/20/22 11:45	10/26/22 18:37
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	10/26/22 18:37
Calcium	28.2		0.500	0.127	mg/L			10/20/22 11:45	10/26/22 18:37
Chromium	<0.00153		0.00200	0.00153	mg/L			10/20/22 11:45	10/26/22 18:37
Cobalt	0.00143		0.000500	0.000261	mg/L			10/20/22 11:45	10/26/22 18:37
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	10/26/22 18:37
Lithium	0.0534		0.00500	0.000831	mg/L			10/20/22 11:45	10/26/22 18:37
Molybdenum	0.00424 J		0.00500	0.000610	mg/L			10/20/22 11:45	10/26/22 18:37
Selenium	<0.000739		0.00500	0.000739	mg/L			10/20/22 11:45	10/26/22 18:37
Thallium	<0.000472		0.00100	0.000472	mg/L			10/20/22 11:45	10/26/22 18:37

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			10/11/22 11:45	10/12/22 15:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	155		10.0	10.0	mg/L			10/13/22 10:01	1

Client Sample ID: BAW-7

Lab Sample ID: 180-145835-5

Matrix: Water

Date Collected: 10/06/22 12:07

Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.7		1.00	0.713	mg/L			10/10/22 15:58	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 15:58	1
Sulfate	61.4		1.00	0.756	mg/L			10/10/22 15:58	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	10/26/22 18:40
Arsenic	<0.000282		0.00100	0.000282	mg/L			10/20/22 11:45	10/26/22 18:40
Barium	0.0937		0.0100	0.00314	mg/L			10/20/22 11:45	10/26/22 18:40
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	10/26/22 18:40
Boron	1.82		0.0800	0.0601	mg/L			10/20/22 11:45	10/26/22 18:40
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	10/26/22 18:40
Calcium	4.84		0.500	0.127	mg/L			10/20/22 11:45	10/26/22 18:40
Chromium	<0.00153		0.00200	0.00153	mg/L			10/20/22 11:45	10/26/22 18:40
Cobalt	0.00548		0.000500	0.000261	mg/L			10/20/22 11:45	10/26/22 18:40
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	10/26/22 18:40

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-7

Date Collected: 10/06/22 12:07

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-5

Matrix: Water

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0123		0.00500	0.000831	mg/L		10/20/22 11:45	10/26/22 18:40	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/20/22 11:45	10/26/22 18:40	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/26/22 18:40	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/26/22 18:40	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	135		10.0	10.0	mg/L		10/13/22 10:01		1

Client Sample ID: BAW-8

Date Collected: 10/06/22 10:02

Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-6

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.9		1.00	0.713	mg/L			10/10/22 16:13	1
Fluoride	0.0595 J		0.100	0.0260	mg/L			10/10/22 16:13	1
Sulfate	41.5		1.00	0.756	mg/L			10/10/22 16:13	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		10/20/22 11:45	10/26/22 18:44	1
Arsenic	0.00716		0.00100	0.000282	mg/L		10/20/22 11:45	10/26/22 18:44	1
Barium	0.0695		0.0100	0.00314	mg/L		10/20/22 11:45	10/26/22 18:44	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		10/20/22 11:45	10/26/22 18:44	1
Boron	0.960		0.0800	0.0601	mg/L		10/20/22 11:45	10/26/22 18:44	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/20/22 11:45	10/26/22 18:44	1
Calcium	22.2 F1		0.500	0.127	mg/L		10/20/22 11:45	10/26/22 18:44	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/20/22 11:45	10/26/22 18:44	1
Cobalt	0.0139		0.000500	0.000261	mg/L		10/20/22 11:45	10/26/22 18:44	1
Lead	<0.000167		0.00100	0.000167	mg/L		10/20/22 11:45	10/26/22 18:44	1
Lithium	0.0175		0.00500	0.000831	mg/L		10/20/22 11:45	10/26/22 18:44	1
Molybdenum	0.00504		0.00500	0.000610	mg/L		10/20/22 11:45	10/26/22 18:44	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/26/22 18:44	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/26/22 18:44	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	345		10.0	10.0	mg/L		10/13/22 10:01		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: BAW-9

Lab Sample ID: 180-145835-7

Matrix: Water

Date Collected: 10/06/22 08:36
Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.2		1.00	0.713	mg/L			10/10/22 16:57	1
Fluoride	0.0579 J		0.100	0.0260	mg/L			10/10/22 16:57	1
Sulfate	43.7		1.00	0.756	mg/L			10/10/22 16:57	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	10/22/22 17:10
Arsenic	0.00512		0.00100	0.000282	mg/L			10/20/22 11:45	10/22/22 17:10
Barium	0.0703		0.0100	0.00314	mg/L			10/20/22 11:45	10/22/22 17:10
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	10/22/22 17:10
Boron	0.786		0.0800	0.0601	mg/L			10/20/22 11:45	10/22/22 17:10
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	10/22/22 17:10
Calcium	16.3		0.500	0.127	mg/L			10/20/22 11:45	10/22/22 17:10
Chromium	0.00163 J		0.00200	0.00153	mg/L			10/20/22 11:45	10/22/22 17:10
Cobalt	0.0255		0.000500	0.000261	mg/L			10/20/22 11:45	10/22/22 17:10
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	10/22/22 17:10
Lithium	0.0414		0.00500	0.000831	mg/L			10/20/22 11:45	10/22/22 17:10
Molybdenum	0.00376 J		0.00500	0.000610	mg/L			10/20/22 11:45	10/22/22 17:10
Selenium	<0.000739		0.00500	0.000739	mg/L			10/20/22 11:45	10/22/22 17:10
Thallium	<0.000472		0.00100	0.000472	mg/L			10/20/22 11:45	10/22/22 17:10

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			10/11/22 11:45	10/12/22 15:16

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	223		10.0	10.0	mg/L			10/13/22 10:01	1

Client Sample ID: DUP-03

Lab Sample ID: 180-145835-8

Matrix: Water

Date Collected: 10/05/22 14:10
Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.28		1.00	0.713	mg/L			10/10/22 17:12	1
Fluoride	0.0284 J		0.100	0.0260	mg/L			10/10/22 17:12	1
Sulfate	3.78		1.00	0.756	mg/L			10/10/22 17:12	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	10/22/22 17:14
Arsenic	0.00472		0.00100	0.000282	mg/L			10/20/22 11:45	10/22/22 17:14
Barium	0.0255		0.0100	0.00314	mg/L			10/20/22 11:45	10/22/22 17:14
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	10/22/22 17:14
Boron	0.132		0.0800	0.0601	mg/L			10/20/22 11:45	10/22/22 17:14
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	10/22/22 17:14
Calcium	5.64		0.500	0.127	mg/L			10/20/22 11:45	10/22/22 17:14
Chromium	<0.00153		0.00200	0.00153	mg/L			10/20/22 11:45	10/22/22 17:14
Cobalt	0.00120		0.000500	0.000261	mg/L			10/20/22 11:45	10/22/22 17:14
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	10/22/22 17:14

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: DUP-03
Date Collected: 10/05/22 14:10
Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-8
Matrix: Water

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.00757		0.00500	0.000831	mg/L		10/20/22 11:45	10/22/22 17:14	1
Molybdenum	0.00108 J		0.00500	0.000610	mg/L		10/20/22 11:45	10/22/22 17:14	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/22/22 17:14	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/22/22 17:14	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	60.0		10.0	10.0	mg/L		10/11/22 15:42		1

Client Sample ID: EB-03

Lab Sample ID: 180-145835-9

Matrix: Water

Date Collected: 10/06/22 08:55

Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/10/22 17:27	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 17:27	1
Sulfate	<0.756		1.00	0.756	mg/L			10/10/22 17:27	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		10/20/22 11:45	10/22/22 17:18	1
Arsenic	<0.000282		0.00100	0.000282	mg/L		10/20/22 11:45	10/22/22 17:18	1
Barium	<0.00314		0.0100	0.00314	mg/L		10/20/22 11:45	10/22/22 17:18	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		10/20/22 11:45	10/22/22 17:18	1
Boron	<0.0601		0.0800	0.0601	mg/L		10/20/22 11:45	10/22/22 17:18	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/20/22 11:45	10/22/22 17:18	1
Calcium	<0.127		0.500	0.127	mg/L		10/20/22 11:45	10/22/22 17:18	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/20/22 11:45	10/22/22 17:18	1
Cobalt	<0.000261		0.000500	0.000261	mg/L		10/20/22 11:45	10/22/22 17:18	1
Lead	<0.000167		0.00100	0.000167	mg/L		10/20/22 11:45	10/22/22 17:18	1
Lithium	<0.000831		0.00500	0.000831	mg/L		10/20/22 11:45	10/22/22 17:18	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/20/22 11:45	10/22/22 17:18	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/22/22 17:18	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/22/22 17:18	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<10.0		10.0	10.0	mg/L		10/13/22 10:01		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: DUP-04
Date Collected: 10/06/22 11:07
Date Received: 10/07/22 13:14

Lab Sample ID: 180-145835-10
Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.0		1.00	0.713	mg/L			10/10/22 17:56	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 17:56	1
Sulfate	57.4		1.00	0.756	mg/L			10/10/22 17:56	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	10/22/22 17:21
Arsenic	<0.000282		0.00100	0.000282	mg/L			10/20/22 11:45	10/22/22 17:21
Barium	0.103		0.0100	0.00314	mg/L			10/20/22 11:45	10/22/22 17:21
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	10/22/22 17:21
Boron	2.01		0.0800	0.0601	mg/L			10/20/22 11:45	10/22/22 17:21
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	10/22/22 17:21
Calcium	5.19		0.500	0.127	mg/L			10/20/22 11:45	10/22/22 17:21
Chromium	<0.00153		0.00200	0.00153	mg/L			10/20/22 11:45	10/22/22 17:21
Cobalt	0.00566		0.000500	0.000261	mg/L			10/20/22 11:45	10/22/22 17:21
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	10/22/22 17:21
Lithium	0.0143		0.00500	0.000831	mg/L			10/20/22 11:45	10/22/22 17:21
Molybdenum	<0.000610		0.00500	0.000610	mg/L			10/20/22 11:45	10/22/22 17:21
Selenium	<0.000739		0.00500	0.000739	mg/L			10/20/22 11:45	10/22/22 17:21
Thallium	<0.000472		0.00100	0.000472	mg/L			10/20/22 11:45	10/22/22 17:21

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			10/11/22 11:45	10/12/22 15:22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	134		10.0	10.0	mg/L			10/13/22 10:01	1

Client Sample ID: FB-03

Lab Sample ID: 180-145835-11

Matrix: Water

Date Collected: 10/06/22 09:31

Date Received: 10/07/22 13:14

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/10/22 17:42	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 17:42	1
Sulfate	<0.756		1.00	0.756	mg/L			10/10/22 17:42	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L			10/20/22 11:45	10/22/22 17:25
Arsenic	<0.000282		0.00100	0.000282	mg/L			10/20/22 11:45	10/22/22 17:25
Barium	0.00634 J		0.0100	0.00314	mg/L			10/20/22 11:45	10/22/22 17:25
Beryllium	<0.000274		0.00100	0.000274	mg/L			10/20/22 11:45	10/22/22 17:25
Boron	0.107		0.0800	0.0601	mg/L			10/20/22 11:45	10/22/22 17:25
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/20/22 11:45	10/22/22 17:25
Calcium	0.128 J		0.500	0.127	mg/L			10/20/22 11:45	10/22/22 17:25
Chromium	<0.00153		0.00200	0.00153	mg/L			10/20/22 11:45	10/22/22 17:25
Cobalt	<0.000261		0.000500	0.000261	mg/L			10/20/22 11:45	10/22/22 17:25
Lead	<0.000167		0.00100	0.000167	mg/L			10/20/22 11:45	10/22/22 17:25

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Client Sample ID: FB-03

Lab Sample ID: 180-145835-11

Matrix: Water

Date Collected: 10/06/22 09:31

Date Received: 10/07/22 13:14

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.000831		0.00500	0.000831	mg/L		10/20/22 11:45	10/22/22 17:25	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/20/22 11:45	10/22/22 17:25	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/22/22 17:25	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/22/22 17:25	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<10.0		10.0	10.0	mg/L		10/13/22 10:01		1

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-414596/6

Matrix: Water

Analysis Batch: 414596

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/10/22 12:47	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/10/22 12:47	1
Sulfate	<0.756		1.00	0.756	mg/L			10/10/22 12:47	1

Lab Sample ID: LCS 180-414596/7

Matrix: Water

Analysis Batch: 414596

Analyte	Spike Added	LCS			%Rec	Limits
		Result	Qualifier	Unit		
Chloride	50.0	45.49		mg/L	91	80 - 120
Fluoride	2.50	2.449		mg/L	98	80 - 120
Sulfate	50.0	45.28		mg/L	91	80 - 120

Lab Sample ID: 180-145835-1 MS

Matrix: Water

Analysis Batch: 414596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS			D	%Rec	Limits
				Result	Qualifier	Unit			
Chloride	6.75		50.0	51.82		mg/L		90	80 - 120
Fluoride	<0.0260		2.50	2.395		mg/L		96	80 - 120
Sulfate	1.34		50.0	47.61		mg/L		93	80 - 120

Lab Sample ID: 180-145835-1 MSD

Matrix: Water

Analysis Batch: 414596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD			D	%Rec	Limits	RPD	Limit
				Result	Qualifier	Unit					
Chloride	6.75		50.0	57.97		mg/L		102	80 - 120	11	15
Fluoride	<0.0260		2.50	2.691		mg/L		108	80 - 120	12	15
Sulfate	1.34		50.0	53.37		mg/L		104	80 - 120	11	15

Lab Sample ID: 180-145835-10 MS

Matrix: Water

Analysis Batch: 414596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS			D	%Rec	Limits
				Result	Qualifier	Unit			
Chloride	12.0		50.0	63.07		mg/L		102	80 - 120
Fluoride	<0.0260		2.50	2.675		mg/L		107	80 - 120
Sulfate	57.4		50.0	113.3		mg/L		112	80 - 120

Lab Sample ID: 180-145835-10 MSD

Matrix: Water

Analysis Batch: 414596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD			D	%Rec	Limits	RPD	Limit
				Result	Qualifier	Unit					
Chloride	12.0		50.0	57.54		mg/L		91	80 - 120	9	15
Fluoride	<0.0260		2.50	2.437		mg/L		97	80 - 120	9	15
Sulfate	57.4		50.0	102.5		mg/L		90	80 - 120	10	15

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

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

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

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

Client Sample ID: DUP-04
Prep Type: Total/NA

Client Sample ID: DUP-04
Prep Type: Total/NA

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

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

Lab Sample ID: MB 180-415670/1-A

Matrix: Water

Analysis Batch: 416345

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 415670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		10/20/22 11:45	10/26/22 17:17	1
Arsenic	<0.000282		0.00100	0.000282	mg/L		10/20/22 11:45	10/26/22 17:17	1
Barium	<0.00314		0.0100	0.00314	mg/L		10/20/22 11:45	10/26/22 17:17	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		10/20/22 11:45	10/26/22 17:17	1
Boron	<0.0601		0.0800	0.0601	mg/L		10/20/22 11:45	10/26/22 17:17	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/20/22 11:45	10/26/22 17:17	1
Calcium	<0.127		0.500	0.127	mg/L		10/20/22 11:45	10/26/22 17:17	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/20/22 11:45	10/26/22 17:17	1
Cobalt	<0.000261		0.000500	0.000261	mg/L		10/20/22 11:45	10/26/22 17:17	1
Lead	<0.000167		0.00100	0.000167	mg/L		10/20/22 11:45	10/26/22 17:17	1
Lithium	<0.000831		0.00500	0.000831	mg/L		10/20/22 11:45	10/26/22 17:17	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/20/22 11:45	10/26/22 17:17	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/26/22 17:17	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/26/22 17:17	1

Lab Sample ID: LCS 180-415670/2-A

Matrix: Water

Analysis Batch: 416345

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 415670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.250	0.2658		mg/L		106	80 - 120
Arsenic	1.00	1.001		mg/L		100	80 - 120
Barium	1.00	1.010		mg/L		101	80 - 120
Beryllium	0.500	0.5149		mg/L		103	80 - 120
Boron	1.25	1.171		mg/L		94	80 - 120
Cadmium	0.500	0.5209		mg/L		104	80 - 120
Calcium	25.0	29.01		mg/L		116	80 - 120
Chromium	0.500	0.5194		mg/L		104	80 - 120
Cobalt	0.500	0.5112		mg/L		102	80 - 120
Lead	0.500	0.5170		mg/L		103	80 - 120
Lithium	0.500	0.4892		mg/L		98	80 - 120
Molybdenum	0.500	0.5204		mg/L		104	80 - 120
Selenium	1.00	0.9688		mg/L		97	80 - 120
Thallium	1.00	1.065		mg/L		107	80 - 120

Lab Sample ID: 180-145835-6 MS

Matrix: Water

Analysis Batch: 416345

Client Sample ID: BAW-8

Prep Type: Total Recoverable

Prep Batch: 415670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.000506		0.250	0.3108		mg/L		124	75 - 125
Arsenic	0.00716		1.00	1.178		mg/L		117	75 - 125
Barium	0.0695		1.00	1.262		mg/L		119	75 - 125
Beryllium	<0.000274		0.500	0.5987		mg/L		120	75 - 125
Boron	0.960		1.25	2.436		mg/L		118	75 - 125
Cadmium	<0.000217		0.500	0.6076		mg/L		122	75 - 125
Calcium	22.2 F1		25.0	59.93 F1		mg/L		151	75 - 125
Chromium	<0.00153		0.500	0.5565		mg/L		111	75 - 125
Cobalt	0.0139		0.500	0.6109		mg/L		119	75 - 125

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

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

Lab Sample ID: 180-145835-6 MS

Matrix: Water

Analysis Batch: 416345

Client Sample ID: BAW-8

Prep Type: Total Recoverable

Prep Batch: 415670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Lead	<0.000167		0.500	0.6041		mg/L	121	75 - 125			
Lithium	0.0175		0.500	0.6033		mg/L	117	75 - 125			
Molybdenum	0.00504		0.500	0.6110		mg/L	121	75 - 125			
Selenium	<0.000739		1.00	1.024		mg/L	102	75 - 125			
Thallium	<0.000472		1.00	1.244		mg/L	124	75 - 125			

Lab Sample ID: 180-145835-6 MSD

Matrix: Water

Analysis Batch: 416345

Client Sample ID: BAW-8

Prep Type: Total Recoverable

Prep Batch: 415670

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.000506		0.250	0.3082		mg/L	123	75 - 125		1	20
Arsenic	0.00716		1.00	1.176		mg/L	117	75 - 125		0	20
Barium	0.0695		1.00	1.244		mg/L	117	75 - 125		1	20
Beryllium	<0.000274		0.500	0.5869		mg/L	117	75 - 125		2	20
Boron	0.960		1.25	2.436		mg/L	118	75 - 125		0	20
Cadmium	<0.000217		0.500	0.5982		mg/L	120	75 - 125		2	20
Calcium	22.2	F1	25.0	59.91	F1	mg/L	151	75 - 125		0	20
Chromium	<0.00153		0.500	0.5580		mg/L	112	75 - 125		0	20
Cobalt	0.0139		0.500	0.6073		mg/L	119	75 - 125		1	20
Lead	<0.000167		0.500	0.5999		mg/L	120	75 - 125		1	20
Lithium	0.0175		0.500	0.5938		mg/L	115	75 - 125		2	20
Molybdenum	0.00504		0.500	0.6106		mg/L	121	75 - 125		0	20
Selenium	<0.000739		1.00	1.022		mg/L	102	75 - 125		0	20
Thallium	<0.000472		1.00	1.247		mg/L	125	75 - 125		0	20

Lab Sample ID: MB 180-415672/1-A

Matrix: Water

Analysis Batch: 416064

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 415672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000506		0.00200	0.000506	mg/L		10/20/22 11:45	10/22/22 17:03	1
Arsenic	<0.000282		0.00100	0.000282	mg/L		10/20/22 11:45	10/22/22 17:03	1
Barium	<0.00314		0.0100	0.00314	mg/L		10/20/22 11:45	10/22/22 17:03	1
Beryllium	<0.000274		0.00100	0.000274	mg/L		10/20/22 11:45	10/22/22 17:03	1
Boron	<0.0601		0.0800	0.0601	mg/L		10/20/22 11:45	10/22/22 17:03	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/20/22 11:45	10/22/22 17:03	1
Calcium	<0.127		0.500	0.127	mg/L		10/20/22 11:45	10/22/22 17:03	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/20/22 11:45	10/22/22 17:03	1
Cobalt	<0.000261		0.000500	0.000261	mg/L		10/20/22 11:45	10/22/22 17:03	1
Lead	<0.000167		0.00100	0.000167	mg/L		10/20/22 11:45	10/22/22 17:03	1
Lithium	<0.000831		0.00500	0.000831	mg/L		10/20/22 11:45	10/22/22 17:03	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/20/22 11:45	10/22/22 17:03	1
Selenium	<0.000739		0.00500	0.000739	mg/L		10/20/22 11:45	10/22/22 17:03	1
Thallium	<0.000472		0.00100	0.000472	mg/L		10/20/22 11:45	10/22/22 17:03	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

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

Lab Sample ID: LCS 180-415672/2-A

Matrix: Water

Analysis Batch: 416064

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 415672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.250	0.2839		mg/L	114	80 - 120	
Arsenic	1.00	1.096		mg/L	110	80 - 120	
Barium	1.00	1.089		mg/L	109	80 - 120	
Beryllium	0.500	0.5361		mg/L	107	80 - 120	
Boron	1.25	1.263		mg/L	101	80 - 120	
Cadmium	0.500	0.5442		mg/L	109	80 - 120	
Calcium	25.0	29.93		mg/L	120	80 - 120	
Chromium	0.500	0.5358		mg/L	107	80 - 120	
Cobalt	0.500	0.5407		mg/L	108	80 - 120	
Lead	0.500	0.5478		mg/L	110	80 - 120	
Lithium	0.500	0.5239		mg/L	105	80 - 120	
Molybdenum	0.500	0.5604		mg/L	112	80 - 120	
Selenium	1.00	1.058		mg/L	106	80 - 120	
Thallium	1.00	1.127		mg/L	113	80 - 120	

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-414695/1-A

Matrix: Water

Analysis Batch: 414877

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 414695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/11/22 11:45	10/12/22 14:55	1

Lab Sample ID: LCS 180-414695/2-A

Matrix: Water

Analysis Batch: 414877

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 414695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.002535		mg/L	101	80 - 120	

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

Lab Sample ID: MB 180-414740/1

Matrix: Water

Analysis Batch: 414740

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	<10.0		10.0	10.0	mg/L		10/11/22 14:25		1

Lab Sample ID: LCS 180-414740/2

Matrix: Water

Analysis Batch: 414740

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	665	656.0		mg/L	99	85 - 115	

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

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

Lab Sample ID: MB 180-414747/1

Matrix: Water

Analysis Batch: 414747

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			10/11/22 15:42	1

Lab Sample ID: LCS 180-414747/2

Matrix: Water

Analysis Batch: 414747

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec Limits
Total Dissolved Solids	665	656.0		mg/L	99	85 - 115

Lab Sample ID: 180-145835-8 DU

Matrix: Water

Analysis Batch: 414747

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD
Total Dissolved Solids	60.0		58.00		mg/L		3 / 10

Lab Sample ID: MB 180-414950/1

Matrix: Water

Analysis Batch: 414950

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			10/13/22 10:01	1

Lab Sample ID: LCS 180-414950/2

Matrix: Water

Analysis Batch: 414950

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec Limits
Total Dissolved Solids	665	662.0		mg/L	100	85 - 115

Lab Sample ID: 180-145835-11 DU

Matrix: Water

Analysis Batch: 414950

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD
Total Dissolved Solids	<10.0		<10.0		mg/L		NC / 10

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

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

Client Sample ID: DUP-03
Prep Type: Total/NA

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

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

Client Sample ID: FB-03
Prep Type: Total/NA

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

HPLC/IC

Analysis Batch: 414596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-1	BAW-1	Total/NA	Water	EPA 9056A	
180-145835-2	BAW-3	Total/NA	Water	EPA 9056A	
180-145835-3	BAW-4	Total/NA	Water	EPA 9056A	
180-145835-4	BAW-5	Total/NA	Water	EPA 9056A	
180-145835-5	BAW-7	Total/NA	Water	EPA 9056A	
180-145835-6	BAW-8	Total/NA	Water	EPA 9056A	
180-145835-7	BAW-9	Total/NA	Water	EPA 9056A	
180-145835-8	DUP-03	Total/NA	Water	EPA 9056A	
180-145835-9	EB-03	Total/NA	Water	EPA 9056A	
180-145835-10	DUP-04	Total/NA	Water	EPA 9056A	
180-145835-11	FB-03	Total/NA	Water	EPA 9056A	
MB 180-414596/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-414596/7	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-145835-1 MS	BAW-1	Total/NA	Water	EPA 9056A	
180-145835-1 MSD	BAW-1	Total/NA	Water	EPA 9056A	
180-145835-10 MS	DUP-04	Total/NA	Water	EPA 9056A	
180-145835-10 MSD	DUP-04	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 414695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-1	BAW-1	Total/NA	Water	7470A	
180-145835-2	BAW-3	Total/NA	Water	7470A	
180-145835-3	BAW-4	Total/NA	Water	7470A	
180-145835-4	BAW-5	Total/NA	Water	7470A	
180-145835-5	BAW-7	Total/NA	Water	7470A	
180-145835-6	BAW-8	Total/NA	Water	7470A	
180-145835-7	BAW-9	Total/NA	Water	7470A	
180-145835-8	DUP-03	Total/NA	Water	7470A	
180-145835-9	EB-03	Total/NA	Water	7470A	
180-145835-10	DUP-04	Total/NA	Water	7470A	
180-145835-11	FB-03	Total/NA	Water	7470A	
MB 180-414695/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-414695/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 414877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-1	BAW-1	Total/NA	Water	EPA 7470A	414695
180-145835-2	BAW-3	Total/NA	Water	EPA 7470A	414695
180-145835-3	BAW-4	Total/NA	Water	EPA 7470A	414695
180-145835-4	BAW-5	Total/NA	Water	EPA 7470A	414695
180-145835-5	BAW-7	Total/NA	Water	EPA 7470A	414695
180-145835-6	BAW-8	Total/NA	Water	EPA 7470A	414695
180-145835-7	BAW-9	Total/NA	Water	EPA 7470A	414695
180-145835-8	DUP-03	Total/NA	Water	EPA 7470A	414695
180-145835-9	EB-03	Total/NA	Water	EPA 7470A	414695
180-145835-10	DUP-04	Total/NA	Water	EPA 7470A	414695
180-145835-11	FB-03	Total/NA	Water	EPA 7470A	414695
MB 180-414695/1-A	Method Blank	Total/NA	Water	EPA 7470A	414695
LCS 180-414695/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	414695

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QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Metals

Prep Batch: 415670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-1	BAW-1	Total Recoverable	Water	3005A	
180-145835-2	BAW-3	Total Recoverable	Water	3005A	
180-145835-3	BAW-4	Total Recoverable	Water	3005A	
180-145835-4	BAW-5	Total Recoverable	Water	3005A	
180-145835-5	BAW-7	Total Recoverable	Water	3005A	
180-145835-6	BAW-8	Total Recoverable	Water	3005A	
MB 180-415670/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-415670/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-145835-6 MS	BAW-8	Total Recoverable	Water	3005A	
180-145835-6 MSD	BAW-8	Total Recoverable	Water	3005A	

Prep Batch: 415672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-7	BAW-9	Total Recoverable	Water	3005A	
180-145835-8	DUP-03	Total Recoverable	Water	3005A	
180-145835-9	EB-03	Total Recoverable	Water	3005A	
180-145835-10	DUP-04	Total Recoverable	Water	3005A	
180-145835-11	FB-03	Total Recoverable	Water	3005A	
MB 180-415672/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-415672/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 416064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-7	BAW-9	Total Recoverable	Water	EPA 6020B	415672
180-145835-8	DUP-03	Total Recoverable	Water	EPA 6020B	415672
180-145835-9	EB-03	Total Recoverable	Water	EPA 6020B	415672
180-145835-10	DUP-04	Total Recoverable	Water	EPA 6020B	415672
180-145835-11	FB-03	Total Recoverable	Water	EPA 6020B	415672
MB 180-415672/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	415672
LCS 180-415672/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	415672

Analysis Batch: 416090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-7	BAW-9	Total Recoverable	Water	EPA 6020B	415672
180-145835-8	DUP-03	Total Recoverable	Water	EPA 6020B	415672
180-145835-9	EB-03	Total Recoverable	Water	EPA 6020B	415672
180-145835-10	DUP-04	Total Recoverable	Water	EPA 6020B	415672
180-145835-11	FB-03	Total Recoverable	Water	EPA 6020B	415672
MB 180-415672/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	415672
LCS 180-415672/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	415672

Analysis Batch: 416345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-1	BAW-1	Total Recoverable	Water	EPA 6020B	415670
180-145835-2	BAW-3	Total Recoverable	Water	EPA 6020B	415670
180-145835-3	BAW-4	Total Recoverable	Water	EPA 6020B	415670
180-145835-4	BAW-5	Total Recoverable	Water	EPA 6020B	415670
180-145835-5	BAW-7	Total Recoverable	Water	EPA 6020B	415670
180-145835-6	BAW-8	Total Recoverable	Water	EPA 6020B	415670
MB 180-415670/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	415670
LCS 180-415670/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	415670

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QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-145835-1

Metals (Continued)

Analysis Batch: 416345 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-6 MS	BAW-8	Total Recoverable	Water	EPA 6020B	415670
180-145835-6 MSD	BAW-8	Total Recoverable	Water	EPA 6020B	415670

General Chemistry

Analysis Batch: 414740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-1	BAW-1	Total/NA	Water	SM 2540C	
180-145835-2	BAW-3	Total/NA	Water	SM 2540C	
MB 180-414740/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-414740/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 414747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-3	BAW-4	Total/NA	Water	SM 2540C	
180-145835-8	DUP-03	Total/NA	Water	SM 2540C	
MB 180-414747/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-414747/2	Lab Control Sample	Total/NA	Water	SM 2540C	
180-145835-8 DU	DUP-03	Total/NA	Water	SM 2540C	

Analysis Batch: 414950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-145835-4	BAW-5	Total/NA	Water	SM 2540C	
180-145835-5	BAW-7	Total/NA	Water	SM 2540C	
180-145835-6	BAW-8	Total/NA	Water	SM 2540C	
180-145835-7	BAW-9	Total/NA	Water	SM 2540C	
180-145835-9	EB-03	Total/NA	Water	SM 2540C	
180-145835-10	DUP-04	Total/NA	Water	SM 2540C	
180-145835-11	FB-03	Total/NA	Water	SM 2540C	
MB 180-414950/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-414950/2	Lab Control Sample	Total/NA	Water	SM 2540C	
180-145835-11 DU	FB-03	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7038 Fax (412) 963-2468

Chain of Custody Record

Client Information		Sampler / Fingerprints / Phone 350-336-0192	Lab P.M. Brown, Shali E-Mail shali.brown@eurofinset.com	Carrier Tracking No(s)	COC No	Page
SCS		Analysis Requested				Job #
Address	3555 Colonnade PKwy Bln S 530 EC					Preservation Codes:
City	Birmingham					A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
State, Zip	Alabama					M - Hexane N - None O - NaNO2 P - Na2O4S Q - Na2SO3 R - Na2SO4S
Phone	205 992 6283					S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Email						
SCS Contacts						
Project Name	Plant Daniel Ash Pond B					
Site	SSON#:					
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp., G=grab)	Matrix (Water, Soil, Oil, Organic, AAS)	Preservation Code:
BAW-1		10-5-22	1714	G	W	X
BAW-3		10-5-22	1820	G	W	X
BAW-4		10-5-22	1510	G	W	X
BAW-5		10-6-22	1123	G	W	X
BAW-7		10-6-22	1207	G	W	X
BAW-B		10-6-22	1002	G	W	X
BAW-9		10-6-22	0936	G	W	X
QWP-D3		10-5-22	1410	G	W	X
EB-O3		10-6-22	0955	G	W	X
QWP-D4		10-6-22	1107	G	W	X
FB-O3		10-6-22	0931	G	W	X
Possible Hazard Identification		Date.	Time	Method of Shipment:		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						
Deliverable Requested I, II, III, IV, Other (specify)						
Empty Kit Relinquished by		Date/Time 10-6-22 1314	Company RDH Env.	Received by 	Date/Time 10-7-22 13:14	Company
Relinquished by		Date/Time	Company	Received by	Date/Time	Company
Relinquished by		Date/Time	Company	Received by	Date/Time	Company
Custody Seals intact: <input checked="" type="checkbox"/> Custody Seal No Δ Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks				
180-145835 Chain of Custody						
Total Number of Containers						
Note:						

Do no

ORIGIN ID:MOBA (850) 382-7187
RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571
UNITED STATES US

SHIP DATE: 06OCT22
ACTWGT: 69.65 LB
CAD: 6994563/SSFE2322
DIM: 24x13x14 IN

BILL RECIPIENT

Part # 156297-435 RDH82 EXP 07/23

0231/F/554/171185

TO

TEST AMERICA
301 ALPHA DR

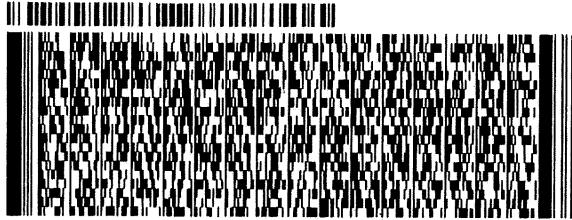
PITTSBURGH PA 15238

(412) 963-7068

REF:

PO#:

DEPT:



1223022081201

3 of 3

MPS# 2788 3872 9224
0263

Mstr# 2788 3872 9202

0201

XN AGCA

FRI - 07 OCT 10:30A
PRIORITY OVERNIGHT

AHS
15238
PA-US PIT

Uncorrected temp
Thermometer ID

CF O.0 Initials BD

PT-WI-SR-001 effective 7/26/13

Uncorrected temp

°C



180-145835 Waybill

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

SB111/ACSF/FE22
art # 156297-435 RRDB2 EXP 07/23

ACTWT: 77.70 LB
CAD: 6994563/SSFE2322
DIMS: 24x13x14 IN
BILL RECIPIENT

RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571 US
UNITED STATES US

TO

TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

REF:

DEPT:

DEPT:

REF:

DEPT:



SHIP DATE: 06OCT22
ACTWT: 74.85 LB
CAD: 6994563/SSFE2322
DIMS: 24x13x14 IN
BILL RECIPIENT

ORIGIN ID: MOBA (850) 382-7197
RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571 US
UNITED STATES US

TO

TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 983-7058

PO:

REF:

DEPT:

REF:

DEPT:

REF:

DEPT:



FRI - 07 OCT 10:30A
PRIORITY OVERNIGHT
AHS
15238
PA-US PIT

1 of 3
TRK# 2788 3872 9202
[0201] ##MASTER##

XN AGCA

FRI - 07 OCT 10:30A
PRIORITY OVERNIGHT
AHS
15238
PA-US PIT

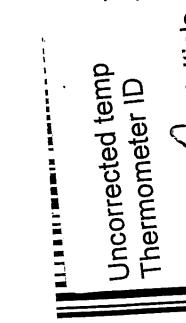
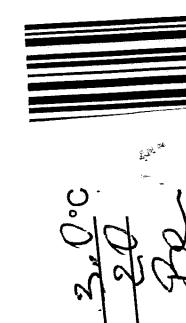
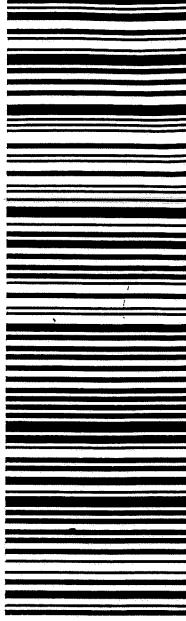
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XN AGCA

FRI - 07 OCT 10:30A
PRIORITY OVERNIGHT
AHS
15238
PA-US PIT

TRK# 2788 3872 9202
[0201]

XN AGCA



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-145835-1

Login Number: 145835

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Robert (Trey) Singleton
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

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JOB DESCRIPTION

Plant Daniel Ash Pond B

JOB NUMBER

180-146922-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

Eurofins Pittsburgh

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Pittsburgh and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Pittsburgh Project Manager or designee who has signed this report.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization



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

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Case Narrative

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Job ID: 180-146922-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative 180-146922-1

Receipt

The samples were received on 10/26/2022 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.2°C and 4.5°C

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 588391Any 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.BAW-1 (180-146922-1), BAW-3 (180-146922-2), BAW-4 (180-146922-3), BAW-5 (180-146922-4), BAW-8 (180-146922-6), BAW-9 (180-146922-7), DUP-01 (180-146922-8), EB-01 (180-146922-9), FB-01 (180-146922-10), (LCS 160-588391/2-A), (MB 160-588391/1-A), (280-168096-B-7-A) and (280-168096-C-7-A DU)

Method 9315_Ra226: Radium-226 batch 589065Any 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.BAW-7 (180-146922-5), (LCS 160-589065/2-A), (LCSD 160-589065/3-A) and (MB 160-589065/1-A)

Method 9320_Ra228: Radium-228 prep batch 160-588393: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.BAW-1 (180-146922-1), BAW-3 (180-146922-2), BAW-4 (180-146922-3), BAW-5 (180-146922-4), BAW-8 (180-146922-6), BAW-9 (180-146922-7), DUP-01 (180-146922-8), EB-01 (180-146922-9), FB-01 (180-146922-10), (LCS 160-588393/2-A), (MB 160-588393/1-A), (280-168096-B-7-B) and (280-168096-C-7-B DU)

Method 9320_Ra228: Radium -228 batch 589073The LCS/LCSD recovered at (135 & 133%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (62-148%) per method requirements. The LCS passes, no further action is required (LCS 160-589073/2-A) and (LCSD 160-589073/3-A)

Method 9320_Ra228: Radium -228 batch 589073Any 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 DateBAW-7 (180-146922-5), (LCS 160-589073/2-A), (LCSD 160-589073/3-A) and (MB 160-589073/1-A)

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

Rad

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

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

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.

¤	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

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Accreditation/Certification Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Laboratory: Eurofins St. Louis

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

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

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

Sample Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-146922-1	BAW-1	Water	10/21/22 14:13	10/26/22 09:00
180-146922-2	BAW-3	Water	10/21/22 17:14	10/26/22 09:00
180-146922-3	BAW-4	Water	10/21/22 12:53	10/26/22 09:00
180-146922-4	BAW-5	Water	10/21/22 08:44	10/26/22 09:00
180-146922-5	BAW-7	Water	10/21/22 15:51	10/26/22 09:00
180-146922-6	BAW-8	Water	10/21/22 11:55	10/26/22 09:00
180-146922-7	BAW-9	Water	10/21/22 09:55	10/26/22 09:00
180-146922-8	DUP-01	Water	10/21/22 13:13	10/26/22 09:00
180-146922-9	EB-01	Water	10/21/22 14:12	10/26/22 09:00
180-146922-10	FB-01	Water	10/21/22 14:02	10/26/22 09:00

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

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

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

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-1

Date Collected: 10/21/22 14:13

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.29 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			999.29 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590420	11/17/22 16:48	SCB	EET SL
		Instrument ID: GFPCRED								
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Date Collected: 10/21/22 17:14

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1005.70 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			1005.70 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590420	11/17/22 16:48	SCB	EET SL
		Instrument ID: GFPCRED								
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-4

Date Collected: 10/21/22 12:53

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1006.92 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			1006.92 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590420	11/17/22 16:48	SCB	EET SL
		Instrument ID: GFPCRED								
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-5

Date Collected: 10/21/22 08:44

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			997.97 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
		Instrument ID: GFPCBLUE								

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-5

Date Collected: 10/21/22 08:44

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			997.97 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1	1.0 mL	1.0 mL	590420	11/17/22 16:49	SCB	EET SL
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL

Client Sample ID: BAW-7

Date Collected: 10/21/22 15:51

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1006.88 mL	1.0 g	589065	11/07/22 09:48	BMP	EET SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	591652	11/30/22 18:34	FLC	EET SL
Total/NA	Prep	PrecSep_0			1006.88 mL	1.0 g	589073	11/07/22 10:41	BMP	EET SL
Total/NA	Analysis	9320		1			590568	11/18/22 09:26	FLC	EET SL
Total/NA	Analysis	Ra226_Ra228		1			592065	12/02/22 10:27	SCB	EET SL

Client Sample ID: BAW-8

Date Collected: 10/21/22 11:55

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-6

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			1006.20 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
Total/NA	Prep	PrecSep_0			1006.20 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590421	11/17/22 16:45	FLC	EET SL
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL

Client Sample ID: BAW-9

Date Collected: 10/21/22 09:55

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-7

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			764.01 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
Total/NA	Prep	PrecSep_0			764.01 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590421	11/17/22 16:46	FLC	EET SL

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-9

Date Collected: 10/21/22 09:55

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-7

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	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL

Client Sample ID: DUP-01

Date Collected: 10/21/22 13:13

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-8

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			994.78 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:33	FLC	EET SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			994.78 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590421	11/17/22 16:46	FLC	EET SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL
		Instrument ID: NOEQUIP								

Client Sample ID: EB-01

Date Collected: 10/21/22 14:12

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-9

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			1014.61 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591519	11/29/22 14:34	FLC	EET SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			1014.61 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590421	11/17/22 16:46	FLC	EET SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL
		Instrument ID: NOEQUIP								

Client Sample ID: FB-01

Date Collected: 10/21/22 14:02

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-10

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			997.91 mL	1.0 g	588391	11/03/22 13:07	BMP	EET SL
Total/NA	Analysis	9315		1			591518	11/29/22 14:35	FLC	EET SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			997.91 mL	1.0 g	588393	11/03/22 13:30	BMP	EET SL
Total/NA	Analysis	9320		1			590421	11/17/22 16:46	FLC	EET SL
		Instrument ID: GFPCORANGE								
Total/NA	Analysis	Ra226_Ra228		1			592066	12/02/22 10:28	SCB	EET SL
		Instrument ID: NOEQUIP								

Laboratory References:

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

Eurofins Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Analyst References:

Lab: EET SL

Batch Type: Prep

BMP = Bailey Pinette

Batch Type: Analysis

FLC = Fernando Cruz

SCB = Sarah Bernsen

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-1

Date Collected: 10/21/22 14:13

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-1

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.188		0.0988	0.100	1.00	0.124	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					11/03/22 13:07	11/29/22 14:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.759		0.444	0.450	1.00	0.634	pCi/L	11/03/22 13:30	11/17/22 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					11/03/22 13:30	11/17/22 16:48	1
Y Carrier	82.6		40 - 110					11/03/22 13:30	11/17/22 16:48	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.946		0.455	0.461	5.00	0.634	pCi/L		12/02/22 10:28	1

Client Sample ID: BAW-3

Date Collected: 10/21/22 17:14

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-2

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.194		0.0918	0.0934	1.00	0.112	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					11/03/22 13:07	11/29/22 14:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.10		0.457	0.468	1.00	0.610	pCi/L	11/03/22 13:30	11/17/22 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					11/03/22 13:30	11/17/22 16:48	1
Y Carrier	83.0		40 - 110					11/03/22 13:30	11/17/22 16:48	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-3

Date Collected: 10/21/22 17:14
Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-2

Matrix: Water

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.29		0.466	0.477	5.00	0.610	pCi/L		12/02/22 10:28	1

Client Sample ID: BAW-4

Date Collected: 10/21/22 12:53
Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-3

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.177		0.0847	0.0862	1.00	0.0959	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier										
Ba Carrier	87.7	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
				40 - 110				11/03/22 13:07	11/29/22 14:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.386	U	0.366	0.368	1.00	0.584	pCi/L	11/03/22 13:30	11/17/22 16:48	1
Carrier										
Ba Carrier	87.7	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Y Carrier	84.1			40 - 110				11/03/22 13:30	11/17/22 16:48	1
								11/03/22 13:30	11/17/22 16:48	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.562	U	0.376	0.378	5.00	0.584	pCi/L		12/02/22 10:28	1

Client Sample ID: BAW-5

Date Collected: 10/21/22 08:44
Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-4

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.328		0.106	0.110	1.00	0.0950	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier										
Ba Carrier	91.5	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
				40 - 110				11/03/22 13:07	11/29/22 14:33	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-5

Date Collected: 10/21/22 08:44

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-4

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.03		0.437	0.448	1.00	0.572	pCi/L	11/03/22 13:30	11/17/22 16:49	1
Carrier										
Ba Carrier	91.5		40 - 110					11/03/22 13:30	11/17/22 16:49	1
Y Carrier	83.7		40 - 110					11/03/22 13:30	11/17/22 16:49	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.36		0.450	0.461	5.00	0.572	pCi/L	12/02/22 10:28		1

Client Sample ID: BAW-7

Date Collected: 10/21/22 15:51

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-5

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.744		0.156	0.170	1.00	0.117	pCi/L	11/07/22 09:48	11/30/22 18:34	1
Carrier										
Ba Carrier	87.2		40 - 110					11/07/22 09:48	11/30/22 18:34	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.29		0.436	0.452	1.00	0.520	pCi/L	11/07/22 10:41	11/18/22 09:26	1
Carrier										
Ba Carrier	87.2		40 - 110					11/07/22 10:41	11/18/22 09:26	1
Y Carrier	85.2		40 - 110					11/07/22 10:41	11/18/22 09:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	2.03		0.463	0.483	5.00	0.520	pCi/L	12/02/22 10:27		1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-8

Date Collected: 10/21/22 11:55

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-6

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.446		0.122	0.128	1.00	0.103	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					11/03/22 13:07	11/29/22 14:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.983		0.399	0.409	1.00	0.492	pCi/L	11/03/22 13:30	11/17/22 16:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					11/03/22 13:30	11/17/22 16:45	1
Y Carrier	84.1		40 - 110					11/03/22 13:30	11/17/22 16:45	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.43		0.417	0.429	5.00	0.492	pCi/L		12/02/22 10:28	1

Client Sample ID: BAW-9

Date Collected: 10/21/22 09:55

Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-7

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.257		0.134	0.136	1.00	0.173	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		40 - 110					11/03/22 13:07	11/29/22 14:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.34		0.540	0.553	1.00	0.666	pCi/L	11/03/22 13:30	11/17/22 16:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		40 - 110					11/03/22 13:30	11/17/22 16:46	1
Y Carrier	82.6		40 - 110					11/03/22 13:30	11/17/22 16:46	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: BAW-9

Lab Sample ID: 180-146922-7

Matrix: Water

Date Collected: 10/21/22 09:55
Date Received: 10/26/22 09:00

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.59		0.556	0.569	5.00	0.666	pCi/L		12/02/22 10:28	1

Client Sample ID: DUP-01

Lab Sample ID: 180-146922-8

Matrix: Water

Date Collected: 10/21/22 13:13
Date Received: 10/26/22 09:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.209		0.0935	0.0953	1.00	0.105	pCi/L	11/03/22 13:07	11/29/22 14:33	1
Carrier										
Ba Carrier	86.7	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
				40 - 110				11/03/22 13:07	11/29/22 14:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.42		0.503	0.520	1.00	0.628	pCi/L	11/03/22 13:30	11/17/22 16:46	1
Carrier										
Ba Carrier	86.7	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Y Carrier	84.9			40 - 110				11/03/22 13:30	11/17/22 16:46	1
								11/03/22 13:30	11/17/22 16:46	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.63		0.512	0.529	5.00	0.628	pCi/L		12/02/22 10:28	1

Client Sample ID: EB-01

Lab Sample ID: 180-146922-9

Matrix: Water

Date Collected: 10/21/22 14:12
Date Received: 10/26/22 09:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0731	U	0.0746	0.0748	1.00	0.118	pCi/L	11/03/22 13:07	11/29/22 14:34	1
Carrier										
Ba Carrier	88.9	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
				40 - 110				11/03/22 13:07	11/29/22 14:34	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Client Sample ID: EB-01

Date Collected: 10/21/22 14:12
Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-9

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.879		0.418	0.426	1.00	0.568	pCi/L	11/03/22 13:30	11/17/22 16:46	1
Carrier										
Ba Carrier	88.9		40 - 110					11/03/22 13:30	11/17/22 16:46	1
Y Carrier	82.6		40 - 110					11/03/22 13:30	11/17/22 16:46	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.952		0.425	0.433	5.00	0.568	pCi/L	12/02/22 10:28		1

Client Sample ID: FB-01

Date Collected: 10/21/22 14:02
Date Received: 10/26/22 09:00

Lab Sample ID: 180-146922-10

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0586	U	0.0589	0.0592	1.00	0.0915	pCi/L	11/03/22 13:07	11/29/22 14:35	1
Carrier										
Ba Carrier	91.3		40 - 110					11/03/22 13:07	11/29/22 14:35	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.27		0.448	0.464	1.00	0.548	pCi/L	11/03/22 13:30	11/17/22 16:46	1
Carrier										
Ba Carrier	91.3		40 - 110					11/03/22 13:30	11/17/22 16:46	1
Y Carrier	85.6		40 - 110					11/03/22 13:30	11/17/22 16:46	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.33		0.452	0.468	5.00	0.548	pCi/L	12/02/22 10:28		1

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-588391/1-A

Matrix: Water

Analysis Batch: 591519

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 588391

Analyte	Result	MB U	MB Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
				Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.03970			0.0482	0.0483	1.00	0.118	pCi/L	11/03/22 13:07	11/29/22 14:32	1
Carrier									Prepared	Analyzed	Dil Fac
Ba Carrier	94.4			40 - 110					11/03/22 13:07	11/29/22 14:32	1

Lab Sample ID: LCS 160-588391/2-A

Matrix: Water

Analysis Batch: 591519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 588391

Analyte	Spike Added	LCS Result	LCS Qual	Count	Total	RL	MDC	Unit	%Rec	Limits	
				Uncert. (2σ+/-)	(2σ+/-)						
Radium-226	11.3	9.575		1.01	1.00	0.117	0.117	pCi/L	84	75 - 125	
Carrier											
Ba Carrier	96.4			40 - 110							

Lab Sample ID: MB 160-589065/1-A

Matrix: Water

Analysis Batch: 591652

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 589065

Analyte	Spike Added	LCS Result	LCS Qual	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
				Uncert. (2σ+/-)	(2σ+/-)						
Radium-226	0.04305	0.04305		0.0534	0.0535	1.00	0.0878	pCi/L	11/07/22 09:48	11/30/22 15:51	1
Carrier									Prepared	Analyzed	Dil Fac
Ba Carrier	90.3			40 - 110					11/07/22 09:48	11/30/22 15:51	1

Lab Sample ID: LCS 160-589065/2-A

Matrix: Water

Analysis Batch: 591652

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 589065

Analyte	Spike Added	LCS Result	LCS Qual	Count	Total	RL	MDC	Unit	%Rec	Limits	
				Uncert. (2σ+/-)	(2σ+/-)						
Radium-226	11.3	10.67		1.11	1.00	0.0873	0.0873	pCi/L	94	75 - 125	
Carrier											
Ba Carrier	87.7			40 - 110							

Lab Sample ID: LCSD 160-589065/3-A

Matrix: Water

Analysis Batch: 591652

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 589065

Analyte	Spike Added	LCSD Result	LCSD Qual	Count	Total	RL	MDC	Unit	%Rec	Limits	RER
				Uncert. (2σ+/-)	(2σ+/-)						
Radium-226	11.3	9.053		0.953	1.00	0.0836	0.0836	pCi/L	80	75 - 125	0.78

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-589065/3-A

Matrix: Water

Analysis Batch: 591652

	LCSD	LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	94.7		40 - 110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 589065

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-588393/1-A

Matrix: Water

Analysis Batch: 590420

Analyte	Result	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
				Uncert.	Uncert.						
Radium-228	0.2949	U		0.355	0.356	1.00	0.586	pCi/L	11/03/22 13:30	11/17/22 16:47	1
<hr/>											
Carrier	%Yield	MB	MB	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	94.4			40 - 110	11/03/22 13:30	11/17/22 16:47	1				
Y Carrier	83.4			40 - 110	11/03/22 13:30	11/17/22 16:47	1				

Lab Sample ID: LCS 160-588393/2-A

Matrix: Water

Analysis Batch: 590420

Analyte	Spike Added	MB	MB	Count	Total	RL	MDC	Unit	%Rec	Limits	
		LCS	LCS	Uncert.	(2σ+/-)						
Radium-228	8.44		10.33	1.39	1.39	1.00	0.563	pCi/L	122	75 - 125	
<hr/>											
Carrier	%Yield	MB	MB	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	96.4			40 - 110	11/03/22 13:30	11/17/22 16:47	1				
Y Carrier	83.0			40 - 110	11/03/22 13:30	11/17/22 16:47	1				

Lab Sample ID: MB 160-589073/1-A

Matrix: Water

Analysis Batch: 590568

Analyte	Result	MB	MB	Count	Total	RL	MDC	Unit	%Rec	Limits	
		Result	Qualifier	Uncert.	(2σ+/-)						
Radium-228	0.4941	U		0.354	0.357	1.00	0.536	pCi/L	104	11/07/22 10:41	11/18/22 09:24
<hr/>											
Carrier	%Yield	MB	MB	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	90.3			40 - 110	11/07/22 10:41	11/18/22 09:24	1				
Y Carrier	81.9			40 - 110	11/07/22 10:41	11/18/22 09:24	1				

Lab Sample ID: LCS 160-589073/2-A

Matrix: Water

Analysis Batch: 590568

Analyte	Spike Added	MB	MB	Count	Total	RL	MDC	Unit	%Rec	Limits	
		LCS	LCS	Uncert.	(2σ+/-)						
Radium-228	8.44		11.39	1.49	1.49	1.00	0.512	pCi/L	135	75 - 125	

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 589073

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QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

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

Lab Sample ID: LCS 160-589073/2-A

Matrix: Water

Analysis Batch: 590568

Carrier	LCS	LCS	
	%Yield	Qualifier	Limits
Ba Carrier	87.7		40 - 110
Y Carrier	82.2		40 - 110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 589073

Lab Sample ID: LCSD 160-589073/3-A

Matrix: Water

Analysis Batch: 590568

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 589073

Analyte		Spike Added	LCSD Result	LCSD Qual	Total		RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
					Uncert.	(2σ+/-)							
Radium-228		8.44	11.22		1.44		1.00	0.519	pCi/L	133	75 - 125	0.06	1

Carrier	LCSD	LCSD	
	%Yield	Qualifier	Limits
Ba Carrier	94.7		40 - 110
Y Carrier	82.2		40 - 110

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-146922-1

Rad

Prep Batch: 588391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-146922-1	BAW-1	Total/NA	Water	PrecSep-21	
180-146922-2	BAW-3	Total/NA	Water	PrecSep-21	
180-146922-3	BAW-4	Total/NA	Water	PrecSep-21	
180-146922-4	BAW-5	Total/NA	Water	PrecSep-21	
180-146922-6	BAW-8	Total/NA	Water	PrecSep-21	
180-146922-7	BAW-9	Total/NA	Water	PrecSep-21	
180-146922-8	DUP-01	Total/NA	Water	PrecSep-21	
180-146922-9	EB-01	Total/NA	Water	PrecSep-21	
180-146922-10	FB-01	Total/NA	Water	PrecSep-21	
MB 160-588391/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-588391/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 588393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-146922-1	BAW-1	Total/NA	Water	PrecSep_0	
180-146922-2	BAW-3	Total/NA	Water	PrecSep_0	
180-146922-3	BAW-4	Total/NA	Water	PrecSep_0	
180-146922-4	BAW-5	Total/NA	Water	PrecSep_0	
180-146922-6	BAW-8	Total/NA	Water	PrecSep_0	
180-146922-7	BAW-9	Total/NA	Water	PrecSep_0	
180-146922-8	DUP-01	Total/NA	Water	PrecSep_0	
180-146922-9	EB-01	Total/NA	Water	PrecSep_0	
180-146922-10	FB-01	Total/NA	Water	PrecSep_0	
MB 160-588393/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-588393/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 589065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-146922-5	BAW-7	Total/NA	Water	PrecSep-21	
MB 160-589065/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-589065/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-589065/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 589073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-146922-5	BAW-7	Total/NA	Water	PrecSep_0	
MB 160-589073/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-589073/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-589073/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Chain of Custody Record

Client Information		Sampler Brett Phone 850-336-0192	Lab PM Brown, Shali	Carrier Tracking No(s)	COC No																																																																								
Client Contact	SCS Contacts	E-Mail shali.brown@eurofinset.com		Page	161																																																																								
Company	SCS			Job #																																																																									
Address	Due Date Requested:	Analysis Requested																																																																											
3555 Colonnade Pkwy Bln S 530 EC	TAT Requested (days):																																																																												
City																																																																													
Birmingham																																																																													
State, Zip																																																																													
Alabama																																																																													
Phone	PO#																																																																												
205.392.6283	SCS10382606																																																																												
Email	WO#																																																																												
SCS Contacts																																																																													
Project Name	Project#																																																																												
Plant: Daniel Ash Pond B	18020047																																																																												
Site	SSON#																																																																												
Total Dissolved Solids																																																																													
Chloride Fluoride and Sulfate																																																																													
Custom 14 (APPLI and IV) + Mercury																																																																													
Radium 226 Radium 228 + Combined																																																																													
Preservation Codes:																																																																													
<table border="0" style="width: 100%;"> <tr> <td>A - HCl</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2S03</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Ammonium</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4.5</td> </tr> <tr> <td>L - EDA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>						A - HCl	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2S03	F - MeOH	R - Na2S2O3	G - Ammonium	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:																																															
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180-146922 Chain of Custody																																																																													
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3AW-4	10-21-22	1553	G	W	NO																																																																								
BAW-5	10-21-22	0844	G	W	NO																																																																								
BAW-7	10-21-22	1551	G	W	NO																																																																								
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<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months																																																																													
Special Instructions/QC Requirements																																																																													
Possible Hazard Identification		Date	Time	Method of Shipment:																																																																									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological																																																																													
Deliverable Requested I, II, III, IV, Other (specify)																																																																													
Empty Kit Relinquished by		Date	Time																																																																										
Relinquished by <i>[Signature]</i> Relinquished by		Date/Time	Company	Received by	Date/Time																																																																								
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ORIGIN ID:PFNA (412) 963-7058
 TESTAMERICA PITTSBURGH LAB
 SEE CHEERS 5 BEFORE BILL
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

SHIP DATE: 25OCT22
 ACTWTG: 61.00 LB
 CAD: 6994761/SSFE2341
 DIMS: 22x14x13 IN
 BILL THIRD PARTY

180-146922 Waybill
 180-146922 Waybill

DO Not

TO TEST AMERICA

301 ALPHA DR

PITTSBURGH PA 15238

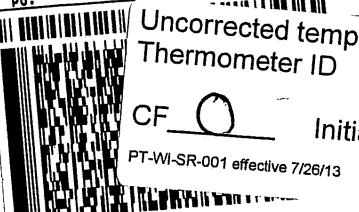
(000) 000-0000

REF:

TNU:

PO#

DEPT:



Uncorrected temp
Thermometer ID

CF

Initials

PT-WI-SR-001 effective 7/26/13



4.2 °C
20

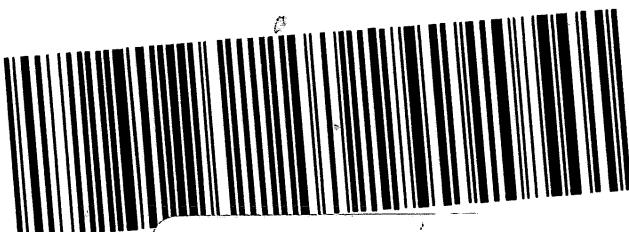
1 of 2
TRK# 2795 5815 8794
0201

MASTER

XN AGCA

WED - 26 OCT 10:30A
PRIORITY OVERNIGHT

15238
PA-US PIT



10.26
8794

86

10:30 A

RT

ORIGIN ID:PFNA (412) 963-7058
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REF:

TNU:

PO#

Uncorrected temp
Thermometer ID

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Initials

PT-WI-SR-001 effective 7/26/13

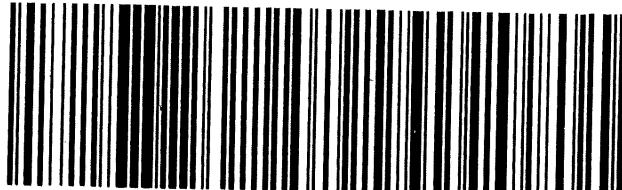


4.5 °C
21

2 of 2
MPS# 2795 5815 8809
0263
Mstr# 2795 5815 8794

WED - 26 OCT 10:30A
PRIORITY OVERNIGHT

1523
PA-US PI



Eurofins Pittsburgh

301 Alpha Drive RUC Park
Pittsburgh, PA 15238

Phone: 412-963-7058 Fax: 412-963-5248

Chain of Custody Record

Environment Testing



[www.eurofins.com](#)

Client Information (Sub Contract Lab)		Sampler	Lab P#: Brown, Shaili	Carrier Tracking No(s)	COC No: 180-472773.1
Shipping/Receiving		Phone	E-Mail: Shaili.Brown@eurofins.com	State or Origin: Mississippi	Date: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditation Required (See Note)			Doc # 180-146922-1
Address: 13715 Rider Trail North,		Due Date Requested:			
City: Earth City		TAT Requested (days):			
State Zip: MO 63045		PO #			
Phone: 314-288-3586(Tel) 314-288-8757(Fax)		Project #:	18020047	Sample Type (Yes or No):	3320_P4226Prcesep_27_Radium 226
Email:		Plant:	Daniel Ash Pond B	Sample Matrix (Yes or No):	3315_P4226Prcesep_0_Standard Target Lst
Project Name: Plant Daniel Ash Pond B		Site:	SS5WV	Form MMSD (Yes or No):	R4226R4226_GPPC

Sample Identification - Client ID (Lab ID)

Sample Date	Sample Time	Sample Type (C=comp, G=grub)	Sample Matrix (Name, Source, Ownership)	Total Number of Contaminants	Special Instructions/Note:
10/21/22	14:13	Water	X X X		
10/21/22	17:14	Water	X X X		
10/21/22	17:53	Water	X X X		
10/21/22	08:44	Water	X X X		
10/21/22	15:51	Water	X X X		
10/21/22	11:55	Water	X X X		
10/21/22	09:55	Water	X X X		
10/21/22	13:13	Water	X X X		
10/21/22	14:12	Water	X X X		

Note: Since laboratory accreditation is subject to change Eurofins Pittsburgh places the responsibility of method validity & conformance 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 Ohio it shall be returned to the Eurofins Pittsburgh laboratory or other instructions will be provided to Eurofins Pittsburgh immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard/Identification

Unconfirmed

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

Primary Deliverable Rank: 2

Sample Disposal / A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab

Archive For: Months

Special Instructions/CQC Requirements

Method of Shipment:	Time:	Received by:	Date/Time:	Date/Time:	Company:
FED EX	10/21/22 18:00	Company	Received by: <i>Jeanne</i>	06/08/2021	Company
	Date/Time:	Company	Received by:	Date/Time:	Company
	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seal intact Custody Seal No: □ Yes □ No

Var: 06/08/2021

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-146922-1

Login Number: 146922

List Source: Eurofins Pittsburgh

List Number: 1

Creator: Abernathy, Eric L

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

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-146922-1

Login Number: 146922

List Source: Eurofins St. Louis

List Number: 2

List Creation: 10/31/22 12:37 PM

Creator: Bohlmann, Jessica M

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

Low-Flow Test Report:

Test Date / Time: 10/5/2022 4:46:07 PM

Project: Daniel CCR BAW-1

Operator Name: Rick Hagendorfer

Location Name: Daniel CCR BAW-1 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 55.6 ft Total Depth: 60.6 ft Initial Depth to Water: 46.52 ft	Pump Type: BP Tubing Type: PE Pump Intake From TOC: 58.1 ft Estimated Total Volume Pumped: 10000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.07 ft	Instrument Used: Aqua TROLL 400 Serial Number: 852546
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Test Notes:

Weather Conditions:

P/C 84.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
10/5/2022 4:46 PM	00:00	6.31 pH	33.89 °C	41.19 µS/cm	6.77 mg/L		68.8 mV	46.52 ft	400.00 ml/min
10/5/2022 4:51 PM	05:00	4.95 pH	23.69 °C	51.02 µS/cm	3.85 mg/L	0.16 NTU	71.8 mV	46.59 ft	400.00 ml/min
10/5/2022 4:56 PM	10:00	4.91 pH	23.07 °C	50.62 µS/cm	3.73 mg/L	0.96 NTU	73.9 mV	46.59 ft	400.00 ml/min
10/5/2022 5:01 PM	15:00	4.91 pH	22.85 °C	50.59 µS/cm	3.73 mg/L	0.66 NTU	76.1 mV	46.59 ft	400.00 ml/min
10/5/2022 5:06 PM	20:00	4.91 pH	22.79 °C	50.55 µS/cm	3.71 mg/L	0.38 NTU	77.0 mV	46.59 ft	400.00 ml/min
10/5/2022 5:11 PM	25:00	4.91 pH	22.71 °C	50.41 µS/cm	3.70 mg/L	0.30 NTU	78.5 mV	46.59 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-1	Sample time 1714.

Low-Flow Test Report:

Test Date / Time: 10/5/2022 5:50:45 PM

Project: Daniel CCR BAW-3

Operator Name: Rick Hagendorfer

Location Name: Daniel CCR BAW-3 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 58.4 ft Total Depth: 68.4 ft Initial Depth to Water: 58.31 ft	Pump Type: BP Tubing Type: PE Pump Intake From TOC: 63.4 ft Estimated Total Volume Pumped: 10000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 852546
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Test Notes:

Weather Conditions:

Sunny 81.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
10/5/2022 5:50 PM	00:00	4.56 pH	24.51 °C	51.18 µS/cm	1.75 mg/L		86.6 mV	58.31 ft	400.00 ml/min
10/5/2022 5:55 PM	05:00	4.53 pH	24.06 °C	52.56 µS/cm	0.83 mg/L	0.97 NTU	87.7 mV	58.36 ft	400.00 ml/min
10/5/2022 6:00 PM	10:00	4.51 pH	23.96 °C	52.21 µS/cm	0.74 mg/L	1.09 NTU	89.5 mV	58.36 ft	400.00 ml/min
10/5/2022 6:05 PM	15:00	4.51 pH	23.85 °C	52.01 µS/cm	0.70 mg/L	1.34 NTU	89.3 mV	58.36 ft	400.00 ml/min
10/5/2022 6:10 PM	20:00	4.51 pH	23.78 °C	51.92 µS/cm	0.68 mg/L	0.62 NTU	90.8 mV	58.36 ft	400.00 ml/min
10/5/2022 6:15 PM	25:00	4.51 pH	23.74 °C	51.93 µS/cm	0.69 mg/L	0.31 NTU	90.9 mV	58.36 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-3	Sample time 1820.

Low-Flow Test Report:

Test Date / Time: 10/5/2022 1:40:45 PM

Project: Daniel CCR BAW-4

Operator Name: Rick Hagendorfer

Location Name: Daniel CCR BAW-4 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 59.9 ft Total Depth: 69.9 ft Initial Depth to Water: 51.84 ft	Pump Type: BP Tubing Type: PE Pump Intake From TOC: 64.9 ft Estimated Total Volume Pumped: 34000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 852546
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Test Notes:

Weather Conditions:

P/C 83

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
10/5/2022 1:40 PM	00:00	4.07 pH	25.23 °C	4,262.8 µS/cm	8.49 mg/L		210.1 mV	51.84 ft	400.00 ml/min
10/5/2022 1:45 PM	05:00	5.45 pH	23.80 °C	80.37 µS/cm	0.30 mg/L	69.20 NTU	81.2 mV	51.88 ft	400.00 ml/min
10/5/2022 1:50 PM	10:00	5.48 pH	23.73 °C	82.09 µS/cm	0.25 mg/L	10.40 NTU	75.5 mV	51.88 ft	400.00 ml/min
10/5/2022 1:55 PM	15:00	5.50 pH	23.85 °C	83.13 µS/cm	0.24 mg/L	10.00 NTU	70.2 mV	51.88 ft	400.00 ml/min
10/5/2022 2:00 PM	20:00	5.52 pH	24.35 °C	83.93 µS/cm	0.23 mg/L	3.21 NTU	65.9 mV	51.88 ft	400.00 ml/min
10/5/2022 2:05 PM	25:00	5.54 pH	23.79 °C	84.28 µS/cm	0.23 mg/L	2.23 NTU	62.8 mV	51.88 ft	400.00 ml/min
10/5/2022 2:10 PM	30:00	5.55 pH	23.80 °C	84.53 µS/cm	0.23 mg/L	1.81 NTU	59.8 mV	51.88 ft	400.00 ml/min
10/5/2022 2:15 PM	35:00	5.54 pH	23.70 °C	84.78 µS/cm	0.22 mg/L	2.11 NTU	57.8 mV	51.88 ft	400.00 ml/min
10/5/2022 2:20 PM	40:00	5.54 pH	23.70 °C	84.90 µS/cm	0.23 mg/L	2.24 NTU	55.3 mV	51.88 ft	400.00 ml/min
10/5/2022 2:25 PM	45:00	5.55 pH	23.73 °C	84.59 µS/cm	0.22 mg/L	2.73 NTU	53.0 mV	51.88 ft	400.00 ml/min
10/5/2022 2:30 PM	50:00	5.56 pH	23.70 °C	84.33 µS/cm	0.22 mg/L	3.39 NTU	51.1 mV	51.88 ft	400.00 ml/min
10/5/2022 2:35 PM	55:00	5.56 pH	23.60 °C	84.45 µS/cm	0.22 mg/L	2.93 NTU	49.6 mV	51.88 ft	400.00 ml/min
10/5/2022 2:40 PM	01:00:00	5.55 pH	23.61 °C	84.79 µS/cm	0.22 mg/L	2.95 NTU	48.0 mV	51.88 ft	400.00 ml/min

10/5/2022 2:45 PM	01:05:00	5.55 pH	23.52 °C	84.30 µS/cm	0.21 mg/L	3.62 NTU	46.7 mV	51.88 ft	400.00 ml/min
10/5/2022 2:50 PM	01:10:00	5.56 pH	23.50 °C	84.63 µS/cm	0.22 mg/L	3.96 NTU	45.1 mV	51.88 ft	400.00 ml/min
10/5/2022 2:55 PM	01:15:00	5.57 pH	23.88 °C	84.95 µS/cm	0.21 mg/L	2.36 NTU	42.8 mV	51.88 ft	400.00 ml/min
10/5/2022 3:00 PM	01:20:00	5.57 pH	24.06 °C	84.87 µS/cm	0.21 mg/L	2.08 NTU	41.7 mV	51.88 ft	400.00 ml/min
10/5/2022 3:05 PM	01:25:00	5.57 pH	24.06 °C	84.97 µS/cm	0.21 mg/L	2.04 NTU	40.6 mV	51.88 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-4	Sample time 1510. Dup-03 fake sample time 1410.

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/6/2022 10:56:55 AM

Project: Daniel CCR BAW-5

Operator Name: Trevor Braddock

Location Name: Daniel ccr baw-5 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 59.1 ft Total Depth: 69.1 ft Initial Depth to Water: 52.75 ft	Pump Type: QED Tubing Type: Pe Pump Intake From TOC: 64.1 ft Estimated Total Volume Pumped: 10000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.09 ft	Instrument Used: Aqua TROLL 400 Serial Number: 736137
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Test Notes:

Weather Conditions:

Sunny 82

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.3	
10/6/2022 10:56 AM	00:00	6.39 pH	17.71 °C	199.78 µS/cm	1.57 mg/L	1.54 NTU	30.9 mV	52.75 ft	400.00 ml/min
10/6/2022 11:01 AM	05:00	6.28 pH	15.77 °C	207.13 µS/cm	0.37 mg/L	1.52 NTU	31.6 mV	52.84 ft	400.00 ml/min
10/6/2022 11:06 AM	10:00	6.27 pH	15.91 °C	206.27 µS/cm	0.30 mg/L	0.81 NTU	31.9 mV	52.84 ft	400.00 ml/min
10/6/2022 11:11 AM	15:00	6.27 pH	15.77 °C	206.96 µS/cm	0.29 mg/L	0.84 NTU	31.7 mV	52.84 ft	400.00 ml/min
10/6/2022 11:16 AM	20:00	6.27 pH	15.82 °C	206.80 µS/cm	0.28 mg/L	0.75 NTU	31.5 mV	52.84 ft	400.00 ml/min
10/6/2022 11:21 AM	25:00	6.27 pH	15.63 °C	207.54 µS/cm	0.29 mg/L	0.81 NTU	31.4 mV	52.84 ft	400.00 ml/min

Samples

Sample ID:	Description:
Baw-5	Sample time 1123

Low-Flow Test Report:

Test Date / Time: 10/6/2022 9:18:58 AM

Project: Daniel CCR BAW-7

Operator Name: Rick Hagendorfer

Location Name: Daniel CCR BAW-7 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 58.2 ft Total Depth: 68.2 ft Initial Depth to Water: 57.56 ft	Pump Type: BP Tubing Type: PE Pump Intake From TOC: 63.2 ft Estimated Total Volume Pumped: 66000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.16 ft	Instrument Used: Aqua TROLL 400 Serial Number: 852546
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Test Notes:

Well has been modified. Bottom depths are measured from T.O.C. So bottom depth is different for this event.

Weather Conditions:

Sunny 73

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
10/6/2022 9:18 AM	00:00	5.38 pH	23.31 °C	210.00 µS/cm	3.42 mg/L	24.10 NTU	104.9 mV	57.56 ft	400.00 ml/min
10/6/2022 9:23 AM	05:00	4.67 pH	22.67 °C	212.34 µS/cm	1.81 mg/L	16.40 NTU	103.1 mV	57.72 ft	400.00 ml/min
10/6/2022 9:28 AM	10:00	4.66 pH	22.47 °C	210.34 µS/cm	1.75 mg/L	7.40 NTU	106.2 mV	57.72 ft	400.00 ml/min
10/6/2022 9:33 AM	15:00	4.66 pH	22.45 °C	209.21 µS/cm	1.71 mg/L	7.61 NTU	108.4 mV	57.72 ft	400.00 ml/min
10/6/2022 9:38 AM	20:00	4.67 pH	22.53 °C	214.33 µS/cm	1.72 mg/L	7.24 NTU	110.1 mV	57.72 ft	400.00 ml/min
10/6/2022 9:43 AM	25:00	4.68 pH	22.54 °C	213.28 µS/cm	1.66 mg/L	7.00 NTU	110.9 mV	57.72 ft	400.00 ml/min
10/6/2022 9:48 AM	30:00	4.67 pH	22.62 °C	215.84 µS/cm	1.58 mg/L	7.16 NTU	112.6 mV	57.72 ft	400.00 ml/min
10/6/2022 9:53 AM	35:00	4.68 pH	22.62 °C	215.13 µS/cm	1.55 mg/L	5.26 NTU	113.4 mV	57.72 ft	400.00 ml/min
10/6/2022 9:58 AM	40:00	4.68 pH	22.71 °C	216.67 µS/cm	1.51 mg/L	4.97 NTU	114.0 mV	57.72 ft	400.00 ml/min
10/6/2022 10:03 AM	45:00	4.68 pH	22.68 °C	217.52 µS/cm	1.46 mg/L	5.06 NTU	115.5 mV	57.72 ft	400.00 ml/min
10/6/2022 10:08 AM	50:00	4.68 pH	22.76 °C	221.37 µS/cm	1.43 mg/L	4.99 NTU	116.0 mV	57.72 ft	400.00 ml/min
10/6/2022 10:13 AM	55:00	4.69 pH	22.83 °C	218.44 µS/cm	1.41 mg/L	4.85 NTU	116.2 mV	57.72 ft	400.00 ml/min
10/6/2022 10:18 AM	01:00:00	4.68 pH	22.77 °C	215.87 µS/cm	1.52 mg/L	3.75 NTU	117.0 mV	57.72 ft	400.00 ml/min

10/6/2022 10:23 AM	01:05:00	4.69 pH	22.82 °C	215.26 µS/cm	1.52 mg/L	3.62 NTU	117.0 mV	57.72 ft	400.00 ml/min
10/6/2022 10:28 AM	01:10:00	4.69 pH	22.92 °C	217.67 µS/cm	1.38 mg/L	3.58 NTU	117.9 mV	57.72 ft	400.00 ml/min
10/6/2022 10:33 AM	01:15:00	4.69 pH	22.98 °C	220.77 µS/cm	1.33 mg/L	3.43 NTU	118.3 mV	57.72 ft	400.00 ml/min
10/6/2022 10:38 AM	01:20:00	4.70 pH	23.00 °C	221.45 µS/cm	1.31 mg/L	3.46 NTU	118.7 mV	57.72 ft	400.00 ml/min
10/6/2022 10:43 AM	01:25:00	4.70 pH	22.93 °C	221.40 µS/cm	1.29 mg/L	3.24 NTU	119.0 mV	57.72 ft	400.00 ml/min
10/6/2022 10:48 AM	01:30:00	4.70 pH	23.00 °C	220.72 µS/cm	1.28 mg/L	3.18 NTU	119.6 mV	57.72 ft	400.00 ml/min
10/6/2022 10:53 AM	01:35:00	4.70 pH	22.98 °C	221.77 µS/cm	1.25 mg/L	3.10 NTU	120.1 mV	57.72 ft	400.00 ml/min
10/6/2022 10:58 AM	01:40:00	4.70 pH	23.02 °C	219.36 µS/cm	1.29 mg/L	2.86 NTU	120.5 mV	57.72 ft	400.00 ml/min
10/6/2022 11:03 AM	01:45:00	4.70 pH	23.08 °C	220.93 µS/cm	1.25 mg/L	2.78 NTU	120.4 mV	57.72 ft	400.00 ml/min
10/6/2022 11:08 AM	01:50:00	4.70 pH	23.12 °C	220.30 µS/cm	1.27 mg/L	2.60 NTU	120.7 mV	57.72 ft	400.00 ml/min
10/6/2022 11:13 AM	01:55:00	4.70 pH	23.16 °C	220.67 µS/cm	1.26 mg/L	2.54 NTU	121.1 mV	57.72 ft	400.00 ml/min
10/6/2022 11:18 AM	02:00:00	4.70 pH	23.28 °C	219.68 µS/cm	1.23 mg/L	2.45 NTU	121.5 mV	57.72 ft	400.00 ml/min
10/6/2022 11:23 AM	02:05:00	4.70 pH	23.28 °C	221.01 µS/cm	1.24 mg/L	2.39 NTU	121.6 mV	57.72 ft	400.00 ml/min
10/6/2022 11:28 AM	02:10:00	4.71 pH	23.31 °C	217.07 µS/cm	1.36 mg/L	2.00 NTU	121.4 mV	57.72 ft	400.00 ml/min
10/6/2022 11:33 AM	02:15:00	4.71 pH	23.25 °C	220.29 µS/cm	1.27 mg/L	2.10 NTU	122.1 mV	57.72 ft	400.00 ml/min
10/6/2022 11:38 AM	02:20:00	4.71 pH	23.43 °C	222.48 µS/cm	1.23 mg/L	2.45 NTU	122.2 mV	57.72 ft	400.00 ml/min
10/6/2022 11:43 AM	02:25:00	4.71 pH	23.61 °C	220.98 µS/cm	1.22 mg/L	2.13 NTU	122.1 mV	57.72 ft	400.00 ml/min
10/6/2022 11:48 AM	02:30:00	4.70 pH	23.42 °C	219.34 µS/cm	1.21 mg/L	1.94 NTU	122.5 mV	57.72 ft	400.00 ml/min
10/6/2022 11:53 AM	02:35:00	4.71 pH	23.65 °C	221.10 µS/cm	1.21 mg/L	1.96 NTU	122.3 mV	57.72 ft	400.00 ml/min
10/6/2022 11:58 AM	02:40:00	4.71 pH	23.70 °C	221.73 µS/cm	1.21 mg/L	1.99 NTU	122.7 mV	57.72 ft	400.00 ml/min
10/6/2022 12:03 PM	02:45:00	4.71 pH	23.65 °C	219.75 µS/cm	1.21 mg/L	1.98 NTU	122.7 mV	57.72 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-7	Sample time 1207. Dup-04 fake sample time 1107. EB-03 sample time 0855. FB-03 sample time 0931.

Low-Flow Test Report:

Test Date / Time: 10/6/2022 9:42:17 AM

Project: Daniel CCR BAW-8

Operator Name: Trevor Braddock

Location Name: Daniel CCR BAW-8 Well Diameter: 2 in Screen Length: 63.7 ft Top of Screen: 58.7 ft Total Depth: 68.7 ft Initial Depth to Water: 54.34 ft	Pump Type: BP Tubing Type: Pe Pump Intake From TOC: 63.7 ft Estimated Total Volume Pumped: 8000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.08 ft	Instrument Used: Aqua TROLL 400 Serial Number: 736137
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Test Notes:

Weather Conditions:

Sunny 73

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.3	
10/6/2022 9:42 AM	00:00	6.16 pH	16.49 °C	383.46 µS/cm	0.24 mg/L	0.60 NTU	25.4 mV	54.34 ft	400.00 ml/min
10/6/2022 9:47 AM	05:00	6.17 pH	15.88 °C	387.46 µS/cm	0.22 mg/L	0.63 NTU	20.5 mV	54.42 ft	400.00 ml/min
10/6/2022 9:52 AM	10:00	6.17 pH	15.92 °C	390.29 µS/cm	0.21 mg/L	0.54 NTU	15.9 mV	54.42 ft	400.00 ml/min
10/6/2022 9:57 AM	15:00	6.18 pH	15.95 °C	390.43 µS/cm	0.21 mg/L	0.47 NTU	11.1 mV	54.42 ft	400.00 ml/min
10/6/2022 10:02 AM	20:00	6.19 pH	15.92 °C	388.33 µS/cm	0.21 mg/L	0.33 NTU	7.0 mV	54.42 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-8	Sample time 1002

Low-Flow Test Report:

Test Date / Time: 10/6/2022 8:14:00 AM

Project: Daniel CCR BAW-9

Operator Name: Trevor Braddock

Location Name: Daniel CCR BAW-9 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 53.1 ft Total Depth: 63.1 ft Initial Depth to Water: 52.61 ft	Pump Type: BP Tubing Type: Pe Pump Intake From TOC: 58.1 ft Estimated Total Volume Pumped: 8000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.13 ft	Instrument Used: Aqua TROLL 400 Serial Number: 736137
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Test Notes:

Weather Conditions:

Sunny 62

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 20	+/- 0.3	
10/6/2022 8:14 AM	00:00	6.00 pH	15.23 °C	325.45 µS/cm	0.40 mg/L	3.79 NTU	86.9 mV	52.61 ft	400.00 ml/min
10/6/2022 8:19 AM	05:00	6.01 pH	15.14 °C	326.69 µS/cm	0.36 mg/L	1.93 NTU	77.8 mV	52.74 ft	400.00 ml/min
10/6/2022 8:24 AM	10:00	6.02 pH	15.21 °C	326.36 µS/cm	0.29 mg/L	1.40 NTU	69.5 mV	52.74 ft	400.00 ml/min
10/6/2022 8:29 AM	15:00	6.03 pH	15.27 °C	325.95 µS/cm	0.24 mg/L	1.02 NTU	62.9 mV	52.74 ft	400.00 ml/min
10/6/2022 8:34 AM	20:00	6.03 pH	15.39 °C	325.94 µS/cm	0.25 mg/L	1.09 NTU	56.9 mV	52.74 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-9	Sample time 0836

Appendix B

1st

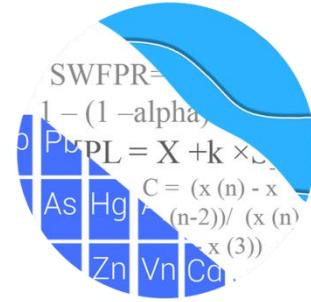
Semi-Annual

Monitoring Event

GROUNDWATER STATS
CONSULTING

May 16, 2022

Southern Company Services
Attn: Mr. Trey Singleton
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Daniel Bottom Ash Pond
2022 Annual Statistical Analysis – March 2022 Sample Event

Dear Mr. Singleton,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2022 Groundwater Detection and Assessment Monitoring Annual report for Mississippi Power Company's Plant Daniel Bottom Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel Bottom Ash Pond for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BAW-1 and BAW-2A
- **Downgradient wells:** BAW-3, BAW-4, BAW-5, and BAW-7

Upgradient well BAW-2 was last sampled in October 2017 and has since been abandoned; however, data for this well are included to represent historical naturally occurring groundwater quality upgradient of the ash pond. Replacement upgradient well BAW-2A was first sampled in March 2018 and has since been sampled to supplement existing upgradient data for BAW-2.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **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 list of Appendix IV downgradient well/constituent pairs containing 100% non-detects follow this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case.

Time series plots for Appendix III and IV parameters are provided for all wells and are used to evaluate concentrations over time (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph. A summary of these values follows this letter (Figure C). 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.

During the previous screening, 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 screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric prediction 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 prediction limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as "<" the original reporting limit.

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 following each sampling event after careful screening for any new outliers. 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.

Summary of Background Screening Conducted in October 2017

Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. No suspected outliers were observed in any of the proposed background data at upgradient wells. When any values are identified as outliers, they are plotted in a lighter font on the time series graph.

Seasonality

No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Test Evaluation

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a couple statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations, therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA showed no variation for calcium, chloride, pH, sulfate, and TDS, making these parameters eligible for interwell methods. Boron and fluoride contained 100% non-detects and, therefore, could not be tested with the ANOVA. These parameters are also eligible for interwell methods since no variation is present. A summary table of the ANOVA results was included with the October 2017 screening.

Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for outliers at upgradient wells for all constituents. An updated summary of Tukey's test results and flagged outliers was included with the 2019 Background Update report.

The Sen's Slope/Mann-Kendall trend test was used to determine whether concentrations are statistically increasing, decreasing or stable at upgradient wells. No statistically significant increasing or decreasing trends were noted with the exception of decreasing trends for calcium and pH in well BAW-2, which has since been abandoned. The magnitude of these trends, however, was low relative to the average concentrations in these wells. Therefore, no adjustments were required at that time; and these results were included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – March 2022

Prior to constructing interwell prediction limits, data through the March 2022 sample event at upgradient wells were re-evaluated for outliers using visual screening. No new outliers were suspected or flagged during this analysis. Tukey's outlier test had previously identified an outlier for calcium at well BAW-2 during the November 2019 statistical analysis; therefore, this value remains flagged. A summary of flagged data follows this

report (Figure C). Additionally, any flagged values are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters using pooled historical upgradient well data through March 2022 (Figure D). The reported measurements at downgradient wells for the March 2022 sample event were compared to the interwell prediction limits to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) 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 further action is necessary. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: BAW-5 and BAW-7
- Calcium: BAW-4 and BAW-5
- Chloride: BAW-4
- Fluoride: BAW-5
- pH: BAW-4 and BAW-5
- Sulfate: BAW-3, BAW-4, BAW-5, and BAW-7
- TDS: BAW-4 and BAW-5

Trend Test Evaluation

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. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Sulfate: BAW-4

Decreasing:

- Calcium: BAW-2 (upgradient)
- pH: BAW-2 (upgradient) and BAW-5
- Sulfate: BAW-1 (upgradient)

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient groundwater quality. Site-specific background limits are determined using upper tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Evaluation of Appendix IV Parameters – March 2022

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that have 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged during this analysis. Tukey's outlier test had previously identified an outlier for lithium at upgradient well BAW-1 during the November 2019 statistical analysis, and this value remains flagged. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Parametric upper tolerance limits were used to calculate background limits from pooled upgradient well data through March 2022 for Appendix IV parameters with a target of 95% confidence and 95% coverage to determine background limits (Figure F). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

Groundwater Protection Standards

The interwell upper tolerance limits were compared to the Maximum Contaminant Levels (MCLs), CCR Rule-Specified levels, and background limits in the Groundwater Protection Standard (GWPS) table following this letter to determine the highest limit for use as the GWPS in the Confidence Interval comparisons (Figure G).

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using all data through March 2022 for each of the Appendix IV parameters and compared to the GWPS, i.e., the highest limit of the MCL, CCR Rule-Specified level, or background limit as discussed above (Figure H). Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Complete graphical results of the confidence interval follow this letter. An exceedance was identified for the following well/constituent pair:

- Lithium: BAW-5

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Daniel Bottom Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Abdul Diane
Groundwater Analyst



Andrew T. Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/2/2022 5:17 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Antimony (mg/L)

BAW-3, BAW-4, BAW-5, BAW-7

Arsenic (mg/L)

BAW-3

Beryllium (mg/L)

BAW-3, BAW-4, BAW-5

Cadmium (mg/L)

BAW-4, BAW-7

Molybdenum (mg/L)

BAW-3

Selenium (mg/L)

BAW-4

Thallium (mg/L)

BAW-4, BAW-5

Appendix III Interwell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 5:57 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-5	0.0928	n/a	3/16/2022	0.695	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/16/2022	0.247	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/16/2022	8.94	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/16/2022	23.8	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-4	16.4	n/a	3/16/2022	17.9	Yes	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	3/16/2022	0.176	Yes	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
pH (SU)	BAW-4	5.399	4.542	3/16/2022	5.56	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.399	4.542	3/16/2022	6.2	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5.37	n/a	3/16/2022	6.85	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-4	5.37	n/a	3/16/2022	5.64	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	3/16/2022	23.1	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-7	5.37	n/a	3/16/2022	5.93	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	58.7	n/a	3/16/2022	66	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	58.7	n/a	3/16/2022	133	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 5:57 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	3/16/2022	0.08ND	No	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-4	0.0928	n/a	3/16/2022	0.084	No	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	3/16/2022	0.695	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/16/2022	0.247	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-3	2.8	n/a	3/16/2022	0.78	No	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/16/2022	8.94	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/16/2022	23.8	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-7	2.8	n/a	3/16/2022	1.28	No	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	16.4	n/a	3/16/2022	7.94	No	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-4	16.4	n/a	3/16/2022	17.9	Yes	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-5	16.4	n/a	3/16/2022	10.6	No	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-7	16.4	n/a	3/16/2022	13	No	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BAW-3	0.1	n/a	3/16/2022	0.0307J	No	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-4	0.1	n/a	3/16/2022	0.0462J	No	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	3/16/2022	0.176	Yes	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-7	0.1	n/a	3/16/2022	0.0266J	No	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
pH (SU)	BAW-3	5.399	4.542	3/16/2022	4.64	No	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-4	5.399	4.542	3/16/2022	5.56	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.399	4.542	3/16/2022	6.2	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-7	5.399	4.542	3/16/2022	4.75	No	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5.37	n/a	3/16/2022	6.85	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-4	5.37	n/a	3/16/2022	5.64	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	3/16/2022	23.1	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-7	5.37	n/a	3/16/2022	5.93	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-3	58.7	n/a	3/16/2022	26	No	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	58.7	n/a	3/16/2022	66	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	58.7	n/a	3/16/2022	133	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-7	58.7	n/a	3/16/2022	37	No	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Trend Test Summary - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 6:05 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.07651	-120	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.4138	-91	-81	Yes	20	55	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-4	0.2517	91	81	Yes	20	0	n/a	n/a	0.01	NP

Appendix III Trend Test Summary - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 6:05 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	10	87	No	21	95.24	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-18	-38	No	12	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	-0.008655	-21	-87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	51	87	No	21	85.71	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.02611	44	87	No	21	4.762	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.06268	-36	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.2004	75	87	No	21	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.5605	-46	-87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-1 (bg)	0.05579	20	81	No	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2 (bg)	1.001	18	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2A (bg)	1.003	21	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-4	0.08219	18	81	No	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-1 (bg)	0	-31	-87	No	21	90.48	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-2A (bg)	0	-1	-38	No	12	83.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-5	0	-13	-87	No	21	4.762	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.0225	-34	-81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.07555	-24	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.03938	50	81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.07651	-120	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.4138	-91	-81	Yes	20	55	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2A (bg)	0.6255	20	34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-3	0.008336	16	81	No	20	20	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-4	0.2517	91	81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-5	0.02583	2	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-7	-0.1687	-56	-81	No	20	45	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	1.23	37	81	No	20	10	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	0.9444	5	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-4	1.829	15	81	No	20	5	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-2.531	-24	-81	No	20	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/2/2022, 5:11 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.002	n/a	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)
Arsenic (mg/L)	0.001	n/a	n/a	n/a	n/a	40	100	n/a	0.1285	NP Inter(NDs)
Barium (mg/L)	0.05	n/a	n/a	n/a	n/a	40	2.5	n/a	0.1285	NP Inter(normality)
Beryllium (mg/L)	0.001	n/a	n/a	n/a	n/a	36	97.22	n/a	0.1578	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	n/a	n/a	n/a	40	97.5	n/a	0.1285	NP Inter(NDs)
Chromium (mg/L)	0.00286	n/a	n/a	n/a	n/a	38	89.47	n/a	0.1424	NP Inter(NDs)
Cobalt (mg/L)	0.00177	n/a	n/a	n/a	n/a	40	7.5	n/a	0.1285	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	2.5	n/a	n/a	n/a	n/a	40	5	n/a	0.1285	NP Inter(normality)
Fluoride (mg/L)	0.1	n/a	n/a	n/a	n/a	42	90.48	n/a	0.116	NP Inter(NDs)
Lead (mg/L)	0.001	n/a	n/a	n/a	n/a	38	100	n/a	0.1424	NP Inter(NDs)
Lithium (mg/L)	0.00505	n/a	n/a	n/a	n/a	39	69.23	n/a	0.1353	NP Inter(NDs)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	n/a	32	93.75	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	0.005	n/a	n/a	n/a	n/a	36	88.89	n/a	0.1578	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	36	83.33	n/a	0.1578	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	n/a	36	97.22	n/a	0.1578	NP Inter(NDs)

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.05	2
Beryllium, Total (mg/L)	0.004		0.001	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0018	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

Confidence Interval Summary Table - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/2/2022, 5:21 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (mg/L)	BAW-5	0.193	0.156	0.04	Yes	20	0.03845	0	x^2	0.01	Param.

Confidence Interval Summary Table - All Results

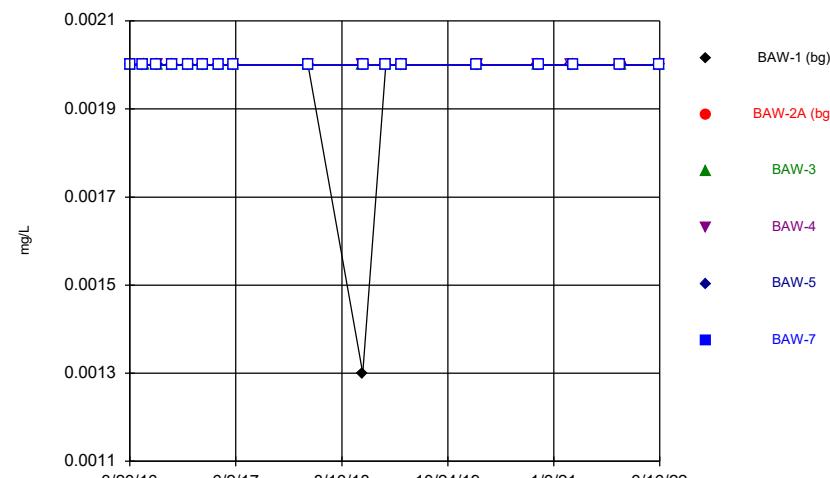
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/2/2022, 5:21 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.001	0.00069	0.01	No	20	0.0008342	20	No	0.01	NP (normality)
Arsenic (mg/L)	BAW-5	0.003662	0.001725	0.01	No	20	0.002944	0	In(x)	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No	20	0.0001509	90	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.02989	0.02182	2	No	20	0.007104	0	No	0.01	Param.
Barium (mg/L)	BAW-4	0.0116	0.00888	2	No	20	0.006939	0	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.046	0.039	2	No	20	0.007047	0	No	0.01	NP (normality)
Barium (mg/L)	BAW-7	0.013	0.011	2	No	20	0.003649	0	No	0.01	NP (normality)
Beryllium (mg/L)	BAW-7	0.001	0.000185	0.004	No	18	0.0001921	94.44	No	0.01	NP (NDs)
Cadmium (mg/L)	BAW-3	0.0008978	0.0006141	0.005	No	20	0.0002498	5	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No	20	0.0001889	95	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No	19	0.0002472	89.47	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No	19	0.0002494	84.21	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No	19	0.0007243	84.21	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No	19	0.00001376	94.74	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.006089	0.004786	0.006	No	20	0.001148	0	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.001376	0.0009965	0.006	No	20	0.0003586	0	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BAW-5	0.000802	0.00042	0.006	No	20	0.000124	85	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.0009944	0.0007674	0.006	No	20	0.0001999	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.646	0.126	5	No	20	0.7213	10	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.7846	0.09941	5	No	20	0.8414	15	$x^{(1/3)}$	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.7838	0.3114	5	No	19	0.5517	5.263	$x^{(1/3)}$	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	1.005	0.2552	5	No	20	0.8193	15	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No	21	0.02036	90.48	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.1	0.04	4	No	21	0.02667	28.57	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.07	0.05	4	No	21	0.02897	4.762	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No	21	0.01998	90.48	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.00015	0.015	No	19	0.0003872	52.63	No	0.01	NP (NDs)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No	19	0.0003031	78.95	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No	19	0.0001945	94.74	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No	19	0.0001998	94.74	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.005	0.0038	0.04	No	20	0.001287	70	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-4	0.02735	0.01998	0.04	No	20	0.006551	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	BAW-5	0.193	0.156	0.04	Yes	20	0.03845	0	x^{*2}	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0035	0.04	No	20	0.0009717	60	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No	16	0.00008398	81.25	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No	16	0.00003522	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No	16	0.0000315	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000151	0.002	No	16	0.0002549	75	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.005	0.0032	0.1	No	18	0.001595	77.78	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-5	0.003899	0.001363	0.1	No	18	0.002084	33.33	No	0.01	Param.
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No	18	0.0002828	94.44	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00038	0.05	No	18	0.002271	61.11	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No	18	0.001101	94.44	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00036	0.05	No	18	0.002039	72.22	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-3	0.001	0.000276	0.002	No	18	0.000364	77.78	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-7	0.001	0.000153	0.002	No	18	0.0001996	94.44	No	0.01	NP (NDs)

FIGURE A.

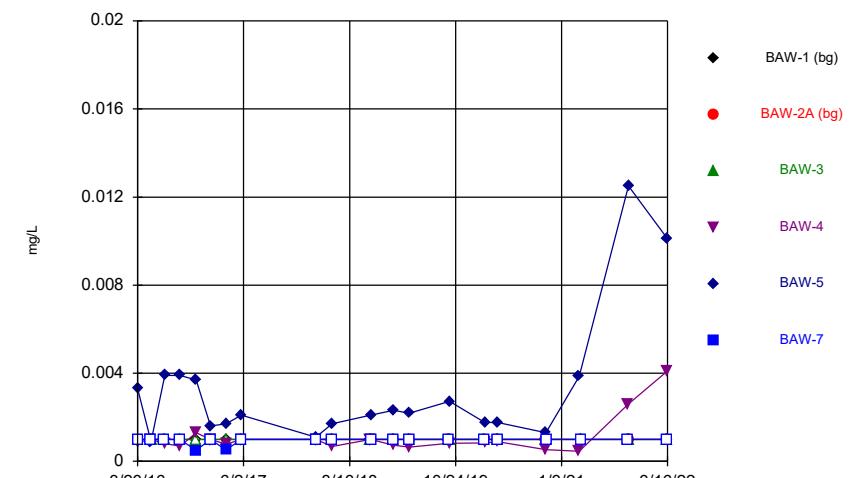
Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



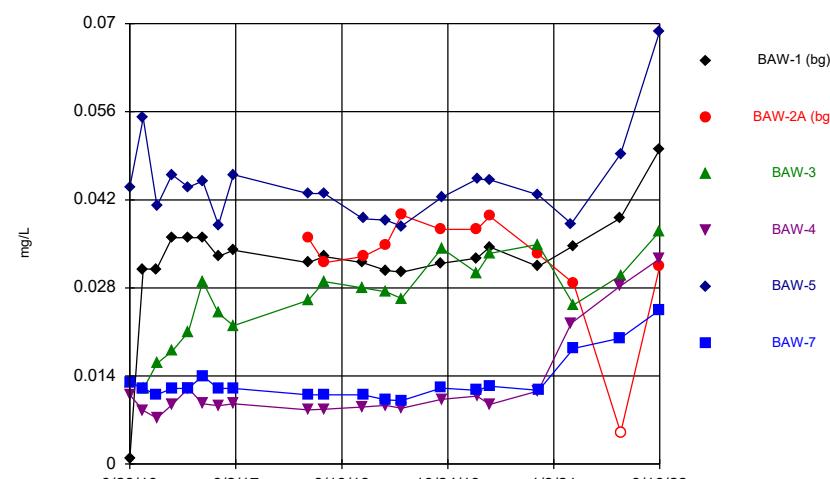
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Hollow symbols indicate censored values.

Time Series



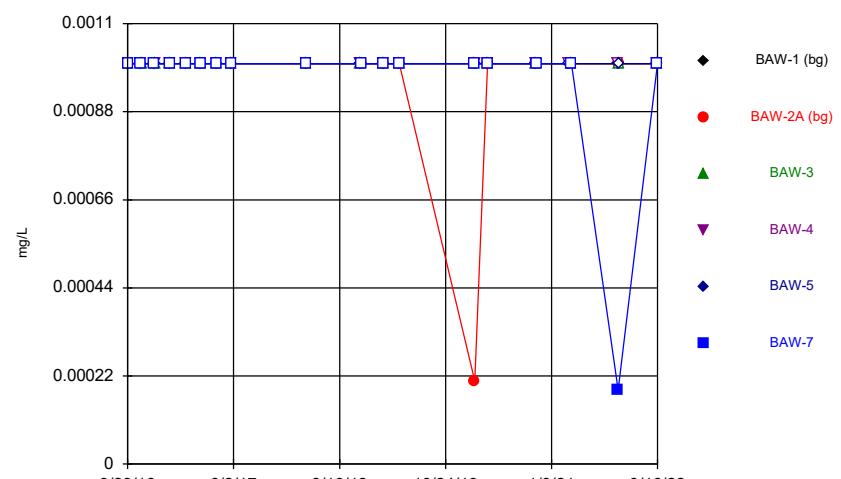
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Hollow symbols indicate censored values.

Time Series



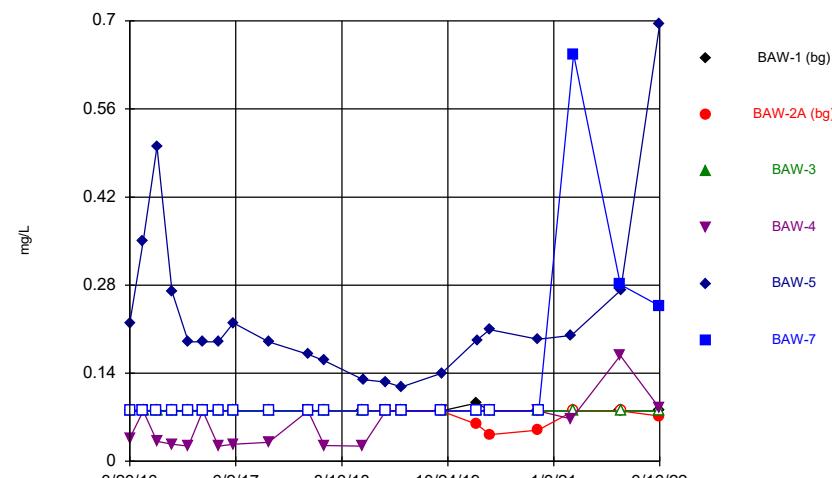
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Time Series



Sanitas™ v.9.6.33 . UG
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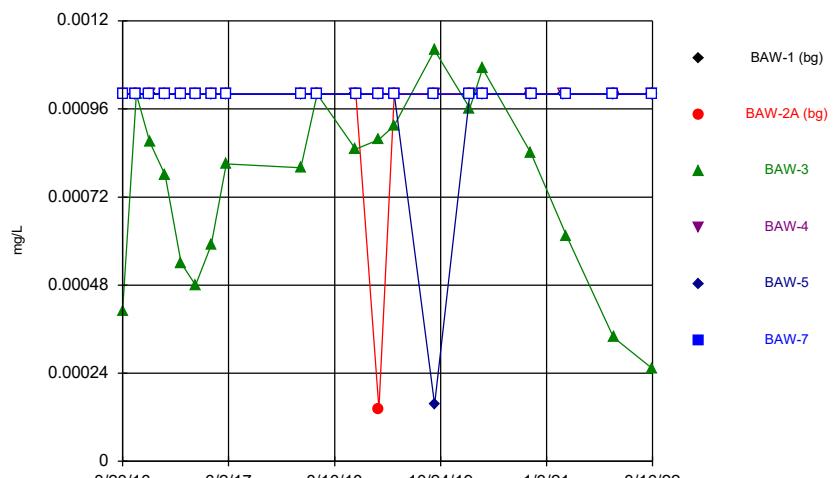
Time Series



Constituent: Boron Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

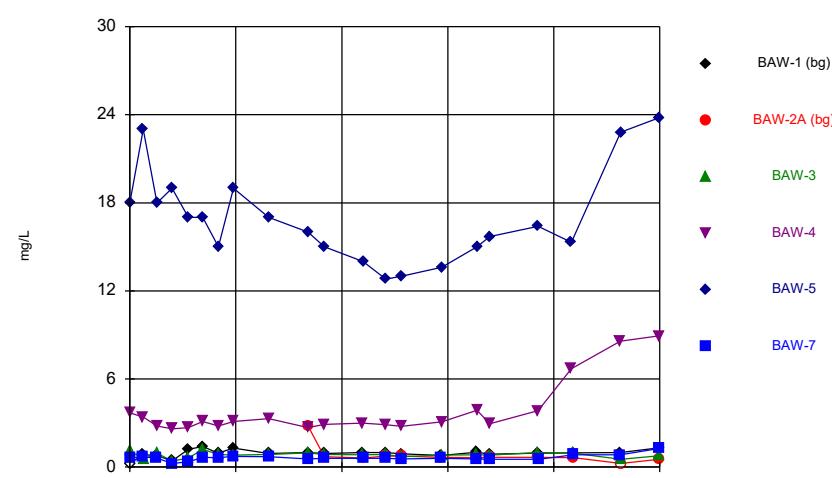
Time Series



Constituent: Cadmium Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

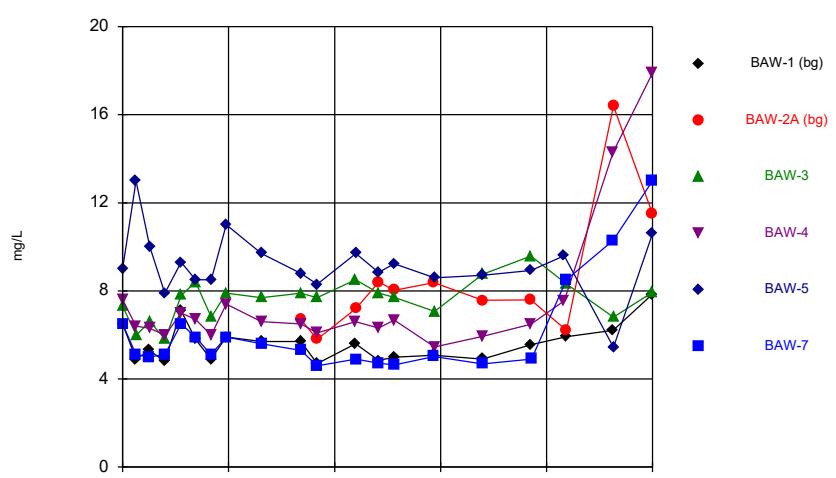
Time Series



Constituent: Calcium Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG

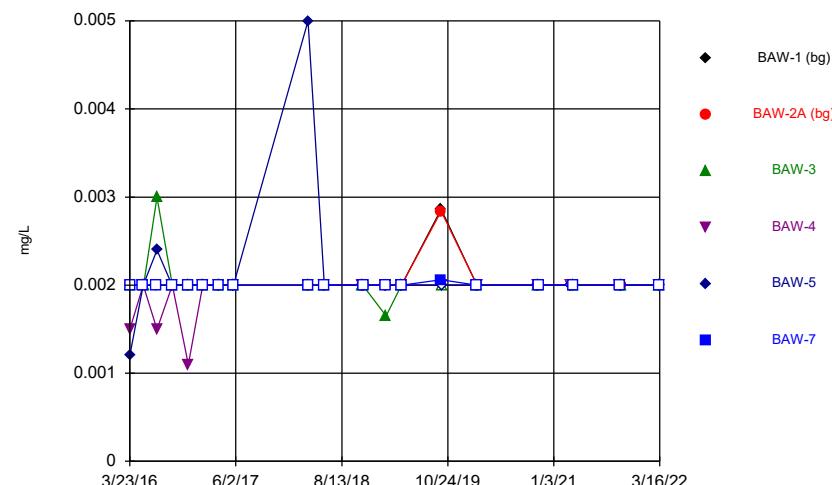
Time Series



Constituent: Chloride Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

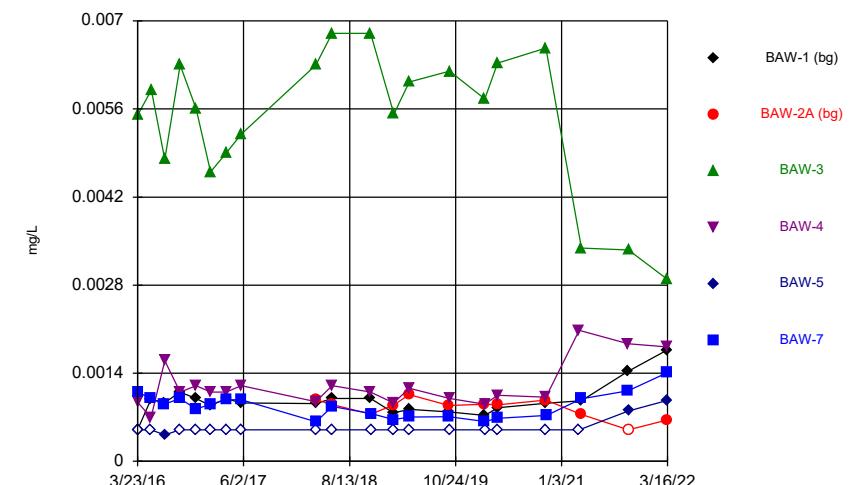
Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



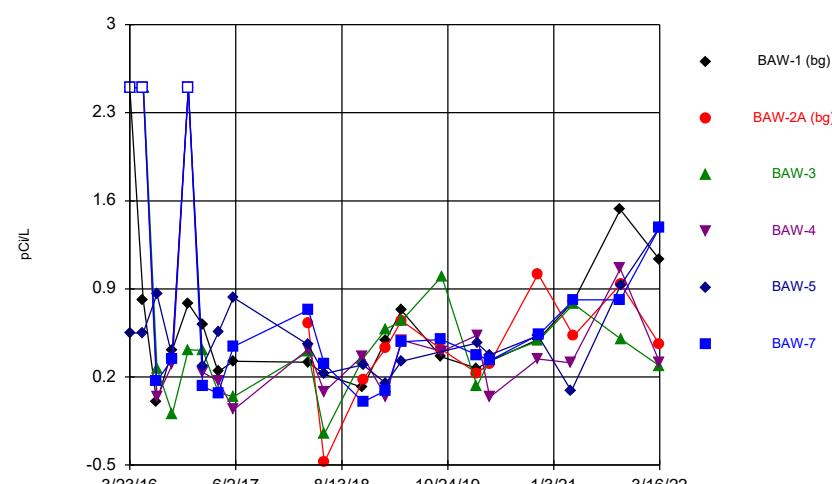
Sanitas™ v.9.6.33 . UG
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Time Series



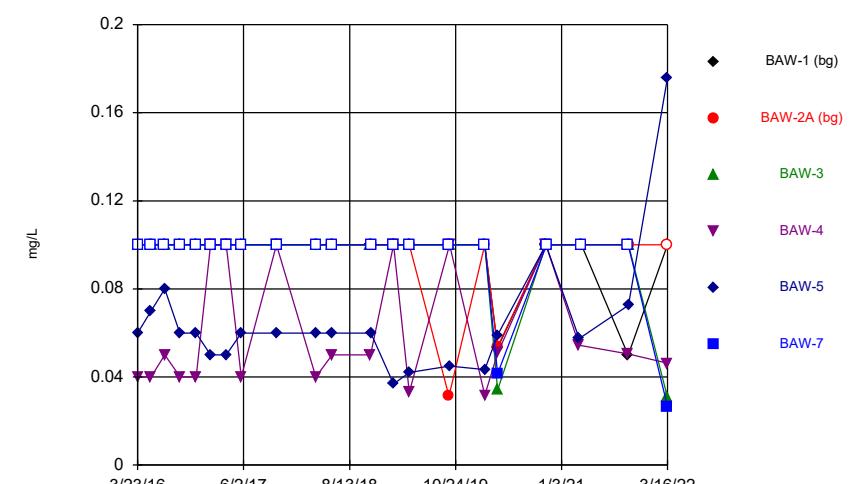
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Time Series



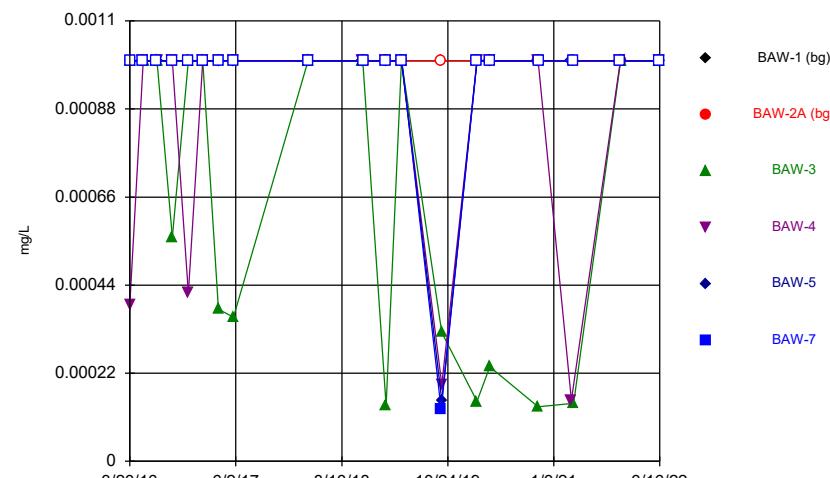
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Time Series



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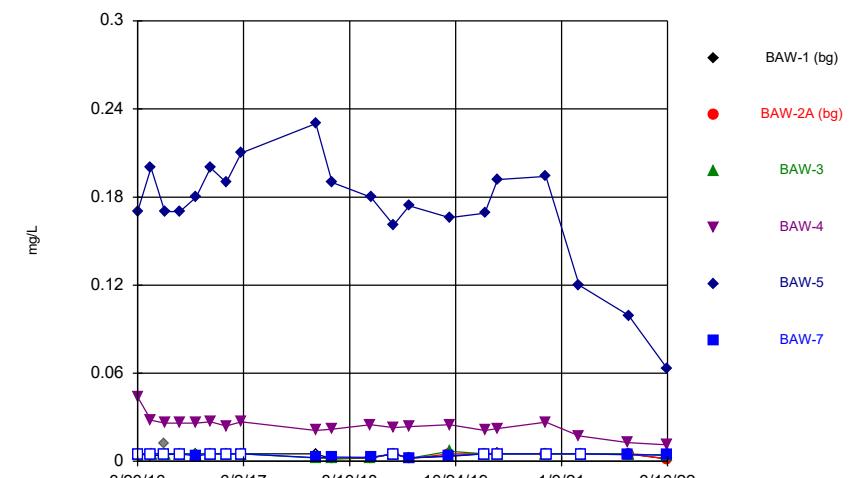
Time Series



Constituent: Lead Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

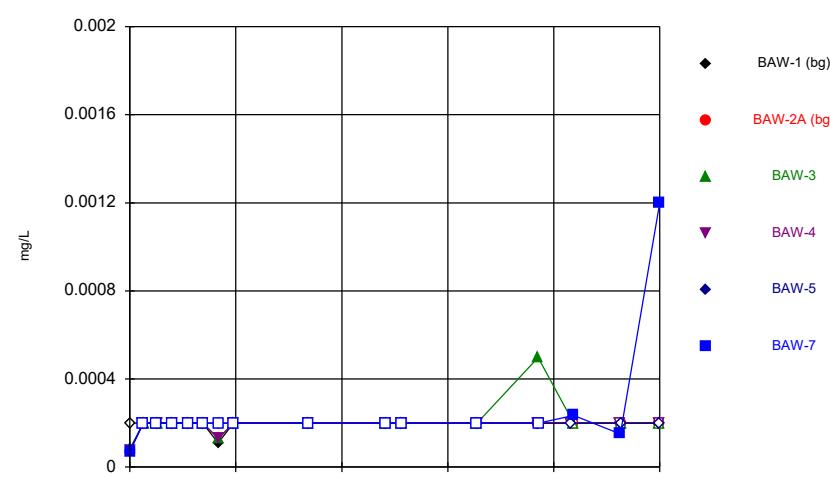
Time Series



Constituent: Lithium Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

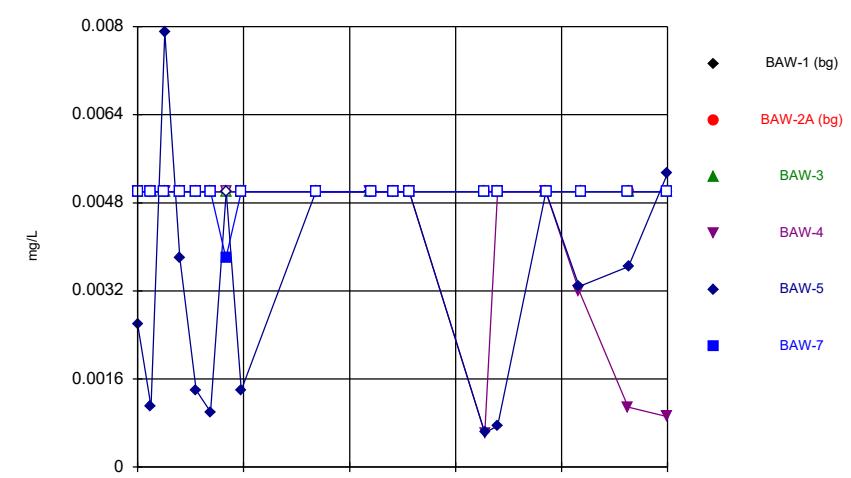
Time Series



Constituent: Mercury Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

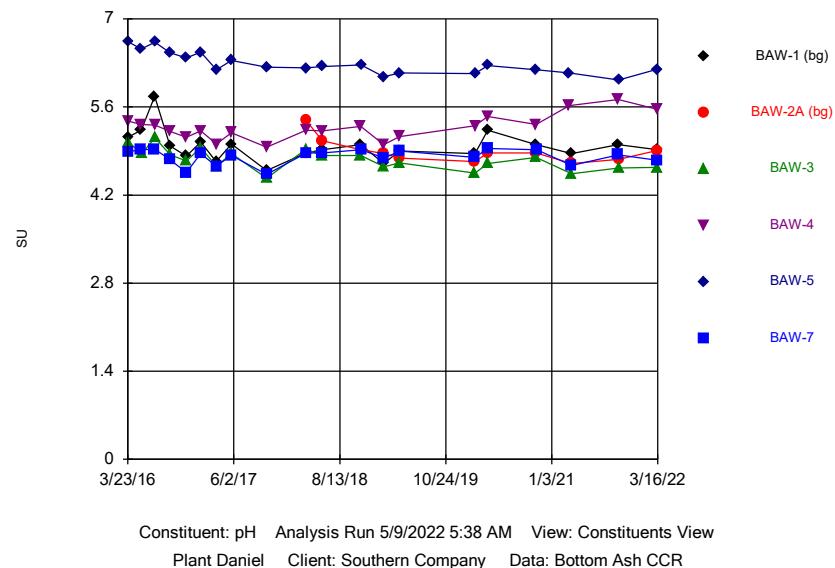
Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series

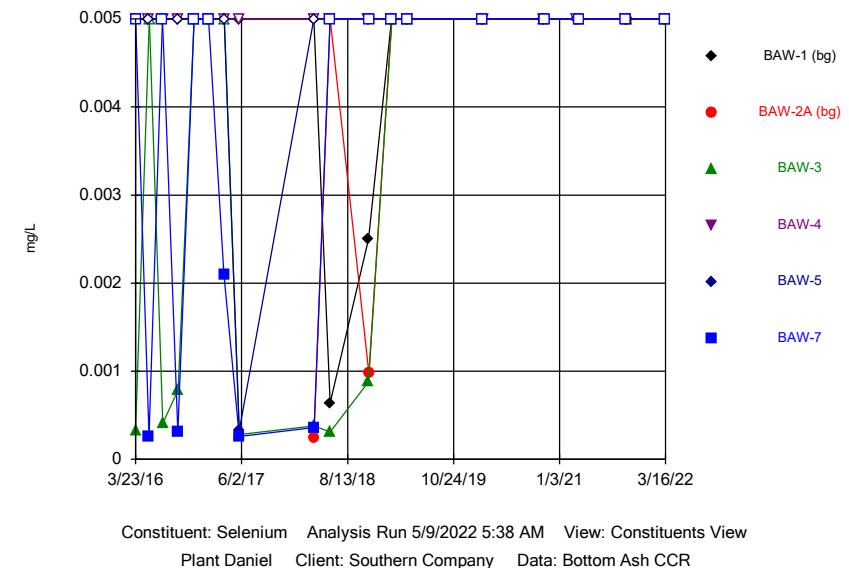


Constituent: Molybdenum Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

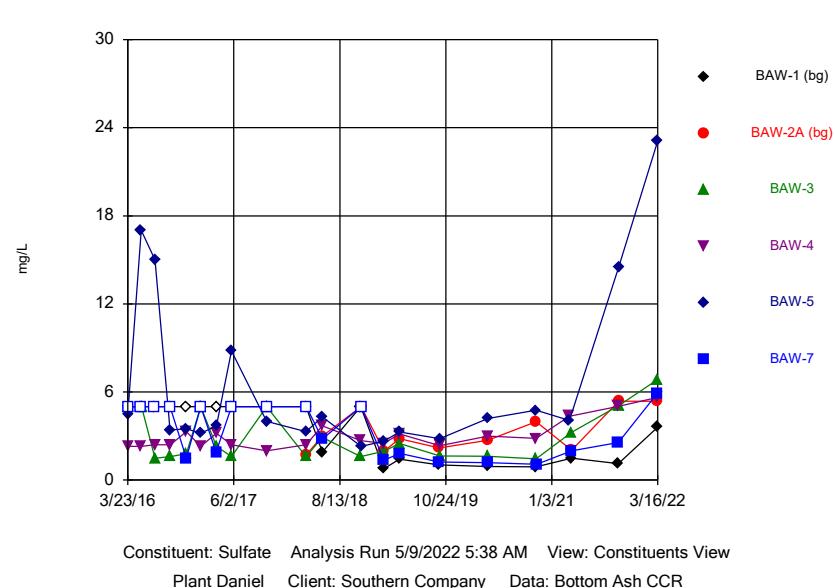
Time Series



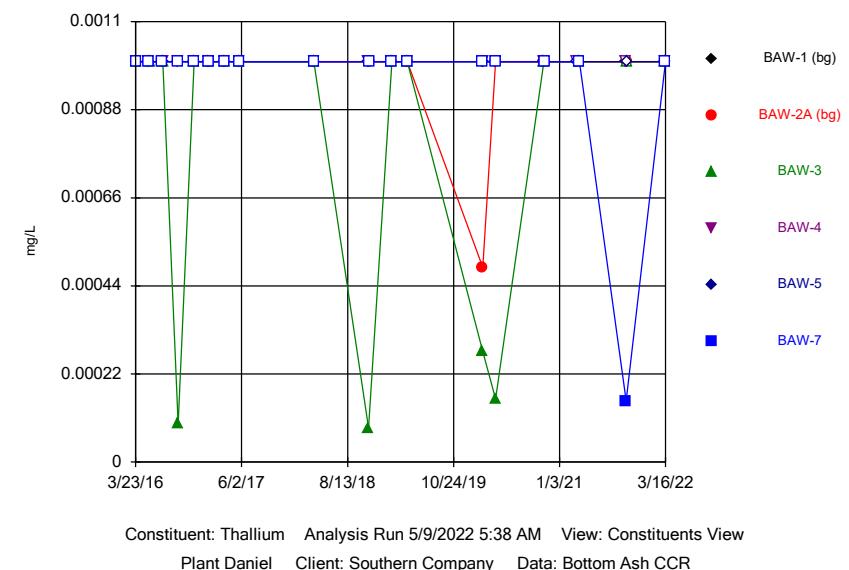
Time Series



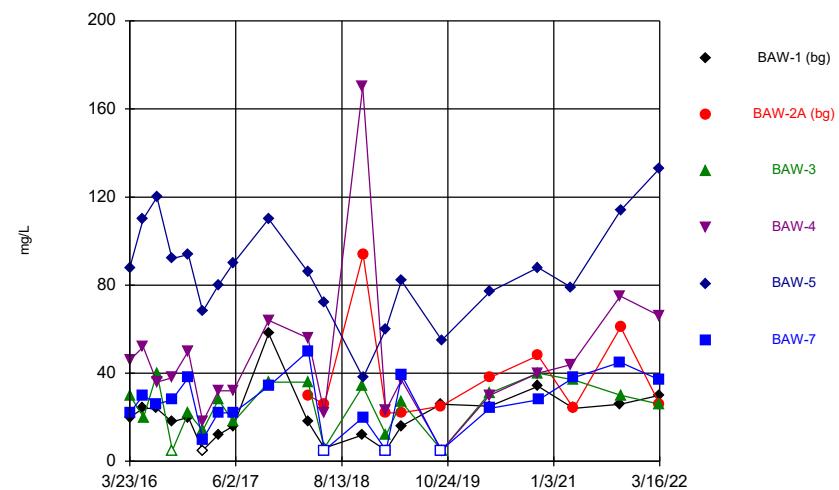
Time Series



Time Series



Time Series



Constituent: Total Dissolved Solids Analysis Run 5/9/2022 5:38 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001		<0.001	0.00087 (J)	0.0033	<0.001
5/17/2016	<0.001			<0.001	0.00089 (J)	<0.001
5/18/2016			<0.001			
7/12/2016	<0.001					<0.001
7/13/2016			<0.001	0.00081 (J)	0.0039	
9/13/2016	<0.001				0.0039	<0.001
9/14/2016			<0.001	0.00069 (J)		
11/19/2016	<0.001		<0.001	0.0013	0.0037	0.0005 (J)
1/17/2017	<0.001		<0.001			<0.001
1/18/2017				<0.001	0.0016	
3/22/2017	<0.001					0.00052 (J)
3/23/2017			<0.001	0.00078 (J)	0.0017	
5/24/2017	<0.001			<0.001	0.001 (J)	0.0021
3/28/2018	<0.001	<0.001	<0.001	<0.001	0.0011 (J)	
3/29/2018						<0.001
6/2/2018	<0.001	<0.001	<0.001	0.00068 (J)	0.0017	<0.001
11/8/2018	<0.001		<0.001	<0.001		
11/9/2018			<0.001		0.0021	<0.001
2/11/2019	<0.001			0.000737 (J)	0.00232	
2/12/2019		<0.001	<0.001			<0.001
4/17/2019	<0.001	<0.001	<0.001	0.000645 (J)	0.00218	
4/18/2019						<0.001
9/27/2019	<0.001	<0.001				<0.001
9/30/2019			<0.001	0.000821 (J)	0.00272	
2/21/2020	<0.001	<0.001	<0.001			<0.001
2/22/2020				0.000837 (J)	0.00177	
4/14/2020	<0.001	<0.001	<0.001	0.000896 (J)	0.00177	<0.001
10/30/2020	<0.001	<0.001	<0.001	0.000529 (J)	0.0013	
11/2/2020						<0.001
3/17/2021				0.000454 (J)	0.00385	
3/26/2021	<0.001	<0.001	<0.001			<0.001
10/5/2021	<0.001			0.00259		<0.001
10/6/2021		<0.001	<0.001		0.0125	
3/16/2022	<0.001	<0.001	<0.001	0.00411	0.0101	<0.001

Time Series

Constituent: Barium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.00084 (J)		0.013	0.011	0.044	0.013
5/17/2016	0.031			0.0085	0.055	0.012
5/18/2016			0.012			
7/12/2016	0.031					0.011
7/13/2016			0.016	0.0073	0.041	
9/13/2016	0.036				0.046	0.012
9/14/2016			0.018	0.0095		
11/19/2016	0.036		0.021	0.012	0.044	0.012
1/17/2017	0.036		0.029			0.014
1/18/2017				0.0096	0.045	
3/22/2017	0.033					0.012
3/23/2017			0.024	0.0093	0.038	
5/24/2017	0.034		0.022	0.0096	0.046	0.012
3/28/2018	0.032	0.036	0.026	0.0086	0.043	
3/29/2018						0.011
6/2/2018	0.033	0.032	0.029	0.0087	0.043	0.011
11/8/2018	0.032		0.028	0.0091		
11/9/2018		0.033			0.039	0.011
2/11/2019	0.0308			0.00931	0.0388	
2/12/2019		0.0348	0.0274			0.0102
4/17/2019	0.0305	0.0396	0.0263	0.00888	0.0378	
4/18/2019						0.0101
9/27/2019	0.0319	0.0373				0.0121
9/30/2019			0.0343	0.0103	0.0424	
2/21/2020	0.0327	0.0373	0.0304			0.0117
2/22/2020				0.0108	0.0453	
4/14/2020	0.0345	0.0394	0.0335	0.00949 (J)	0.0452	0.0124
10/30/2020	0.0314	0.0334	0.0349	0.0116	0.0428	
11/2/2020						0.0117
3/17/2021				0.0224	0.0382	
3/26/2021	0.0347	0.0287	0.0253			0.0184
10/5/2021	0.0391			0.0283		0.02
10/6/2021		<0.01	0.03		0.0493	
3/16/2022	0.05	0.0314	0.037	0.0326	0.0688	0.0245

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.08		<0.08	0.037 (J)	0.22	<0.08
5/17/2016	<0.08			<0.08	0.35	<0.08
5/18/2016			<0.08			
7/12/2016	<0.08					<0.08
7/13/2016			<0.08	0.032 (J)	0.5	
9/13/2016	<0.08				0.27	<0.08
9/14/2016			<0.08	0.027 (J)		
11/19/2016	<0.08		<0.08	0.024 (J)	0.19	<0.08
1/17/2017	<0.08		<0.08			<0.08
1/18/2017				<0.08	0.19	
3/22/2017	<0.08					<0.08
3/23/2017			<0.08	0.024 (J)	0.19	
5/24/2017	<0.08		<0.08	0.027 (J)	0.22	<0.08
10/16/2017	<0.08		<0.08	0.03 (J)	0.19	<0.08
3/28/2018	<0.08	<0.08	<0.08	<0.08	0.17	
3/29/2018						<0.08
6/2/2018	<0.08	<0.08	<0.08	0.025 (J)	0.16	<0.08
11/8/2018	<0.08		<0.08	0.024 (J)		
11/9/2018		<0.08			0.13	<0.08
2/11/2019	<0.08			<0.08	0.126	
2/12/2019		<0.08	<0.08			<0.08
4/17/2019	<0.08	<0.08	<0.08	<0.08	0.118	
4/18/2019						<0.08
9/27/2019	<0.08	<0.08				<0.08
9/30/2019			<0.08	<0.08	0.14	
2/21/2020	0.0928	0.0589 (J)	<0.08			<0.08
2/22/2020				<0.08	0.193	
4/14/2020	<0.08	0.0424 (J)	<0.08	<0.08	0.209	<0.08
10/30/2020	<0.08	0.0495 (J)	<0.08	<0.08	0.194	
11/2/2020						<0.08
3/17/2021				0.0673 (J)	0.2	
3/26/2021	<0.08	<0.08	<0.08			0.647
10/5/2021	<0.08			0.168		0.281
10/6/2021		<0.08	<0.08		0.272	
3/16/2022	<0.08	0.0717 (J)	<0.08	0.084	0.695	0.247

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001		0.00041 (J)	<0.001	<0.001	<0.001
5/17/2016	<0.001			<0.001	<0.001	<0.001
5/18/2016			<0.001			
7/12/2016	<0.001					<0.001
7/13/2016			0.00087 (J)	<0.001	<0.001	
9/13/2016	<0.001				<0.001	<0.001
9/14/2016			0.00078 (J)	<0.001		
11/19/2016	<0.001		0.00054 (J)	<0.001	<0.001	<0.001
1/17/2017	<0.001		0.00048 (J)			<0.001
1/18/2017				<0.001	<0.001	
3/22/2017	<0.001					<0.001
3/23/2017			0.00059 (J)	<0.001	<0.001	
5/24/2017	<0.001		0.00081 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001	<0.001	0.0008 (J)	<0.001	<0.001	
3/29/2018						<0.001
6/2/2018	<0.001	<0.001	0.001 (J)	<0.001	<0.001	<0.001
11/8/2018	<0.001		0.00085 (J)	<0.001		
11/9/2018			<0.001		<0.001	<0.001
2/11/2019	<0.001			<0.001	<0.001	
2/12/2019		0.000143 (J)	0.000877 (J)			<0.001
4/17/2019	<0.001	<0.001	0.000915 (J)	<0.001	<0.001	
4/18/2019						<0.001
9/27/2019	<0.001	<0.001				<0.001
9/30/2019			0.00112 (J)	<0.001	0.000155 (J)	
2/21/2020	<0.001	<0.001	0.000962 (J)			<0.001
2/22/2020				<0.001	<0.001	
4/14/2020	<0.001	<0.001	0.00107 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001	<0.001	0.00084 (J)	<0.001	<0.001	
11/2/2020						<0.001
3/17/2021				<0.001	<0.001	
3/26/2021	<0.001	<0.001	0.000615 (J)			<0.001
10/5/2021	<0.001			<0.001		<0.001
10/6/2021		<0.001	0.000338 (J)		<0.001	
3/16/2022	<0.001	<0.001	0.000252 (J)	<0.001	<0.001	<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.5		1.1	3.7	18	0.65
5/17/2016	0.84			3.4	23	0.68
5/18/2016			0.56			
7/12/2016	0.79					0.62
7/13/2016			0.95	2.8	18	
9/13/2016	0.42				19	0.25
9/14/2016			0.4	2.6		
11/19/2016	1.2		0.62	2.7	17	0.36
1/17/2017	1.4		1.2			0.66
1/18/2017				3.1	17	
3/22/2017	0.95					0.65
3/23/2017			0.87	2.8	15	
5/24/2017	1.3		0.81	3.1	19	0.72
10/16/2017	0.93		0.86	3.3	17	0.7
3/28/2018	1	2.8	0.97	2.7	16	
3/29/2018						0.55
6/2/2018	0.93	0.71	0.86	2.9	15	0.6
11/8/2018	1		0.84	3		
11/9/2018		0.61			14	0.59
2/11/2019	1			2.88	12.8	
2/12/2019		0.757	0.856			0.608
4/17/2019	0.893	0.755	0.711	2.77	13	
4/18/2019						0.55
9/27/2019	0.8	0.663				0.598
9/30/2019			0.826	3.08	13.6	
2/21/2020	1.02	0.648	0.841			0.552
2/22/2020				3.86	15	
4/14/2020	0.887	0.67	0.811	2.95	15.7	0.532
10/30/2020	0.945	0.672	1	3.84	16.4	
11/2/2020						0.535
3/17/2021				6.69	15.3	
3/26/2021	0.965	0.644	0.937			0.848
10/5/2021	0.996			8.57		0.829
10/6/2021		<0.5	0.532		22.8	
3/16/2022	1.32	0.539	0.78	8.94	23.8	1.28

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	6.5		7.3	7.6	9	6.5
5/17/2016	4.9			6.4	13	5.1
5/18/2016			6			
7/12/2016	5.3					5
7/13/2016			6.6	6.3	10	
9/13/2016	4.8 (F1)				7.9	5.1
9/14/2016			5.8	6		
11/19/2016	7.1		7.8	7	9.3	6.5
1/17/2017	5.8		8.4			5.9
1/18/2017				6.7	8.5	
3/22/2017	4.9					5.1
3/23/2017			6.8	6	8.5	
5/24/2017	5.9		7.9	7.4	11	5.9
10/16/2017	5.7		7.7	6.6	9.7	5.6
3/28/2018	5.7	6.7	7.9	6.5	8.8	
3/29/2018						5.3
6/2/2018	4.7	5.8	7.7	6.1	8.3	4.6
11/8/2018	5.6		8.5	6.6		
11/9/2018			7.2		9.7	4.9
2/11/2019	4.84			6.31	8.84	
2/12/2019			8.4	7.89		4.72
4/17/2019	4.99	8.03	7.71	6.68	9.24	
4/18/2019						4.64
9/27/2019	5.08	8.37				5.02
9/30/2019			7.07	5.45	8.59	
4/14/2020	4.91	7.57	8.75	5.93	8.71	4.68
10/30/2020	5.55	7.59	9.58	6.49	8.93	
11/2/2020						4.91
3/17/2021				7.55	9.6	
3/26/2021	5.92	6.21	8.32			8.5
10/5/2021	6.21			14.3		10.3
10/6/2021			16.4	6.8	5.44	
3/16/2022	7.85	11.5	7.94	17.9	10.6	13

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0005		0.0055	0.00094 (J)	<0.0005	0.0011 (J)
5/17/2016	0.00099 (J)			0.0007 (J)	<0.0005	0.001 (J)
5/18/2016			0.0059			
7/12/2016	0.00093 (J)					0.00091 (J)
7/13/2016			0.0048	0.0016 (J)	0.00042 (J)	
9/13/2016	0.0011 (J)				<0.0005	0.001 (J)
9/14/2016			0.0063	0.0011 (J)		
11/19/2016	0.001 (J)		0.0056	0.0012 (J)	<0.0005	0.00083 (J)
1/17/2017	0.00088 (J)		0.0046			0.00091 (J)
1/18/2017				0.0011 (J)	<0.0005	
3/22/2017	0.001 (J)					0.00098 (J)
3/23/2017			0.0049	0.0011 (J)	<0.0005	
5/24/2017	0.00093 (J)		0.0052	0.0012 (J)	<0.0005	0.00098 (J)
3/28/2018	0.00092 (J)	0.00098 (J)	0.0063	0.00095 (J)	<0.0005	
3/29/2018						0.00063 (J)
6/2/2018	0.001 (J)	0.0009 (J)	0.0068	0.0012 (J)	<0.0005	0.00087 (J)
11/8/2018	0.001 (J)		0.0068	0.0011 (J)		
11/9/2018		0.00075 (J)			<0.0005	0.00076 (J)
2/11/2019	0.000768 (J)			0.00093 (J)	<0.0005	
2/12/2019		0.000896 (J)	0.00552			0.000661 (J)
4/17/2019	0.000825 (J)	0.00106 (J)	0.00603	0.00116 (J)	<0.0005	
4/18/2019						0.000705 (J)
9/27/2019	0.000783 (J)	0.000885 (J)				0.00071 (J)
9/30/2019			0.0062	0.001 (J)	<0.0005	
2/21/2020	0.00073 (J)	0.000909 (J)	0.00576			0.000634 (J)
2/22/2020				0.000907 (J)	<0.0005	
4/14/2020	0.000853 (J)	0.000899 (J)	0.00633	0.00105 (J)	<0.0005	0.000684 (J)
10/30/2020	0.000924 (J)	0.000972 (J)	0.00657	0.00102 (J)	<0.0005	
11/2/2020						0.000729 (J)
3/17/2021				0.00208	<0.0005	
3/26/2021	0.000961	0.000744	0.00339			0.000995
10/5/2021	0.00143			0.00187		0.00112
10/6/2021		<0.0005	0.00336		0.000802	
3/16/2022	0.00177	0.000658	0.00289	0.00182	0.000967	0.00141

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5		<5	<5	0.549	<5
5/17/2016	0.813			<5	0.551	<5
5/18/2016			<5			
7/12/2016	-0.00163 (U)					0.165 (U)
7/13/2016			0.27 (U)	0.0365 (U)	0.859	
9/13/2016	0.41 (U)				0.367 (U)	0.341 (U)
9/14/2016			-0.0909 (U)	0.3 (U)		
11/19/2016	0.783		0.416	<5 (U)	<5 (U)	<5 (U)
1/17/2017	0.613		0.412 (U)			0.124 (U)
1/18/2017				0.235 (U)	0.289 (U)	
3/22/2017	0.241 (U)					0.0719 (U)
3/23/2017			0.0761 (U)	0.168 (U)	0.554	
5/24/2017	0.325		0.0415 (U)	-0.0607 (U)	0.831	0.441
3/28/2018	0.318 (U)	0.629	0.398	0.42	0.458	
3/29/2018						0.731
6/2/2018	0.222 (U)	-0.478 (U)	-0.253 (U)	0.0844 (U)	0.226 (U)	0.303 (U)
11/8/2018	0.117 (U)		0.343 (U)	0.367 (U)		
11/9/2018		0.179 (U)			0.298 (U)	0.00226 (U)
2/11/2019	0.493			0.0402 (U)	0.15 (U)	
2/12/2019		0.432	0.581			0.094 (U)
4/17/2019	0.729	0.648	0.646	0.493	0.326 (U)	
4/18/2019						0.48
9/27/2019	0.36 (U)	0.422 (U)				0.497
9/30/2019			1	0.404		
2/21/2020	0.268 (U)	0.23 (U)	0.126 (U)			0.375
2/22/2020				0.53	0.47	
4/14/2020	0.324 (U)	0.307 (U)	0.338	0.0408 (U)	0.376 (U)	0.329 (U)
10/30/2020	0.497	1.02	0.485	0.344	0.528	
11/2/2020						0.535
3/17/2021				0.312 (U)	0.0889 (U)	
3/26/2021	0.804	0.526	0.78			0.813
10/5/2021	1.53			1.06		0.814
10/6/2021		0.937	0.503		0.931	
3/16/2022	1.13	0.458	0.286 (U)	0.314 (U)	1.39	1.39

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
5/17/2016	<0.1			0.04 (J)	0.07 (J)	<0.1
5/18/2016			<0.1			
7/12/2016	<0.1					<0.1
7/13/2016			<0.1	0.05 (J)	0.08 (J)	
9/13/2016	<0.1				0.06 (J)	<0.1
9/14/2016			<0.1	0.04 (J)		
11/19/2016	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
1/17/2017	<0.1		<0.1			<0.1
1/18/2017				<0.1	0.05 (J)	
3/22/2017	<0.1					<0.1
3/23/2017			<0.1	<0.1	0.05 (J)	
5/24/2017	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1 (D)
10/16/2017	<0.1		<0.1	<0.1	0.06 (J)	<0.1
3/28/2018	<0.1	<0.1	<0.1	0.04 (J)	0.06 (J)	
3/29/2018						<0.1
6/2/2018	<0.1	<0.1	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1		<0.1	0.05 (J)		
11/9/2018		<0.1			0.06 (J)	<0.1
2/11/2019	<0.1			<0.1	0.0368 (J)	
2/12/2019		<0.1	<0.1			<0.1
4/17/2019	<0.1	<0.1	<0.1	0.033 (J)	0.0421 (J)	
4/18/2019						<0.1
9/27/2019	<0.1	0.0313 (J)				<0.1
9/30/2019			<0.1	<0.1	0.045 (J)	
2/21/2020	<0.1	<0.1	<0.1			<0.1
2/22/2020				0.0317 (J)	0.0434 (J)	
4/14/2020	0.0532 (J)	0.0537 (J)	0.034 (J)	0.0508 (J)	0.059 (J)	0.0415 (J)
10/30/2020	<0.1	<0.1	<0.1	<0.1	<0.1	
11/2/2020						<0.1
3/17/2021				0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1	<0.1	<0.1			<0.1
10/5/2021	0.0499 (J)			0.0505 (J)		<0.1
10/6/2021		<0.1	<0.1		0.0725 (J)	
3/16/2022	<0.1	<0.1	0.0307 (J)	0.0462 (J)	0.176	0.0266 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005		<0.005	0.044	0.17	<0.005
5/17/2016	0.0037 (J)			0.028	0.2	<0.005
5/18/2016			<0.005			
7/12/2016	0.012 (o)					<0.005
7/13/2016			<0.005	0.026	0.17	
9/13/2016	<0.005				0.17	<0.005
9/14/2016			<0.005	0.026		
11/19/2016	<0.005		<0.005	0.026	0.18	0.0035 (J)
1/17/2017	<0.005		<0.005			<0.005
1/18/2017				0.027	0.2	
3/22/2017	<0.005					<0.005
3/23/2017			<0.005	0.024	0.19	
5/24/2017	<0.005		<0.005	0.027	0.21	<0.005
3/28/2018	<0.005	0.0026 (J)	0.0023 (J)	0.021	0.23	
3/29/2018						0.0026 (J)
6/2/2018	0.0017 (J)	0.0021 (J)	0.002 (J)	0.022	0.19	0.0029 (J)
11/8/2018	0.0023 (J)		0.0024 (J)	0.025		
11/9/2018		0.0024 (J)			0.18	0.0027 (J)
2/11/2019	<0.005			0.0229	0.161	
2/12/2019		<0.005	<0.005			<0.005
4/17/2019	0.00229 (J)	0.00191 (J)	0.00197 (J)	0.0236	0.174	
4/18/2019						0.00238 (J)
9/27/2019	0.00346 (J)	<0.005				0.00375 (J)
9/30/2019			0.00687	0.0249	0.166	
2/21/2020	<0.005	<0.005	<0.005			<0.005
2/22/2020				0.0211	0.169	
4/14/2020	0.00505	<0.005	<0.005	0.0224	0.192	<0.005
10/30/2020	<0.005	<0.005	<0.005	0.0267	0.194	
11/2/2020						<0.005
3/17/2021				0.0174	0.12	
3/26/2021	<0.005	<0.005	<0.005			<0.005
10/5/2021	<0.005			0.0127		0.0045 (J)
10/6/2021		<0.005	<0.005		0.0994	
3/16/2022	0.00171 (J)	0.00165 (J)	0.0038 (J)	0.0112	0.0629	0.00437 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005		<0.005	<0.005	0.0026 (J)	<0.005
5/17/2016	<0.005			<0.005	0.0011 (J)	<0.005
5/18/2016			<0.005			
7/12/2016	<0.005					<0.005
7/13/2016			<0.005	<0.005	0.0079 (J)	
9/13/2016	<0.005				0.0038 (J)	<0.005
9/14/2016			<0.005	<0.005		
11/19/2016	<0.005		<0.005	<0.005	0.0014 (J)	<0.005
1/17/2017	<0.005		<0.005			<0.005
1/18/2017				<0.005	0.001 (J)	
3/22/2017	<0.005					0.0038 (J)
3/23/2017			<0.005	<0.005	<0.005	
5/24/2017	<0.005		<0.005	<0.005	0.0014 (J)	<0.005
3/28/2018	<0.005	<0.005	<0.005	<0.005	<0.005	
3/29/2018						<0.005
11/8/2018	<0.005		<0.005	<0.005		
11/9/2018		<0.005			<0.005	<0.005
2/11/2019	<0.005			<0.005	<0.005	
2/12/2019		<0.005	<0.005			<0.005
4/17/2019	<0.005	<0.005	<0.005	<0.005	<0.005	
4/18/2019						<0.005
2/21/2020	<0.005	<0.005	<0.005			<0.005
2/22/2020				0.000616 (J)	0.000627 (J)	
4/14/2020	<0.005	<0.005	<0.005	<0.005	0.000747 (J)	<0.005
10/30/2020	<0.005	<0.005	<0.005	<0.005	<0.005	
11/2/2020						<0.005
3/17/2021				0.0032 (J)	0.00328 (J)	
3/26/2021	<0.005	<0.005	<0.005			<0.005
10/5/2021	<0.005			0.00109 (J)		<0.005
10/6/2021		<0.005	<0.005		0.00364 (J)	
3/16/2022	<0.005	<0.005	<0.005	0.000916 (J)	0.00533	<0.005

Time Series

Constituent: pH (SU) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	5.12		5.05	5.38	6.64	4.89
5/17/2016	5.23			5.32	6.52	4.92
5/18/2016			4.86			
7/12/2016	5.77					4.93
7/13/2016			5.11	5.31	6.63	
9/13/2016	4.98				6.46	4.76
9/14/2016			4.84	5.21		
11/19/2016	4.82		4.74	5.12	6.38	4.56
1/17/2017	5.04		4.95			4.86
1/18/2017				5.22	6.47	
3/22/2017	4.73					4.66
3/23/2017			4.66	5.01	6.19	
5/24/2017	5.01		4.86	5.19	6.34	4.83
10/16/2017	4.59		4.47	4.96	6.23	4.53
3/28/2018	4.87	5.39	4.93	5.23	6.22	
3/29/2018						4.87
6/2/2018	4.92	5.06	4.83	5.22	6.24	4.87
11/8/2018	5		4.83	5.29		
11/9/2018		4.92			6.27	4.92
2/11/2019	4.7			5	6.08	
2/12/2019		4.86	4.65			4.79
4/17/2019	4.9	4.79	4.71	5.13	6.14	
4/18/2019						4.9
2/21/2020	4.86	4.73	4.55			4.8
2/22/2020				5.3	6.13	
4/14/2020	5.23	4.87	4.7	5.45	6.26	4.94
10/30/2020	5	4.87	4.8	5.32	6.19	
11/2/2020						4.92
3/17/2021				5.62	6.14	
3/26/2021	4.86	4.7	4.54			4.67
10/5/2021	5			5.72		4.84
10/6/2021		4.77	4.63		6.03	
3/16/2022	4.92	4.91	4.64	5.56	6.2	4.75

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5		<5	2.3 (J)	4.5 (J)	<5
5/17/2016	<5			2.3 (J)	17	<5
5/18/2016			<5			
7/12/2016	<5					<5
7/13/2016			1.5 (J)	2.4 (J)	15	
9/13/2016	<5				3.4 (J)	<5
9/14/2016			1.6 (J)	2.4 (J)		
11/19/2016	<5		1.8 (J)	3.3 (J)	3.5 (J)	1.5 (J)
1/17/2017	<5		<5			<5
1/18/2017				2.3 (J)	3.2 (J)	
3/22/2017	<5					1.9 (J)
3/23/2017			2.3 (J)	3.2 (J)	3.7 (J)	
5/24/2017	<5		1.6 (J)	2.4 (J)	8.8	<5
10/16/2017	<5		<5	2 (J)	4 (J)	<5
3/28/2018	<5	1.7 (J)	1.6 (J)	2.4 (J)	3.3 (J)	
3/29/2018						<5
6/2/2018	1.9 (J)	3 (J)	2.9 (J)	3.7 (J)	4.3 (J)	2.8 (J)
11/8/2018	<5		1.6 (J)	2.7 (J)		
11/9/2018		<5			2.3 (J)	<5
2/11/2019	0.774 (J)			2.5	2.64	
2/12/2019		1.97	1.97			1.35
4/17/2019	1.43	2.82	2.5	3.15	3.27	
4/18/2019						1.82
9/27/2019	1.03	2.19				1.22
9/30/2019			1.64	2.34	2.82	
4/14/2020	0.928 (J)	2.71	1.62	2.99	4.2	1.18
10/30/2020	0.91 (J)	3.97	1.44	2.84	4.76	
11/2/2020						1.08
3/17/2021				4.35	4.07	
3/26/2021	1.49	2.04	3.25			2
10/5/2021	1.13			5.02		2.55
10/6/2021		5.37	5.07		14.5	
3/16/2022	3.6	5.37	6.85	5.64	23.1	5.93

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

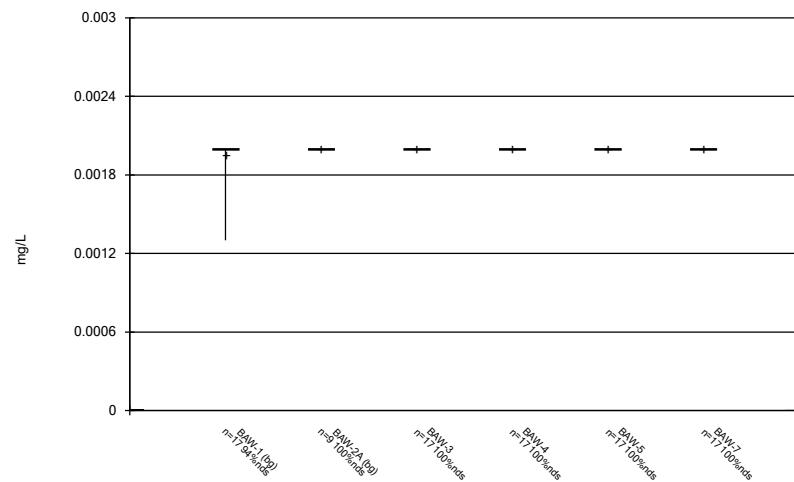
Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/9/2022 5:39 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	20		30	46	88	22
5/17/2016	24			52	110	30
5/18/2016			20			
7/12/2016	24					26
7/13/2016			40	36	120	
9/13/2016	18				92	28
9/14/2016			<10	38		
11/19/2016	20		22	50	94	38
1/17/2017	<10		14			10
1/18/2017				18	68	
3/22/2017	12					22
3/23/2017			28	32	80	
5/24/2017	16 (D)		18	32	90	22
10/16/2017	58		36	64	110	34
3/28/2018	18	30	36	56	86	
3/29/2018						50
6/2/2018	6	26	6	22	72	<10
11/8/2018	12		34	170		
11/9/2018			94		38	20
2/11/2019	<10			23	60	
2/12/2019			22	12		<10
4/17/2019	16	22	27	37	82	
4/18/2019						39
9/27/2019	26	25				<10
9/30/2019			<10	<10	55	
4/14/2020	25	38	31	30	77	24
10/30/2020	34	48	40	40	88	
11/2/2020						28
3/17/2021				44	79	
3/26/2021	24	24	37			38
10/5/2021	26			75		45
10/6/2021			61	30	114	
3/16/2022	30	26	26	66	133	37

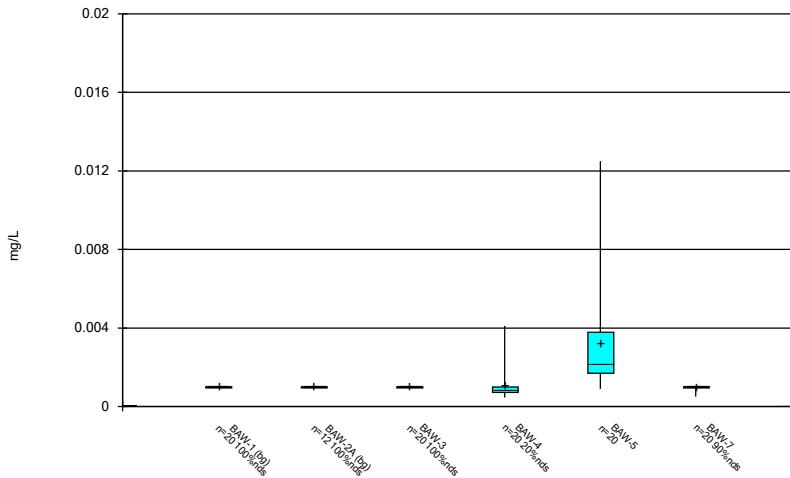
FIGURE B.

Box & Whiskers Plot



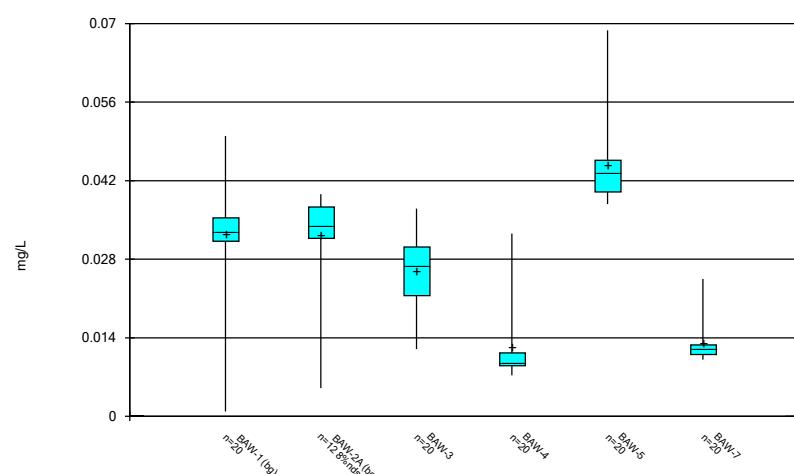
Constituent: Antimony Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



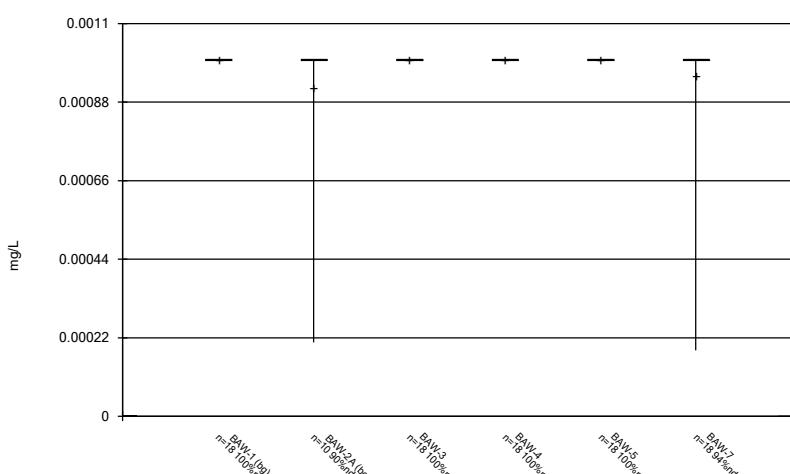
Constituent: Arsenic Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



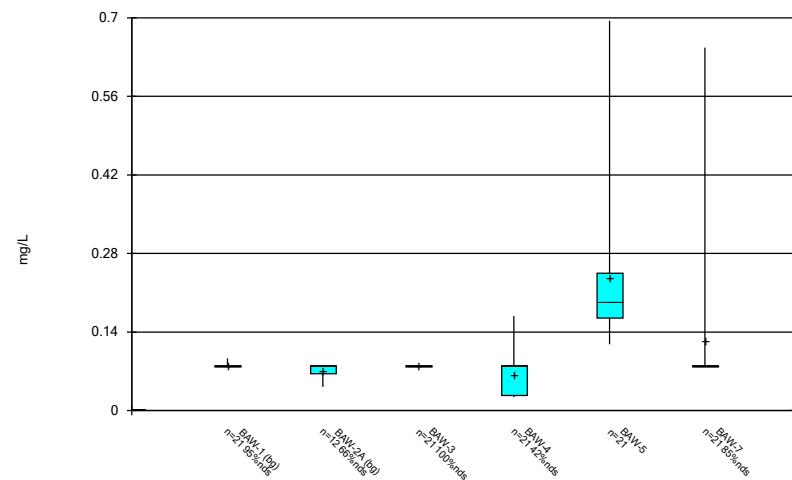
Constituent: Barium Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



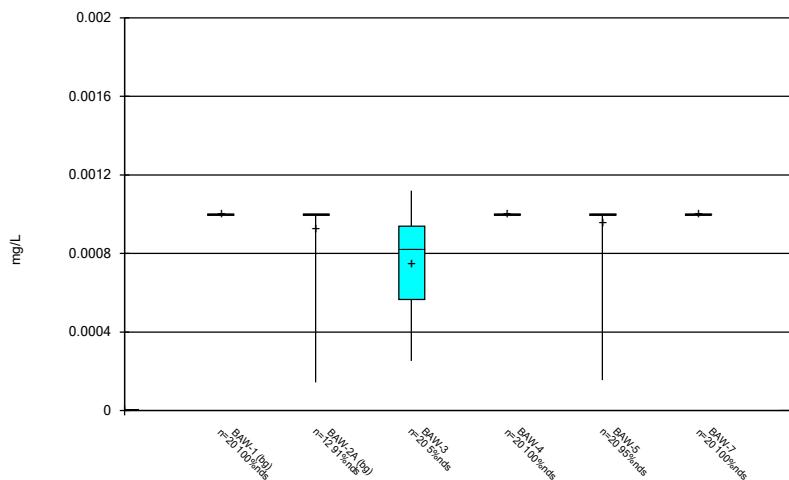
Constituent: Beryllium Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



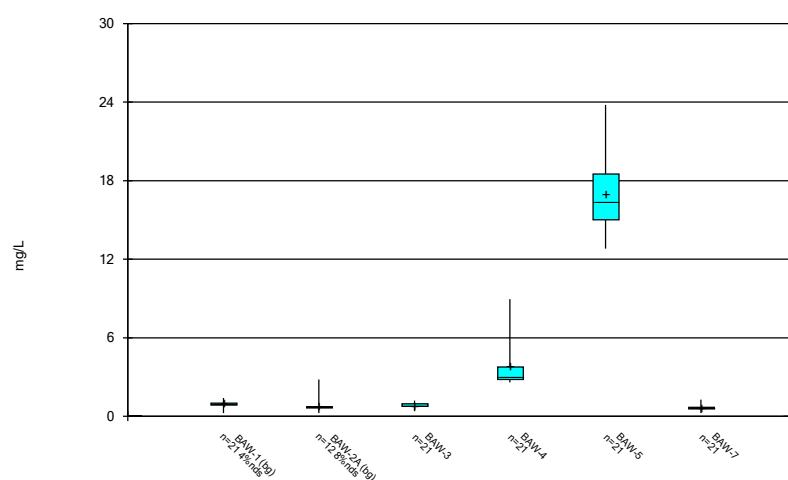
Constituent: Boron Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



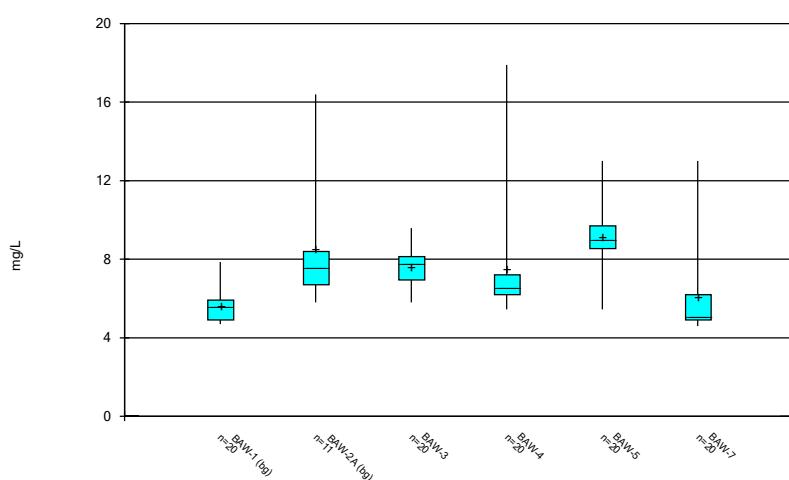
Constituent: Cadmium Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



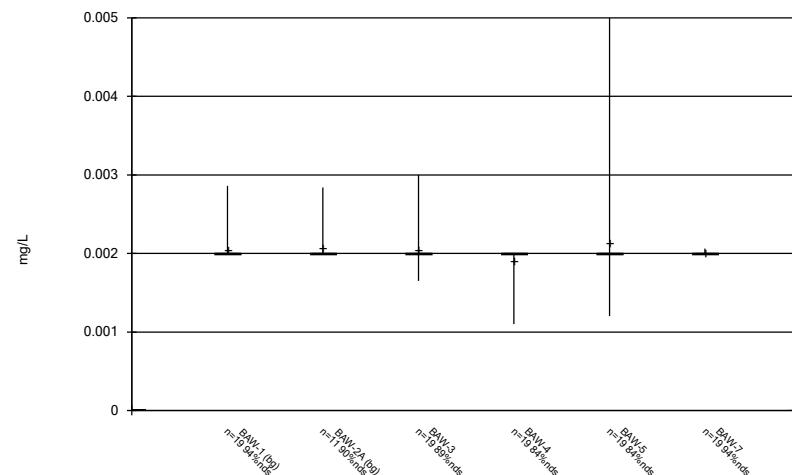
Constituent: Calcium Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot

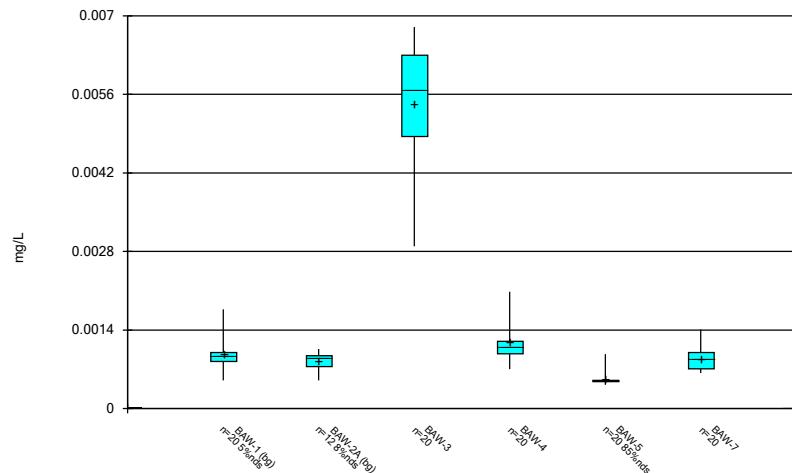


Constituent: Chloride Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

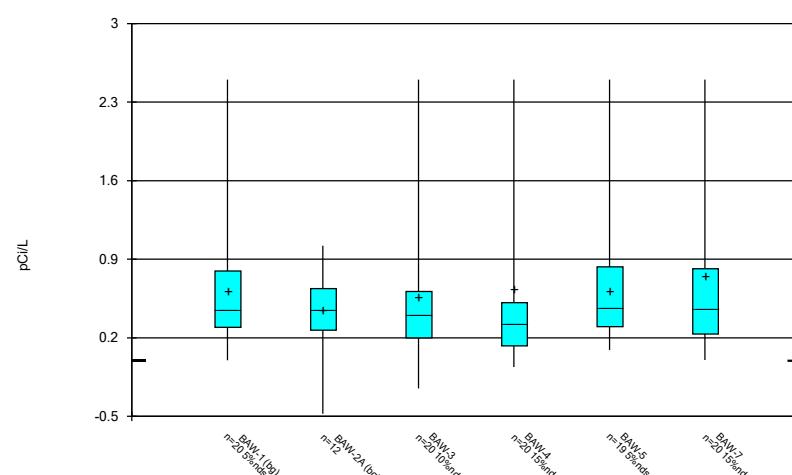
Box & Whiskers Plot



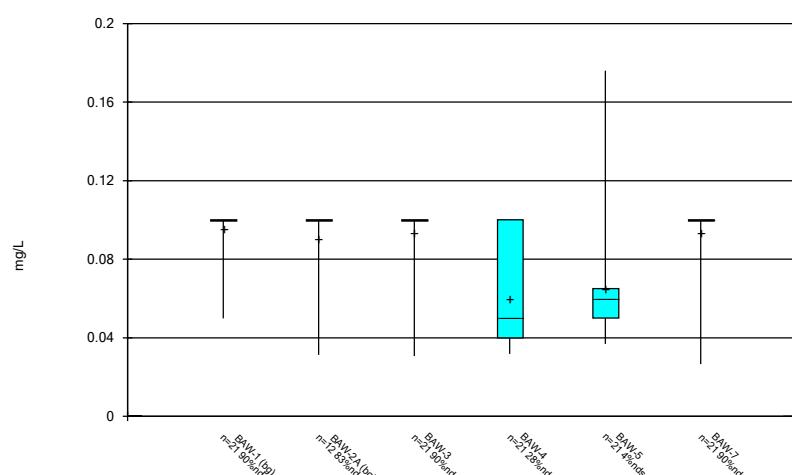
Box & Whiskers Plot



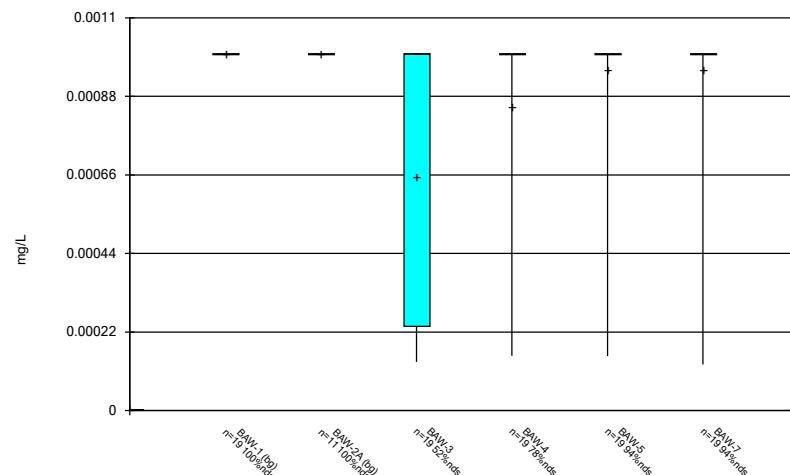
Box & Whiskers Plot



Box & Whiskers Plot

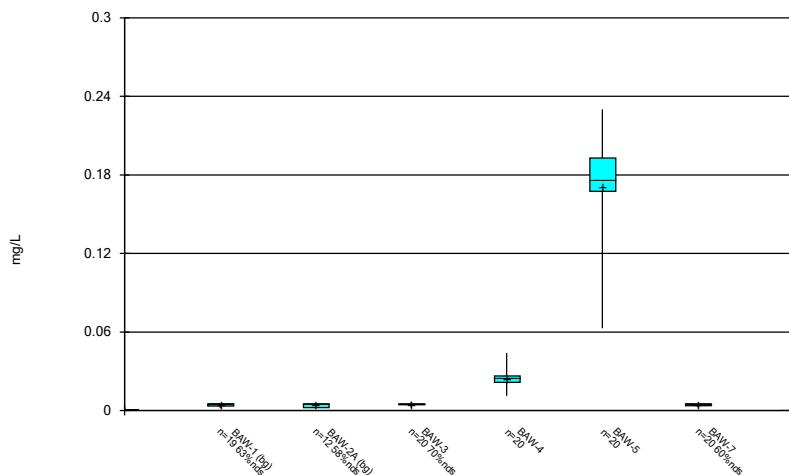


Box & Whiskers Plot



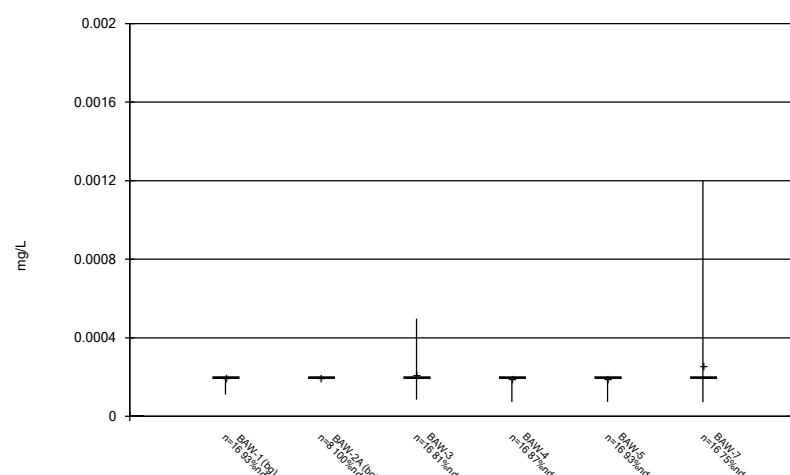
Constituent: Lead Analysis Run 5/9/2022 5:41 AM View: Constituents View
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



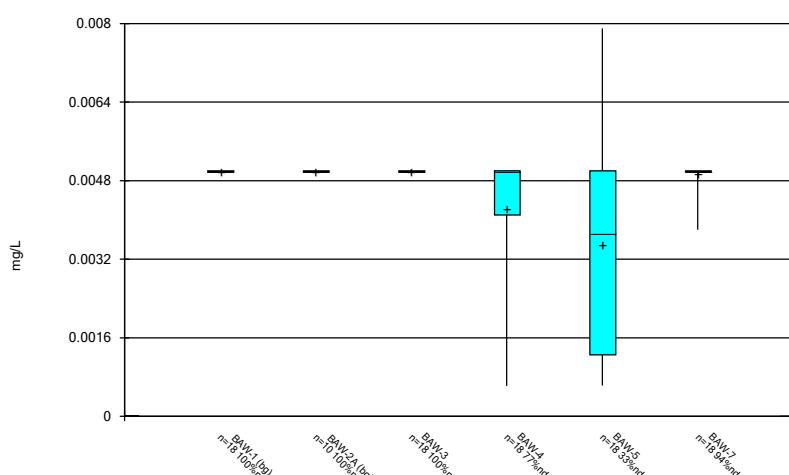
Constituent: Lithium Analysis Run 5/9/2022 5:41 AM View: Constituents View
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



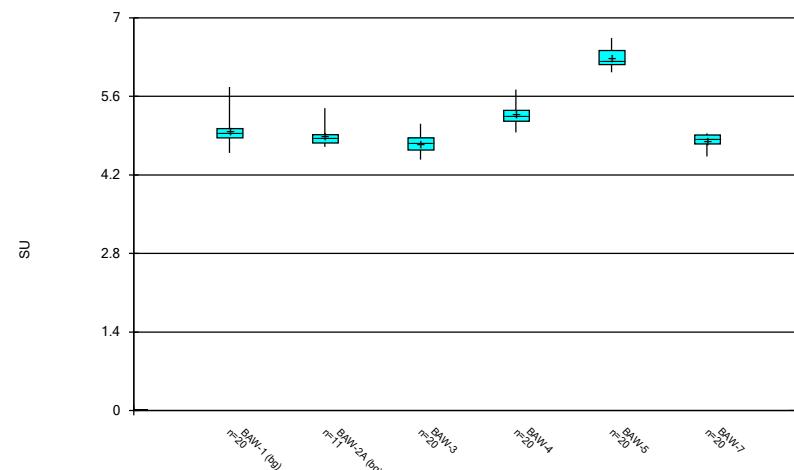
Constituent: Mercury Analysis Run 5/9/2022 5:41 AM View: Constituents View
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



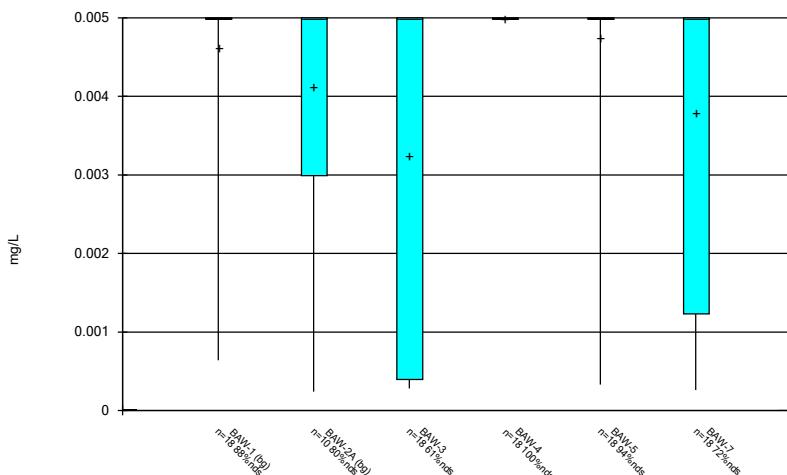
Constituent: Molybdenum Analysis Run 5/9/2022 5:41 AM View: Constituents View
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



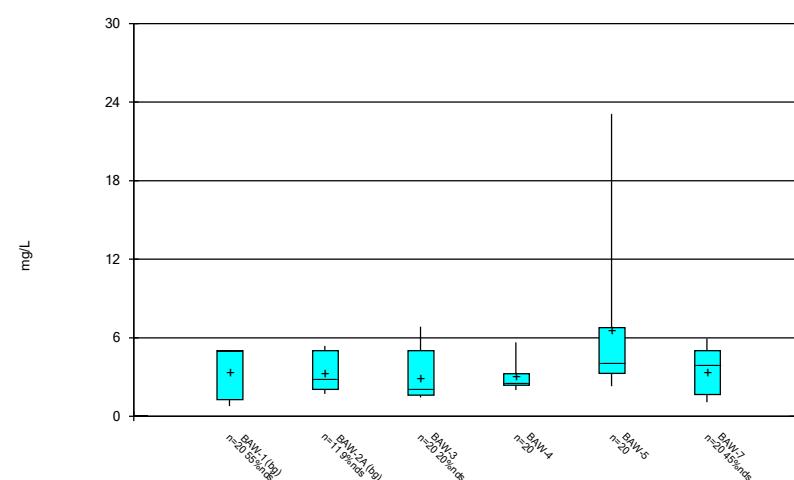
Constituent: pH Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



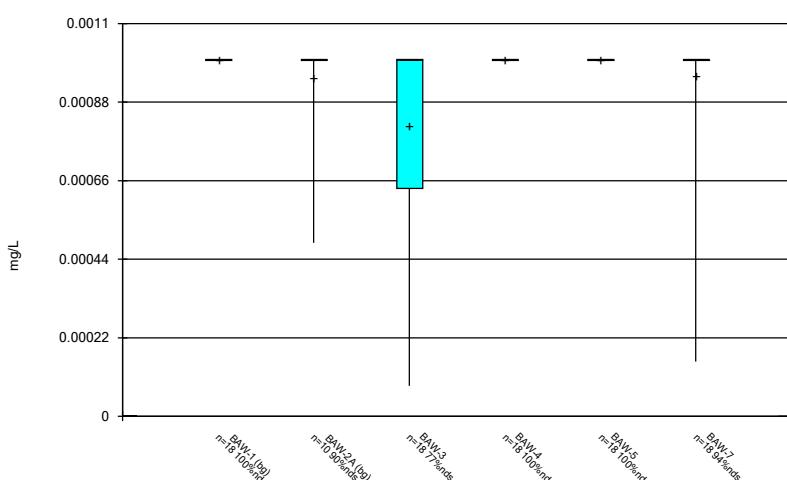
Constituent: Selenium Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



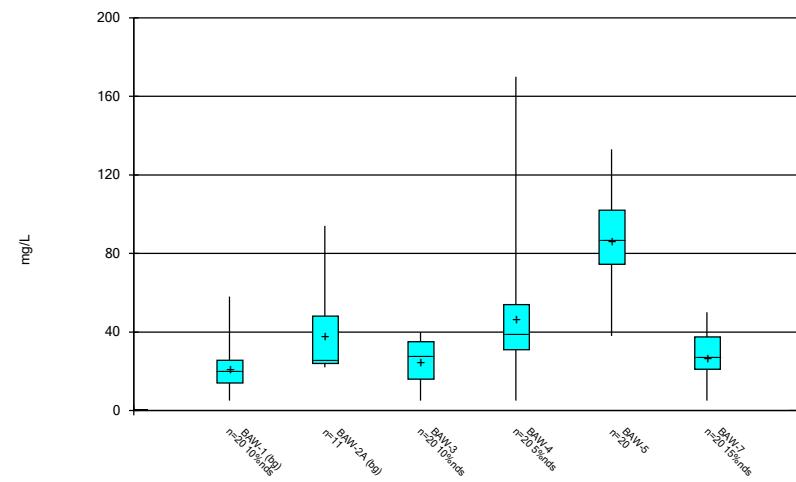
Constituent: Sulfate Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/9/2022 5:41 AM View: Constituents View
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/9/2022 5:41 AM View: Constituents View

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/4/2022, 9:43 PM

BAW-2 Calcium (mg/L)
BAW-1 Lithium (mg/L)

3/23/2016 2.6 (o)

7/12/2016 0.012 (o)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 5:57 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-5	0.0928	n/a	3/16/2022	0.695	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/16/2022	0.247	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/16/2022	8.94	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/16/2022	23.8	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-4	16.4	n/a	3/16/2022	17.9	Yes	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	3/16/2022	0.176	Yes	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
pH (SU)	BAW-4	5.399	4.542	3/16/2022	5.56	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.399	4.542	3/16/2022	6.2	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5.37	n/a	3/16/2022	6.85	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-4	5.37	n/a	3/16/2022	5.64	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	3/16/2022	23.1	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-7	5.37	n/a	3/16/2022	5.93	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	58.7	n/a	3/16/2022	66	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	58.7	n/a	3/16/2022	133	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2

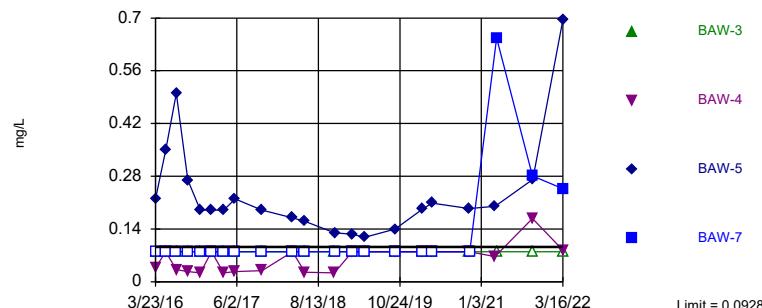
Appendix III Interwell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 5:57 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	3/16/2022	0.08ND	No	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-4	0.0928	n/a	3/16/2022	0.084	No	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	3/16/2022	0.695	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/16/2022	0.247	Yes	42	n/a	n/a	88.1	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-3	2.8	n/a	3/16/2022	0.78	No	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/16/2022	8.94	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/16/2022	23.8	Yes	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-7	2.8	n/a	3/16/2022	1.28	No	41	n/a	n/a	4.878	n/a	n/a	0.001101	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	16.4	n/a	3/16/2022	7.94	No	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-4	16.4	n/a	3/16/2022	17.9	Yes	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-5	16.4	n/a	3/16/2022	10.6	No	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-7	16.4	n/a	3/16/2022	13	No	40	n/a	n/a	0	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BAW-3	0.1	n/a	3/16/2022	0.0307J	No	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-4	0.1	n/a	3/16/2022	0.0462J	No	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	3/16/2022	0.176	Yes	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-7	0.1	n/a	3/16/2022	0.0266J	No	42	n/a	n/a	90.48	n/a	n/a	0.001062	NP Inter (NDs) 1 of 2
pH (SU)	BAW-3	5.399	4.542	3/16/2022	4.64	No	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-4	5.399	4.542	3/16/2022	5.56	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.399	4.542	3/16/2022	6.2	Yes	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-7	5.399	4.542	3/16/2022	4.75	No	40	2.227	0.05266	0	None	sqrt(x)	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5.37	n/a	3/16/2022	6.85	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-4	5.37	n/a	3/16/2022	5.64	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	3/16/2022	23.1	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-7	5.37	n/a	3/16/2022	5.93	Yes	40	n/a	n/a	47.5	n/a	n/a	0.001141	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-3	58.7	n/a	3/16/2022	26	No	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	58.7	n/a	3/16/2022	66	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	58.7	n/a	3/16/2022	133	Yes	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-7	58.7	n/a	3/16/2022	37	No	40	4.916	1.503	5	None	sqrt(x)	0.00188	Param Inter 1 of 2

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.
Exceeds Limit: BAW-5, BAW-7

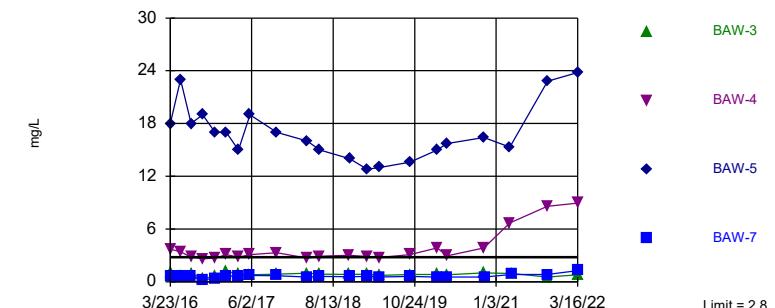
Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 42 background values. 88.1% NDs. Annual per-constituent alpha = 0.008462. Individual comparison alpha = 0.001062 (1 of 2). Comparing 4 points to limit.

Sanitas™ v.9.6.33 . UG
Exceeds Limit: BAW-4, BAW-5

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 41 background values. 4.878% NDs. Annual per-constituent alpha = 0.008777. Individual comparison alpha = 0.001101 (1 of 2). Comparing 4 points to limit.

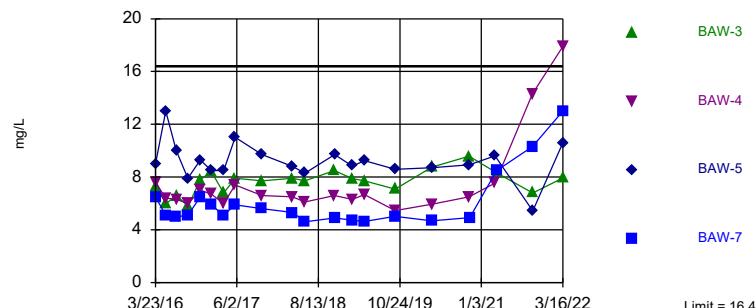
Constituent: Boron Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Calcium Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG

Exceeds Limit: BAW-4

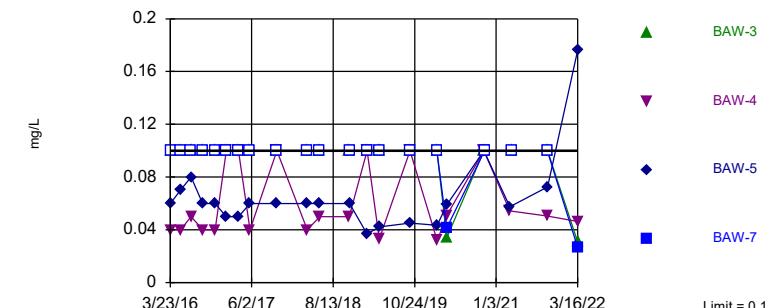
Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 40 background values. Annual per-constituent alpha = 0.009091. Individual comparison alpha = 0.001141 (1 of 2). Comparing 4 points to limit.

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.
Exceeds Limit: BAW-5

Prediction Limit
Interwell Non-parametric



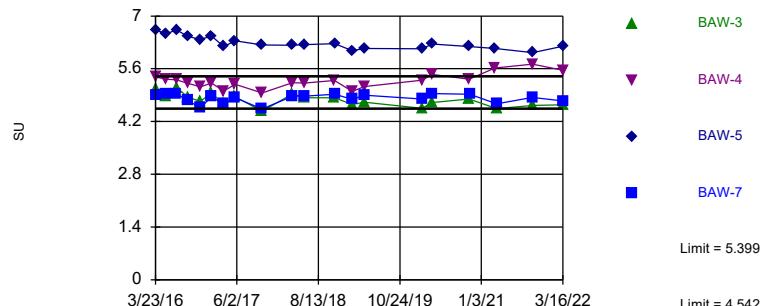
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 42 background values. 90.48% NDs. Annual per-constituent alpha = 0.008462. Individual comparison alpha = 0.001062 (1 of 2). Comparing 4 points to limit.

Constituent: Chloride Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Fluoride Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Exceeds Limits: BAW-4, BAW-5

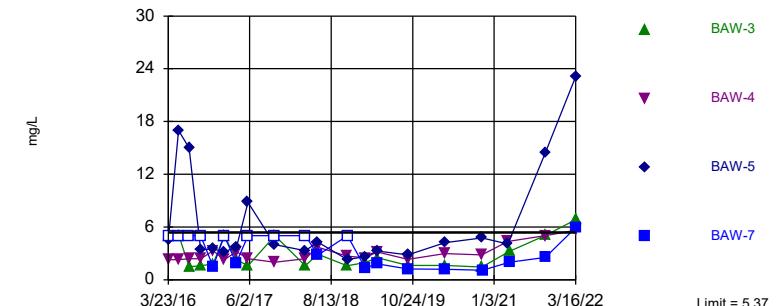
Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=2.227, Std. Dev.=0.05266, n=40.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9224, critical = 0.919. Kappa = 1.826 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009398. Comparing 4 points to limit.

Exceeds Limit: BAW-3, BAW-4, BAW-5,
BAW-7

Prediction Limit Interwell Non-parametric



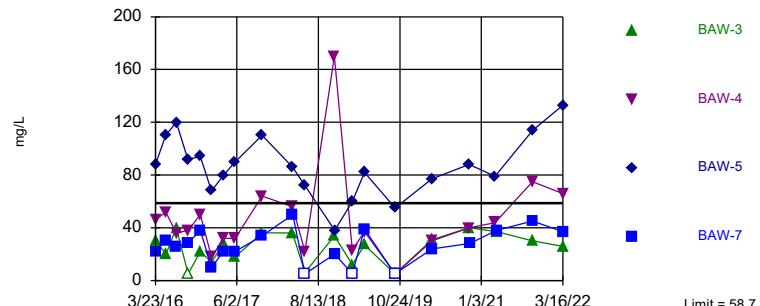
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 40 background values. 47.5% NDs. Annual per-constituent alpha = 0.009091. Individual comparison alpha = 0.001141 (1 of 2). Comparing 4 points to limit.

Constituent: pH Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Sulfate Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.
Exceeds Limit: BAW-4, BAW-5

Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=4.916, Std. Dev.=1.503, n=40, 5% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.919. Kappa = 1.826 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/9/2022 5:54 AM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-5	BAW-2A (bg)
3/23/2016	<0.08	0.037 (J)	<0.08	<0.08	<0.08	0.22	
5/17/2016	<0.08	<0.08		<0.08		0.35	
5/18/2016			<0.08		<0.08		
7/12/2016	<0.08			<0.08			
7/13/2016		0.032 (J)	<0.08		<0.08	0.5	
9/13/2016	<0.08			<0.08		0.27	
9/14/2016		0.027 (J)	<0.08		<0.08		
11/19/2016	<0.08	0.024 (J)	<0.08	<0.08	<0.08	0.19	
1/17/2017	<0.08		<0.08	<0.08	<0.08		
1/18/2017		<0.08				0.19	
3/22/2017	<0.08			<0.08			
3/23/2017		0.024 (J)	<0.08		<0.08	0.19	
5/24/2017	<0.08	0.027 (J)	<0.08	<0.08	<0.08	0.22	
10/16/2017	<0.08	0.03 (J)	<0.08	<0.08	<0.08	0.19	
3/28/2018	<0.08	<0.08	<0.08			0.17	<0.08
3/29/2018				<0.08			
6/2/2018	<0.08	0.025 (J)	<0.08	<0.08		0.16	<0.08
11/8/2018	<0.08	0.024 (J)	<0.08				
11/9/2018				<0.08		0.13	<0.08
2/11/2019	<0.08	<0.08				0.126	
2/12/2019			<0.08	<0.08			<0.08
4/17/2019	<0.08	<0.08	<0.08			0.118	<0.08
4/18/2019				<0.08			
9/27/2019	<0.08			<0.08			<0.08
9/30/2019		<0.08	<0.08			0.14	
2/21/2020	0.0928		<0.08	<0.08			0.0589 (J)
2/22/2020		<0.08				0.193	
4/14/2020	<0.08	<0.08	<0.08	<0.08		0.209	0.0424 (J)
10/30/2020	<0.08	<0.08	<0.08			0.194	0.0495 (J)
11/2/2020				<0.08			
3/17/2021		0.0673 (J)				0.2	
3/26/2021	<0.08		<0.08	0.647			<0.08
10/5/2021	<0.08	0.168		0.281			
10/6/2021			<0.08			0.272	<0.08
3/16/2022	<0.08	0.084	<0.08	0.247		0.695	0.0717 (J)

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-4	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<0.5	0.65	18	1.1	3.7	2.6 (o)	
5/17/2016	0.84	0.68	23		3.4		
5/18/2016				0.56		1.3	
7/12/2016	0.79	0.62					
7/13/2016			18	0.95	2.8	1.1	
9/13/2016	0.42	0.25	19				
9/14/2016				0.4	2.6	1.1	
11/19/2016	1.2	0.36	17	0.62	2.7	1	
1/17/2017	1.4	0.66		1.2		0.87	
1/18/2017			17		3.1		
3/22/2017	0.95	0.65					
3/23/2017			15	0.87	2.8	0.74	
5/24/2017	1.3	0.72	19	0.81	3.1	0.84	
10/16/2017	0.93	0.7	17	0.86	3.3	0.76	
3/28/2018	1		16	0.97	2.7		2.8
3/29/2018		0.55					
6/2/2018	0.93	0.6	15	0.86	2.9		0.71
11/8/2018	1			0.84	3		
11/9/2018		0.59	14				0.61
2/11/2019	1		12.8		2.88		
2/12/2019		0.608		0.856			0.757
4/17/2019	0.893		13	0.711	2.77		0.755
4/18/2019		0.55					
9/27/2019	0.8	0.598					0.663
9/30/2019			13.6	0.826	3.08		
2/21/2020	1.02	0.552		0.841			0.648
2/22/2020			15		3.86		
4/14/2020	0.887	0.532	15.7	0.811	2.95		0.67
10/30/2020	0.945		16.4	1	3.84		0.672
11/2/2020		0.535					
3/17/2021			15.3		6.69		
3/26/2021	0.965	0.848		0.937			0.644
10/5/2021	0.996	0.829			8.57		
10/6/2021			22.8	0.532			<0.5
3/16/2022	1.32	1.28	23.8	0.78	8.94		0.539

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-5	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	6.5	9	7.6	7.3	6.5	5.1	
5/17/2016	4.9	13	6.4		5.1		
5/18/2016				6		4.2	
7/12/2016	5.3				5		
7/13/2016		10	6.3	6.6		4.7	
9/13/2016	4.8 (F1)	7.9			5.1		
9/14/2016			6	5.8		4.5	
11/19/2016	7.1	9.3	7	7.8	6.5	6.1	
1/17/2017	5.8			8.4	5.9	5.4	
1/18/2017		8.5	6.7				
3/22/2017	4.9				5.1		
3/23/2017		8.5	6	6.8		5.1	
5/24/2017	5.9	11	7.4	7.9	5.9	5.5	
10/16/2017	5.7	9.7	6.6	7.7	5.6	6.1	
3/28/2018	5.7	8.8	6.5	7.9			6.7
3/29/2018					5.3		
6/2/2018	4.7	8.3	6.1	7.7	4.6		5.8
11/8/2018	5.6		6.6	8.5			
11/9/2018		9.7			4.9		7.2
2/11/2019	4.84	8.84	6.31				
2/12/2019				7.89	4.72		8.4
4/17/2019	4.99	9.24	6.68	7.71			8.03
4/18/2019					4.64		
9/27/2019	5.08				5.02		8.37
9/30/2019		8.59	5.45	7.07			
4/14/2020	4.91	8.71	5.93	8.75	4.68		7.57
10/30/2020	5.55	8.93	6.49	9.58			7.59
11/2/2020					4.91		
3/17/2021		9.6	7.55				
3/26/2021	5.92			8.32	8.5		6.21
10/5/2021	6.21		14.3		10.3		
10/6/2021		5.44		6.8			16.4
3/16/2022	7.85	10.6	17.9	7.94	13		11.5

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-5	BAW-2A (bg)
3/23/2016	<0.1	0.04 (J)	<0.1	<0.1	<0.1	0.06 (J)	
5/17/2016	<0.1	0.04 (J)		<0.1		0.07 (J)	
5/18/2016			<0.1		<0.1		
7/12/2016	<0.1			<0.1			
7/13/2016		0.05 (J)	<0.1		<0.1	0.08 (J)	
9/13/2016	<0.1			<0.1		0.06 (J)	
9/14/2016		0.04 (J)	<0.1		<0.1		
11/19/2016	<0.1	0.04 (J)	<0.1	<0.1	<0.1	0.06 (J)	
1/17/2017	<0.1		<0.1	<0.1	<0.1		
1/18/2017		<0.1				0.05 (J)	
3/22/2017	<0.1			<0.1			
3/23/2017		<0.1	<0.1		<0.1	0.05 (J)	
5/24/2017	<0.1	0.04 (J)	<0.1	<0.1 (D)	<0.1	0.06 (J)	
10/16/2017	<0.1	<0.1	<0.1	<0.1	<0.1	0.06 (J)	
3/28/2018	<0.1	0.04 (J)	<0.1			0.06 (J)	<0.1
3/29/2018				<0.1			
6/2/2018	<0.1	0.05 (J)	<0.1	<0.1		0.06 (J)	<0.1
11/8/2018	<0.1	0.05 (J)	<0.1				
11/9/2018				<0.1		0.06 (J)	<0.1
2/11/2019	<0.1	<0.1				0.0368 (J)	
2/12/2019			<0.1	<0.1			<0.1
4/17/2019	<0.1	0.033 (J)	<0.1			0.0421 (J)	<0.1
4/18/2019				<0.1			
9/27/2019	<0.1			<0.1			0.0313 (J)
9/30/2019		<0.1	<0.1			0.045 (J)	
2/21/2020	<0.1		<0.1	<0.1			<0.1
2/22/2020		0.0317 (J)				0.0434 (J)	
4/14/2020	0.0532 (J)	0.0508 (J)	0.034 (J)	0.0415 (J)		0.059 (J)	0.0537 (J)
10/30/2020	<0.1	<0.1	<0.1			<0.1	<0.1
11/2/2020				<0.1			
3/17/2021		0.0544 (J)				0.0575 (J)	
3/26/2021	<0.1		<0.1	<0.1			<0.1
10/5/2021	0.0499 (J)	0.0505 (J)		<0.1			
10/6/2021				<0.1		0.0725 (J)	<0.1
3/16/2022	<0.1	0.0462 (J)	0.0307 (J)	0.0266 (J)		0.176	<0.1

Prediction Limit

Constituent: pH (SU) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-5	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	5.12	6.64	5.38	5.05	4.89	5.52	
5/17/2016	5.23	6.52	5.32		4.92		
5/18/2016				4.86		5.24	
7/12/2016	5.77				4.93		
7/13/2016		6.63	5.31	5.11		5.17	
9/13/2016	4.98	6.46			4.76		
9/14/2016			5.21	4.84		5.04	
11/19/2016	4.82	6.38	5.12	4.74	4.56	4.88	
1/17/2017	5.04			4.95	4.86	5.04	
1/18/2017		6.47	5.22				
3/22/2017	4.73				4.66		
3/23/2017		6.19	5.01	4.66		4.66	
5/24/2017	5.01	6.34	5.19	4.86	4.83	4.93	
10/16/2017	4.59	6.23	4.96	4.47	4.53	4.65	
3/28/2018	4.87	6.22	5.23	4.93			5.39
3/29/2018					4.87		
6/2/2018	4.92	6.24	5.22	4.83	4.87		5.06
11/8/2018	5		5.29	4.83			
11/9/2018		6.27			4.92		4.92
2/11/2019	4.7	6.08	5				
2/12/2019				4.65	4.79		4.86
4/17/2019	4.9	6.14	5.13	4.71			4.79
4/18/2019					4.9		
2/21/2020	4.86			4.55	4.8		4.73
2/22/2020		6.13	5.3				
4/14/2020	5.23	6.26	5.45	4.7	4.94		4.87
10/30/2020	5	6.19	5.32	4.8			4.87
11/2/2020					4.92		
3/17/2021		6.14	5.62				
3/26/2021	4.86			4.54	4.67		4.7
10/5/2021	5		5.72		4.84		
10/6/2021		6.03		4.63			4.77
3/16/2022	4.92	6.2	5.56	4.64	4.75		4.91

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-5	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<5	4.5 (J)	2.3 (J)	<5	<5	<5	
5/17/2016	<5	17	2.3 (J)		<5		
5/18/2016				<5		<5	
7/12/2016	<5				<5		
7/13/2016		15	2.4 (J)	1.5 (J)		<5	
9/13/2016	<5	3.4 (J)			<5		
9/14/2016			2.4 (J)	1.6 (J)		<5	
11/19/2016	<5	3.5 (J)	3.3 (J)	1.8 (J)	1.5 (J)	<5	
1/17/2017	<5			<5	<5	<5	
1/18/2017		3.2 (J)	2.3 (J)				
3/22/2017	<5				1.9 (J)		
3/23/2017		3.7 (J)	3.2 (J)	2.3 (J)		1.8 (J)	
5/24/2017	<5	8.8	2.4 (J)	1.6 (J)	<5	1.5 (J)	
10/16/2017	<5	4 (J)	2 (J)	<5	<5	<5	
3/28/2018	<5	3.3 (J)	2.4 (J)	1.6 (J)			1.7 (J)
3/29/2018					<5		
6/2/2018	1.9 (J)	4.3 (J)	3.7 (J)	2.9 (J)	2.8 (J)		3 (J)
11/8/2018	<5		2.7 (J)	1.6 (J)			
11/9/2018		2.3 (J)			<5		<5
2/11/2019	0.774 (J)	2.64	2.5				
2/12/2019				1.97	1.35		1.97
4/17/2019	1.43	3.27	3.15	2.5			2.82
4/18/2019					1.82		
9/27/2019	1.03				1.22		2.19
9/30/2019		2.82	2.34	1.64			
4/14/2020	0.928 (J)	4.2	2.99	1.62	1.18		2.71
10/30/2020	0.91 (J)	4.76	2.84	1.44			3.97
11/2/2020					1.08		
3/17/2021		4.07	4.35				
3/26/2021	1.49			3.25	2		2.04
10/5/2021	1.13		5.02		2.55		
10/6/2021		14.5		5.07			5.37
3/16/2022	3.6	23.1	5.64	6.85	5.93		5.37

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/9/2022 5:57 AM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-5	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	20	88	46	30	22	30	
5/17/2016	24	110	52		30		
5/18/2016				20		20	
7/12/2016	24				26		
7/13/2016		120	36	40		40	
9/13/2016	18	92			28		
9/14/2016			38	<10		10	
11/19/2016	20	94	50	22	38	28	
1/17/2017	<10			14	10	14	
1/18/2017		68	18				
3/22/2017	12				22		
3/23/2017		80	32	28		16	
5/24/2017	16 (D)	90	32	18	22	12	
10/16/2017	58	110	64	36	34	50	
3/28/2018	18	86	56	36			30
3/29/2018					50		
6/2/2018	6	72	22	6	<10		26
11/8/2018	12		170	34			
11/9/2018		38			20		94
2/11/2019	<10	60	23				
2/12/2019				12	<10		22
4/17/2019	16	82	37	27			22
4/18/2019					39		
9/27/2019	26				<10		25
9/30/2019		55	<10	<10			
4/14/2020	25	77	30	31	24		38
10/30/2020	34	88	40	40			48
11/2/2020					28		
3/17/2021		79	44				
3/26/2021	24			37	38		24
10/5/2021	26		75		45		
10/6/2021		114		30			61
3/16/2022	30	133	66	26	37		26

FIGURE E.

Appendix III Trend Test Summary - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 6:05 AM

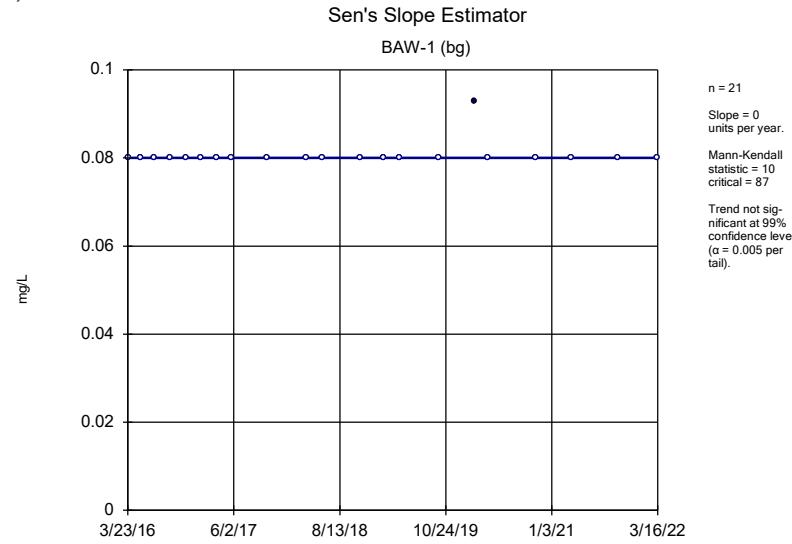
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.07651	-120	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.4138	-91	-81	Yes	20	55	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-4	0.2517	91	81	Yes	20	0	n/a	n/a	0.01	NP

Appendix III Trend Test Summary - All Results

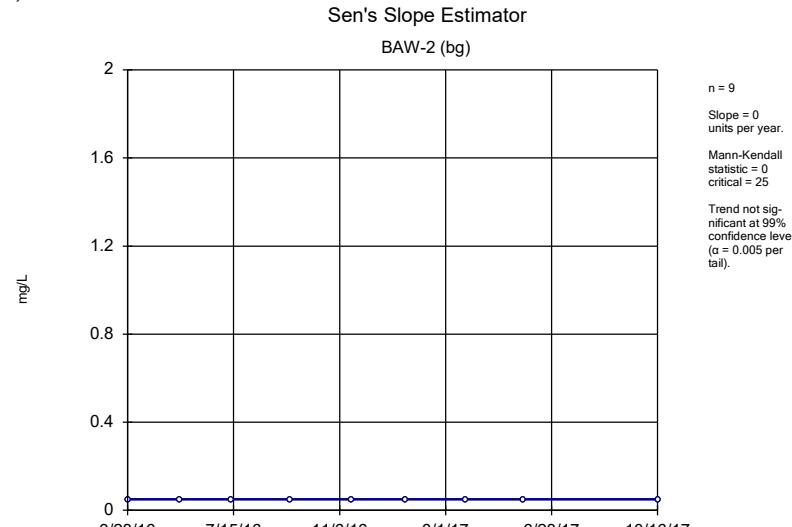
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/9/2022, 6:05 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	10	87	No	21	95.24	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-18	-38	No	12	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	-0.008655	-21	-87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	51	87	No	21	85.71	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.02611	44	87	No	21	4.762	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.06268	-36	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.2004	75	87	No	21	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.5605	-46	-87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-1 (bg)	0.05579	20	81	No	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2 (bg)	1.001	18	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2A (bg)	1.003	21	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-4	0.08219	18	81	No	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-1 (bg)	0	-31	-87	No	21	90.48	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-2A (bg)	0	-1	-38	No	12	83.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	BAW-5	0	-13	-87	No	21	4.762	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.0225	-34	-81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.07555	-24	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.03938	50	81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.07651	-120	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.4138	-91	-81	Yes	20	55	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2A (bg)	0.6255	20	34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-3	0.008336	16	81	No	20	20	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-4	0.2517	91	81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-5	0.02583	2	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-7	-0.1687	-56	-81	No	20	45	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	1.23	37	81	No	20	10	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	0.9444	5	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-4	1.829	15	81	No	20	5	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-2.531	-24	-81	No	20	0	n/a	n/a	0.01	NP

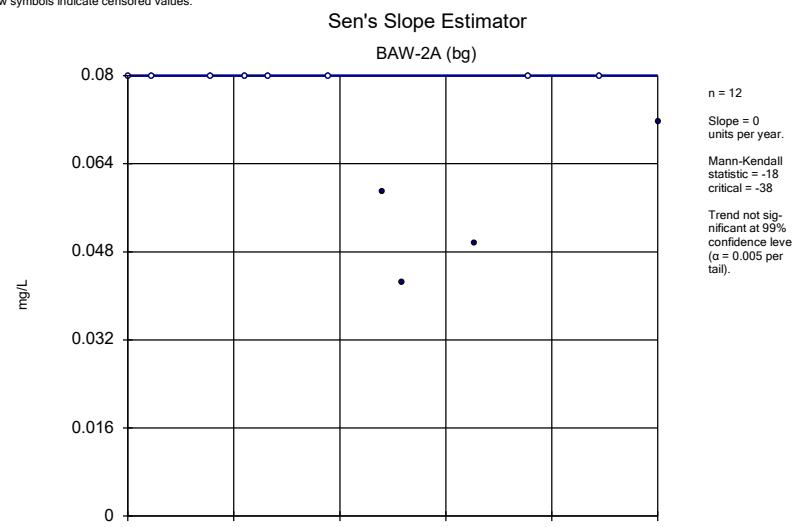
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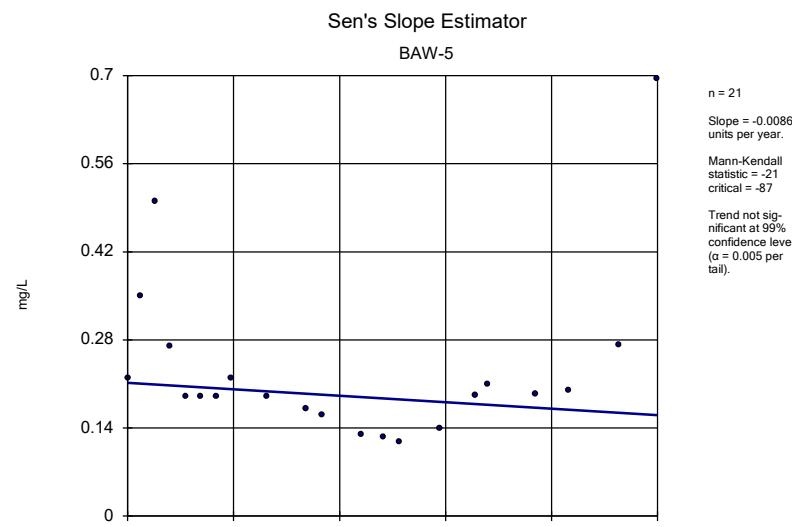
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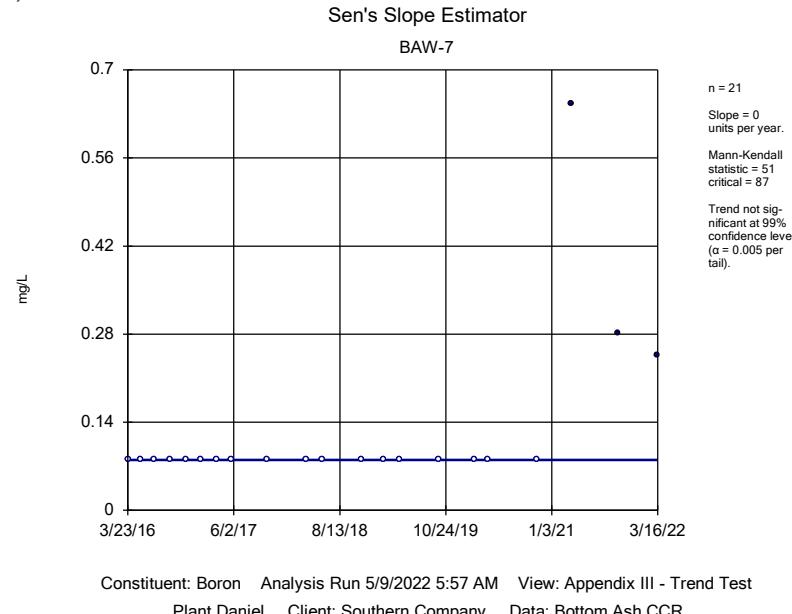
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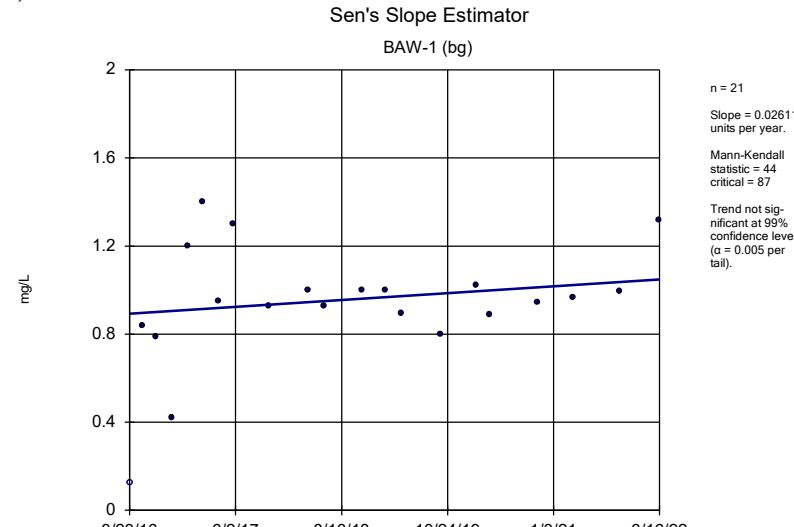
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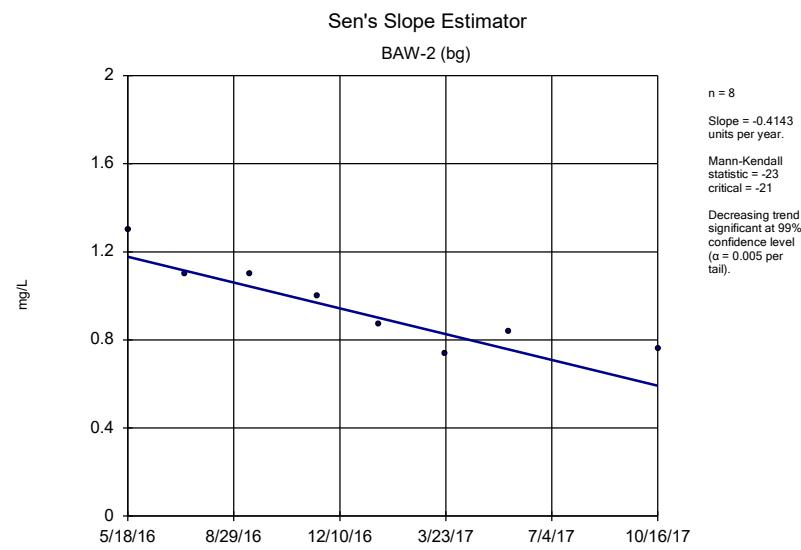
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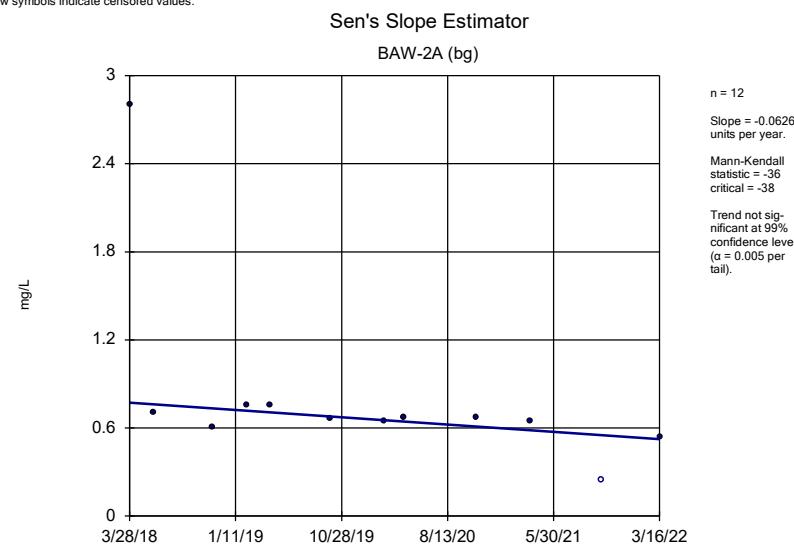
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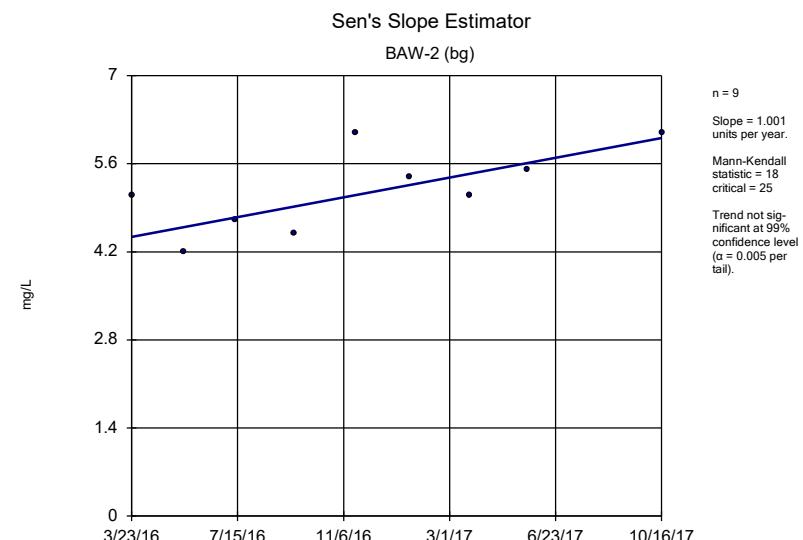
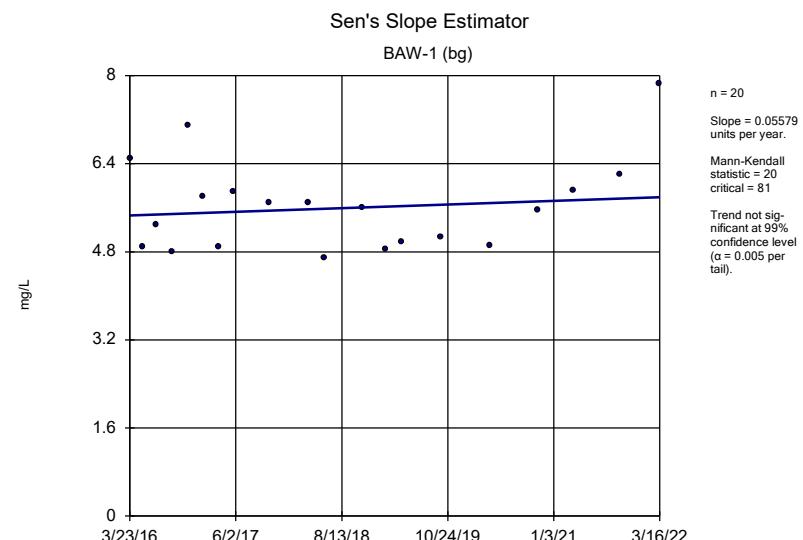
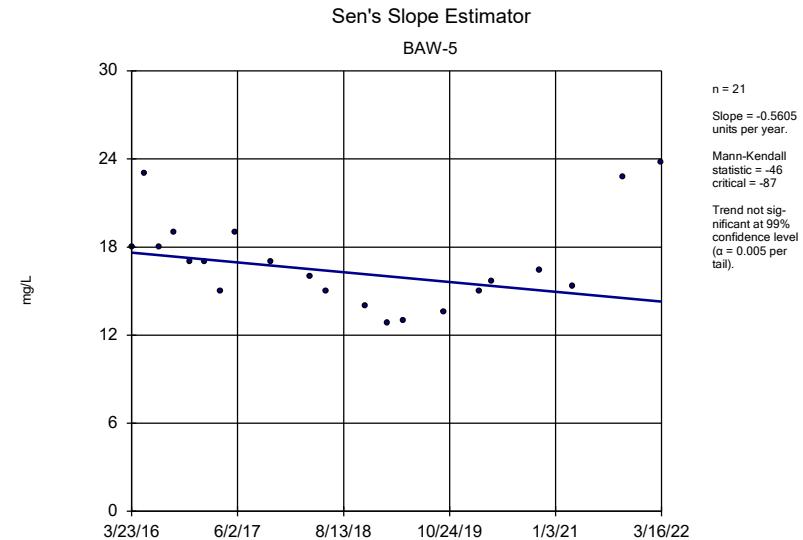
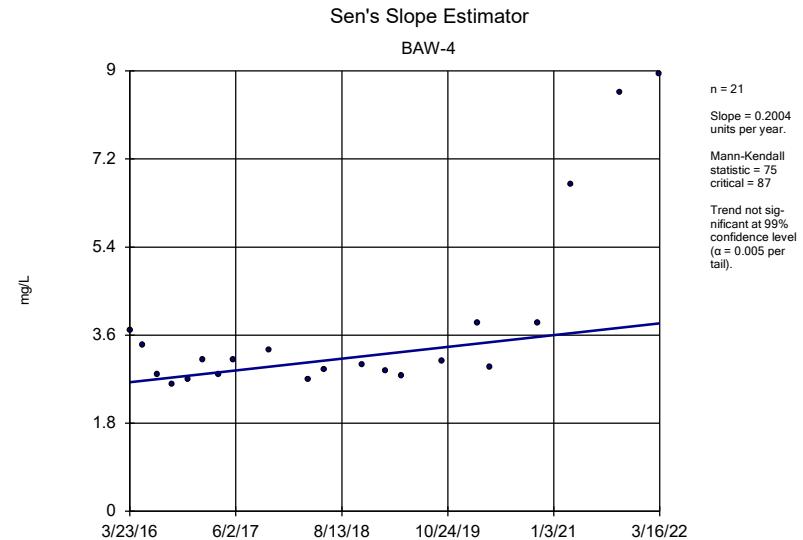


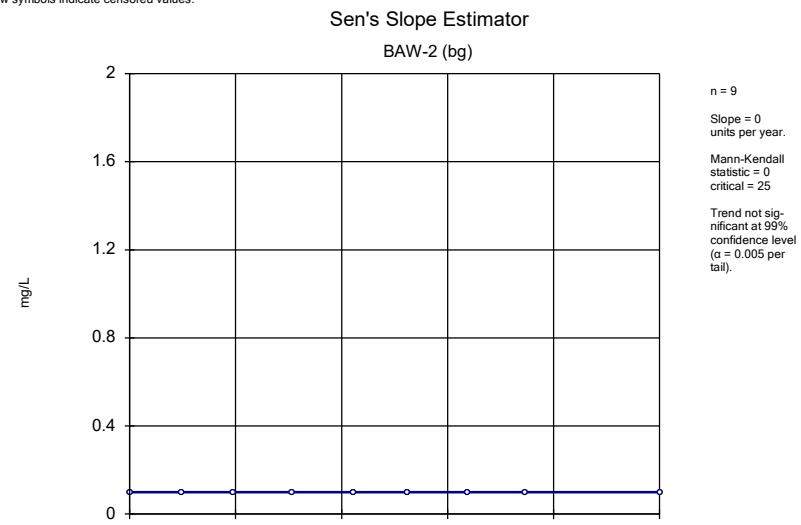
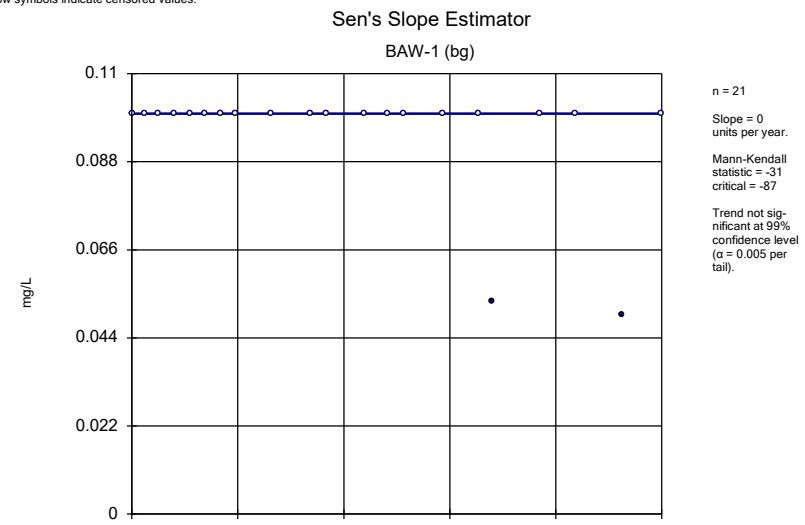
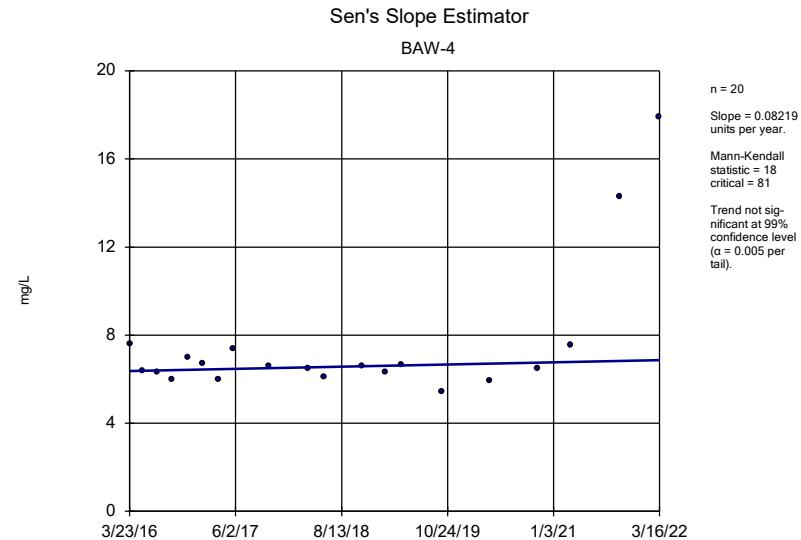
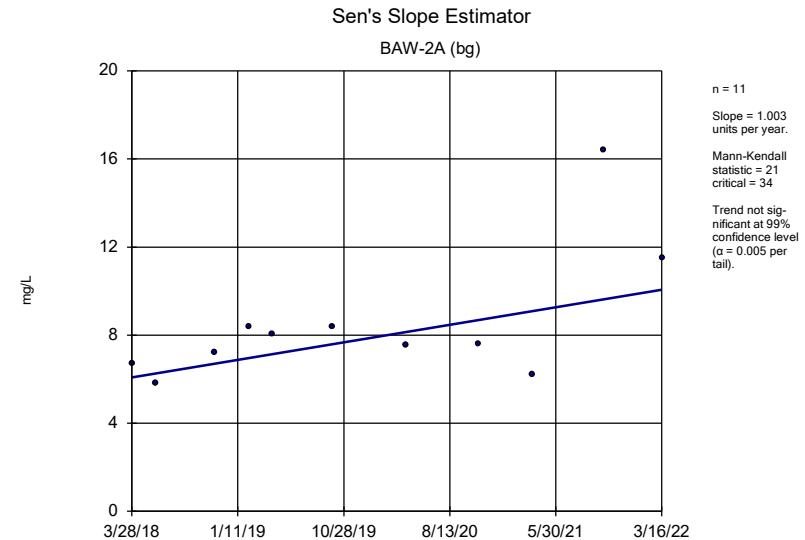
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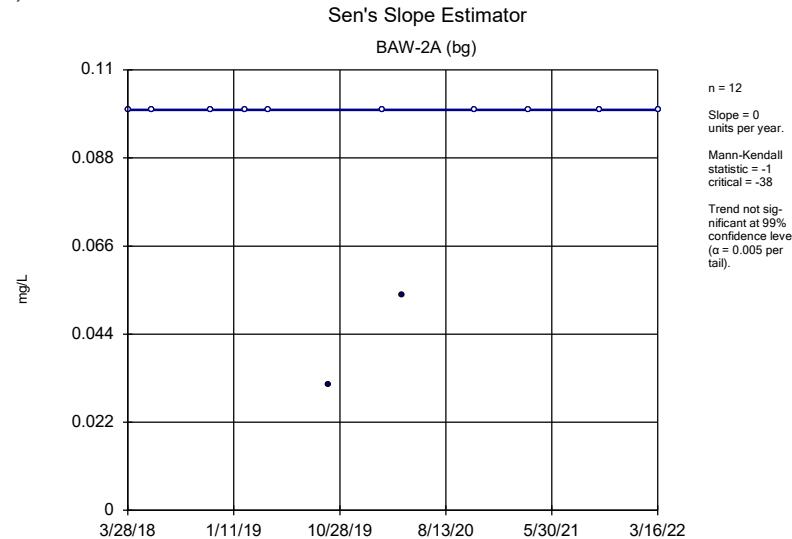
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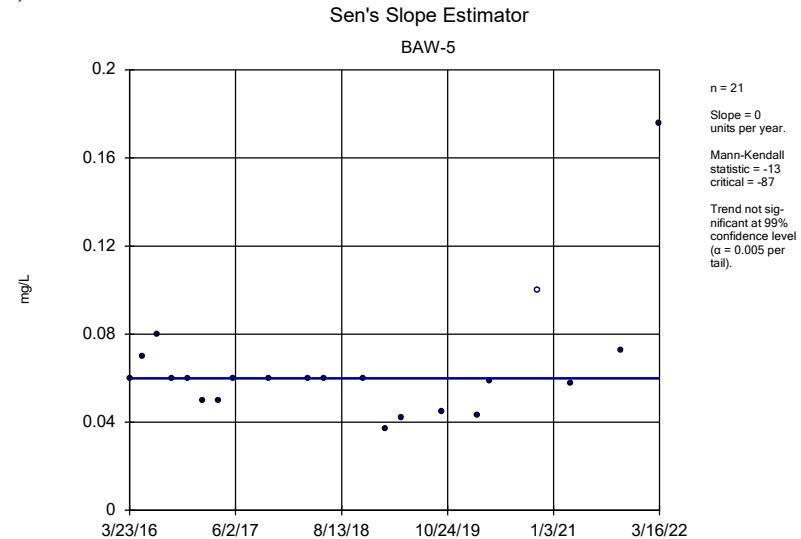




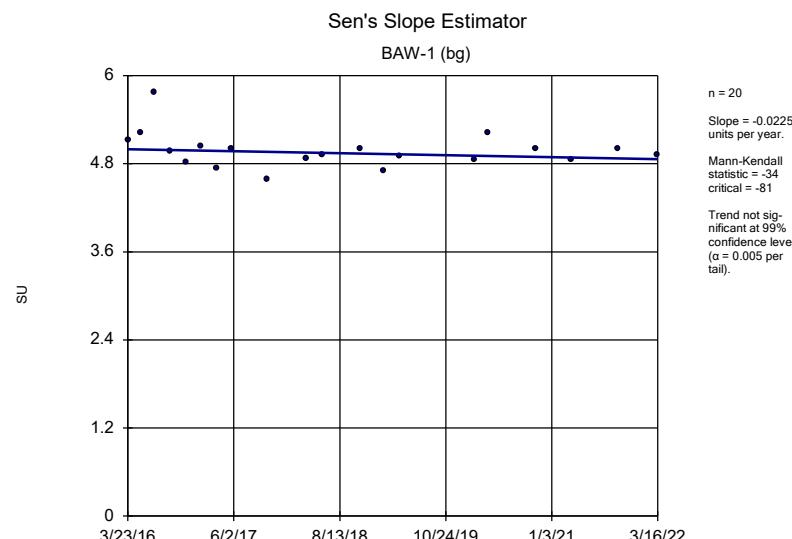
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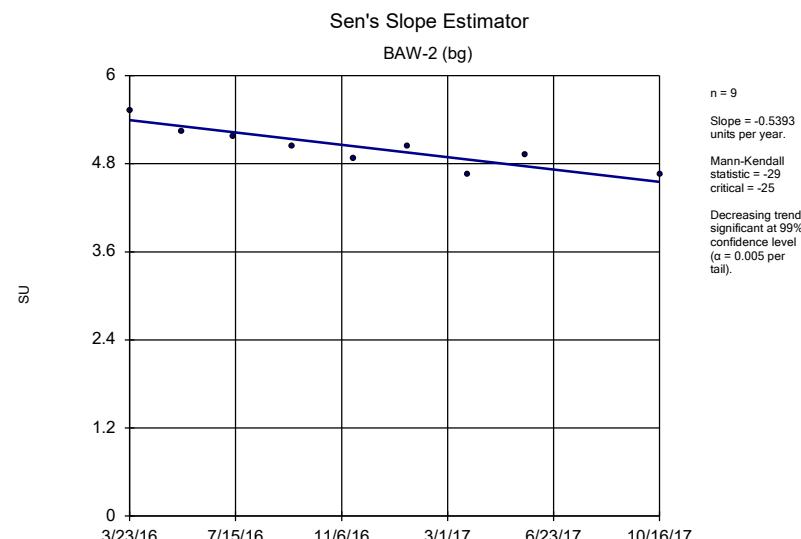
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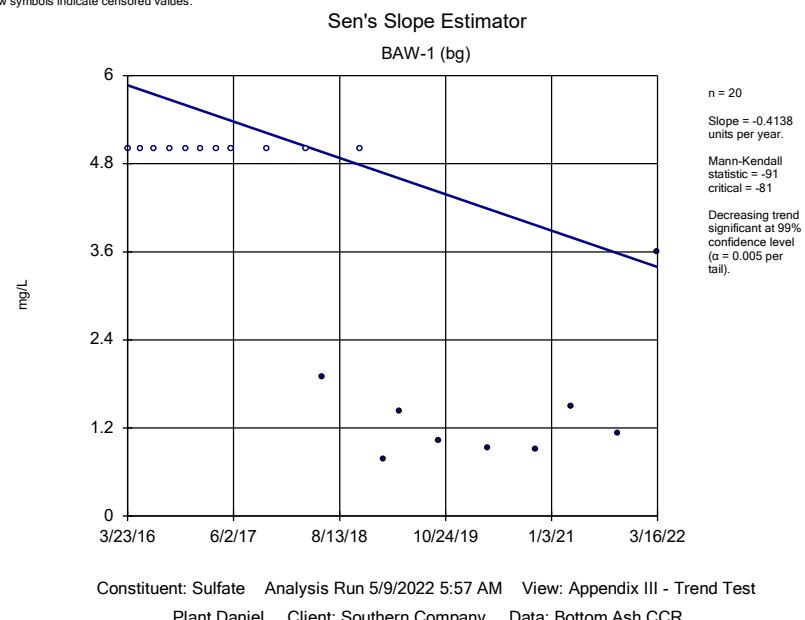
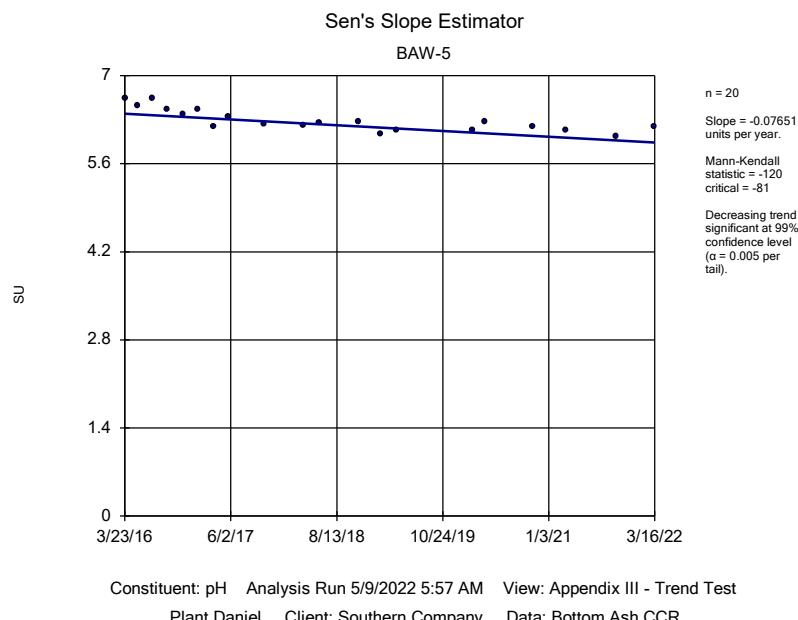
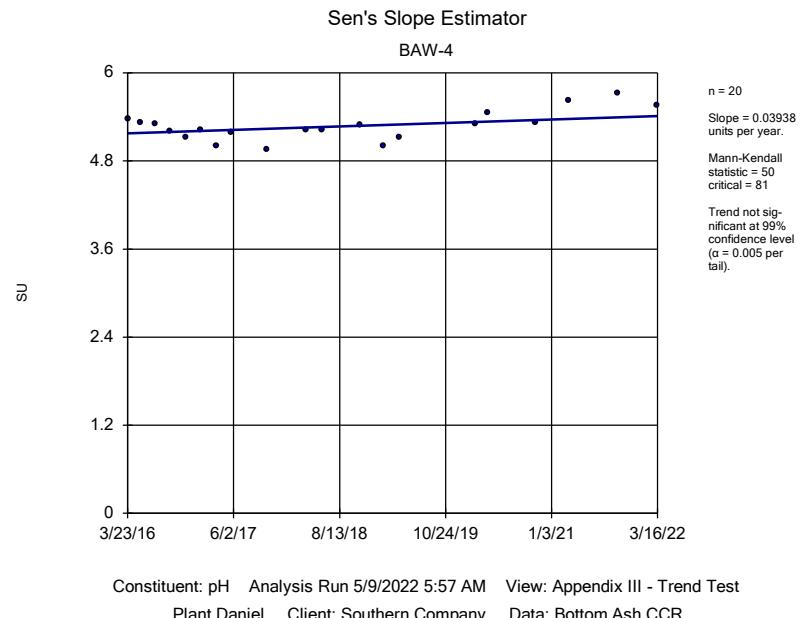
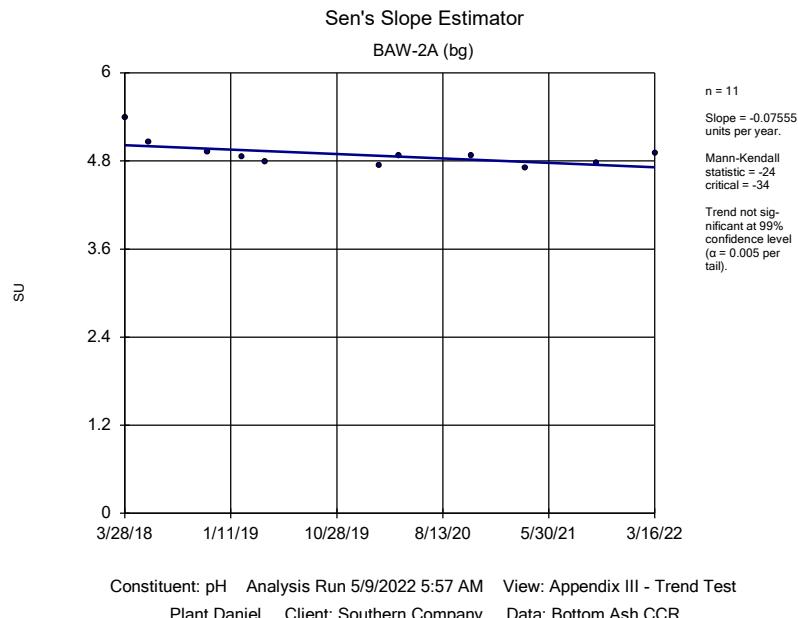


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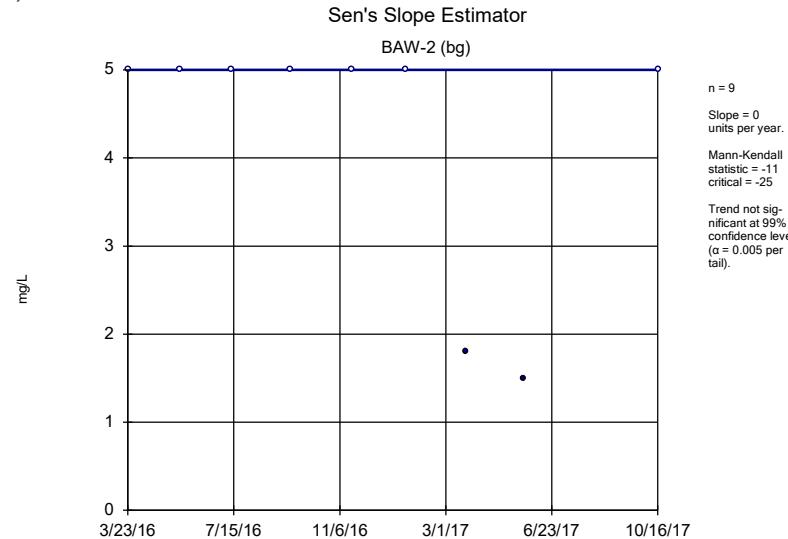


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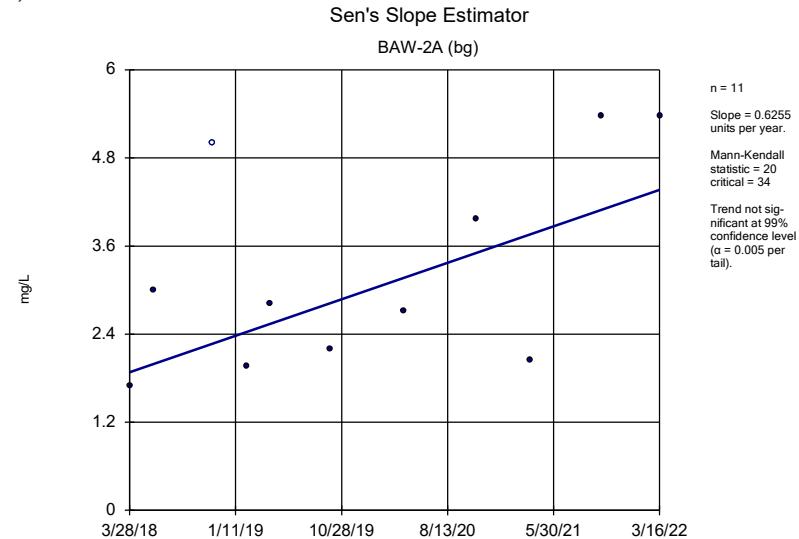




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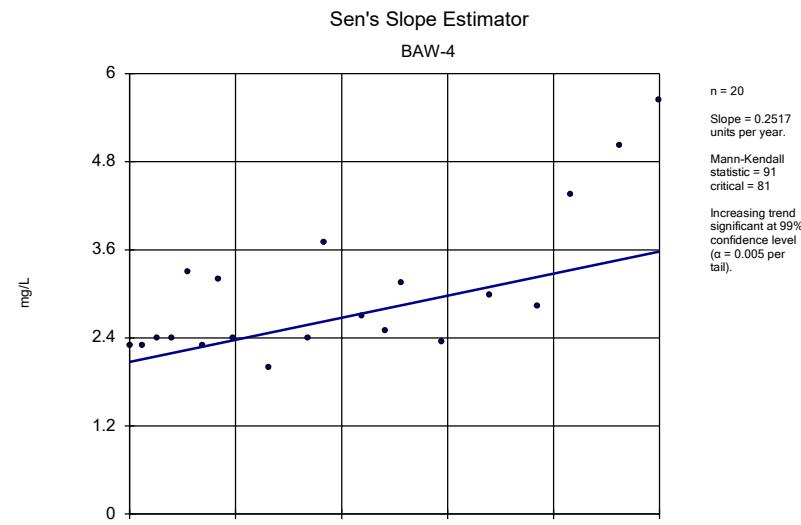
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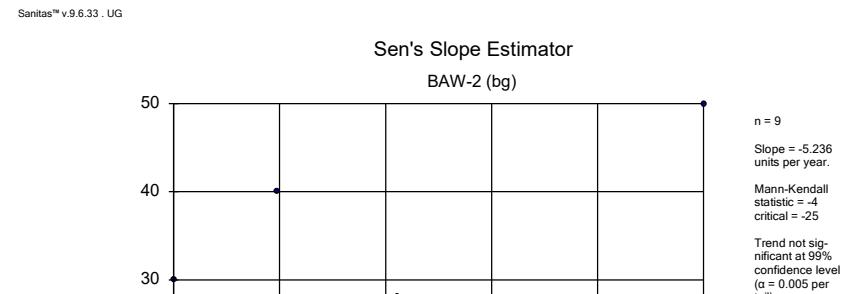
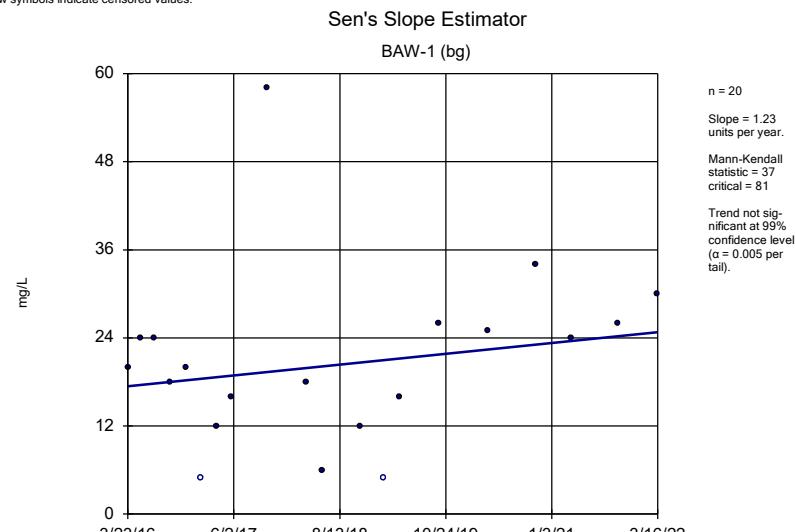
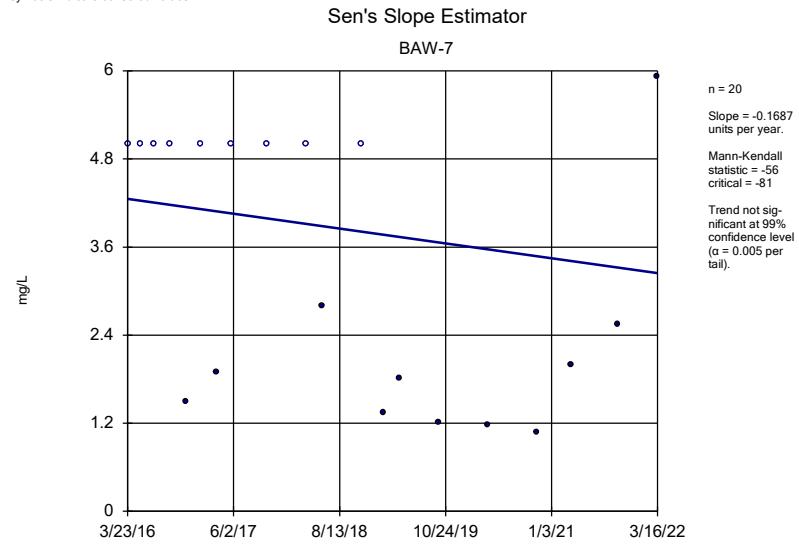
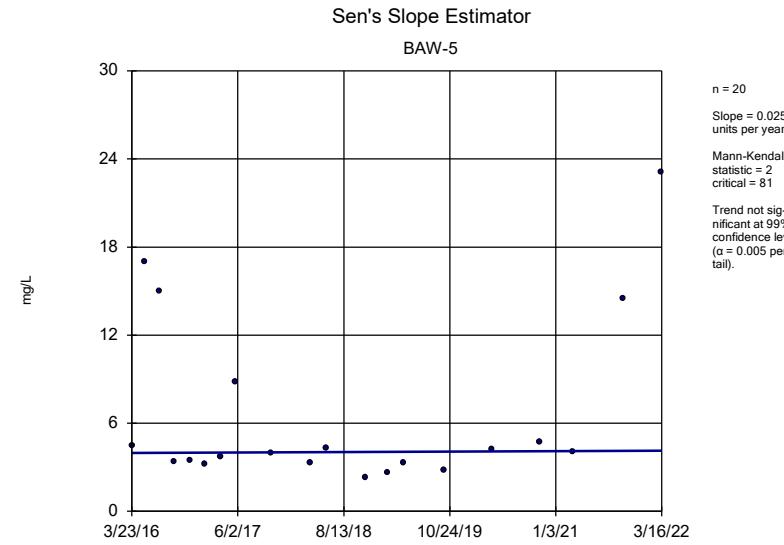


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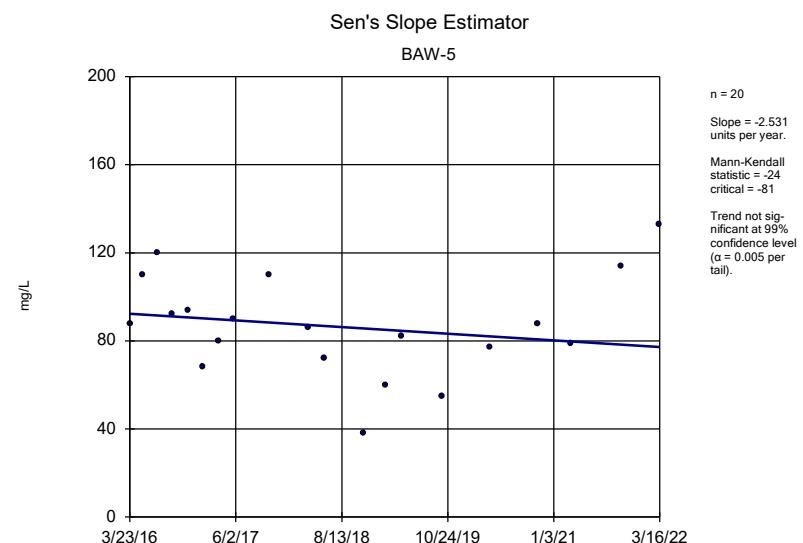
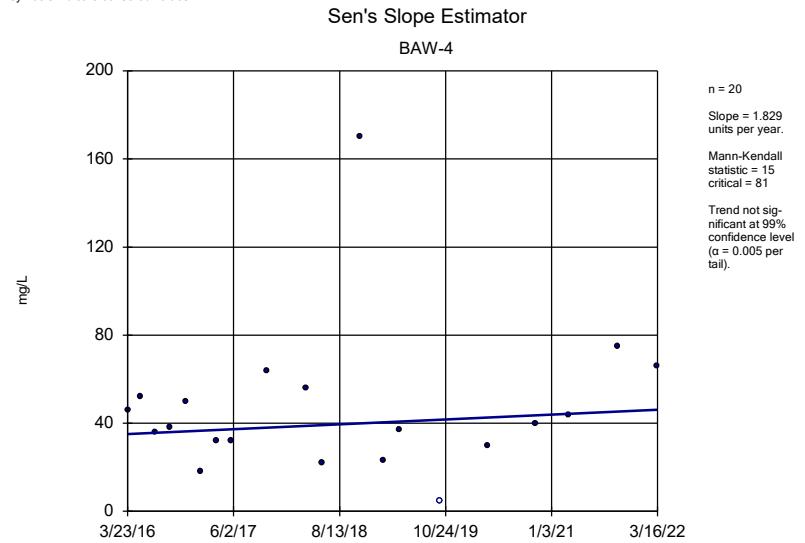
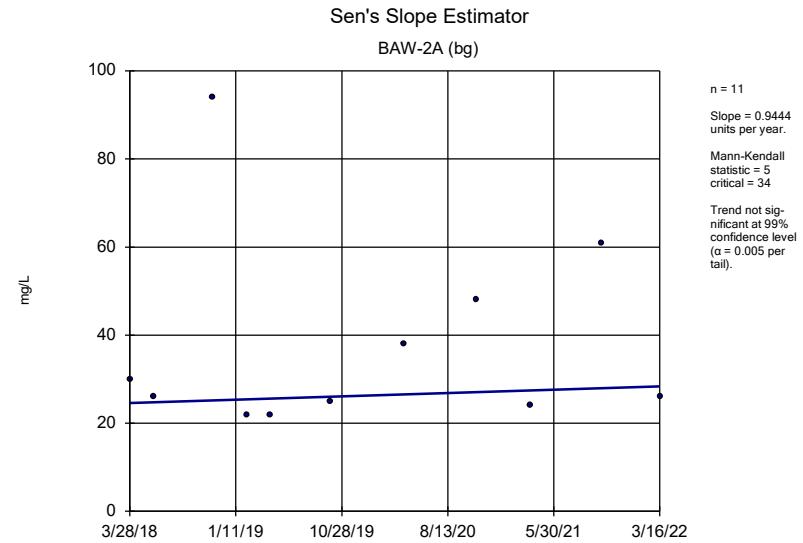


FIGURE F.

Upper Tolerance Limits Summary Table

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/2/2022, 5:11 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.002	n/a	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)
Arsenic (mg/L)	0.001	n/a	n/a	n/a	n/a	40	100	n/a	0.1285	NP Inter(NDs)
Barium (mg/L)	0.05	n/a	n/a	n/a	n/a	40	2.5	n/a	0.1285	NP Inter(normality)
Beryllium (mg/L)	0.001	n/a	n/a	n/a	n/a	36	97.22	n/a	0.1578	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	n/a	n/a	n/a	40	97.5	n/a	0.1285	NP Inter(NDs)
Chromium (mg/L)	0.00286	n/a	n/a	n/a	n/a	38	89.47	n/a	0.1424	NP Inter(NDs)
Cobalt (mg/L)	0.00177	n/a	n/a	n/a	n/a	40	7.5	n/a	0.1285	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	2.5	n/a	n/a	n/a	n/a	40	5	n/a	0.1285	NP Inter(normality)
Fluoride (mg/L)	0.1	n/a	n/a	n/a	n/a	42	90.48	n/a	0.116	NP Inter(NDs)
Lead (mg/L)	0.001	n/a	n/a	n/a	n/a	38	100	n/a	0.1424	NP Inter(NDs)
Lithium (mg/L)	0.00505	n/a	n/a	n/a	n/a	39	69.23	n/a	0.1353	NP Inter(NDs)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	n/a	32	93.75	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	0.005	n/a	n/a	n/a	n/a	36	88.89	n/a	0.1578	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	36	83.33	n/a	0.1578	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	n/a	36	97.22	n/a	0.1578	NP Inter(NDs)

FIGURE G.

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.05	2
Beryllium, Total (mg/L)	0.004		0.001	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0018	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

FIGURE H.

Confidence Interval Summary Table - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/2/2022, 5:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.193	0.156	0.04	Yes	20	0.03845	0	x^2	0.01	Param.

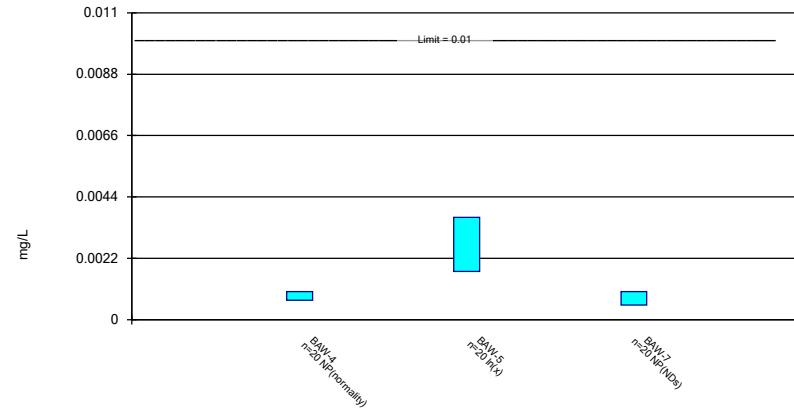
Confidence Interval Summary Table - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/2/2022, 5:21 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.001	0.00069	0.01	No	20	0.0008342	20	No	0.01	NP (normality)
Arsenic (mg/L)	BAW-5	0.003662	0.001725	0.01	No	20	0.002944	0	In(x)	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No	20	0.0001509	90	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.02989	0.02182	2	No	20	0.007104	0	No	0.01	Param.
Barium (mg/L)	BAW-4	0.0116	0.00888	2	No	20	0.006939	0	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.046	0.039	2	No	20	0.007047	0	No	0.01	NP (normality)
Barium (mg/L)	BAW-7	0.013	0.011	2	No	20	0.003649	0	No	0.01	NP (normality)
Beryllium (mg/L)	BAW-7	0.001	0.000185	0.004	No	18	0.0001921	94.44	No	0.01	NP (NDs)
Cadmium (mg/L)	BAW-3	0.0008978	0.0006141	0.005	No	20	0.0002498	5	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No	20	0.0001889	95	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No	19	0.0002472	89.47	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No	19	0.0002494	84.21	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No	19	0.0007243	84.21	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No	19	0.00001376	94.74	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.006089	0.004786	0.006	No	20	0.001148	0	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.001376	0.0009965	0.006	No	20	0.0003586	0	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BAW-5	0.000802	0.00042	0.006	No	20	0.000124	85	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.0009944	0.0007674	0.006	No	20	0.0001999	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.646	0.126	5	No	20	0.7213	10	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.7846	0.09941	5	No	20	0.8414	15	$x^{(1/3)}$	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.7838	0.3114	5	No	19	0.5517	5.263	$x^{(1/3)}$	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	1.005	0.2552	5	No	20	0.8193	15	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No	21	0.02036	90.48	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.1	0.04	4	No	21	0.02667	28.57	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.07	0.05	4	No	21	0.02897	4.762	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No	21	0.01998	90.48	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.00015	0.015	No	19	0.0003872	52.63	No	0.01	NP (NDs)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No	19	0.0003031	78.95	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No	19	0.0001945	94.74	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No	19	0.0001998	94.74	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.005	0.0038	0.04	No	20	0.001287	70	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-4	0.02735	0.01998	0.04	No	20	0.006551	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	BAW-5	0.193	0.156	0.04	Yes	20	0.03845	0	x^{*2}	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0035	0.04	No	20	0.0009717	60	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No	16	0.00008398	81.25	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No	16	0.00003522	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No	16	0.0000315	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000151	0.002	No	16	0.0002549	75	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.005	0.0032	0.1	No	18	0.001595	77.78	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-5	0.003899	0.001363	0.1	No	18	0.002084	33.33	No	0.01	Param.
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No	18	0.0002828	94.44	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00038	0.05	No	18	0.002271	61.11	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No	18	0.001101	94.44	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00036	0.05	No	18	0.002039	72.22	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-3	0.001	0.000276	0.002	No	18	0.000364	77.78	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-7	0.001	0.000153	0.002	No	18	0.0001996	94.44	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

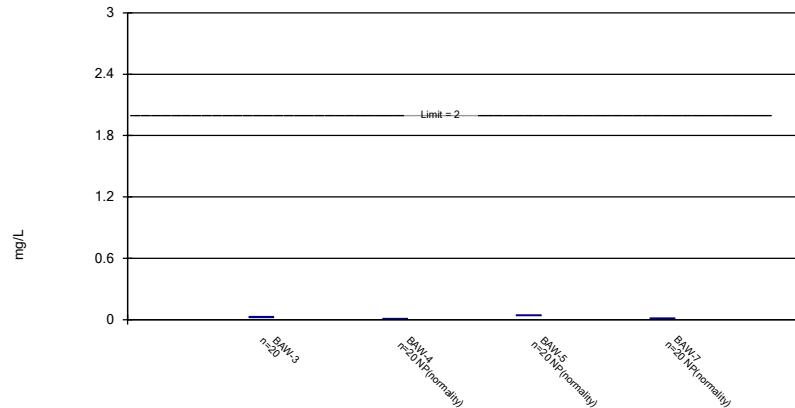
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

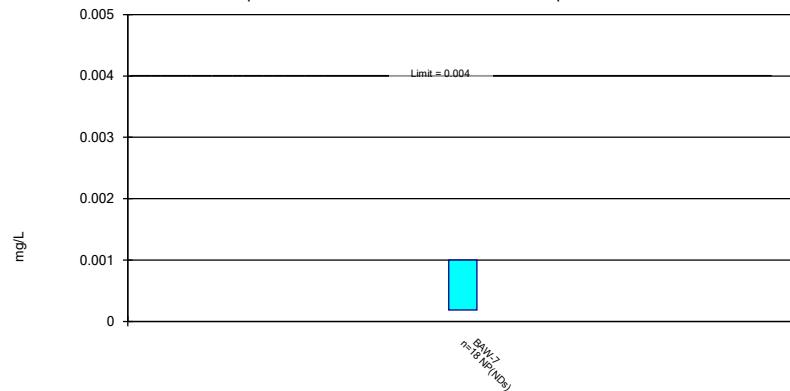
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

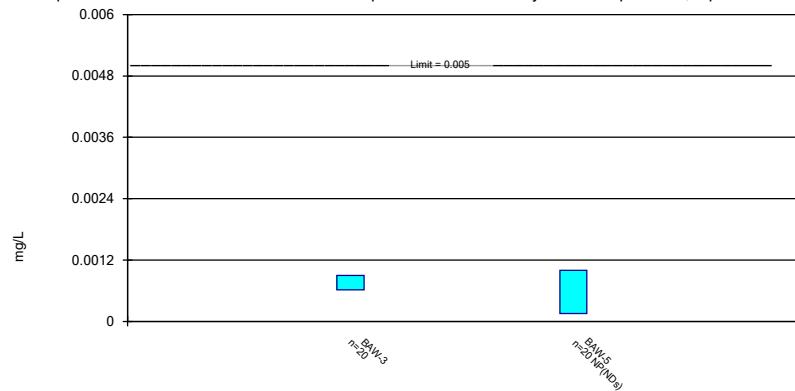
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

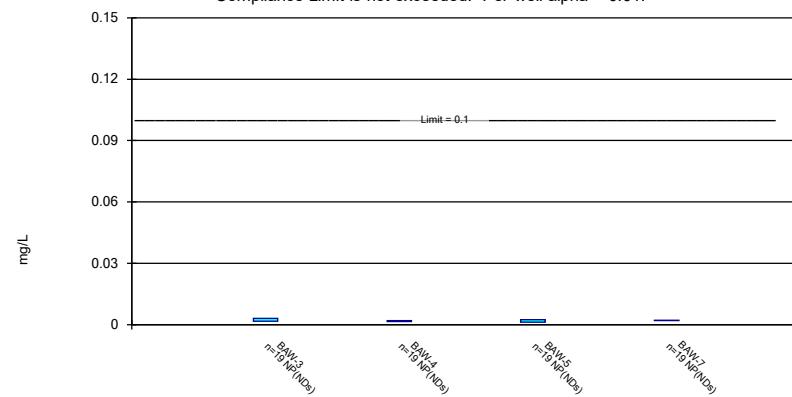
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

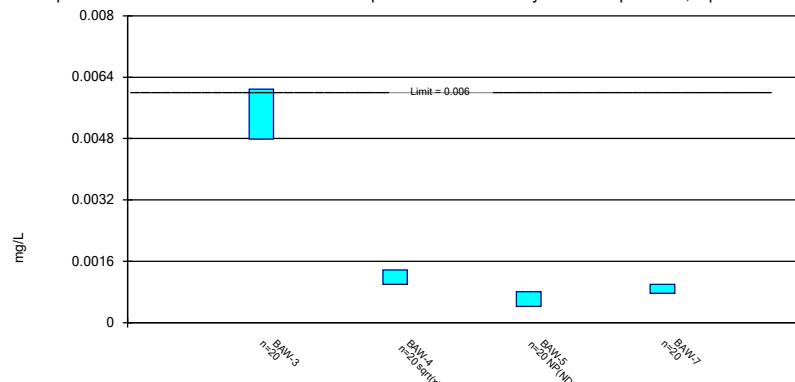
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

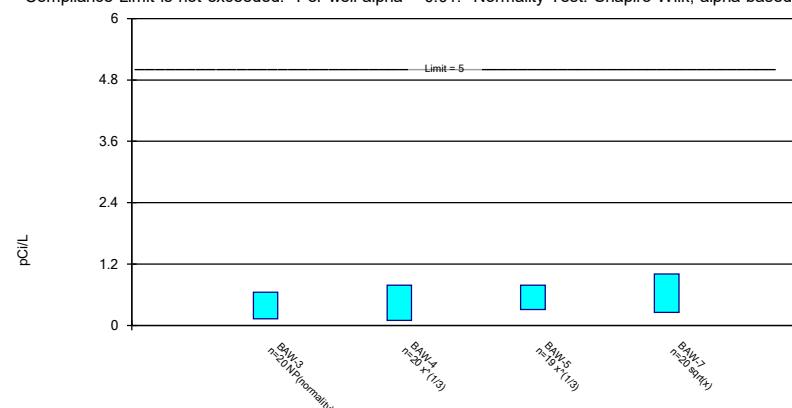
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

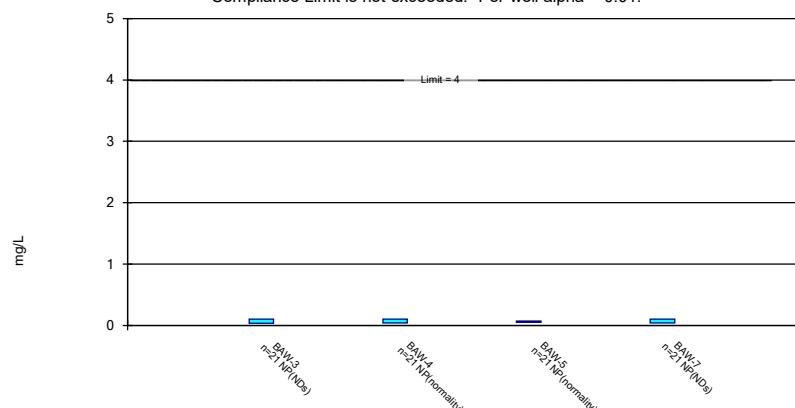
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

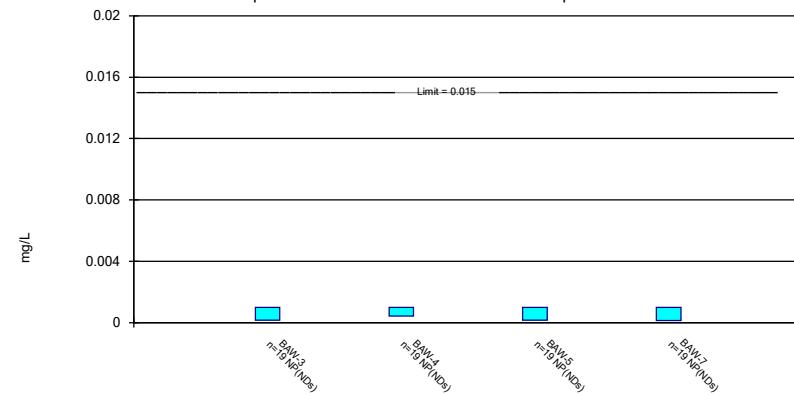
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Fluoride Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

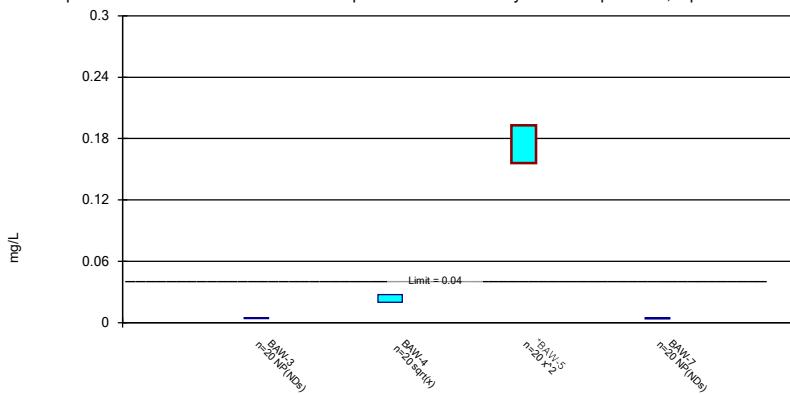
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

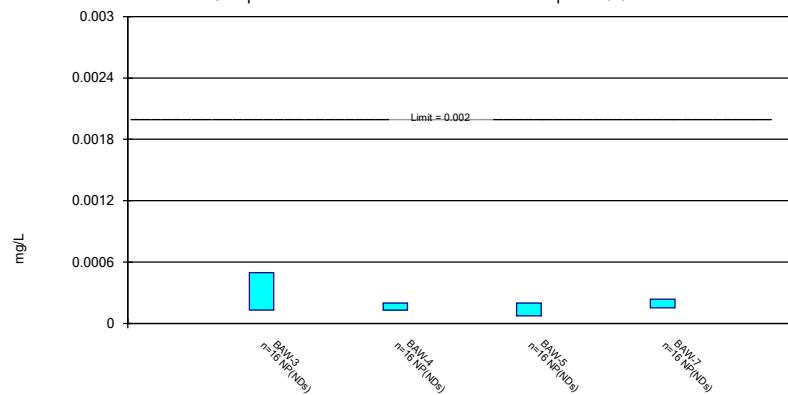
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

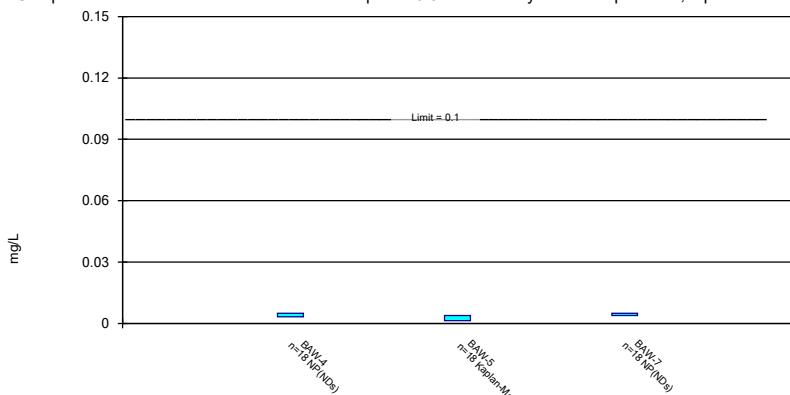
Compliance Limit is not exceeded. Per-well alpha = 0.01.



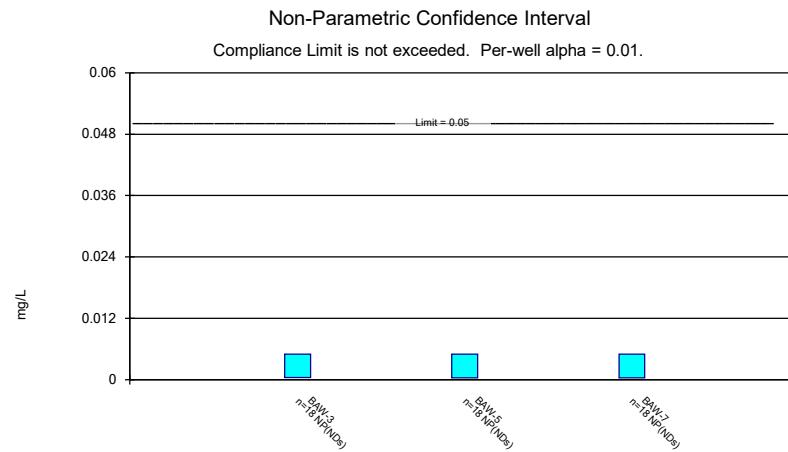
Constituent: Mercury Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

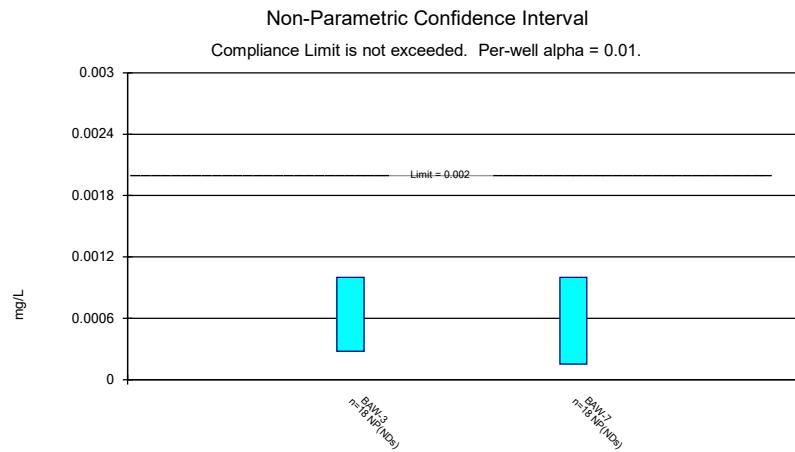
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Selenium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Thallium Analysis Run 5/2/2022 5:20 PM View: Appendix IV - Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-4	BAW-5	BAW-7
3/23/2016	0.00087 (J)	0.0033	<0.001
5/17/2016	<0.001	0.00089 (J)	<0.001
7/12/2016			<0.001
7/13/2016	0.00081 (J)	0.0039	
9/13/2016		0.0039	<0.001
9/14/2016	0.00069 (J)		
11/19/2016	0.0013	0.0037	0.0005 (J)
1/17/2017			<0.001
1/18/2017	<0.001	0.0016	
3/22/2017			0.00052 (J)
3/23/2017	0.00078 (J)	0.0017	
5/24/2017	0.001 (J)	0.0021	<0.001
3/28/2018	<0.001	0.0011 (J)	
3/29/2018			<0.001
6/2/2018	0.00068 (J)	0.0017	<0.001
11/8/2018	<0.001		
11/9/2018		0.0021	<0.001
2/11/2019	0.000737 (J)	0.00232	
2/12/2019			<0.001
4/17/2019	0.000645 (J)	0.00218	
4/18/2019			<0.001
9/27/2019			<0.001
9/30/2019	0.000821 (J)	0.00272	
2/21/2020			<0.001
2/22/2020	0.000837 (J)	0.00177	
4/14/2020	0.000896 (J)	0.00177	<0.001
10/30/2020	0.000529 (J)	0.0013	
11/2/2020			<0.001
3/17/2021	0.000454 (J)	0.00385	
3/26/2021			<0.001
10/5/2021	0.00259		<0.001
10/6/2021		0.0125	
3/16/2022	0.00411	0.0101	<0.001
Mean	0.001087	0.003225	0.000951
Std. Dev.	0.0008342	0.002944	0.0001509
Upper Lim.	0.001	0.003662	0.001
Lower Lim.	0.00069	0.001725	0.00052

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.013	0.011	0.044	0.013
5/17/2016		0.0085	0.055	0.012
5/18/2016	0.012			
7/12/2016			0.011	
7/13/2016	0.016	0.0073	0.041	
9/13/2016			0.046	0.012
9/14/2016	0.018	0.0095		
11/19/2016	0.021	0.012	0.044	0.012
1/17/2017	0.029			0.014
1/18/2017		0.0096	0.045	
3/22/2017				0.012
3/23/2017	0.024	0.0093	0.038	
5/24/2017	0.022	0.0096	0.046	0.012
3/28/2018	0.026	0.0086	0.043	
3/29/2018				0.011
6/2/2018	0.029	0.0087	0.043	0.011
11/8/2018	0.028	0.0091		
11/9/2018			0.039	0.011
2/11/2019		0.00931	0.0388	
2/12/2019	0.0274			0.0102
4/17/2019	0.0263	0.00888	0.0378	
4/18/2019				0.0101
9/27/2019				0.0121
9/30/2019	0.0343	0.0103	0.0424	
2/21/2020	0.0304			0.0117
2/22/2020		0.0108	0.0453	
4/14/2020	0.0335	0.00949 (J)	0.0452	0.0124
10/30/2020	0.0349	0.0116	0.0428	
11/2/2020				0.0117
3/17/2021		0.0224	0.0382	
3/26/2021	0.0253			0.0184
10/5/2021		0.0283		0.02
10/6/2021	0.03		0.0493	
3/16/2022	0.037	0.0326	0.0688	0.0245
Mean	0.02586	0.01234	0.04463	0.01311
Std. Dev.	0.007104	0.006939	0.007047	0.003649
Upper Lim.	0.02989	0.0116	0.046	0.013
Lower Lim.	0.02182	0.00888	0.039	0.011

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

BAW-7	
3/23/2016	<0.001
5/17/2016	<0.001
7/12/2016	<0.001
9/13/2016	<0.001
11/19/2016	<0.001
1/17/2017	<0.001
3/22/2017	<0.001
5/24/2017	<0.001
3/29/2018	<0.001
11/9/2018	<0.001
2/12/2019	<0.001
4/18/2019	<0.001
2/21/2020	<0.001
4/14/2020	<0.001
11/2/2020	<0.001
3/26/2021	<0.001
10/5/2021	0.000185 (J)
3/16/2022	<0.001
Mean	0.0009547
Std. Dev.	0.0001921
Upper Lim.	0.001
Lower Lim.	0.000185

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-5
3/23/2016	0.00041 (J)	<0.001
5/17/2016		<0.001
5/18/2016	<0.001	
7/13/2016	0.00087 (J)	<0.001
9/13/2016		<0.001
9/14/2016	0.00078 (J)	
11/19/2016	0.00054 (J)	<0.001
1/17/2017	0.00048 (J)	
1/18/2017		<0.001
3/23/2017	0.00059 (J)	<0.001
5/24/2017	0.00081 (J)	<0.001
3/28/2018	0.0008 (J)	<0.001
6/2/2018	0.001 (J)	<0.001
11/8/2018	0.00085 (J)	
11/9/2018		<0.001
2/11/2019		<0.001
2/12/2019	0.000877 (J)	
4/17/2019	0.000915 (J)	<0.001
9/30/2019	0.00112 (J)	0.000155 (J)
2/21/2020	0.000962 (J)	
2/22/2020		<0.001
4/14/2020	0.00107 (J)	<0.001
10/30/2020	0.00084 (J)	<0.001
3/17/2021		<0.001
3/26/2021	0.000615 (J)	
10/6/2021	0.000338 (J)	<0.001
3/16/2022	0.000252 (J)	<0.001
Mean	0.000756	0.0009578
Std. Dev.	0.0002498	0.0001889
Upper Lim.	0.0008978	0.001
Lower Lim.	0.0006141	0.000155

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	0.0015 (J)	0.0012 (J)	<0.002
5/17/2016		<0.002	<0.002	<0.002
5/18/2016	<0.002			
7/12/2016			<0.002	
7/13/2016	0.003	0.0015 (J)	0.0024 (J)	
9/13/2016			<0.002	<0.002
9/14/2016	<0.002	<0.002		
11/19/2016	<0.002	0.0011 (J)	<0.002	<0.002
1/17/2017	<0.002			<0.002
1/18/2017		<0.002	<0.002	
3/22/2017				<0.002
3/23/2017	<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002	<0.002	0.005	
3/29/2018				<0.002
6/2/2018	<0.002	<0.002	<0.002	<0.002
11/8/2018	<0.002	<0.002		
11/9/2018			<0.002	<0.002
2/11/2019		<0.002	<0.002	
2/12/2019	0.00165 (J)			<0.002
4/17/2019	<0.002	<0.002	<0.002	
4/18/2019				<0.002
9/27/2019				0.00206 (J)
9/30/2019	<0.002	<0.002	<0.002	
2/21/2020	<0.002			<0.002
2/22/2020		<0.002	<0.002	
10/30/2020	<0.002	<0.002	<0.002	
11/2/2020				<0.002
3/17/2021		<0.002	<0.002	
3/26/2021	<0.002			<0.002
10/5/2021		<0.002		<0.002
10/6/2021	<0.002		<0.002	
3/16/2022	<0.002	<0.002	<0.002	<0.002
Mean	0.002034	0.0019	0.002137	0.002003
Std. Dev.	0.0002472	0.0002494	0.0007243	1.376E-05
Upper Lim.	0.003	0.002	0.0024	0.00206
Lower Lim.	0.00165	0.0015	0.0012	0.002

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.0055	0.00094 (J)	<0.0005	0.0011 (J)
5/17/2016		0.0007 (J)	<0.0005	0.001 (J)
5/18/2016	0.0059			
7/12/2016			0.00091 (J)	
7/13/2016	0.0048	0.0016 (J)	0.00042 (J)	
9/13/2016			<0.0005	0.001 (J)
9/14/2016	0.0063	0.0011 (J)		
11/19/2016	0.0056	0.0012 (J)	<0.0005	0.00083 (J)
1/17/2017	0.0046			0.00091 (J)
1/18/2017		0.0011 (J)	<0.0005	
3/22/2017				0.00098 (J)
3/23/2017	0.0049	0.0011 (J)	<0.0005	
5/24/2017	0.0052	0.0012 (J)	<0.0005	0.00098 (J)
3/28/2018	0.0063	0.00095 (J)	<0.0005	
3/29/2018				0.00063 (J)
6/2/2018	0.0068	0.0012 (J)	<0.0005	0.00087 (J)
11/8/2018	0.0068	0.0011 (J)		
11/9/2018			<0.0005	0.00076 (J)
2/11/2019		0.00093 (J)	<0.0005	
2/12/2019	0.00552			0.000661 (J)
4/17/2019	0.00603	0.00116 (J)	<0.0005	
4/18/2019				0.000705 (J)
9/27/2019				0.00071 (J)
9/30/2019	0.0062	0.001 (J)	<0.0005	
2/21/2020	0.00576			0.000634 (J)
2/22/2020		0.000907 (J)	<0.0005	
4/14/2020	0.00633	0.00105 (J)	<0.0005	0.000684 (J)
10/30/2020	0.00657	0.00102 (J)	<0.0005	
11/2/2020				0.000729 (J)
3/17/2021		0.00208	<0.0005	
3/26/2021	0.00339			0.000995
10/5/2021		0.00187		0.00112
10/6/2021	0.00336		0.000802	
3/16/2022	0.00289	0.00182	0.000967	0.00141
Mean	0.005438	0.001201	0.0005345	0.0008809
Std. Dev.	0.001148	0.0003586	0.000124	0.0001999
Upper Lim.	0.006089	0.001376	0.000802	0.0009944
Lower Lim.	0.004786	0.0009965	0.00042	0.0007674

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5	0.549	<5
5/17/2016		<5	0.551	<5
5/18/2016	<5			
7/12/2016			0.165 (U)	
7/13/2016	0.27 (U)	0.0365 (U)	0.859	
9/13/2016			0.367 (U)	0.341 (U)
9/14/2016	-0.0909 (U)	0.3 (U)		
11/19/2016	0.416	<5 (U)	<5 (U)	<5 (U)
1/17/2017	0.412 (U)			0.124 (U)
1/18/2017		0.235 (U)	0.289 (U)	
3/22/2017				0.0719 (U)
3/23/2017	0.0761 (U)	0.168 (U)	0.554	
5/24/2017	0.0415 (U)	-0.0607 (U)	0.831	0.441
3/28/2018	0.398	0.42	0.458	
3/29/2018				0.731
6/2/2018	-0.253 (U)	0.0844 (U)	0.226 (U)	0.303 (U)
11/8/2018	0.343 (U)	0.367 (U)		
11/9/2018			0.298 (U)	0.00226 (U)
2/11/2019		0.0402 (U)	0.15 (U)	
2/12/2019	0.581			0.094 (U)
4/17/2019	0.646	0.493	0.326 (U)	
4/18/2019				0.48
9/27/2019				0.497
9/30/2019	1	0.404		
2/21/2020	0.126 (U)			0.375
2/22/2020		0.53	0.47	
4/14/2020	0.338	0.0408 (U)	0.376 (U)	0.329 (U)
10/30/2020	0.485	0.344	0.528	
11/2/2020				0.535
3/17/2021		0.312 (U)	0.0889 (U)	
3/26/2021	0.78			0.813
10/5/2021		1.06		0.814
10/6/2021	0.503		0.931	
3/16/2022	0.286 (U)	0.314 (U)	1.39	1.39
Mean	0.5679	0.6294	0.618	0.7503
Std. Dev.	0.7213	0.8414	0.5517	0.8193
Upper Lim.	0.646	0.7846	0.7838	1.005
Lower Lim.	0.126	0.09941	0.3114	0.2552

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.1	0.04 (J)	0.06 (J)	<0.1
5/17/2016		0.04 (J)	0.07 (J)	<0.1
5/18/2016	<0.1			
7/12/2016			<0.1	
7/13/2016	<0.1	0.05 (J)	0.08 (J)	
9/13/2016			0.06 (J)	<0.1
9/14/2016	<0.1	0.04 (J)		
11/19/2016	<0.1	0.04 (J)	0.06 (J)	<0.1
1/17/2017	<0.1			<0.1
1/18/2017		<0.1	0.05 (J)	
3/22/2017				<0.1
3/23/2017	<0.1	<0.1	0.05 (J)	
5/24/2017	<0.1	0.04 (J)	0.06 (J)	<0.1 (D)
10/16/2017	<0.1	<0.1	0.06 (J)	<0.1
3/28/2018	<0.1	0.04 (J)	0.06 (J)	
3/29/2018				<0.1
6/2/2018	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1	0.05 (J)		
11/9/2018			0.06 (J)	<0.1
2/11/2019		<0.1	0.0368 (J)	
2/12/2019	<0.1			<0.1
4/17/2019	<0.1	0.033 (J)	0.0421 (J)	
4/18/2019				<0.1
9/27/2019				<0.1
9/30/2019	<0.1	<0.1	0.045 (J)	
2/21/2020	<0.1			<0.1
2/22/2020		0.0317 (J)	0.0434 (J)	
4/14/2020	0.034 (J)	0.0508 (J)	0.059 (J)	0.0415 (J)
10/30/2020	<0.1	<0.1	<0.1	
11/2/2020				<0.1
3/17/2021		0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1			<0.1
10/5/2021		0.0505 (J)		<0.1
10/6/2021	<0.1		0.0725 (J)	
3/16/2022	0.0307 (J)	0.0462 (J)	0.176	0.0266 (J)
Mean	0.09356	0.05984	0.06487	0.09372
Std. Dev.	0.02036	0.02667	0.02897	0.01998
Upper Lim.	0.1	0.1	0.07	0.1
Lower Lim.	0.034	0.04	0.05	0.0415

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	0.00039 (J)	<0.001	<0.001
5/17/2016		<0.001	<0.001	<0.001
5/18/2016	<0.001			
7/12/2016			<0.001	
7/13/2016	<0.001	<0.001	<0.001	
9/13/2016			<0.001	<0.001
9/14/2016	0.00056 (J)	<0.001		
11/19/2016	<0.001	0.00042 (J)	<0.001	<0.001
1/17/2017	<0.001			<0.001
1/18/2017		<0.001	<0.001	
3/22/2017				<0.001
3/23/2017	0.00038 (J)	<0.001	<0.001	
5/24/2017	0.00036 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001	<0.001	<0.001	
3/29/2018			<0.001	
11/8/2018	<0.001	<0.001		
11/9/2018			<0.001	<0.001
2/11/2019		<0.001	<0.001	
2/12/2019	0.000139 (J)			<0.001
4/17/2019	<0.001	<0.001	<0.001	
4/18/2019				<0.001
9/27/2019				0.000129 (J)
9/30/2019	0.000322 (J)	0.000191 (J)	0.000152 (J)	
2/21/2020	0.00015 (J)			<0.001
2/22/2020		<0.001	<0.001	
4/14/2020	0.000236 (J)	<0.001	<0.001	<0.001
10/30/2020	0.000136 (J)	<0.001	<0.001	
11/2/2020				<0.001
3/17/2021		0.000153 (J)	<0.001	
3/26/2021	0.000145 (J)			<0.001
10/5/2021		<0.001		<0.001
10/6/2021	<0.001		<0.001	
3/16/2022	<0.001	<0.001	<0.001	<0.001
Mean	0.0006541	0.0008502	0.0009554	0.0009542
Std. Dev.	0.0003872	0.0003031	0.0001945	0.0001998
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.00015	0.00042	0.000152	0.000129

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.044	0.17	<0.005
5/17/2016		0.028	0.2	<0.005
5/18/2016	<0.005			
7/12/2016				<0.005
7/13/2016	<0.005	0.026	0.17	
9/13/2016			0.17	<0.005
9/14/2016	<0.005	0.026		
11/19/2016	<0.005	0.026	0.18	0.0035 (J)
1/17/2017	<0.005			<0.005
1/18/2017		0.027	0.2	
3/22/2017				<0.005
3/23/2017	<0.005	0.024	0.19	
5/24/2017	<0.005	0.027	0.21	<0.005
3/28/2018	0.0023 (J)	0.021	0.23	
3/29/2018				0.0026 (J)
6/2/2018	0.002 (J)	0.022	0.19	0.0029 (J)
11/8/2018	0.0024 (J)	0.025		
11/9/2018			0.18	0.0027 (J)
2/11/2019		0.0229	0.161	
2/12/2019	<0.005			<0.005
4/17/2019	0.00197 (J)	0.0236	0.174	
4/18/2019				0.00238 (J)
9/27/2019				0.00375 (J)
9/30/2019	0.00687	0.0249	0.166	
2/21/2020	<0.005			<0.005
2/22/2020		0.0211	0.169	
4/14/2020	<0.005	0.0224	0.192	<0.005
10/30/2020	<0.005	0.0267	0.194	
11/2/2020				<0.005
3/17/2021		0.0174	0.12	
3/26/2021	<0.005			<0.005
10/5/2021		0.0127		0.0045 (J)
10/6/2021	<0.005		0.0994	
3/16/2022	0.0038 (J)	0.0112	0.0629	0.00437 (J)
Mean	0.004467	0.02395	0.1714	0.004335
Std. Dev.	0.001287	0.006551	0.03845	0.0009717
Upper Lim.	0.005	0.02735	0.193	0.005
Lower Lim.	0.0038	0.01998	0.156	0.0035

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	8.4E-05 (JB)	7.3E-05 (JB)	7.4E-05 (JB)	7.1E-05 (JB)
5/17/2016		<0.0002	<0.0002	<0.0002
5/18/2016	<0.0002			
7/12/2016			<0.0002	
7/13/2016	<0.0002	<0.0002	<0.0002	
9/13/2016			<0.0002	<0.0002
9/14/2016	<0.0002	<0.0002		
11/19/2016	<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002		<0.0002	<0.0002
1/18/2017		<0.0002	<0.0002	
3/22/2017			<0.0002	
3/23/2017	0.00013 (J)	0.00013 (J)	<0.0002	
5/24/2017	<0.0002	<0.0002	<0.0002	<0.0002
3/28/2018	<0.0002	<0.0002	<0.0002	
3/29/2018			<0.0002	
2/11/2019		<0.0002	<0.0002	
2/12/2019	<0.0002			<0.0002
4/17/2019	<0.0002	<0.0002	<0.0002	
4/18/2019				<0.0002
2/21/2020	<0.0002			<0.0002
2/22/2020		<0.0002	<0.0002	
10/30/2020	0.000497	<0.0002	<0.0002	
11/2/2020				<0.0002
3/17/2021		<0.0002	<0.0002	
3/26/2021	<0.0002			0.000235
10/5/2021		<0.0002		0.000151 (J)
10/6/2021	<0.0002		<0.0002	
3/16/2022	<0.0002	<0.0002	<0.0002	0.0012
Mean	0.0002069	0.0001877	0.0001921	0.0002536
Std. Dev.	8.398E-05	3.522E-05	3.15E-05	0.0002549
Upper Lim.	0.000497	0.0002	0.0002	0.000235
Lower Lim.	0.00013	0.00013	7.4E-05	0.000151

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.0026 (J)	<0.005
5/17/2016	<0.005	0.0011 (J)	<0.005
7/12/2016			<0.005
7/13/2016	<0.005	0.0079 (J)	
9/13/2016		0.0038 (J)	<0.005
9/14/2016	<0.005		
11/19/2016	<0.005	0.0014 (J)	<0.005
1/17/2017			<0.005
1/18/2017	<0.005	0.001 (J)	
3/22/2017			0.0038 (J)
3/23/2017	<0.005	<0.005	
5/24/2017	<0.005	0.0014 (J)	<0.005
3/28/2018	<0.005	<0.005	
3/29/2018			<0.005
11/8/2018	<0.005		
11/9/2018		<0.005	<0.005
2/11/2019	<0.005	<0.005	
2/12/2019			<0.005
4/17/2019	<0.005	<0.005	
4/18/2019			<0.005
2/21/2020			<0.005
2/22/2020	0.000616 (J)	0.000627 (J)	
4/14/2020	<0.005	0.000747 (J)	<0.005
10/30/2020	<0.005	<0.005	
11/2/2020			<0.005
3/17/2021	0.0032 (J)	0.00328 (J)	
3/26/2021			<0.005
10/5/2021	0.00109 (J)		<0.005
10/6/2021		0.00364 (J)	
3/16/2022	0.000916 (J)	0.00533	<0.005
Mean	0.004212	0.00349	0.004933
Std. Dev.	0.001595	0.002084	0.0002828
Upper Lim.	0.005	0.003899	0.005
Lower Lim.	0.0032	0.001363	0.0038

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-5	BAW-7
3/23/2016	0.00033 (J)	<0.005	<0.005
5/17/2016		<0.005	0.00026 (J)
5/18/2016	<0.005		
7/12/2016			<0.005
7/13/2016	0.00041 (J)	<0.005	
9/13/2016		<0.005	0.00031 (J)
9/14/2016	0.00079 (J)		
11/19/2016	<0.005	<0.005	<0.005
1/17/2017	<0.005		<0.005
1/18/2017		<0.005	
3/22/2017			0.0021
3/23/2017	<0.005	<0.005	
5/24/2017	0.00028 (J)	0.00033 (J)	0.00026 (J)
3/28/2018	0.00038 (J)	<0.005	
3/29/2018			0.00036 (J)
6/2/2018	0.00031 (J)	<0.005	<0.005
11/8/2018	0.00088 (J)		
11/9/2018		<0.005	<0.005
2/11/2019		<0.005	
2/12/2019	<0.005		<0.005
4/17/2019	<0.005	<0.005	
4/18/2019			<0.005
2/21/2020	<0.005		<0.005
2/22/2020		<0.005	
10/30/2020	<0.005	<0.005	
11/2/2020			<0.005
3/17/2021		<0.005	
3/26/2021	<0.005		<0.005
10/5/2021			<0.005
10/6/2021	<0.005	<0.005	
3/16/2022	<0.005	<0.005	<0.005
Mean	0.003243	0.004741	0.003794
Std. Dev.	0.002271	0.001101	0.002039
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.00038	0.00033	0.00036

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 5/2/2022 5:21 PM View: Appendix IV - Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-7
3/23/2016	<0.001	<0.001
5/17/2016		<0.001
5/18/2016	<0.001	
7/12/2016		<0.001
7/13/2016	<0.001	
9/13/2016		<0.001
9/14/2016	9.5E-05 (J)	
11/19/2016	<0.001	<0.001
1/17/2017	<0.001	<0.001
3/22/2017		<0.001
3/23/2017	<0.001	
5/24/2017	<0.001	<0.001
3/28/2018	<0.001	
3/29/2018		<0.001
11/8/2018	8.5E-05 (J)	
11/9/2018		<0.001
2/12/2019	<0.001	<0.001
4/17/2019	<0.001	
4/18/2019		<0.001
2/21/2020	0.000276 (J)	<0.001
4/14/2020	0.000158 (J)	<0.001
10/30/2020	<0.001	
11/2/2020		<0.001
3/26/2021	<0.001	<0.001
10/5/2021		0.000153 (J)
10/6/2021	<0.001	
3/16/2022	<0.001	<0.001
Mean	0.0008119	0.0009529
Std. Dev.	0.000364	0.0001996
Upper Lim.	0.001	0.001
Lower Lim.	0.000276	0.000153

2nd

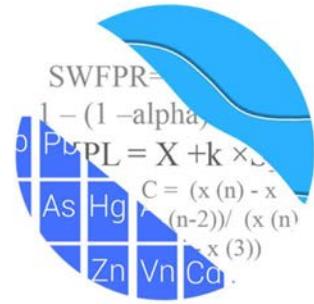
Semi-Annual

Monitoring Event

GROUNDWATER STATS
CONSULTING

December 8, 2022

Southern Company Services
Attn: Mr. Trey Singleton
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Daniel Bottom Ash Pond
2022 Annual Statistical Analysis – October 2022 Sample Event

Dear Mr. Singleton,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the October 2022 Groundwater Detection and Assessment Monitoring report for Mississippi Power Company's Plant Daniel Bottom Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel Bottom Ash Pond for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BAW-1 and BAW-2A
- **Downgradient wells:** BAW-3, BAW-4, BAW-5, and BAW-7

Upgradient well BAW-2 was last sampled in October 2017 and has since been abandoned; however, data for this well are included to represent historical naturally occurring groundwater quality upgradient of the ash pond. Replacement upgradient well BAW-2A was first sampled in March 2018 and has since been sampled to supplement existing upgradient data for BAW-2. However, this well was dry during the October 2022 sample event.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **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 list of Appendix IV downgradient well/constituent pairs containing 100% non-detects follow this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case.

Time series plots for Appendix III and IV parameters are provided for all wells and are used to evaluate concentrations over time (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph. A summary of these values follows this letter (Figure C). 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.

During the previous screening, 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 screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric prediction 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 prediction limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as "<" the original reporting limit.

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 following each sampling event after careful screening for any new outliers. 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.

Summary of Background Screening Conducted in October 2017

Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. No suspected outliers were observed in any of the proposed background data at upgradient wells. When any values are identified as outliers, they are plotted in a lighter font on the time series graph.

Seasonality

No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Test Evaluation

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a couple statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations, therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA showed no variation for calcium, chloride, pH, sulfate, and TDS, making these parameters eligible for interwell methods. Boron and fluoride contained 100% non-detects and, therefore, could not be tested with the ANOVA. These parameters are also eligible for interwell methods since no variation is present. A summary table of the ANOVA results was included with the October 2017 screening.

Background Update – Appendix III Parameters – November 2019

Outlier Analysis

Prior to updating background data, samples were re-evaluated for outliers at upgradient wells for all constituents. An updated summary of Tukey's test results and flagged outliers was included with the 2019 Background Update report.

Trend Test Evaluation

The Sen's Slope/Mann-Kendall trend test was used to determine whether concentrations are statistically increasing, decreasing or stable at upgradient wells. No statistically significant increasing or decreasing trends were noted with the exception of decreasing trends for calcium and pH in well BAW-2, which has since been abandoned. The magnitude of these trends, however, was low relative to the average concentrations in these wells. Therefore, no adjustments were required at that time; and these results were included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – October 2022

Prior to constructing interwell prediction limits, data through the October 2022 sample event at upgradient wells were re-evaluated for outliers using visual screening. No new outliers were suspected or flagged during this analysis. Tukey's outlier test had previously identified an outlier for calcium at well BAW-2 during the November 2019 statistical analysis; therefore, this value remains flagged. A summary of flagged data follows this report (Figure C). Additionally, any flagged values are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters using pooled historical upgradient well data through October 2022 (Figure D). The reported measurements at downgradient wells for the October 2022 sample event were compared to the interwell prediction limits to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) 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 further action is necessary. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: BAW-5 and BAW-7
- Calcium: BAW-4, BAW-5, and BAW-7
- pH: BAW-3, BAW-4, and BAW-5
- Sulfate: BAW-3, BAW-5, and BAW-7
- TDS: BAW-5 and BAW-7

Trend Test Evaluation

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable

(Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- None

Decreasing:

- Calcium: BAW-2 (upgradient)
- pH: BAW-2 (upgradient), BAW-3, and BAW-5
- Sulfate: BAW-1 (upgradient)

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient groundwater quality. Site-specific background limits are determined using upper tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Evaluation of Appendix IV Parameters – October 2022

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that have 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged during this analysis. Tukey's outlier test had previously identified an outlier for lithium at upgradient well BAW-1 during the November 2019 statistical analysis, and this value remains flagged. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Parametric upper tolerance limits were used to calculate background limits from pooled upgradient well data through October 2022 for Appendix IV parameters with a target of

95% confidence and 95% coverage to determine background limits (Figure F). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

Groundwater Protection Standards

The interwell upper tolerance limits were compared to the Maximum Contaminant Levels (MCLs), CCR Rule-Specified levels, and background limits in the Groundwater Protection Standard (GWPS) table following this letter to determine the highest limit for use as the GWPS in the Confidence Interval comparisons (Figure G).

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using all data through October 2022 for each of the Appendix IV parameters and compared to the GWPS, i.e., the highest limit of the MCL, CCR Rule-Specified level, or background limit as discussed above (Figure H). Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Complete graphical results of the confidence interval follow this letter. An exceedance was identified for the following well/constituent pair:

- Lithium: BAW-5

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Daniel Bottom Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina Rayner
Senior Statistician



Andrew T. Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 11/2/2022 9:39 AM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Antimony (mg/L)
BAW-3, BAW-4, BAW-5, BAW-7

Arsenic (mg/L)
BAW-3

Beryllium (mg/L)
BAW-3, BAW-4, BAW-5

Cadmium (mg/L)
BAW-4, BAW-7

Molybdenum (mg/L)
BAW-3

Selenium (mg/L)
BAW-4

Thallium (mg/L)
BAW-4, BAW-5

Interwell Prediction Limit - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 11:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg</u>	<u>Nbg</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2022	0.631	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-7	0.0928	n/a	10/6/2022	1.82	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	BAW-4	1.697	n/a	10/5/2022	5.81	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-5	1.697	n/a	10/6/2022	28.2	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-7	1.697	n/a	10/6/2022	4.84	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
pH (SU)	BAW-3	5.392	4.55	10/5/2022	4.51	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-4	5.392	4.55	10/5/2022	5.57	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-5	5.392	4.55	10/6/2022	6.27	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
Sulfate (mg/L)	BAW-3	5.37	n/a	10/5/2022	6.07	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2022	19.5	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-7	5.37	n/a	10/6/2022	61.4	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	BAW-5	58.41	n/a	10/6/2022	155	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-7	58.41	n/a	10/6/2022	135	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	

Interwell Prediction Limit - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 11:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg</u>	<u>Nbg</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	10/5/2022	0.08ND	No	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-4	0.0928	n/a	10/5/2022	0.0714J	No	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2022	0.631	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-7	0.0928	n/a	10/6/2022	1.82	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	BAW-3	1.697	n/a	10/5/2022	0.647	No	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-4	1.697	n/a	10/5/2022	5.81	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-5	1.697	n/a	10/6/2022	28.2	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-7	1.697	n/a	10/6/2022	4.84	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Chloride (mg/L)	BAW-3	16.4	n/a	10/5/2022	6.04	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Chloride (mg/L)	BAW-4	16.4	n/a	10/5/2022	8.84	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Chloride (mg/L)	BAW-5	16.4	n/a	10/6/2022	9.04	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Chloride (mg/L)	BAW-7	16.4	n/a	10/6/2022	12.7	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	BAW-3	0.1	n/a	10/5/2022	0.1ND	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	BAW-4	0.1	n/a	10/5/2022	0.0322J	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	BAW-5	0.1	n/a	10/6/2022	0.0972J	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	BAW-7	0.1	n/a	10/6/2022	0.1ND	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
pH (SU)	BAW-3	5.392	4.55	10/5/2022	4.51	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-4	5.392	4.55	10/5/2022	5.57	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-5	5.392	4.55	10/6/2022	6.27	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-7	5.392	4.55	10/6/2022	4.71	No	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
Sulfate (mg/L)	BAW-3	5.37	n/a	10/5/2022	6.07	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-4	5.37	n/a	10/5/2022	4.12	No	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2022	19.5	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-7	5.37	n/a	10/6/2022	61.4	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	BAW-3	58.41	n/a	10/5/2022	32	No	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-4	58.41	n/a	10/5/2022	52	No	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-5	58.41	n/a	10/6/2022	155	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-7	58.41	n/a	10/6/2022	135	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	

Trend Tests - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 10:15 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-3	-0.05966	-118	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.06868	-115	-87	Yes	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.5125	-101	-87	Yes	21	52.38	n/a	n/a	0.01	NP

Trend Tests - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 10:15 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	9	92	No	22	95.45	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-18	-38	No	12	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	0	-2	-92	No	22	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	72	92	No	22	81.82	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.03742	65	92	No	22	4.545	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.06268	-36	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.2694	90	92	No	22	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.382	-25	-92	No	22	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-7	0.03332	29	92	No	22	0	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.02148	-38	-87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.07555	-24	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	BAW-3	-0.05966	-118	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.04519	66	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.06868	-115	-87	Yes	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.5125	-101	-87	Yes	21	52.38	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2A (bg)	0.6255	20	34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-3	0.02922	34	87	No	21	19.05	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-5	0.1981	20	87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-7	-0.01929	-36	-87	No	21	42.86	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	1.555	52	87	No	21	9.524	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	0.9444	5	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-0.4163	-4	-87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-7	2.528	44	87	No	21	14.29	n/a	n/a	0.01	NP

Upper Tolerance Limits

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/7/2022, 3:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.002	35	n/a	n/a	97.14	n/a	n/a	0.1661	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.001	41	n/a	n/a	100	n/a	n/a	0.1221	NP Inter(NDs)
Barium (mg/L)	n/a	0.0512	41	n/a	n/a	2.439	n/a	n/a	0.1221	NP Inter(normality)
Beryllium (mg/L)	n/a	0.001	37	n/a	n/a	97.3	n/a	n/a	0.1499	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	41	n/a	n/a	97.56	n/a	n/a	0.1221	NP Inter(NDs)
Chromium (mg/L)	n/a	0.00286	39	n/a	n/a	89.74	n/a	n/a	0.1353	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.002	41	n/a	n/a	7.317	n/a	n/a	0.1221	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	2.5	41	n/a	n/a	4.878	n/a	n/a	0.1221	NP Inter(normality)
Fluoride (mg/L)	n/a	0.1	43	n/a	n/a	90.7	n/a	n/a	0.1102	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	39	n/a	n/a	100	n/a	n/a	0.1353	NP Inter(NDs)
Lithium (mg/L)	n/a	0.00505	40	n/a	n/a	70	n/a	n/a	0.1285	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	33	n/a	n/a	93.94	n/a	n/a	0.184	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.005	37	n/a	n/a	89.19	n/a	n/a	0.1499	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	37	n/a	n/a	83.78	n/a	n/a	0.1499	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	37	n/a	n/a	97.3	n/a	n/a	0.1499	NP Inter(NDs)

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.051	2
Beryllium, Total (mg/L)	0.004		0.001	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.002	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

Confidence Intervals - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/7/2022, 3:19 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.1909	0.1499	0.04	Yes 21	0.1658	0.04547	0	None	x^2	0.01	Param.

Confidence Intervals - All Results

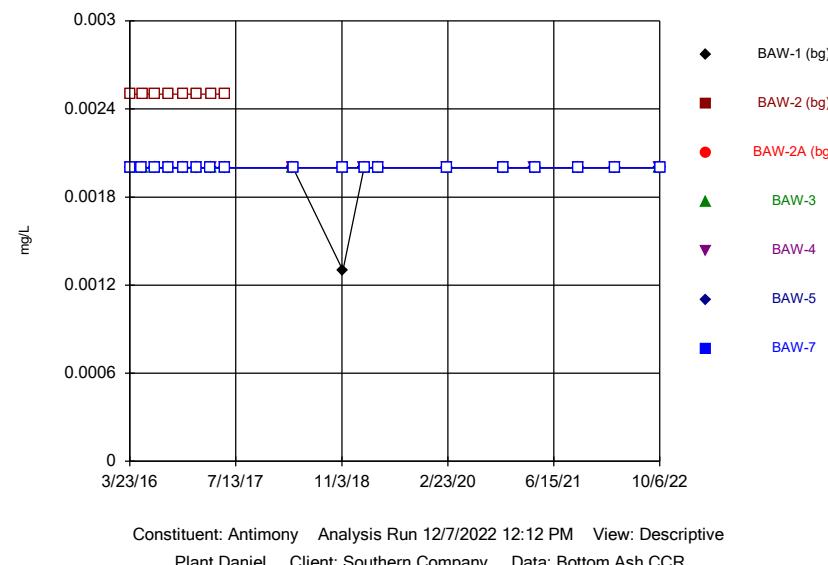
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/7/2022, 3:19 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>ComplianceSig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.0013	0.00069	0.01	No 21	0.001315	0.001121	19.05	None	No	0.01	NP (normality)
Arsenic (mg/L)	BAW-5	0.004008	0.001811	0.01	No 21	0.003586	0.003312	0	None	In(x)	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No 21	0.0009533	0.0001474	90.48	None	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.03086	0.02234	2	No 21	0.0266	0.00772	0	None	No	0.01	Param.
Barium (mg/L)	BAW-4	0.012	0.00888	2	No 21	0.01294	0.007289	0	None	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.046	0.039	2	No 21	0.04606	0.009499	0	None	No	0.01	NP (normality)
Barium (mg/L)	BAW-7	0.014	0.011	2	No 21	0.01694	0.01794	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BAW-7	0.001	0.000185	0.004	No 19	0.0009571	0.000187	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BAW-3	0.0009016	0.0005983	0.005	No 21	0.0007499	0.0002749	4.762	None	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No 21	0.0009598	0.0001844	95.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No 20	0.002888	0.003824	85	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No 20	0.001905	0.0002438	85	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No 20	0.00213	0.0007057	85	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No 20	0.002003	0.00001342	95	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.006271	0.004868	0.006	No 21	0.00557	0.001272	0	None	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.001358	0.001006	0.006	No 21	0.001202	0.0003495	0	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BAW-5	0.000802	0.00042	0.006	No 21	0.0005771	0.0002298	80.95	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.001	0.000705	0.006	No 21	0.0011	0.001022	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.78	0.126	5	No 21	0.6023	0.7205	9.524	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.7712	0.1114	5	No 21	0.6262	0.8202	14.29	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.8564	0.3395	5	No 20	0.6551	0.562	5	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	1.07	0.2882	5	No 21	0.8112	0.8459	14.29	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No 22	0.09385	0.01991	90.91	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.0544	0.04	4	No 22	0.05858	0.02669	27.27	None	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.07	0.05	4	No 22	0.06407	0.02828	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No 22	0.094	0.01954	90.91	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.000236	0.015	No 20	0.0006714	0.0003848	55	None	No	0.01	NP (normality)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No 20	0.0008577	0.0002969	80	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No 20	0.0009576	0.0001896	95	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No 20	0.0009565	0.0001948	95	None	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.005	0.00322	0.04	No 21	0.004408	0.001284	66.67	None	No	0.01	NP (normality)
Lithium (mg/L)	BAW-4	0.0267	0.021	0.04	No 21	0.02313	0.007405	0	None	No	0.01	NP (normality)
Lithium (mg/L)	BAW-5	0.1909	0.1499	0.04	Yes 21	0.1658	0.04547	0	None	x^2	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0035	0.04	No 21	0.004714	0.001979	57.14	None	No	0.01	NP (normality)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No 17	0.0002065	0.00008133	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No 17	0.0001884	0.00003423	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No 17	0.0001926	0.00003056	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000151	0.002	No 17	0.0002504	0.0002471	76.47	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.015	0.00109	0.1	No 19	0.01141	0.006194	73.68	None	No	0.01	NP (normality)
Molybdenum (mg/L)	BAW-5	0.015	0.0011	0.1	No 19	0.006688	0.006061	31.58	None	No	0.01	NP (normality)
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No 19	0.004937	0.0002753	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00038	0.05	No 19	0.003336	0.002243	63.16	None	No	0.01	NP (normality)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No 19	0.004754	0.001071	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00036	0.05	No 19	0.003857	0.002001	73.68	None	No	0.01	NP (normality)
Thallium (mg/L)	BAW-3	0.001	0.000276	0.002	No 19	0.0008218	0.0003564	78.95	None	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-7	0.001	0.000153	0.002	No 19	0.0009554	0.0001943	94.74	None	No	0.01	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

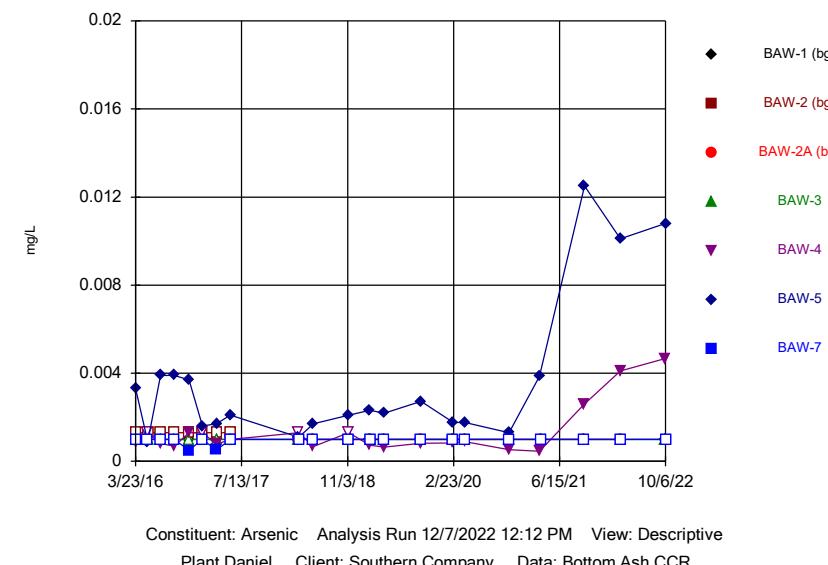
Time Series



Constituent: Antimony Analysis Run 12/7/2022 12:12 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

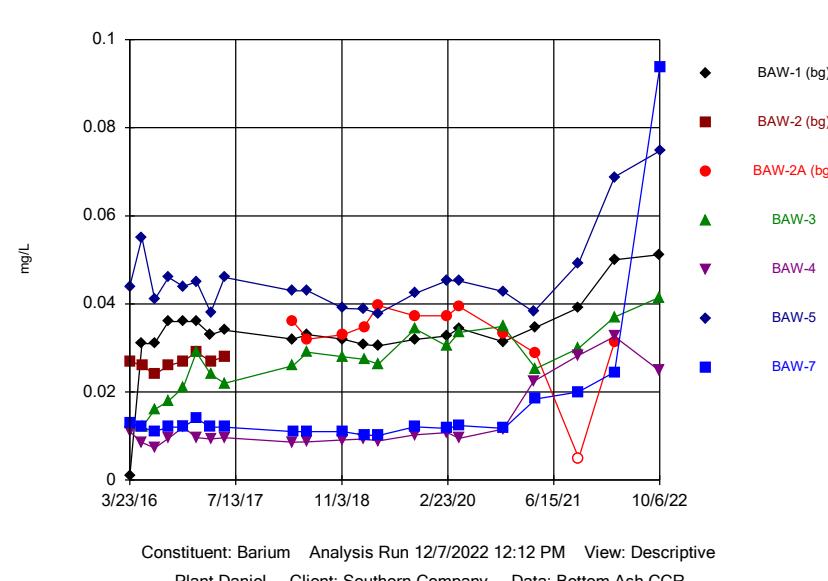
Time Series



Constituent: Arsenic Analysis Run 12/7/2022 12:12 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

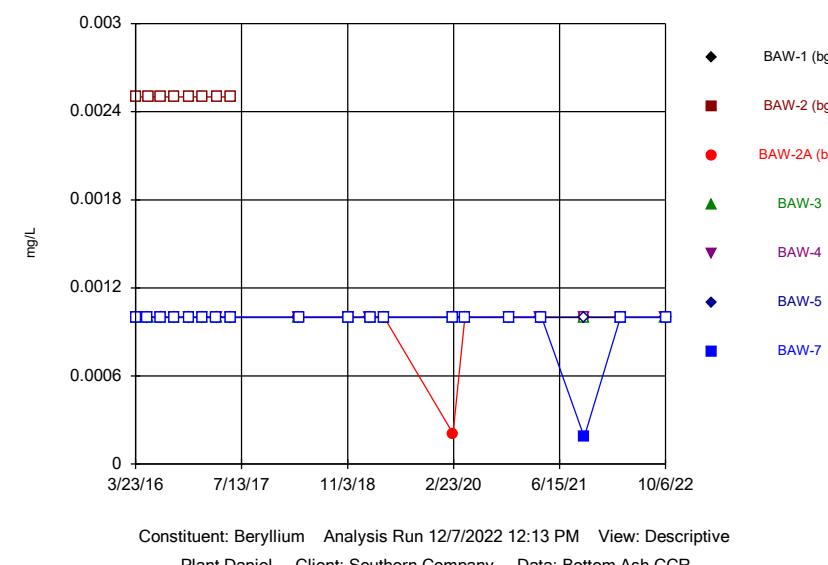
Time Series



Constituent: Barium Analysis Run 12/7/2022 12:12 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

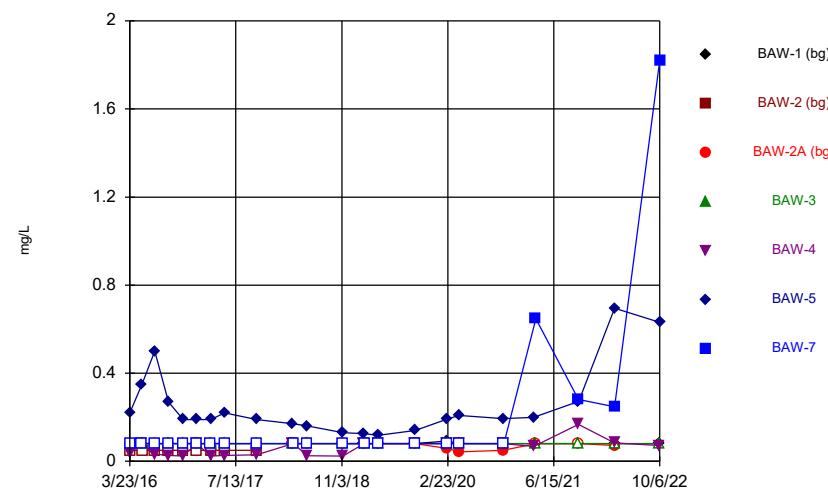
Time Series



Constituent: Beryllium Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

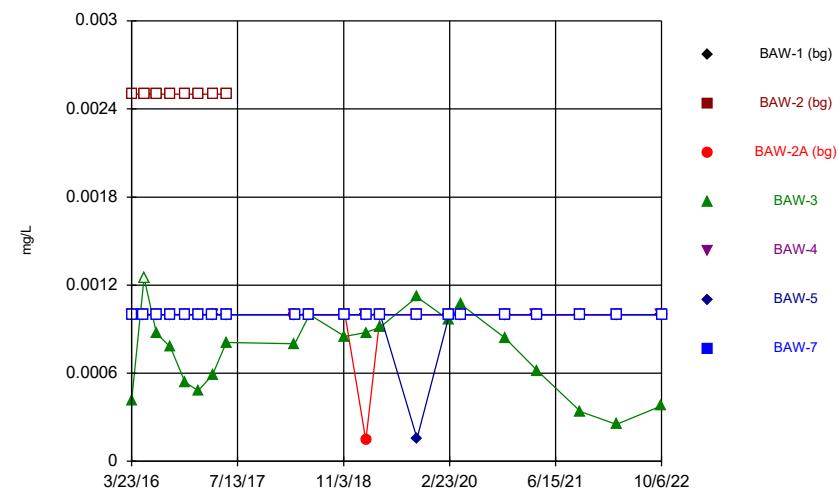
Time Series



Constituent: Boron Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

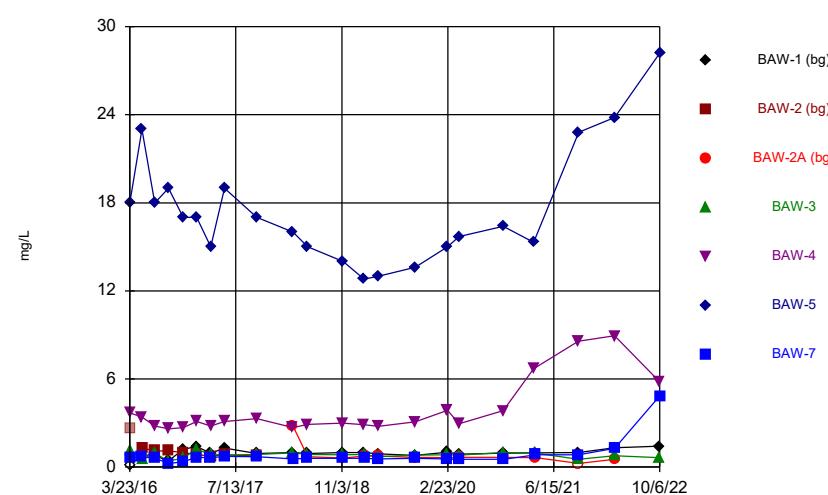
Time Series



Constituent: Cadmium Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

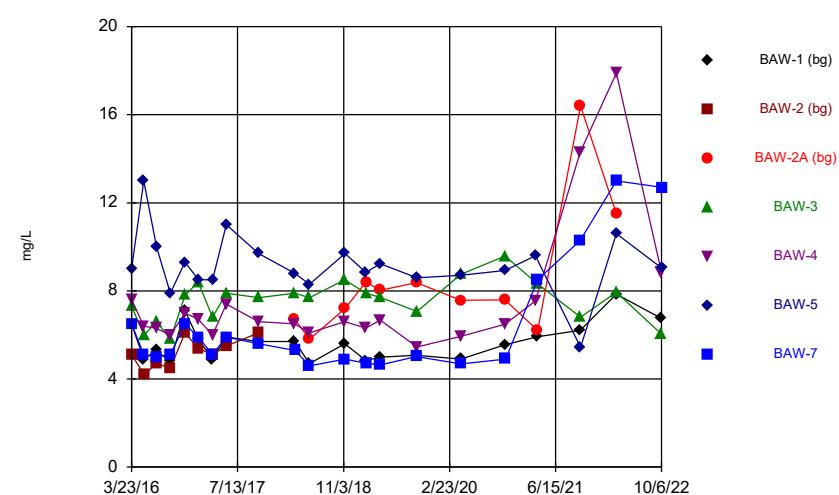
Time Series



Constituent: Calcium Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG

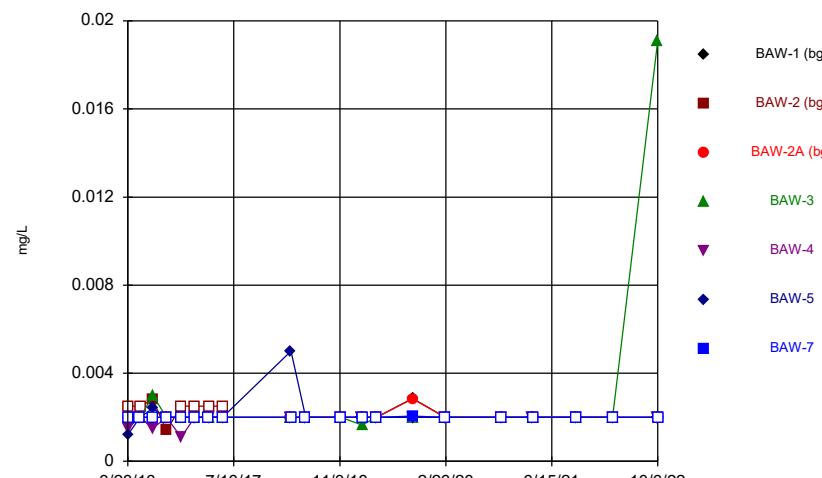
Time Series



Constituent: Chloride Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

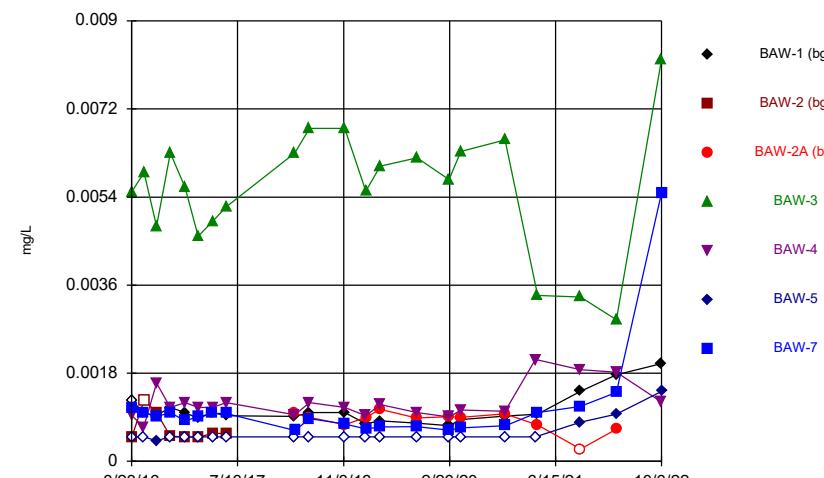
Time Series



Constituent: Chromium Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

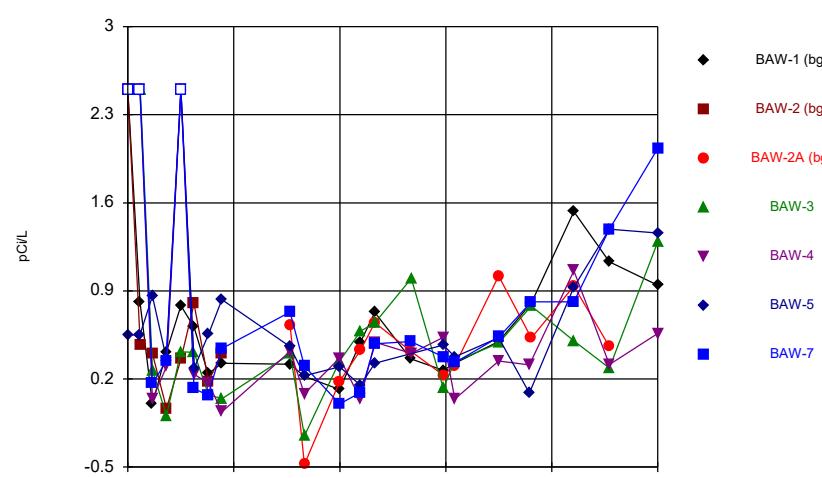
Time Series



Constituent: Cobalt Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

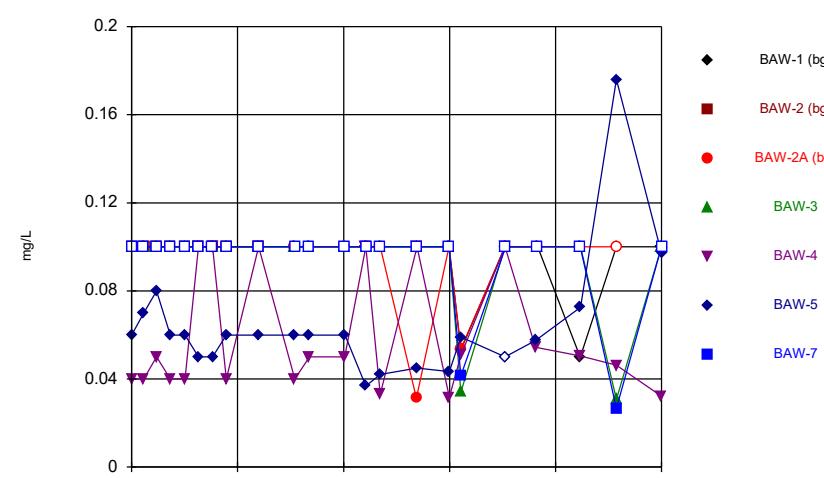
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

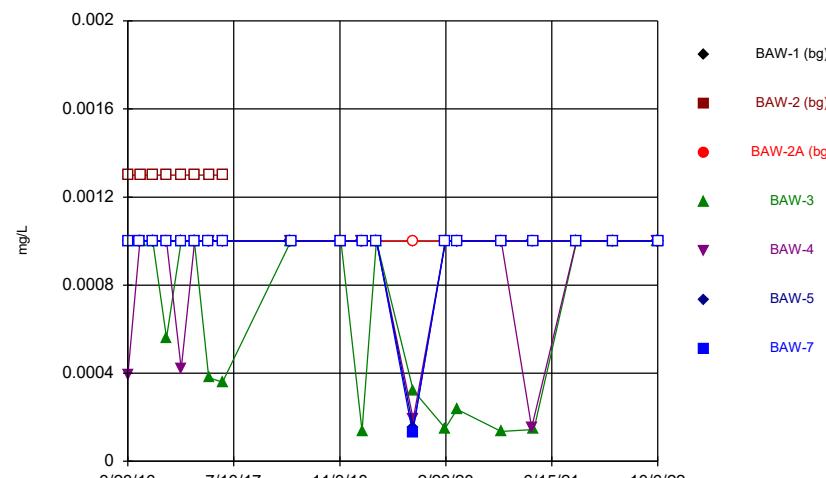
Time Series



Constituent: Fluoride Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

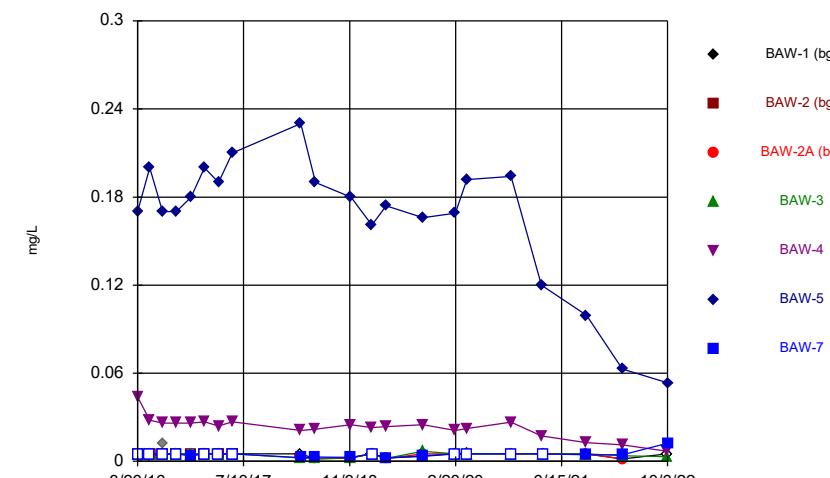
Time Series



Constituent: Lead Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

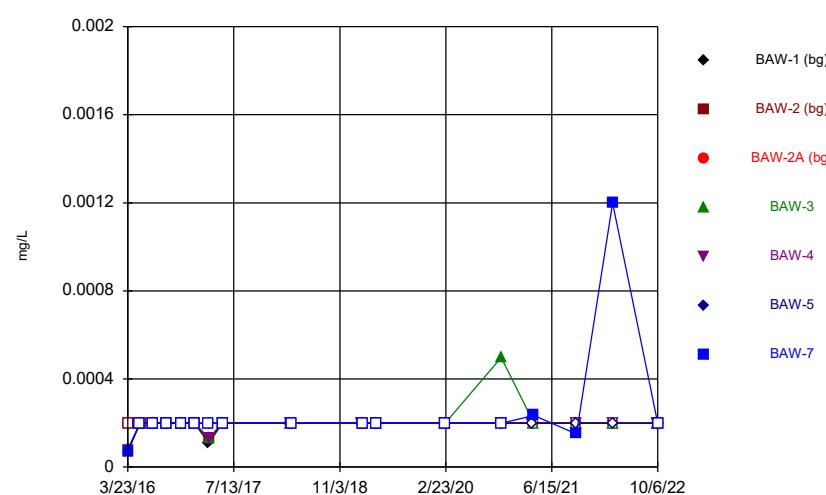
Time Series



Constituent: Lithium Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

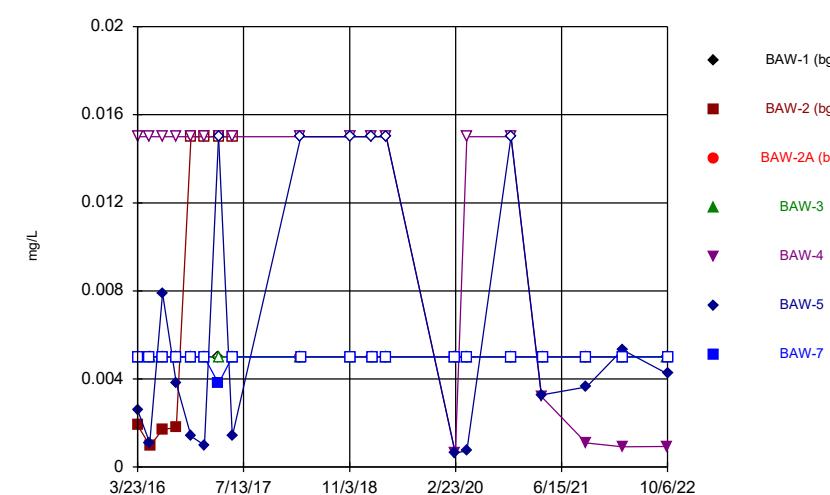
Time Series



Constituent: Mercury Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

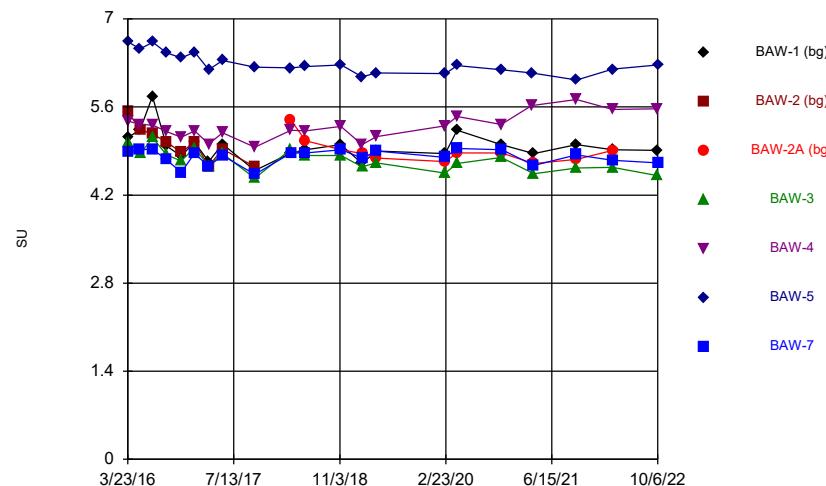
Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

Time Series

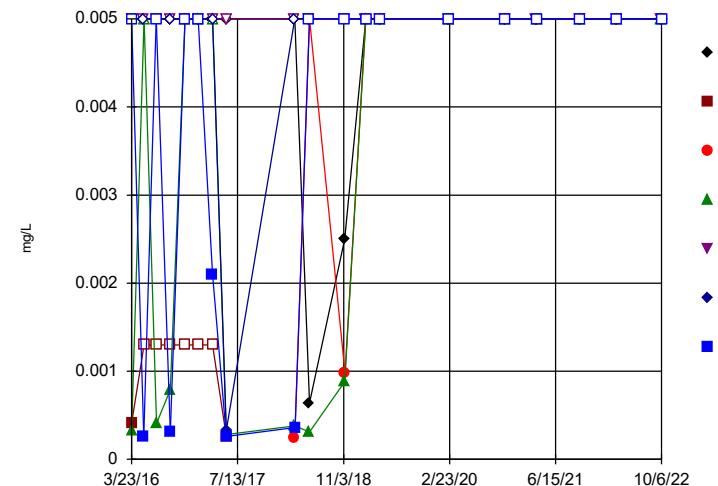


Constituent: Molybdenum Analysis Run 12/7/2022 12:13 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

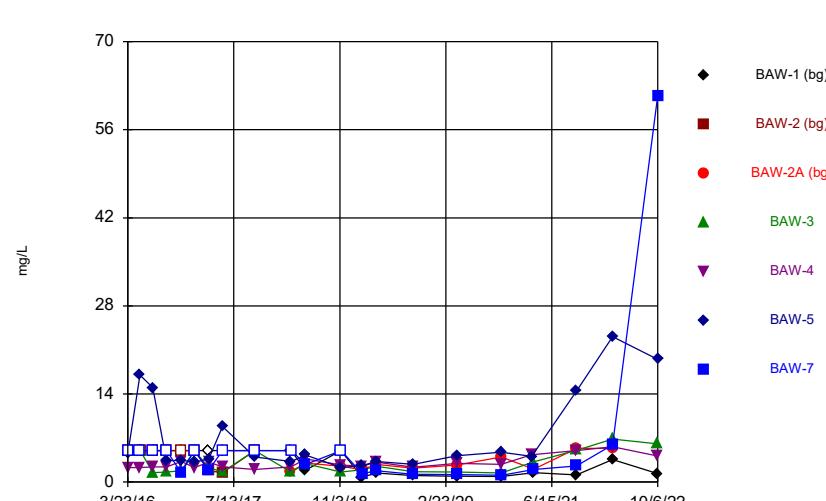
Time Series



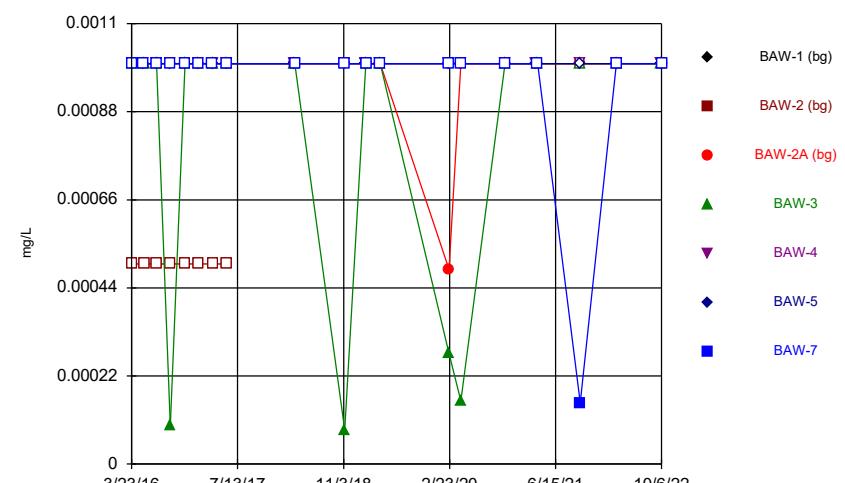
Time Series



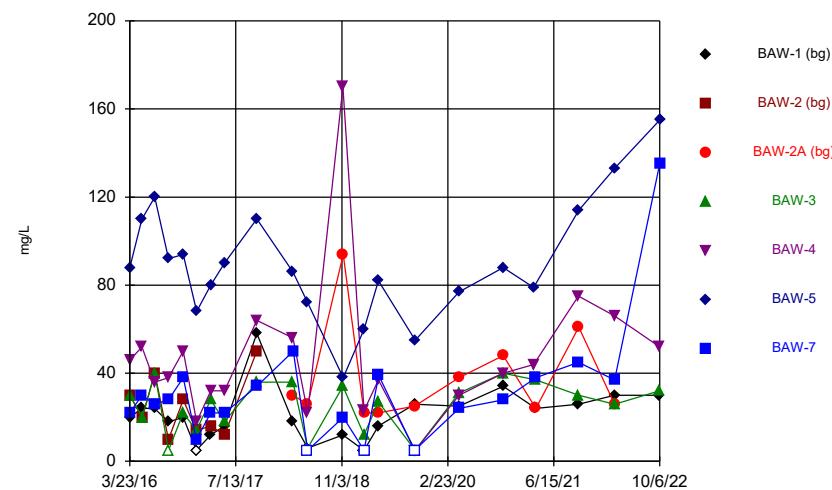
Time Series



Time Series



Time Series



Constituent: Total Dissolved Solids Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	<0.0025		<0.002	<0.002	<0.002	<0.002
5/17/2016	<0.002				<0.002	<0.002	<0.002
5/18/2016		<0.0025		<0.002			
7/12/2016	<0.002						<0.002
7/13/2016		<0.0025		<0.002	<0.002	<0.002	
9/13/2016	<0.002					<0.002	<0.002
9/14/2016		<0.0025		<0.002	<0.002		
11/19/2016	<0.002	<0.0025		<0.002	<0.002	<0.002	<0.002
1/17/2017	<0.002	<0.0025		<0.002			<0.002
1/18/2017					<0.002	<0.002	
3/22/2017	<0.002						<0.002
3/23/2017		<0.0025		<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.0025		<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002		<0.002	<0.002	<0.002	<0.002	
3/29/2018							<0.002
11/8/2018	0.0013 (J)			<0.002	<0.002		
11/9/2018			<0.002			<0.002	<0.002
2/11/2019	<0.002				<0.002	<0.002	
2/12/2019			<0.002	<0.002			<0.002
4/17/2019	<0.002		<0.002	<0.002	<0.002	<0.002	
4/18/2019							<0.002
2/21/2020	<0.002		<0.002	<0.002			<0.002
2/22/2020					<0.002	<0.002	
10/30/2020	<0.002		<0.002	<0.002	<0.002	<0.002	
11/2/2020							<0.002
3/17/2021					<0.002	<0.002	
3/26/2021	<0.002		<0.002	<0.002			<0.002
10/5/2021	<0.002				<0.002		<0.002
10/6/2021			<0.002	<0.002		<0.002	
3/16/2022	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002
10/5/2022	<0.002			<0.002	<0.002		
10/6/2022						<0.002	<0.002

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.0013		<0.001	0.00087 (J)	0.0033	<0.001
5/17/2016	<0.001				<0.0013	0.00089 (J)	<0.001
5/18/2016		<0.0013		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.0013		<0.001	0.00081 (J)	0.0039	
9/13/2016	<0.001					0.0039	<0.001
9/14/2016		<0.0013		<0.001	0.00069 (J)		
11/19/2016	<0.001	<0.0013		<0.001	0.0013	0.0037	0.0005 (J)
1/17/2017	<0.001	<0.0013		<0.001			<0.001
1/18/2017					<0.0013	0.0016	
3/22/2017	<0.001						0.00052 (J)
3/23/2017		<0.0013		<0.001	0.00078 (J)	0.0017	
5/24/2017	<0.001	<0.0013		<0.001	0.001 (J)	0.0021	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.0013	0.0011 (J)	
3/29/2018				<0.001			<0.001
6/2/2018	<0.001		<0.001	<0.001	0.00068 (J)	0.0017	<0.001
11/8/2018	<0.001			<0.001	<0.0013		
11/9/2018			<0.001			0.0021	<0.001
2/11/2019	<0.001				0.000737 (J)	0.00232	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	0.000645 (J)	0.00218	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				<0.001
9/30/2019				<0.001	0.000821 (J)	0.00272	
2/21/2020	<0.001		<0.001	<0.001			<0.001
2/22/2020					0.000837 (J)	0.00177	
4/14/2020	<0.001		<0.001	<0.001	0.000896 (J)	0.00177	<0.001
10/30/2020	<0.001		<0.001	<0.001	0.000529 (J)	0.0013	
11/2/2020							<0.001
3/17/2021					0.000454 (J)	0.00385	
3/26/2021	<0.001		<0.001	<0.001			<0.001
10/5/2021	<0.001				0.00259		<0.001
10/6/2021			<0.001	<0.001		0.0125	
3/16/2022	<0.001		<0.001	<0.001	0.00411	0.0101	<0.001
10/5/2022	<0.001			<0.001	0.00467		
10/6/2022						0.0108	<0.001

Time Series

Constituent: Barium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.00084 (J)	0.027		0.013	0.011	0.044	0.013
5/17/2016	0.031				0.0085	0.055	0.012
5/18/2016		0.026		0.012			
7/12/2016	0.031						0.011
7/13/2016		0.024		0.016	0.0073	0.041	
9/13/2016	0.036					0.046	0.012
9/14/2016		0.026		0.018	0.0095		
11/19/2016	0.036	0.027		0.021	0.012	0.044	0.012
1/17/2017	0.036	0.029		0.029			0.014
1/18/2017					0.0096	0.045	
3/22/2017	0.033						0.012
3/23/2017		0.027		0.024	0.0093	0.038	
5/24/2017	0.034	0.028		0.022	0.0096	0.046	0.012
3/28/2018	0.032		0.036	0.026	0.0086	0.043	
3/29/2018							0.011
6/2/2018	0.033		0.032	0.029	0.0087	0.043	0.011
11/8/2018	0.032			0.028	0.0091		
11/9/2018			0.033			0.039	0.011
2/11/2019	0.0308				0.00931	0.0388	
2/12/2019			0.0348	0.0274			0.0102
4/17/2019	0.0305		0.0396	0.0263	0.00888	0.0378	
4/18/2019							0.0101
9/27/2019	0.0319		0.0373				0.0121
9/30/2019				0.0343	0.0103	0.0424	
2/21/2020	0.0327		0.0373	0.0304			0.0117
2/22/2020					0.0108	0.0453	
4/14/2020	0.0345		0.0394	0.0335	0.00949 (J)	0.0452	0.0124
10/30/2020	0.0314		0.0334	0.0349	0.0116	0.0428	
11/2/2020							0.0117
3/17/2021					0.0224	0.0382	
3/26/2021	0.0347		0.0287	0.0253			0.0184
10/5/2021	0.0391				0.0283		0.02
10/6/2021		<0.01	0.03			0.0493	
3/16/2022	0.05		0.0314	0.037	0.0326	0.0688	0.0245
10/5/2022	0.0512			0.0415	0.0248		
10/6/2022						0.0747	0.0937

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.0025		<0.001	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.0025		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.0025		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.0025		<0.001	<0.001		
11/19/2016	<0.001	<0.0025		<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.0025		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.0025		<0.001	<0.001	<0.001	
5/24/2017	<0.001	<0.0025		<0.001	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
2/21/2020	<0.001		0.000207 (J)	<0.001			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	<0.001	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	<0.001			<0.001
10/5/2021	<0.001				<0.001		0.000185 (J)
10/6/2021			<0.001	<0.001		<0.001	
3/16/2022	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/5/2022	<0.001			<0.001	<0.001		
10/6/2022						<0.001	<0.001

Time Series

Constituent: Boron (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.08	<0.05		<0.08	0.037 (J)	0.22	<0.08
5/17/2016	<0.08				<0.08	0.35	<0.08
5/18/2016		<0.05		<0.08			
7/12/2016	<0.08						<0.08
7/13/2016		<0.05		<0.08	0.032 (J)	0.5	
9/13/2016	<0.08			<0.08		0.27	<0.08
9/14/2016		<0.05		<0.08	0.027 (J)		
11/19/2016	<0.08	<0.05		<0.08	0.024 (J)	0.19	<0.08
1/17/2017	<0.08	<0.05		<0.08			<0.08
1/18/2017					<0.08	0.19	
3/22/2017	<0.08						<0.08
3/23/2017		<0.05		<0.08	0.024 (J)	0.19	
5/24/2017	<0.08	<0.05		<0.08	0.027 (J)	0.22	<0.08
10/16/2017	<0.08	<0.05		<0.08	0.03 (J)	0.19	<0.08
3/28/2018	<0.08		<0.08	<0.08	<0.08	0.17	
3/29/2018				<0.08			<0.08
6/2/2018	<0.08		<0.08	<0.08	0.025 (J)	0.16	<0.08
11/8/2018	<0.08			<0.08	0.024 (J)		
11/9/2018			<0.08			0.13	<0.08
2/11/2019	<0.08				<0.08	0.126	
2/12/2019			<0.08	<0.08			<0.08
4/17/2019	<0.08		<0.08	<0.08	<0.08	0.118	
4/18/2019							<0.08
9/27/2019	<0.08		<0.08				<0.08
9/30/2019				<0.08	<0.08	0.14	
2/21/2020	0.0928		0.0589 (J)	<0.08			<0.08
2/22/2020					<0.08	0.193	
4/14/2020	<0.08		0.0424 (J)	<0.08	<0.08	0.209	<0.08
10/30/2020	<0.08		0.0495 (J)	<0.08	<0.08	0.194	
11/2/2020							<0.08
3/17/2021					0.0673 (J)	0.2	
3/26/2021	<0.08		<0.08	<0.08			0.647
10/5/2021	<0.08				0.168		0.281
10/6/2021			<0.08	<0.08		0.272	
3/16/2022	<0.08		0.0717 (J)	<0.08	0.084	0.695	0.247
10/5/2022	<0.08			<0.08	0.0714 (J)		
10/6/2022						0.631	1.82

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.0025		0.00041 (J)	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.0025		<0.0025			
7/12/2016	<0.001						<0.001
7/13/2016		<0.0025		0.00087 (J)	<0.001	<0.001	
9/13/2016	<0.001			0.00078 (J)	<0.001	<0.001	<0.001
9/14/2016		<0.0025		0.00054 (J)	<0.001	<0.001	
11/19/2016	<0.001	<0.0025		0.00048 (J)	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.0025					<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.0025		0.00059 (J)	<0.001	<0.001	
5/24/2017	<0.001	<0.0025		0.00081 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	0.0008 (J)	<0.001	<0.001	
3/29/2018							<0.001
6/2/2018	<0.001		<0.001	0.001 (J)	<0.001	<0.001	<0.001
11/8/2018	<0.001			0.00085 (J)	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			0.000143 (J)	0.000877 (J)			<0.001
4/17/2019	<0.001		<0.001	0.000915 (J)	<0.001	<0.001	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				<0.001
9/30/2019				0.00112 (J)	<0.001	0.000155 (J)	
2/21/2020	<0.001		<0.001	0.000962 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.00107 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	0.00084 (J)	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	0.000615 (J)			<0.001
10/5/2021	<0.001				<0.001		<0.001
10/6/2021			<0.001	0.000338 (J)		<0.001	
3/16/2022	<0.001		<0.001	0.000252 (J)	<0.001	<0.001	<0.001
10/5/2022	<0.001			0.000379 (J)	<0.001		
10/6/2022						<0.001	<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.25	2.6 (o)		1.1	3.7	18	0.65
5/17/2016	0.84				3.4	23	0.68
5/18/2016		1.3		0.56			
7/12/2016	0.79						0.62
7/13/2016		1.1		0.95	2.8	18	
9/13/2016	0.42					19	0.25
9/14/2016		1.1		0.4	2.6		
11/19/2016	1.2	1		0.62	2.7	17	0.36
1/17/2017	1.4	0.87		1.2			0.66
1/18/2017					3.1	17	
3/22/2017	0.95						0.65
3/23/2017		0.74		0.87	2.8	15	
5/24/2017	1.3	0.84		0.81	3.1	19	0.72
10/16/2017	0.93	0.76		0.86	3.3	17	0.7
3/28/2018	1		2.8	0.97	2.7	16	
3/29/2018				0.61			0.55
6/2/2018	0.93		0.71	0.86	2.9	15	0.6
11/8/2018	1			0.84	3		
11/9/2018				0.61		14	0.59
2/11/2019	1				2.88	12.8	
2/12/2019			0.757	0.856			0.608
4/17/2019	0.893		0.755	0.711	2.77	13	
4/18/2019							0.55
9/27/2019	0.8		0.663				0.598
9/30/2019				0.826	3.08	13.6	
2/21/2020	1.02		0.648	0.841			0.552
2/22/2020					3.86	15	
4/14/2020	0.887		0.67	0.811	2.95	15.7	0.532
10/30/2020	0.945		0.672	1	3.84	16.4	
11/2/2020							0.535
3/17/2021					6.69	15.3	
3/26/2021	0.965		0.644	0.937			0.848
10/5/2021	0.996				8.57		0.829
10/6/2021			<0.5	0.532		22.8	
3/16/2022	1.32		0.539	0.78	8.94	23.8	1.28
10/5/2022	1.42			0.647	5.81		
10/6/2022						28.2	4.84

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	6.5	5.1		7.3	7.6	9	6.5
5/17/2016	4.9				6.4	13	5.1
5/18/2016		4.2		6			
7/12/2016	5.3						5
7/13/2016		4.7		6.6	6.3	10	
9/13/2016	4.8 (F1)					7.9	5.1
9/14/2016		4.5		5.8	6		
11/19/2016	7.1	6.1		7.8	7	9.3	6.5
1/17/2017	5.8	5.4		8.4			5.9
1/18/2017					6.7	8.5	
3/22/2017	4.9						5.1
3/23/2017		5.1		6.8	6	8.5	
5/24/2017	5.9	5.5		7.9	7.4	11	5.9
10/16/2017	5.7	6.1		7.7	6.6	9.7	5.6
3/28/2018	5.7		6.7	7.9	6.5	8.8	
3/29/2018							5.3
6/2/2018	4.7		5.8	7.7	6.1	8.3	4.6
11/8/2018	5.6			8.5	6.6		
11/9/2018			7.2			9.7	4.9
2/11/2019	4.84				6.31	8.84	
2/12/2019			8.4	7.89			4.72
4/17/2019	4.99		8.03	7.71	6.68	9.24	
4/18/2019							4.64
9/27/2019	5.08		8.37				5.02
9/30/2019				7.07	5.45	8.59	
4/14/2020	4.91		7.57	8.75	5.93	8.71	4.68
10/30/2020	5.55		7.59	9.58	6.49	8.93	
11/2/2020							4.91
3/17/2021					7.55	9.6	
3/26/2021	5.92		6.21	8.32			8.5
10/5/2021	6.21				14.3		10.3
10/6/2021			16.4	6.8		5.44	
3/16/2022	7.85		11.5	7.94	17.9	10.6	13
10/5/2022	6.75			6.04	8.84		
10/6/2022						9.04	12.7

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	<0.0025		<0.002	0.0015 (J)	0.0012 (J)	<0.002
5/17/2016	<0.002				<0.002	<0.002	<0.002
5/18/2016		<0.0025		<0.002			
7/12/2016	<0.002						<0.002
7/13/2016		0.0028		0.003	0.0015 (J)	0.0024 (J)	
9/13/2016	<0.002					<0.002	<0.002
9/14/2016		0.0014 (J)		<0.002	<0.002		
11/19/2016	<0.002	<0.0025		<0.002	0.0011 (J)	<0.002	<0.002
1/17/2017	<0.002	<0.0025		<0.002			<0.002
1/18/2017					<0.002	<0.002	
3/22/2017	<0.002						<0.002
3/23/2017		<0.0025		<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.0025		<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002		<0.002	<0.002	<0.002	0.005	
3/29/2018							<0.002
6/2/2018	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002
11/8/2018	<0.002			<0.002	<0.002		
11/9/2018			<0.002			<0.002	<0.002
2/11/2019	<0.002				<0.002	<0.002	
2/12/2019			<0.002	0.00165 (J)			<0.002
4/17/2019	<0.002		<0.002	<0.002	<0.002	<0.002	
4/18/2019							<0.002
9/27/2019	0.00286		0.00284				0.00206 (J)
9/30/2019				<0.002	<0.002	<0.002	
2/21/2020	<0.002		<0.002	<0.002			<0.002
2/22/2020					<0.002	<0.002	
10/30/2020	<0.002		<0.002	<0.002	<0.002	<0.002	
11/2/2020							<0.002
3/17/2021					<0.002	<0.002	
3/26/2021	<0.002		<0.002	<0.002			<0.002
10/5/2021	<0.002				<0.002	<0.002	
10/6/2021			<0.002	<0.002		<0.002	
3/16/2022	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002
10/5/2022	<0.002			0.0191	<0.002		
10/6/2022						<0.002	<0.002

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0025	0.00048 (J)		0.0055	0.00094 (J)	<0.0005	0.0011 (J)
5/17/2016	0.00099 (J)				0.0007 (J)	<0.0005	0.001 (J)
5/18/2016		<0.0025		0.0059			
7/12/2016	0.00093 (J)						0.00091 (J)
7/13/2016		0.001 (J)		0.0048	0.0016 (J)	0.00042 (J)	
9/13/2016	0.0011 (J)			0.0063	0.0011 (J)	<0.0005	0.001 (J)
9/14/2016		0.00051 (J)					
11/19/2016	0.001 (J)	0.0005 (J)		0.0056	0.0012 (J)	<0.0005	0.00083 (J)
1/17/2017	0.00088 (J)	0.00049 (J)		0.0046			0.00091 (J)
1/18/2017					0.0011 (J)	<0.0005	
3/22/2017	0.001 (J)						0.00098 (J)
3/23/2017		0.00057 (J)		0.0049	0.0011 (J)	<0.0005	
5/24/2017	0.00093 (J)	0.00057 (J)		0.0052	0.0012 (J)	<0.0005	0.00098 (J)
3/28/2018	0.00092 (J)		0.00098 (J)	0.0063	0.00095 (J)	<0.0005	
3/29/2018							0.00063 (J)
6/2/2018	0.001 (J)		0.0009 (J)	0.0068	0.0012 (J)	<0.0005	0.00087 (J)
11/8/2018	0.001 (J)			0.0068	0.0011 (J)		
11/9/2018			0.00075 (J)			<0.0005	0.00076 (J)
2/11/2019	0.000768 (J)				0.00093 (J)	<0.0005	
2/12/2019			0.000896 (J)	0.00552			0.000661 (J)
4/17/2019	0.000825 (J)		0.00106 (J)	0.00603	0.00116 (J)	<0.0005	
4/18/2019							0.000705 (J)
9/27/2019	0.000783 (J)		0.000885 (J)				0.00071 (J)
9/30/2019				0.0062	0.001 (J)	<0.0005	
2/21/2020	0.00073 (J)		0.000909 (J)	0.00576			0.000634 (J)
2/22/2020					0.000907 (J)	<0.0005	
4/14/2020	0.000853 (J)		0.000899 (J)	0.00633	0.00105 (J)	<0.0005	0.000684 (J)
10/30/2020	0.000924 (J)		0.000972 (J)	0.00657	0.00102 (J)	<0.0005	
11/2/2020							0.000729 (J)
3/17/2021					0.00208	<0.0005	
3/26/2021	0.000961		0.000744	0.00339			0.000995
10/5/2021	0.00143				0.00187		0.00112
10/6/2021			<0.0005	0.00336		0.000802	
3/16/2022	0.00177		0.000658	0.00289	0.00182	0.000967	0.00141
10/5/2022	0.002			0.00821	0.00121		
10/6/2022						0.00143	0.00548

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5		<5	<5	0.549	<5
5/17/2016	0.813				<5	0.551	<5
5/18/2016		0.471		<5			
7/12/2016	-0.00163 (U)						0.165 (U)
7/13/2016		0.401		0.27 (U)	0.0365 (U)	0.859	
9/13/2016	0.41 (U)					0.367 (U)	0.341 (U)
9/14/2016		-0.033 (U)		-0.0909 (U)	0.3 (U)		
11/19/2016	0.783	0.358		0.416	<5 (U)	<5 (U)	<5 (U)
1/17/2017	0.613	0.799		0.412 (U)			0.124 (U)
1/18/2017					0.235 (U)	0.289 (U)	
3/22/2017	0.241 (U)						0.0719 (U)
3/23/2017		0.182 (U)		0.0761 (U)	0.168 (U)	0.554	
5/24/2017	0.325	0.404		0.0415 (U)	-0.0607 (U)	0.831	0.441
3/28/2018	0.318 (U)		0.629	0.398	0.42	0.458	
3/29/2018							0.731
6/2/2018	0.222 (U)		-0.478 (U)	-0.253 (U)	0.0844 (U)	0.226 (U)	0.303 (U)
11/8/2018	0.117 (U)			0.343 (U)	0.367 (U)		
11/9/2018			0.179 (U)			0.298 (U)	0.00226 (U)
2/11/2019	0.493				0.0402 (U)	0.15 (U)	
2/12/2019		0.432		0.581			0.094 (U)
4/17/2019	0.729		0.648	0.646	0.493	0.326 (U)	
4/18/2019							0.48
9/27/2019	0.36 (U)		0.422 (U)				0.497
9/30/2019				1	0.404		
2/21/2020	0.268 (U)		0.23 (U)	0.126 (U)			0.375
2/22/2020					0.53	0.47	
4/14/2020	0.324 (U)		0.307 (U)	0.338	0.0408 (U)	0.376 (U)	0.329 (U)
10/30/2020	0.497		1.02	0.485	0.344	0.528	
11/2/2020							0.535
3/17/2021					0.312 (U)	0.0889 (U)	
3/26/2021	0.804		0.526	0.78			0.813
10/5/2021	1.53				1.06		0.814
10/6/2021			0.937	0.503		0.931	
3/16/2022	1.13		0.458	0.286 (U)	0.314 (U)	1.39	1.39
10/21/2022	0.946			1.29	0.562 (U)	1.36	2.03

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
5/17/2016	<0.1				0.04 (J)	0.07 (J)	<0.1
5/18/2016		<0.1		<0.1			
7/12/2016	<0.1						<0.1
7/13/2016		<0.1		<0.1	0.05 (J)	0.08 (J)	
9/13/2016	<0.1					0.06 (J)	<0.1
9/14/2016		<0.1		<0.1	0.04 (J)		
11/19/2016	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
1/17/2017	<0.1	<0.1		<0.1			<0.1
1/18/2017					<0.1	0.05 (J)	
3/22/2017	<0.1						<0.1
3/23/2017		<0.1		<0.1	<0.1	0.05 (J)	
5/24/2017	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1 (D)
10/16/2017	<0.1	<0.1		<0.1	<0.1	0.06 (J)	<0.1
3/28/2018	<0.1		<0.1	<0.1	0.04 (J)	0.06 (J)	
3/29/2018							<0.1
6/2/2018	<0.1		<0.1	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1			<0.1	0.05 (J)		
11/9/2018			<0.1			0.06 (J)	<0.1
2/11/2019	<0.1				<0.1	0.0368 (J)	
2/12/2019			<0.1	<0.1			<0.1
4/17/2019	<0.1		<0.1	<0.1	0.033 (J)	0.0421 (J)	
4/18/2019							<0.1
9/27/2019	<0.1		0.0313 (J)				<0.1
9/30/2019				<0.1	<0.1	0.045 (J)	
2/21/2020	<0.1		<0.1	<0.1			<0.1
2/22/2020					0.0317 (J)	0.0434 (J)	
4/14/2020	0.0532 (J)		0.0537 (J)	0.034 (J)	0.0508 (J)	0.059 (J)	0.0415 (J)
10/30/2020	<0.1		<0.1	<0.1	<0.1	<0.1	
11/2/2020							<0.1
3/17/2021					0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1		<0.1	<0.1			<0.1
10/5/2021	0.0499 (J)				0.0505 (J)		<0.1
10/6/2021				<0.1	<0.1	0.0725 (J)	
3/16/2022	<0.1		<0.1	0.0307 (J)	0.0462 (J)	0.176	0.0266 (J)
10/5/2022	<0.1			<0.1	0.0322 (J)		
10/6/2022						0.0972 (J)	<0.1

Time Series

Constituent: Lead (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.0013		<0.001	0.00039 (J)	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.0013		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.0013		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.0013		0.00056 (J)	<0.001		
11/19/2016	<0.001	<0.0013		<0.001	0.00042 (J)	<0.001	<0.001
1/17/2017	<0.001	<0.0013		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.0013		0.00038 (J)	<0.001	<0.001	
5/24/2017	<0.001	<0.0013		0.00036 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	0.000139 (J)			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				0.000129 (J)
9/30/2019				0.000322 (J)	0.000191 (J)	0.000152 (J)	
2/21/2020	<0.001		<0.001	0.00015 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.000236 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	0.000136 (J)	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					0.000153 (J)	<0.001	
3/26/2021	<0.001		<0.001	0.000145 (J)			<0.001
10/5/2021	<0.001				<0.001		<0.001
10/6/2021			<0.001	<0.001		<0.001	
3/16/2022	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/5/2022	<0.001			<0.001	<0.001		
10/6/2022						<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	<0.005		<0.005	0.044	0.17	<0.005
5/17/2016	0.0037 (J)				0.028	0.2	<0.005
5/18/2016		<0.005		<0.005			
7/12/2016	0.012 (o)						<0.005
7/13/2016		<0.005		<0.005	0.026	0.17	
9/13/2016	<0.005			<0.005		0.17	<0.005
9/14/2016		<0.005		<0.005	0.026		
11/19/2016	<0.005	<0.005		<0.005	0.026	0.18	0.0035 (J)
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					0.027	0.2	
3/22/2017	<0.005						<0.005
3/23/2017		<0.005		<0.005	0.024	0.19	
5/24/2017	<0.005	<0.005		<0.005	0.027	0.21	<0.005
3/28/2018	<0.005		0.0026 (J)	0.0023 (J)	0.021	0.23	
3/29/2018							0.0026 (J)
6/2/2018	0.0017 (J)		0.0021 (J)	0.002 (J)	0.022	0.19	0.0029 (J)
11/8/2018	0.0023 (J)			0.0024 (J)	0.025		
11/9/2018			0.0024 (J)			0.18	0.0027 (J)
2/11/2019	<0.005				0.0229	0.161	
2/12/2019		<0.005		<0.005			<0.005
4/17/2019	0.00229 (J)		0.00191 (J)	0.00197 (J)	0.0236	0.174	
4/18/2019							0.00238 (J)
9/27/2019	0.00346 (J)		<0.005				0.00375 (J)
9/30/2019				0.00687	0.0249	0.166	
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					0.0211	0.169	
4/14/2020	0.00505		<0.005	<0.005	0.0224	0.192	<0.005
10/30/2020	<0.005		<0.005	<0.005	0.0267	0.194	
11/2/2020							<0.005
3/17/2021					0.0174	0.12	
3/26/2021	<0.005		<0.005	<0.005			<0.005
10/5/2021	<0.005				0.0127		0.0045 (J)
10/6/2021			<0.005	<0.005		0.0994	
3/16/2022	0.00171 (J)		0.00165 (J)	0.0038 (J)	0.0112	0.0629	0.00437 (J)
10/5/2022	<0.005			0.00322 (J)	0.00676		
10/6/2022						0.0534	0.0123

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0002	<0.0002		8.4E-05 (JB)	7.3E-05 (JB)	7.4E-05 (JB)	7.1E-05 (JB)
5/17/2016	<0.0002				<0.0002	<0.0002	<0.0002
5/18/2016		<0.0002		<0.0002			
7/12/2016	<0.0002						<0.0002
7/13/2016		<0.0002		<0.0002	<0.0002	<0.0002	
9/13/2016	<0.0002					<0.0002	<0.0002
9/14/2016		<0.0002		<0.0002	<0.0002		
11/19/2016	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002	<0.0002		<0.0002			<0.0002
1/18/2017					<0.0002	<0.0002	
3/22/2017	0.00011 (J)						<0.0002
3/23/2017		0.00013 (J)		0.00013 (J)	0.00013 (J)	<0.0002	
5/24/2017	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
3/28/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/29/2018							<0.0002
2/11/2019	<0.0002				<0.0002	<0.0002	
2/12/2019		<0.0002		<0.0002			<0.0002
4/17/2019	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
4/18/2019							<0.0002
2/21/2020	<0.0002		<0.0002				<0.0002
2/22/2020					<0.0002	<0.0002	
10/30/2020	<0.0002		<0.0002	0.000497	<0.0002	<0.0002	
11/2/2020							<0.0002
3/17/2021					<0.0002	<0.0002	
3/26/2021	<0.0002		<0.0002	<0.0002			0.000235
10/5/2021	<0.0002				<0.0002		0.000151 (J)
10/6/2021		<0.0002		<0.0002		<0.0002	
3/16/2022	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	0.0012
10/5/2022	<0.0002			<0.0002	<0.0002		
10/6/2022						<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.0019 (J)		<0.005	<0.015	0.0026 (J)	<0.005
5/17/2016	<0.005				<0.015	0.0011 (J)	<0.005
5/18/2016		0.00096 (J)		<0.005			
7/12/2016	<0.005						<0.005
7/13/2016		0.0017 (J)		<0.005	<0.015	0.0079 (J)	
9/13/2016	<0.005					0.0038 (J)	<0.005
9/14/2016		0.0018 (J)		<0.005	<0.015		
11/19/2016	<0.005	<0.015		<0.005	<0.015	0.0014 (J)	<0.005
1/17/2017	<0.005	<0.015		<0.005			<0.005
1/18/2017					<0.015	0.001 (J)	
3/22/2017	<0.005						0.0038 (J)
3/23/2017		<0.015		<0.005	<0.015	<0.015	
5/24/2017	<0.005	<0.015		<0.005	<0.015	0.0014 (J)	<0.005
3/28/2018	<0.005		<0.005	<0.005	<0.015	<0.015	
3/29/2018							<0.005
11/8/2018	<0.005			<0.005	<0.015		
11/9/2018			<0.005			<0.015	<0.005
2/11/2019	<0.005				<0.015	<0.015	
2/12/2019			<0.005	<0.005			<0.005
4/17/2019	<0.005		<0.005	<0.005	<0.015	<0.015	
4/18/2019							<0.005
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					0.000616 (J)	0.000627 (J)	
4/14/2020	<0.005		<0.005	<0.005	<0.015	0.000747 (J)	<0.005
10/30/2020	<0.005		<0.005	<0.005	<0.015	<0.015	
11/2/2020							<0.005
3/17/2021					0.0032 (J)	0.00328 (J)	
3/26/2021	<0.005		<0.005	<0.005			<0.005
10/5/2021	<0.005				0.00109 (J)		<0.005
10/6/2021			<0.005	<0.005		0.00364 (J)	
3/16/2022	<0.005		<0.005	<0.005	0.000916 (J)	0.00533	<0.005
10/5/2022	<0.005			<0.005	0.000939 (J)		
10/6/2022						0.00424 (J)	<0.005

Time Series

Constituent: pH (SU) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	5.12	5.52		5.05	5.38	6.64	4.89
5/17/2016	5.23				5.32	6.52	4.92
5/18/2016		5.24		4.86			
7/12/2016	5.77						4.93
7/13/2016		5.17		5.11	5.31	6.63	
9/13/2016	4.98					6.46	4.76
9/14/2016		5.04		4.84	5.21		
11/19/2016	4.82	4.88		4.74	5.12	6.38	4.56
1/17/2017	5.04	5.04		4.95			4.86
1/18/2017					5.22	6.47	
3/22/2017	4.73						4.66
3/23/2017		4.66		4.66	5.01	6.19	
5/24/2017	5.01	4.93		4.86	5.19	6.34	4.83
10/16/2017	4.59	4.65		4.47	4.96	6.23	4.53
3/28/2018	4.87		5.39	4.93	5.23	6.22	
3/29/2018							4.87
6/2/2018	4.92		5.06	4.83	5.22	6.24	4.87
11/8/2018	5			4.83	5.29		
11/9/2018			4.92			6.27	4.92
2/11/2019	4.7				5	6.08	
2/12/2019			4.86	4.65			4.79
4/17/2019	4.9		4.79	4.71	5.13	6.14	
4/18/2019							4.9
2/21/2020	4.86		4.73	4.55			4.8
2/22/2020					5.3	6.13	
4/14/2020	5.23		4.87	4.7	5.45	6.26	4.94
10/30/2020	5		4.87	4.8	5.32	6.19	
11/2/2020							4.92
3/17/2021					5.62	6.14	
3/26/2021	4.86		4.7	4.54			4.67
10/5/2021	5				5.72		4.84
10/6/2021			4.77	4.63		6.03	
3/16/2022	4.92		4.91	4.64	5.56	6.2	4.75
10/5/2022	4.91			4.51	5.57		
10/6/2022						6.27	4.71

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.00041 (J)		0.00033 (J)	<0.005	<0.005	<0.005
5/17/2016	<0.005				<0.005	<0.005	0.00026 (J)
5/18/2016		<0.0013		<0.005			
7/12/2016	<0.005						<0.005
7/13/2016		<0.0013		0.00041 (J)	<0.005	<0.005	
9/13/2016	<0.005					<0.005	0.00031 (J)
9/14/2016		<0.0013		0.00079 (J)	<0.005		
11/19/2016	<0.005	<0.0013		<0.005	<0.005	<0.005	<0.005
1/17/2017	<0.005	<0.0013		<0.005			<0.005
1/18/2017					<0.005	<0.005	
3/22/2017	<0.005						0.0021
3/23/2017		<0.0013		<0.005	<0.005	<0.005	
5/24/2017	<0.005	0.00026 (J)		0.00028 (J)	<0.005	0.00033 (J)	0.00026 (J)
3/28/2018	<0.005		0.00024 (J)	0.00038 (J)	<0.005	<0.005	
3/29/2018							0.00036 (J)
6/2/2018	0.00064 (J)		<0.005	0.00031 (J)	<0.005	<0.005	<0.005
11/8/2018	0.0025			0.00088 (J)	<0.005		
11/9/2018			0.00098 (J)			<0.005	<0.005
2/11/2019	<0.005				<0.005	<0.005	
2/12/2019			<0.005	<0.005			<0.005
4/17/2019	<0.005		<0.005	<0.005	<0.005	<0.005	
4/18/2019							<0.005
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					<0.005	<0.005	
10/30/2020	<0.005		<0.005	<0.005	<0.005	<0.005	
11/2/2020							<0.005
3/17/2021					<0.005	<0.005	
3/26/2021	<0.005		<0.005	<0.005			<0.005
10/5/2021	<0.005				<0.005		<0.005
10/6/2021			<0.005	<0.005		<0.005	
3/16/2022	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
10/5/2022	<0.005			<0.005	<0.005		
10/6/2022						<0.005	<0.005

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5		<5	2.3 (J)	4.5 (J)	<5
5/17/2016	<5				2.3 (J)	17	<5
5/18/2016		<5		<5			
7/12/2016	<5						<5
7/13/2016		<5		1.5 (J)	2.4 (J)	15	
9/13/2016	<5					3.4 (J)	<5
9/14/2016		<5		1.6 (J)	2.4 (J)		
11/19/2016	<5	<5		1.8 (J)	3.3 (J)	3.5 (J)	1.5 (J)
1/17/2017	<5	<5		<5			<5
1/18/2017					2.3 (J)	3.2 (J)	
3/22/2017	<5						1.9 (J)
3/23/2017		1.8 (J)		2.3 (J)	3.2 (J)	3.7 (J)	
5/24/2017	<5	1.5 (J)		1.6 (J)	2.4 (J)	8.8	<5
10/16/2017	<5	<5		<5	2 (J)	4 (J)	<5
3/28/2018	<5		1.7 (J)	1.6 (J)	2.4 (J)	3.3 (J)	
3/29/2018							<5
6/2/2018	1.9 (J)		3 (J)	2.9 (J)	3.7 (J)	4.3 (J)	2.8 (J)
11/8/2018	<5			1.6 (J)	2.7 (J)		
11/9/2018			<5			2.3 (J)	<5
2/11/2019	0.774 (J)				2.5	2.64	
2/12/2019			1.97	1.97			1.35
4/17/2019	1.43		2.82	2.5	3.15	3.27	
4/18/2019							1.82
9/27/2019	1.03		2.19				1.22
9/30/2019				1.64	2.34	2.82	
4/14/2020	0.928 (J)		2.71	1.62	2.99	4.2	1.18
10/30/2020	0.91 (J)		3.97	1.44	2.84	4.76	
11/2/2020							1.08
3/17/2021					4.35	4.07	
3/26/2021	1.49		2.04	3.25			2
10/5/2021	1.13				5.02		2.55
10/6/2021			5.37	5.07		14.5	
3/16/2022	3.6		5.37	6.85	5.64	23.1	5.93
10/5/2022	1.34			6.07	4.12		
10/6/2022						19.5	61.4

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.0005		<0.001	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.0005		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.0005		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.0005		9.5E-05 (J)	<0.001		
11/19/2016	<0.001	<0.0005		<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.0005		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.0005		<0.001	<0.001	<0.001	
5/24/2017	<0.001	<0.0005		<0.001	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			8.5E-05 (J)	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
2/21/2020	<0.001		0.000486 (J)	0.000276 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.000158 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	<0.001	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	<0.001			<0.001
10/5/2021	<0.001				<0.001		0.000153 (J)
10/6/2021				<0.001	<0.001		
3/16/2022	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/5/2022	<0.001			<0.001	<0.001		
10/6/2022						<0.001	<0.001

Time Series

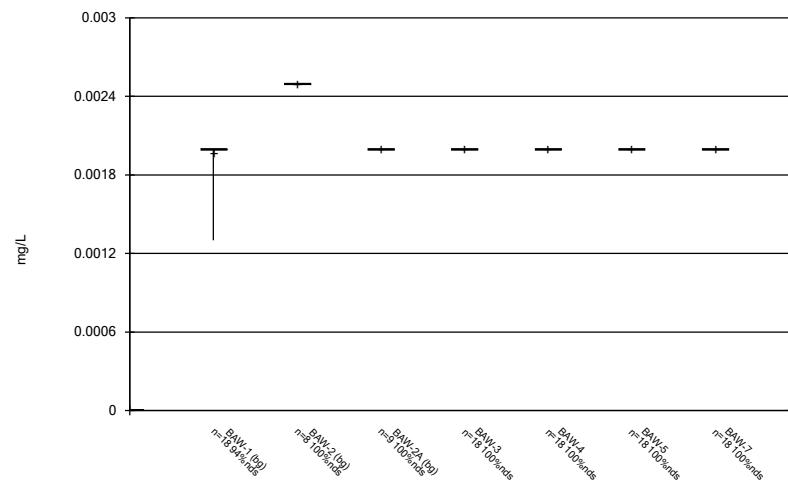
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/7/2022 12:13 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

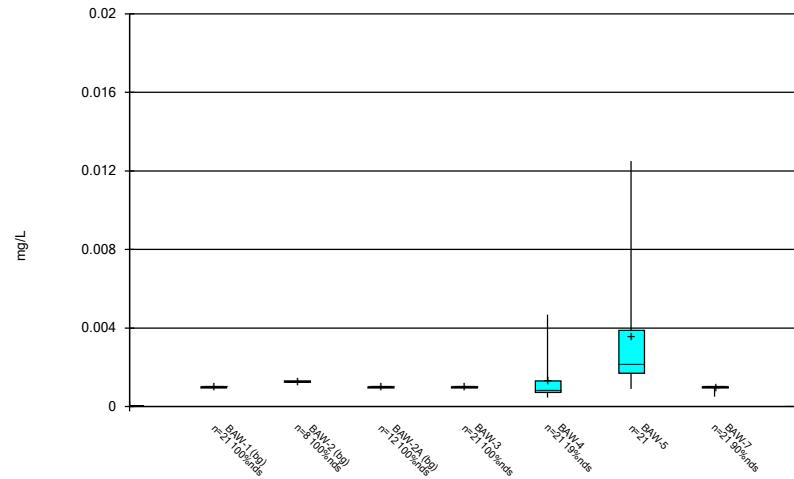
	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	20	30		30	46	88	22
5/17/2016	24				52	110	30
5/18/2016		20		20			
7/12/2016	24						26
7/13/2016		40		40	36	120	
9/13/2016	18			<10	38		28
9/14/2016		10					
11/19/2016	20	28		22	50	94	38
1/17/2017	<10	14		14			10
1/18/2017					18	68	
3/22/2017	12						22
3/23/2017		16		28	32	80	
5/24/2017	16 (D)	12		18	32	90	22
10/16/2017	58	50		36	64	110	34
3/28/2018	18		30	36	56	86	
3/29/2018							50
6/2/2018	6		26	6	22	72	<10
11/8/2018	12			34	170		
11/9/2018		94				38	20
2/11/2019	<10				23	60	
2/12/2019		22		12			<10
4/17/2019	16		22	27	37	82	
4/18/2019							39
9/27/2019	26		25				<10
9/30/2019				<10	<10	55	
4/14/2020	25		38	31	30	77	24
10/30/2020	34		48	40	40	88	
11/2/2020							28
3/17/2021					44	79	
3/26/2021	24		24	37			38
10/5/2021	26				75		45
10/6/2021		61		30		114	
3/16/2022	30		26	26	66	133	37
10/5/2022	30			32	52		
10/6/2022						155	135

FIGURE B.

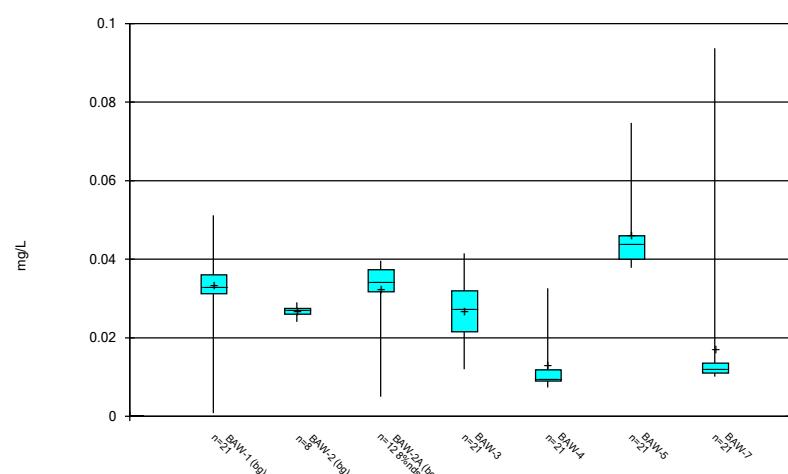
Box & Whiskers Plot



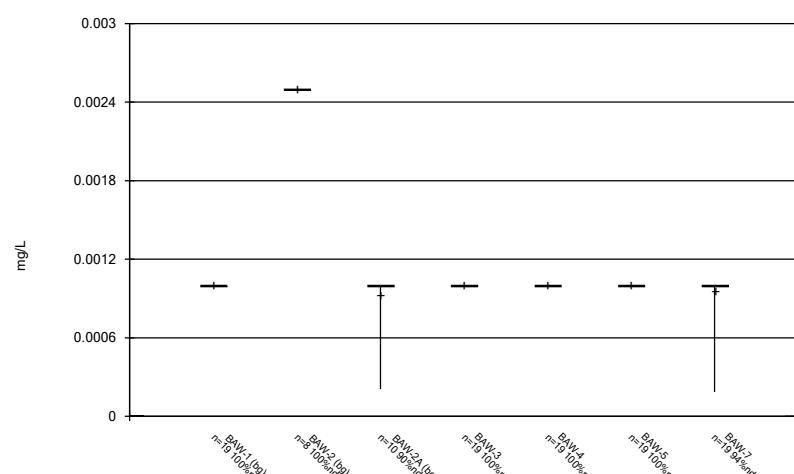
Box & Whiskers Plot



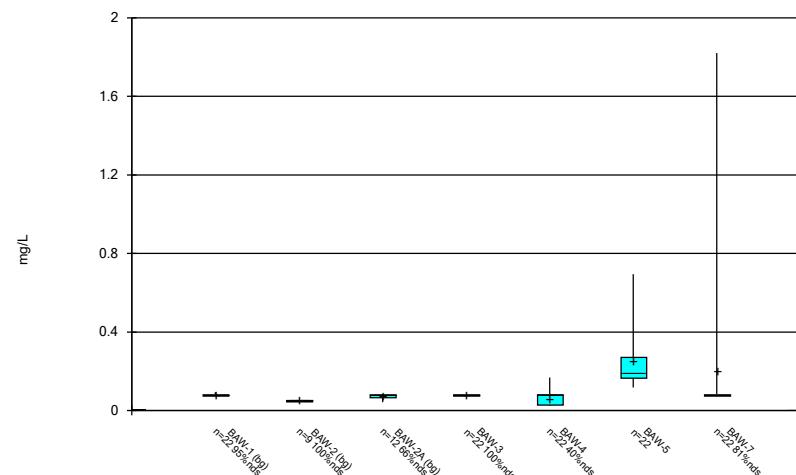
Box & Whiskers Plot



Box & Whiskers Plot

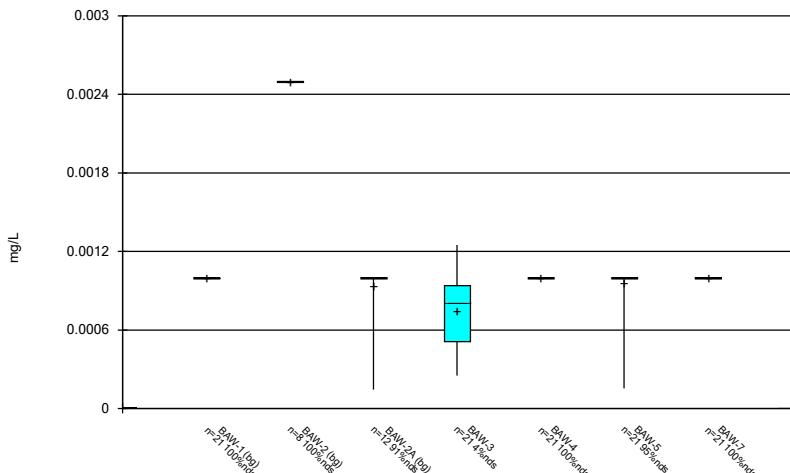


Box & Whiskers Plot



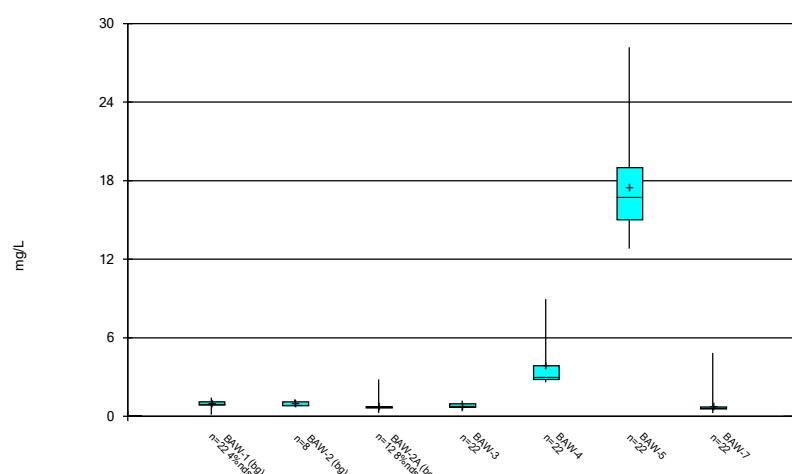
Constituent: Boron Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



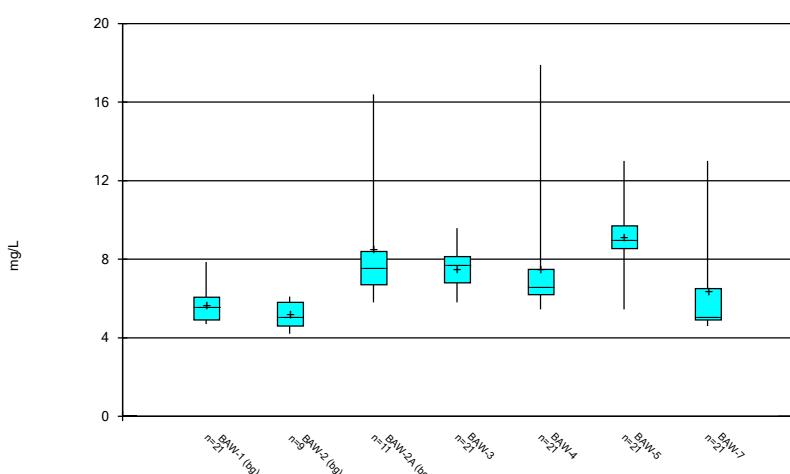
Constituent: Cadmium Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



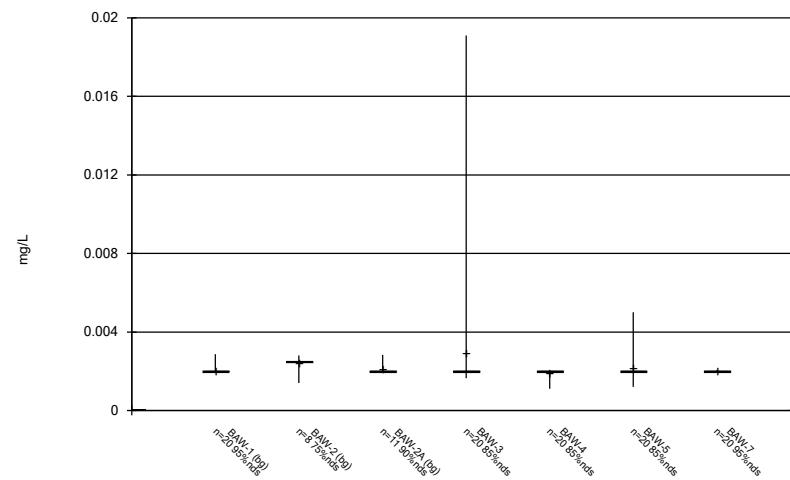
Constituent: Calcium Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot

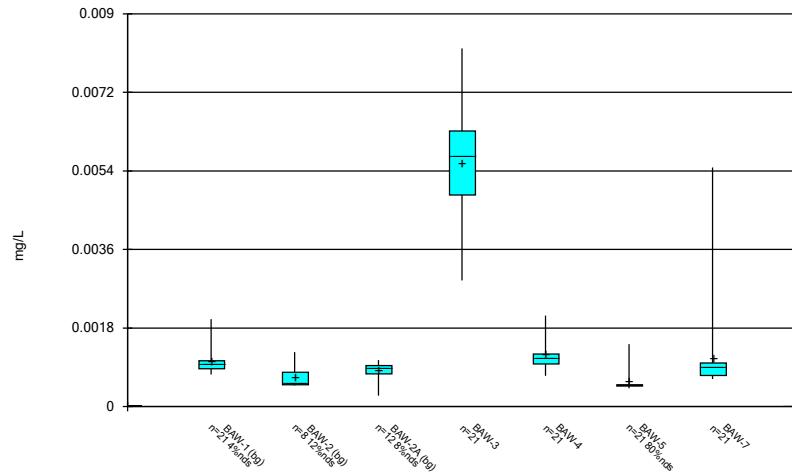


Constituent: Chloride Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

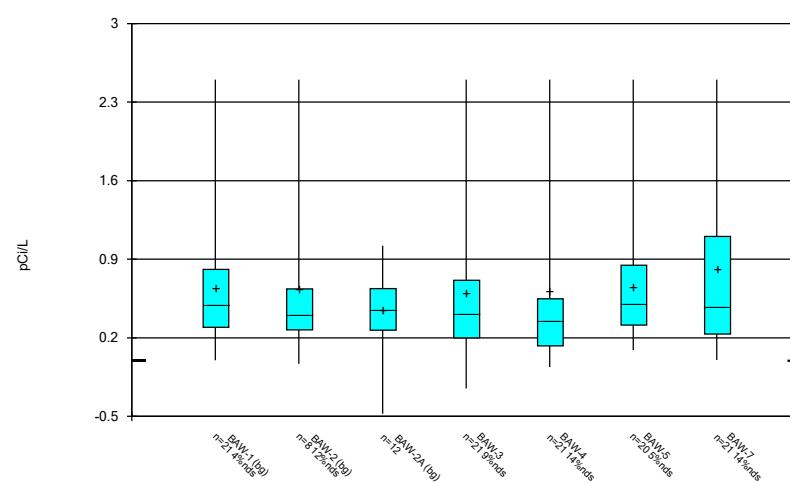
Box & Whiskers Plot



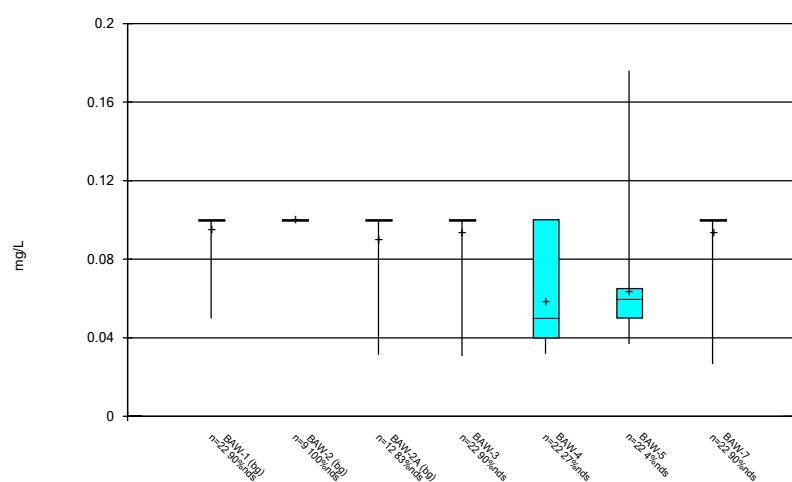
Box & Whiskers Plot



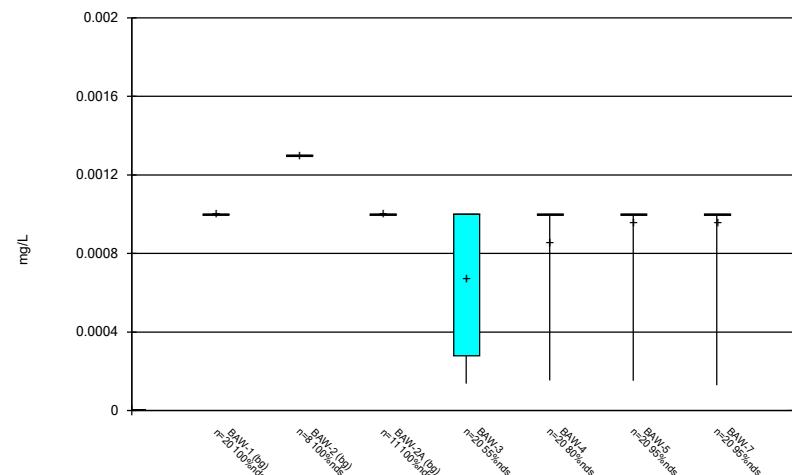
Box & Whiskers Plot



Box & Whiskers Plot

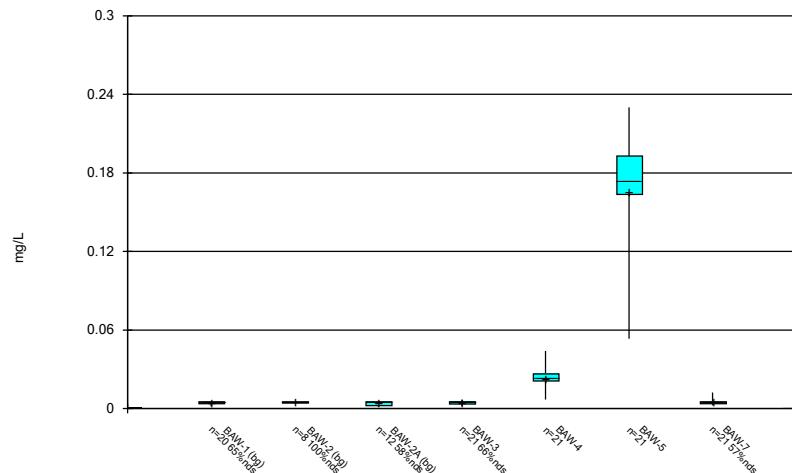


Box & Whiskers Plot



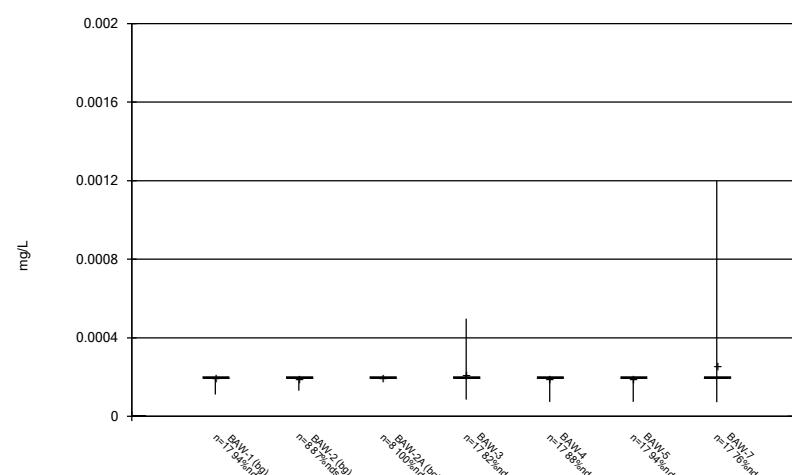
Constituent: Lead Analysis Run 12/7/2022 12:16 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



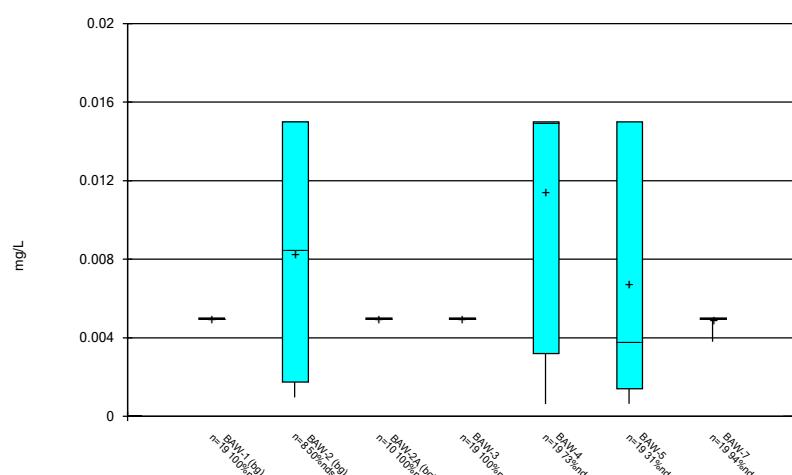
Constituent: Lithium Analysis Run 12/7/2022 12:16 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



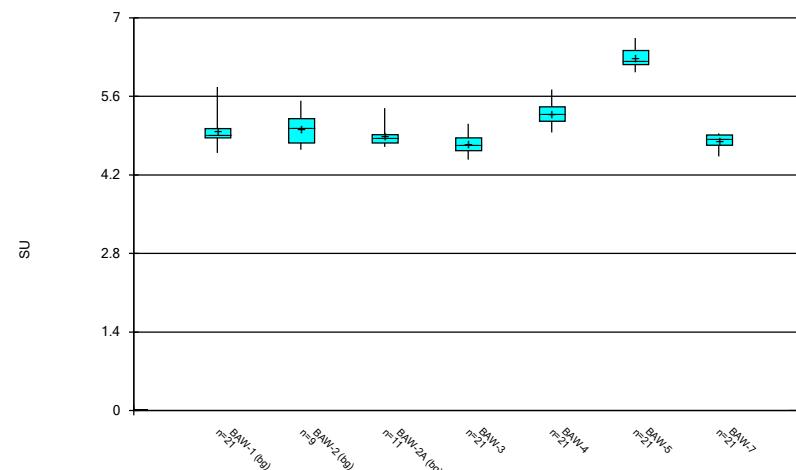
Constituent: Mercury Analysis Run 12/7/2022 12:16 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



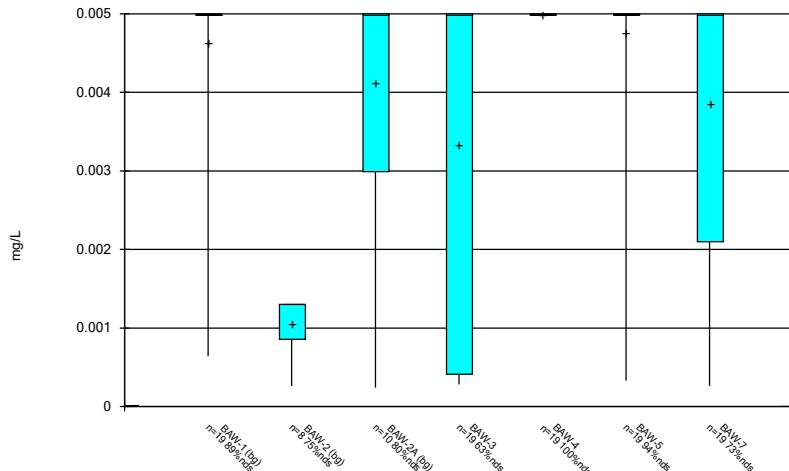
Constituent: Molybdenum Analysis Run 12/7/2022 12:16 PM View: Descriptive
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



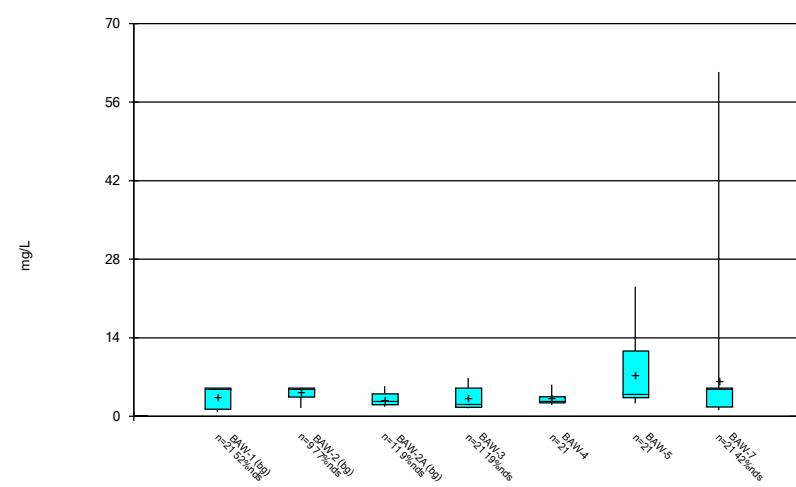
Constituent: pH Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



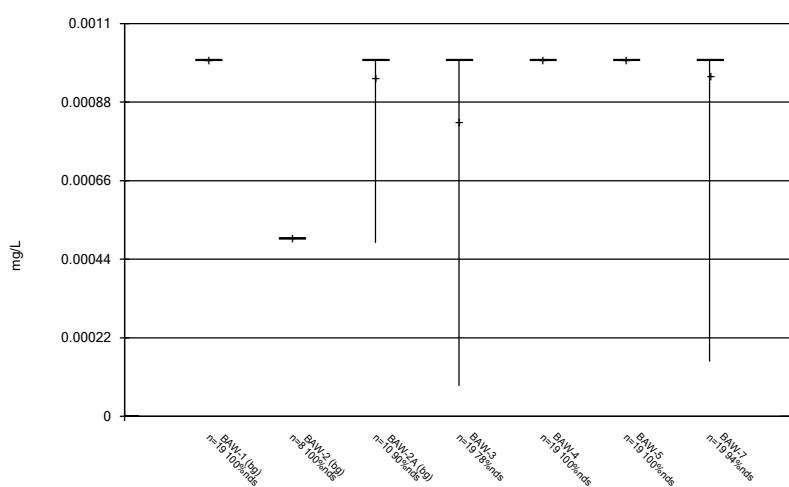
Constituent: Selenium Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



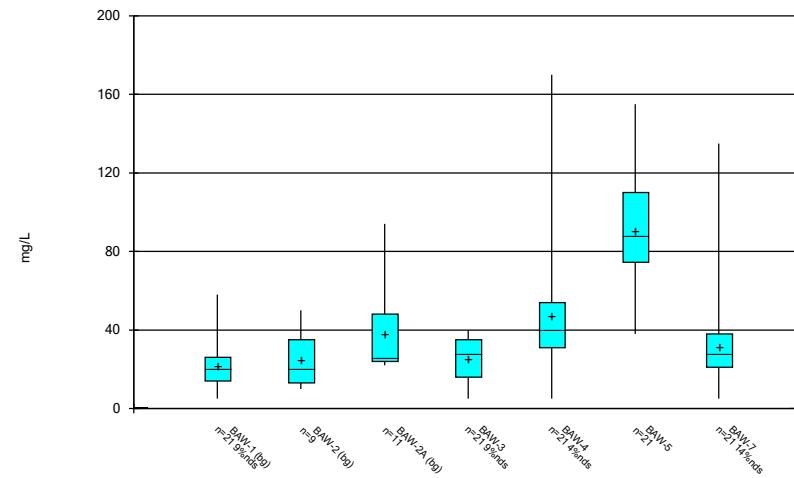
Constituent: Sulfate Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/7/2022 12:16 PM View: Descriptive
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/7/2022 12:16 PM View: Descriptive

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 10:18 AM

BAW-2 Calcium (mg/L) BAW-1 Lithium (mg/L)

3/23/2016 2.6 (o)

7/12/2016 0.012 (o)

FIGURE D.

Interwell Prediction Limit - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 11:00 AM

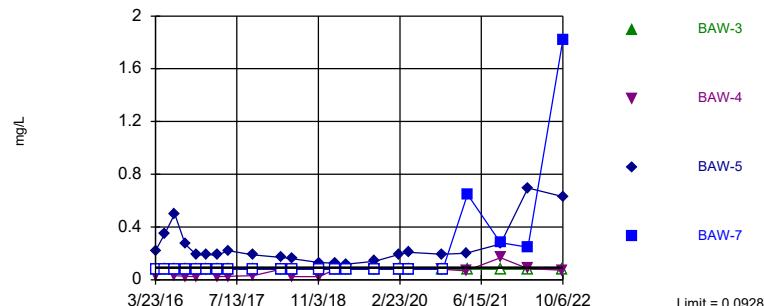
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg</u>	<u>Nbg</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2022	0.631	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-7	0.0928	n/a	10/6/2022	1.82	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	BAW-4	1.697	n/a	10/5/2022	5.81	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-5	1.697	n/a	10/6/2022	28.2	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-7	1.697	n/a	10/6/2022	4.84	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
pH (SU)	BAW-3	5.392	4.55	10/5/2022	4.51	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-4	5.392	4.55	10/5/2022	5.57	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-5	5.392	4.55	10/6/2022	6.27	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
Sulfate (mg/L)	BAW-3	5.37	n/a	10/5/2022	6.07	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2022	19.5	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-7	5.37	n/a	10/6/2022	61.4	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	BAW-5	58.41	n/a	10/6/2022	155	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-7	58.41	n/a	10/6/2022	135	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	

Interwell Prediction Limit - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 11:00 AM

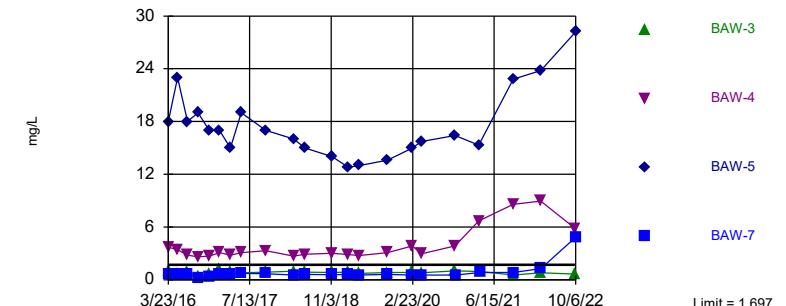
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg</u>	<u>Nbg</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	10/5/2022	0.08ND	No	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-4	0.0928	n/a	10/5/2022	0.0714J	No	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2022	0.631	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Boron (mg/L)	BAW-7	0.0928	n/a	10/6/2022	1.82	Yes	43	n/a	n/a	88.37	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	BAW-3	1.697	n/a	10/5/2022	0.647	No	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-4	1.697	n/a	10/5/2022	5.81	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-5	1.697	n/a	10/6/2022	28.2	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Calcium (mg/L)	BAW-7	1.697	n/a	10/6/2022	4.84	Yes	42	0.9557	0.1301	4.762	None	x^(1/3)	0.00188	Param Inter 1 of 2	
Chloride (mg/L)	BAW-3	16.4	n/a	10/5/2022	6.04	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Chloride (mg/L)	BAW-4	16.4	n/a	10/5/2022	8.84	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Chloride (mg/L)	BAW-5	16.4	n/a	10/6/2022	9.04	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Chloride (mg/L)	BAW-7	16.4	n/a	10/6/2022	12.7	No	41	n/a	n/a	0	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	BAW-3	0.1	n/a	10/5/2022	0.1ND	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	BAW-4	0.1	n/a	10/5/2022	0.0322J	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	BAW-5	0.1	n/a	10/6/2022	0.0972J	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	BAW-7	0.1	n/a	10/6/2022	0.1ND	No	43	n/a	n/a	90.7	n/a	n/a	0.001022	NP Inter (NDs) 1 of 2	
pH (SU)	BAW-3	5.392	4.55	10/5/2022	4.51	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-4	5.392	4.55	10/5/2022	5.57	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-5	5.392	4.55	10/6/2022	6.27	Yes	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
pH (SU)	BAW-7	5.392	4.55	10/6/2022	4.71	No	41	1.705	0.02644	0	None	x^(1/3)	0.0009398	Param Inter 1 of 2	
Sulfate (mg/L)	BAW-3	5.37	n/a	10/5/2022	6.07	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-4	5.37	n/a	10/5/2022	4.12	No	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2022	19.5	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	BAW-7	5.37	n/a	10/6/2022	61.4	Yes	41	n/a	n/a	46.34	n/a	n/a	0.001101	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	BAW-3	58.41	n/a	10/5/2022	32	No	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-4	58.41	n/a	10/5/2022	52	No	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-5	58.41	n/a	10/6/2022	155	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	BAW-7	58.41	n/a	10/6/2022	135	Yes	41	4.93	1.487	4.878	None	sqrt(x)	0.00188	Param Inter 1 of 2	

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 88.37% NDs. Annual per-constituent alpha = 0.008148. Individual comparison alpha = 0.001022 (1 of 2). Comparing 4 points to limit.

Prediction Limit
Interwell Parametric

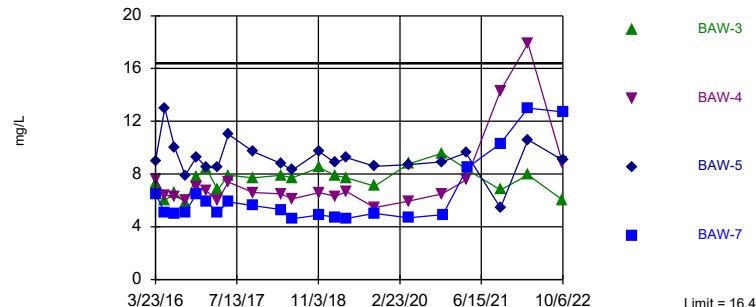


Background Data Summary (based on cube root transformation): Mean=0.9557, Std. Dev.=0.1301, n=42, 4.762% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9264, critical = 0.922. Kappa = 1.822 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Boron Analysis Run 11/2/2022 10:59 AM View: PLs Interwell App III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

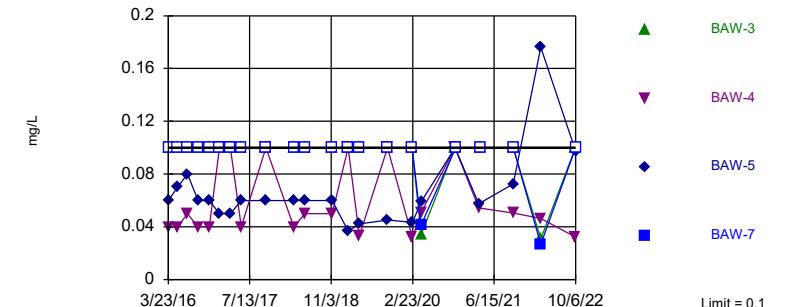
Constituent: Calcium Analysis Run 11/2/2022 10:59 AM View: PLs Interwell App III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 41 background values. Annual per-constituent alpha = 0.008777. Individual comparison alpha = 0.001101 (1 of 2). Comparing 4 points to limit.

Prediction Limit
Interwell Non-parametric



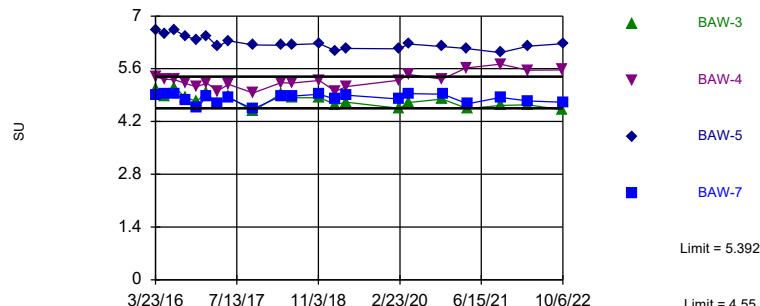
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 90.7% NDs. Annual per-constituent alpha = 0.008148. Individual comparison alpha = 0.001022 (1 of 2). Comparing 4 points to limit.

Constituent: Chloride Analysis Run 11/2/2022 10:59 AM View: PLs Interwell App III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Fluoride Analysis Run 11/2/2022 10:59 AM View: PLs Interwell App III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

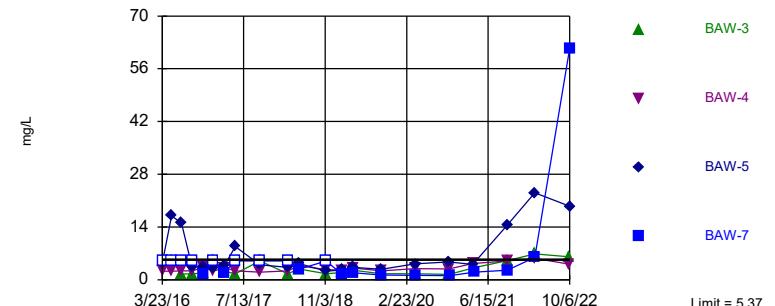
Exceeds Limits: BAW-3, BAW-4, BAW-5

Prediction Limit
Interwell Parametric



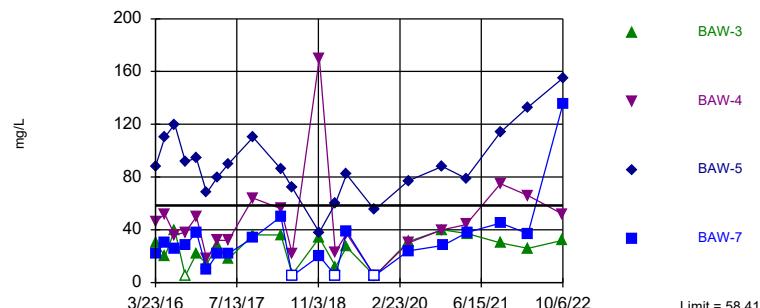
Exceeds Limit: BAW-3, BAW-5, BAW-7

Prediction Limit
Interwell Non-parametric



Exceeds Limit: BAW-5, BAW-7

Prediction Limit
Interwell Parametric



Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-2 (bg)	BAW-4	BAW-2A (bg)
3/23/2016	<0.08	<0.08	0.22	<0.08	<0.08	0.037 (J)	
5/17/2016	<0.08	<0.08	0.35			<0.08	
5/18/2016				<0.08	<0.08		
7/12/2016	<0.08	<0.08					
7/13/2016			0.5	<0.08	<0.08	0.032 (J)	
9/13/2016	<0.08	<0.08	0.27		<0.08	0.027 (J)	
9/14/2016				<0.08	<0.08	0.027 (J)	
11/19/2016	<0.08	<0.08	0.19	<0.08	<0.08	0.024 (J)	
1/17/2017	<0.08	<0.08		<0.08	<0.08		
1/18/2017			0.19			<0.08	
3/22/2017	<0.08	<0.08					
3/23/2017			0.19	<0.08	<0.08	0.024 (J)	
5/24/2017	<0.08	<0.08	0.22	<0.08	<0.08	0.027 (J)	
10/16/2017	<0.08	<0.08	0.19	<0.08	<0.08	0.03 (J)	
3/28/2018	<0.08		0.17	<0.08		<0.08	<0.08
3/29/2018		<0.08					
6/2/2018	<0.08	<0.08	0.16	<0.08		0.025 (J)	<0.08
11/8/2018	<0.08			<0.08		0.024 (J)	
11/9/2018		<0.08	0.13				<0.08
2/11/2019	<0.08		0.126			<0.08	
2/12/2019		<0.08		<0.08			<0.08
4/17/2019	<0.08		0.118	<0.08		<0.08	<0.08
4/18/2019		<0.08					<0.08
9/27/2019	<0.08	<0.08					
9/30/2019			0.14	<0.08		<0.08	
2/21/2020	0.0928	<0.08		<0.08			0.0589 (J)
2/22/2020			0.193			<0.08	
4/14/2020	<0.08	<0.08	0.209	<0.08		<0.08	0.0424 (J)
10/30/2020	<0.08		0.194	<0.08		<0.08	0.0495 (J)
11/2/2020		<0.08					
3/17/2021			0.2			0.0673 (J)	
3/26/2021	<0.08	0.647		<0.08			<0.08
10/5/2021	<0.08	0.281				0.168	
10/6/2021			0.272	<0.08			<0.08
3/16/2022	<0.08	0.247	0.695	<0.08		0.084	0.0717 (J)
10/5/2022	<0.08			<0.08		0.0714 (J)	
10/6/2022		1.82	0.631				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-4	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<0.5	0.65	18	1.1	3.7	2.6 (o)	
5/17/2016	0.84	0.68	23		3.4		
5/18/2016				0.56		1.3	
7/12/2016	0.79	0.62					
7/13/2016			18	0.95	2.8	1.1	
9/13/2016	0.42	0.25	19				
9/14/2016				0.4	2.6	1.1	
11/19/2016	1.2	0.36	17	0.62	2.7	1	
1/17/2017	1.4	0.66		1.2		0.87	
1/18/2017			17		3.1		
3/22/2017	0.95	0.65					
3/23/2017			15	0.87	2.8	0.74	
5/24/2017	1.3	0.72	19	0.81	3.1	0.84	
10/16/2017	0.93	0.7	17	0.86	3.3	0.76	
3/28/2018	1		16	0.97	2.7		2.8
3/29/2018		0.55					
6/2/2018	0.93	0.6	15	0.86	2.9		0.71
11/8/2018	1			0.84	3		
11/9/2018		0.59	14				0.61
2/11/2019	1		12.8		2.88		
2/12/2019		0.608		0.856			0.757
4/17/2019	0.893		13	0.711	2.77		0.755
4/18/2019		0.55					
9/27/2019	0.8	0.598					0.663
9/30/2019			13.6	0.826	3.08		
2/21/2020	1.02	0.552		0.841			0.648
2/22/2020			15		3.86		
4/14/2020	0.887	0.532	15.7	0.811	2.95		0.67
10/30/2020	0.945		16.4	1	3.84		0.672
11/2/2020		0.535					
3/17/2021			15.3		6.69		
3/26/2021	0.965	0.848		0.937			0.644
10/5/2021	0.996	0.829			8.57		
10/6/2021			22.8	0.532			<0.5
3/16/2022	1.32	1.28	23.8	0.78	8.94		0.539
10/5/2022	1.42			0.647	5.81		
10/6/2022		4.84	28.2				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-2 (bg)	BAW-4	BAW-2A (bg)
3/23/2016	6.5	6.5	9	7.3	5.1	7.6	
5/17/2016	4.9	5.1	13			6.4	
5/18/2016				6	4.2		
7/12/2016	5.3	5					
7/13/2016			10	6.6	4.7	6.3	
9/13/2016	4.8 (F1)	5.1	7.9				
9/14/2016				5.8	4.5	6	
11/19/2016	7.1	6.5	9.3	7.8	6.1	7	
1/17/2017	5.8	5.9		8.4	5.4		
1/18/2017			8.5			6.7	
3/22/2017	4.9	5.1					
3/23/2017			8.5	6.8	5.1	6	
5/24/2017	5.9	5.9	11	7.9	5.5	7.4	
10/16/2017	5.7	5.6	9.7	7.7	6.1	6.6	
3/28/2018	5.7		8.8	7.9		6.5	6.7
3/29/2018			5.3				
6/2/2018	4.7	4.6	8.3	7.7		6.1	5.8
11/8/2018	5.6			8.5		6.6	
11/9/2018			4.9	9.7			7.2
2/11/2019	4.84			8.84		6.31	
2/12/2019			4.72		7.89		8.4
4/17/2019	4.99			9.24	7.71		6.68
4/18/2019			4.64				8.03
9/27/2019	5.08	5.02					8.37
9/30/2019				8.59	7.07		5.45
4/14/2020	4.91	4.68		8.71	8.75		5.93
10/30/2020	5.55			8.93	9.58		7.57
11/2/2020			4.91				6.49
3/17/2021				9.6		7.55	
3/26/2021	5.92	8.5			8.32		
10/5/2021	6.21	10.3				14.3	
10/6/2021				5.44	6.8		16.4
3/16/2022	7.85	13		10.6	7.94		17.9
10/5/2022	6.75				6.04		11.5
10/6/2022			12.7	9.04			8.84

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-2 (bg)	BAW-4	BAW-2A (bg)
3/23/2016	<0.1	<0.1	0.06 (J)	<0.1	<0.1	0.04 (J)	
5/17/2016	<0.1	<0.1	0.07 (J)			0.04 (J)	
5/18/2016				<0.1	<0.1		
7/12/2016	<0.1	<0.1					
7/13/2016			0.08 (J)	<0.1	<0.1	0.05 (J)	
9/13/2016	<0.1	<0.1	0.06 (J)				
9/14/2016				<0.1	<0.1	0.04 (J)	
11/19/2016	<0.1	<0.1	0.06 (J)	<0.1	<0.1	0.04 (J)	
1/17/2017	<0.1	<0.1			<0.1		
1/18/2017			0.05 (J)			<0.1	
3/22/2017	<0.1	<0.1					
3/23/2017			0.05 (J)	<0.1	<0.1	<0.1	
5/24/2017	<0.1	<0.1 (D)	0.06 (J)	<0.1	<0.1	0.04 (J)	
10/16/2017	<0.1	<0.1	0.06 (J)	<0.1	<0.1	<0.1	
3/28/2018	<0.1		0.06 (J)	<0.1		0.04 (J)	<0.1
3/29/2018		<0.1					
6/2/2018	<0.1	<0.1	0.06 (J)	<0.1		0.05 (J)	<0.1
11/8/2018	<0.1			<0.1		0.05 (J)	
11/9/2018		<0.1	0.06 (J)				<0.1
2/11/2019	<0.1		0.0368 (J)			<0.1	
2/12/2019		<0.1		<0.1			<0.1
4/17/2019	<0.1		0.0421 (J)	<0.1		0.033 (J)	<0.1
4/18/2019		<0.1					
9/27/2019	<0.1	<0.1				0.0313 (J)	
9/30/2019			0.045 (J)	<0.1		<0.1	
2/21/2020	<0.1	<0.1		<0.1			<0.1
2/22/2020			0.0434 (J)			0.0317 (J)	
4/14/2020	0.0532 (J)	0.0415 (J)	0.059 (J)	0.034 (J)		0.0508 (J)	0.0537 (J)
10/30/2020	<0.1		<0.1	<0.1		<0.1	<0.1
11/2/2020		<0.1					
3/17/2021			0.0575 (J)			0.0544 (J)	
3/26/2021	<0.1	<0.1		<0.1			<0.1
10/5/2021	0.0499 (J)	<0.1				0.0505 (J)	
10/6/2021			0.0725 (J)	<0.1			<0.1
3/16/2022	<0.1	0.0266 (J)	0.176	0.0307 (J)		0.0462 (J)	<0.1
10/5/2022	<0.1			<0.1		0.0322 (J)	
10/6/2022		<0.1	0.0972 (J)				

Prediction Limit

Constituent: pH (SU) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-2 (bg)	BAW-4	BAW-2A (bg)
3/23/2016	5.12	4.89	6.64	5.05	5.52	5.38	
5/17/2016	5.23	4.92	6.52				5.32
5/18/2016				4.86	5.24		
7/12/2016	5.77	4.93					
7/13/2016			6.63	5.11	5.17	5.31	
9/13/2016	4.98	4.76	6.46				
9/14/2016				4.84	5.04	5.21	
11/19/2016	4.82	4.56	6.38	4.74	4.88	5.12	
1/17/2017	5.04	4.86		4.95	5.04		
1/18/2017			6.47				5.22
3/22/2017	4.73	4.66					
3/23/2017			6.19	4.66	4.66	5.01	
5/24/2017	5.01	4.83	6.34	4.86	4.93	5.19	
10/16/2017	4.59	4.53	6.23	4.47	4.65	4.96	
3/28/2018	4.87		6.22	4.93		5.23	5.39
3/29/2018		4.87					
6/2/2018	4.92	4.87	6.24	4.83		5.22	5.06
11/8/2018	5			4.83		5.29	
11/9/2018		4.92	6.27				4.92
2/11/2019	4.7		6.08			5	
2/12/2019		4.79		4.65			4.86
4/17/2019	4.9		6.14	4.71		5.13	4.79
4/18/2019		4.9					
2/21/2020	4.86	4.8		4.55			4.73
2/22/2020			6.13			5.3	
4/14/2020	5.23	4.94	6.26	4.7		5.45	4.87
10/30/2020	5		6.19	4.8		5.32	4.87
11/2/2020		4.92					
3/17/2021			6.14			5.62	
3/26/2021	4.86	4.67		4.54			4.7
10/5/2021	5	4.84				5.72	
10/6/2021			6.03	4.63			4.77
3/16/2022	4.92	4.75	6.2	4.64		5.56	4.91
10/5/2022	4.91			4.51			5.57
10/6/2022		4.71	6.27				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-2 (bg)	BAW-4	BAW-2A (bg)
3/23/2016	<5	<5	4.5 (J)	<5	<5	2.3 (J)	
5/17/2016	<5	<5	17			2.3 (J)	
5/18/2016				<5	<5		
7/12/2016	<5	<5					
7/13/2016			15	1.5 (J)	<5	2.4 (J)	
9/13/2016	<5	<5	3.4 (J)		1.6 (J)	<5	2.4 (J)
9/14/2016							
11/19/2016	<5	1.5 (J)	3.5 (J)	1.8 (J)	<5	3.3 (J)	
1/17/2017	<5	<5		<5	<5		
1/18/2017			3.2 (J)			2.3 (J)	
3/22/2017	<5	1.9 (J)					
3/23/2017			3.7 (J)	2.3 (J)	1.8 (J)	3.2 (J)	
5/24/2017	<5	<5	8.8	1.6 (J)	1.5 (J)	2.4 (J)	
10/16/2017	<5	<5	4 (J)	<5	<5	2 (J)	
3/28/2018	<5		3.3 (J)	1.6 (J)		2.4 (J)	1.7 (J)
3/29/2018		<5					
6/2/2018	1.9 (J)	2.8 (J)	4.3 (J)	2.9 (J)		3.7 (J)	3 (J)
11/8/2018	<5			1.6 (J)		2.7 (J)	
11/9/2018		<5	2.3 (J)				<5
2/11/2019	0.774 (J)		2.64			2.5	
2/12/2019		1.35		1.97			1.97
4/17/2019	1.43		3.27	2.5		3.15	2.82
4/18/2019		1.82					
9/27/2019	1.03	1.22					2.19
9/30/2019			2.82	1.64		2.34	
4/14/2020	0.928 (J)	1.18	4.2	1.62		2.99	2.71
10/30/2020	0.91 (J)		4.76	1.44		2.84	3.97
11/2/2020		1.08					
3/17/2021			4.07			4.35	
3/26/2021	1.49	2		3.25			2.04
10/5/2021	1.13	2.55				5.02	
10/6/2021			14.5	5.07			5.37
3/16/2022	3.6	5.93	23.1	6.85		5.64	5.37
10/5/2022	1.34			6.07		4.12	
10/6/2022		61.4	19.5				

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/2/2022 11:00 AM View: PLs Interwell App III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-2 (bg)	BAW-4	BAW-2A (bg)
3/23/2016	20	22	88	30	30	46	
5/17/2016	24	30	110			52	
5/18/2016				20	20		
7/12/2016	24	26					
7/13/2016			120	40	40	36	
9/13/2016	18	28	92				
9/14/2016				<10	10	38	
11/19/2016	20	38	94	22	28	50	
1/17/2017	<10	10		14	14		
1/18/2017			68			18	
3/22/2017	12	22					
3/23/2017			80	28	16	32	
5/24/2017	16 (D)	22	90	18	12	32	
10/16/2017	58	34	110	36	50	64	
3/28/2018	18		86	36		56	30
3/29/2018			50				
6/2/2018	6	<10	72	6		22	26
11/8/2018	12			34		170	
11/9/2018			20	38			94
2/11/2019	<10		60			23	
2/12/2019			<10	12			22
4/17/2019	16		82	27		37	22
4/18/2019			39				
9/27/2019	26	<10					25
9/30/2019			55	<10		<10	
4/14/2020	25	24	77	31		30	38
10/30/2020	34		88	40		40	48
11/2/2020		28					
3/17/2021			79			44	
3/26/2021	24	38		37			24
10/5/2021	26	45				75	
10/6/2021			114	30			61
3/16/2022	30	37	133	26		66	26
10/5/2022	30			32		52	
10/6/2022		135	155				

FIGURE E.

Trend Tests - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 10:15 AM

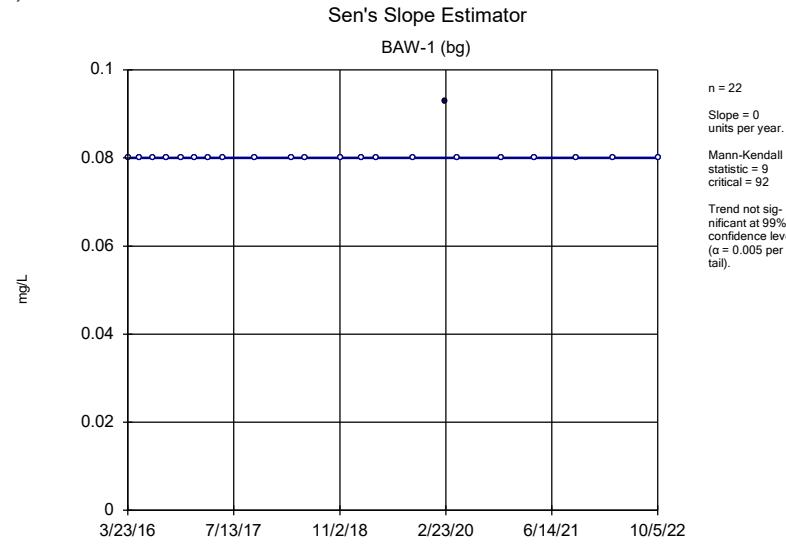
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-3	-0.05966	-118	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.06868	-115	-87	Yes	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.5125	-101	-87	Yes	21	52.38	n/a	n/a	0.01	NP

Trend Tests - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 11/2/2022, 10:15 AM

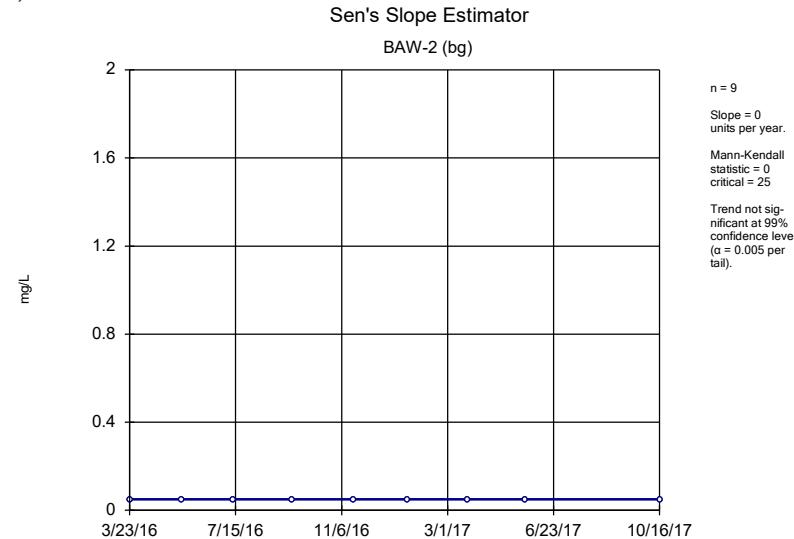
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	9	92	No	22	95.45	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-18	-38	No	12	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	0	-2	-92	No	22	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	72	92	No	22	81.82	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.03742	65	92	No	22	4.545	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.06268	-36	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.2694	90	92	No	22	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.382	-25	-92	No	22	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-7	0.03332	29	92	No	22	0	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.02148	-38	-87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.07555	-24	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	BAW-3	-0.05966	-118	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.04519	66	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.06868	-115	-87	Yes	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.5125	-101	-87	Yes	21	52.38	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2A (bg)	0.6255	20	34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-3	0.02922	34	87	No	21	19.05	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-5	0.1981	20	87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-7	-0.01929	-36	-87	No	21	42.86	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	1.555	52	87	No	21	9.524	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	0.9444	5	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-0.4163	-4	-87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-7	2.528	44	87	No	21	14.29	n/a	n/a	0.01	NP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.



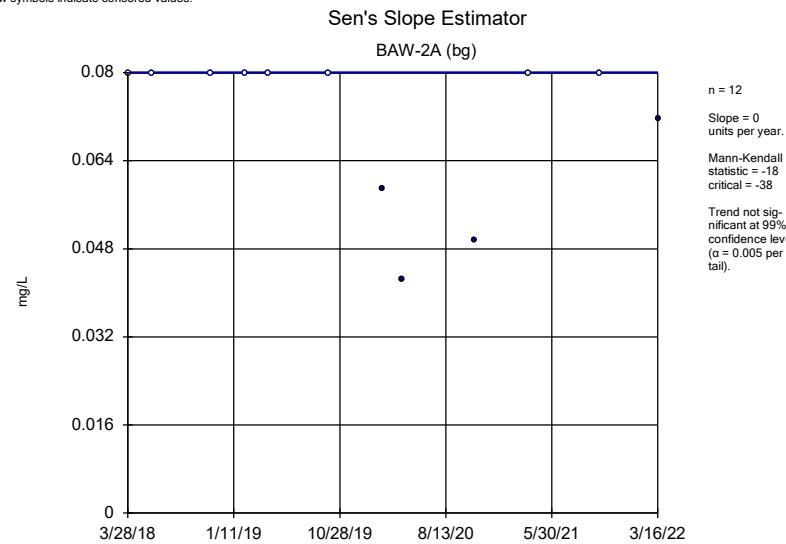
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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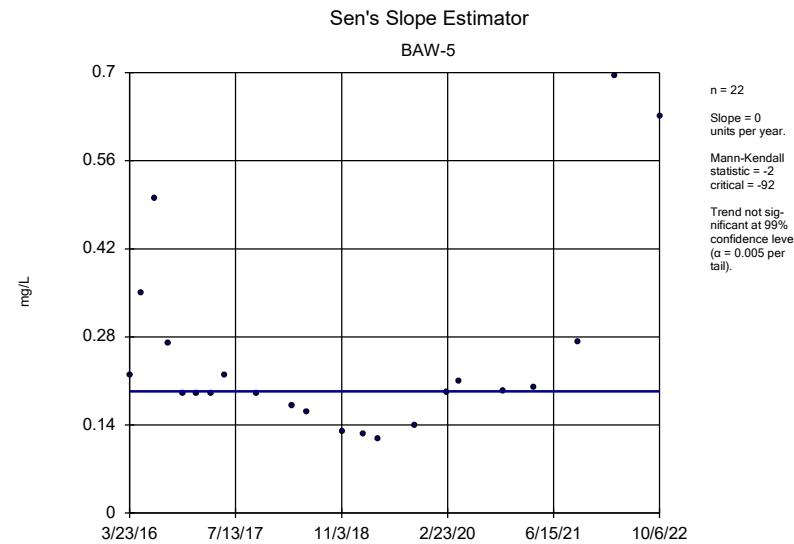
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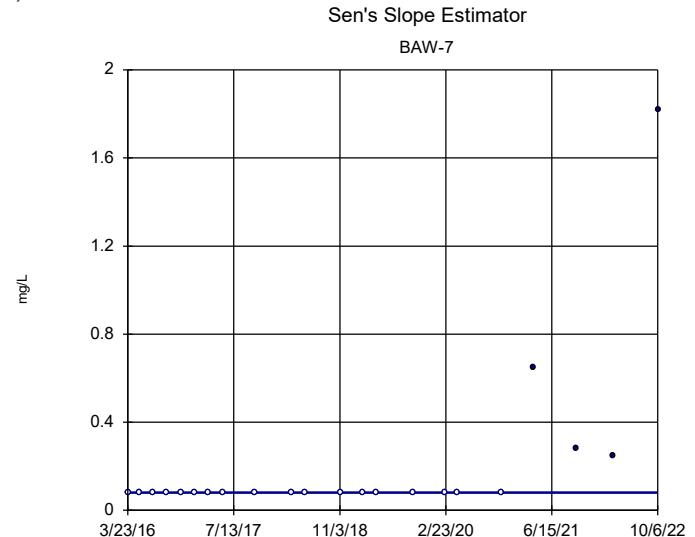
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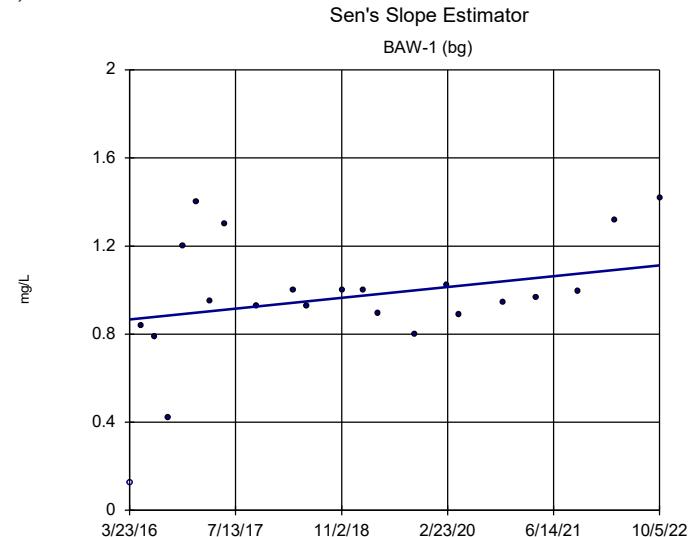
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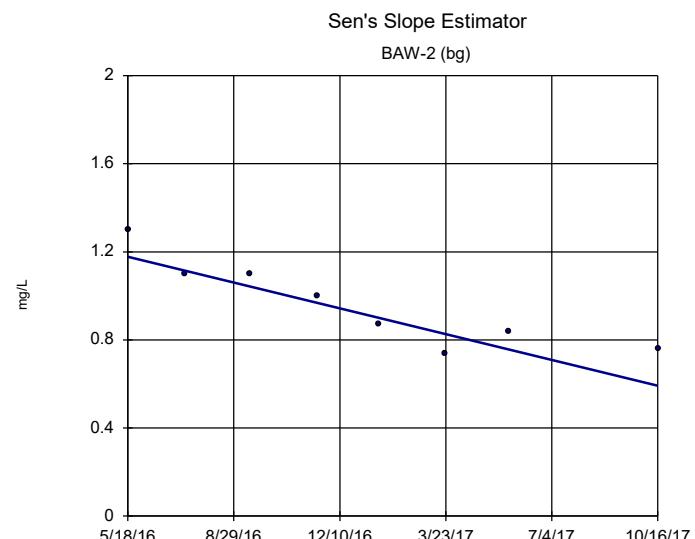
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Hollow symbols indicate censored values.



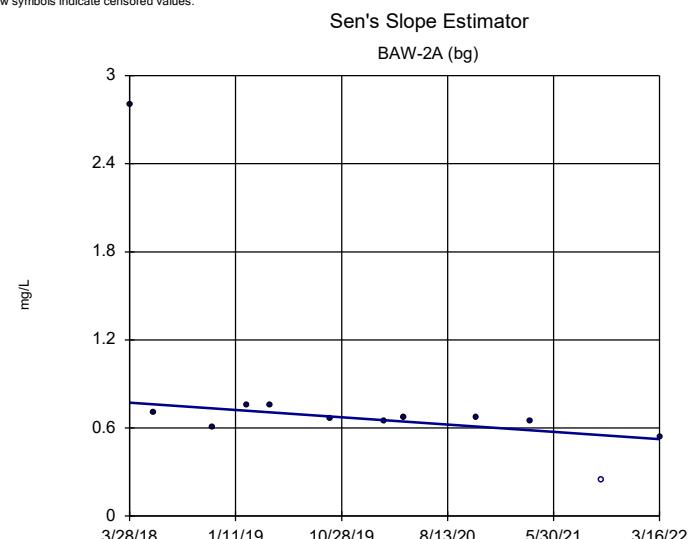
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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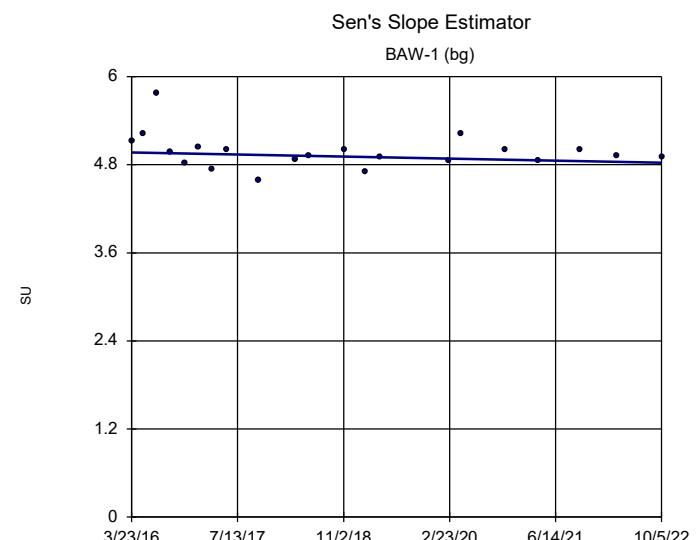
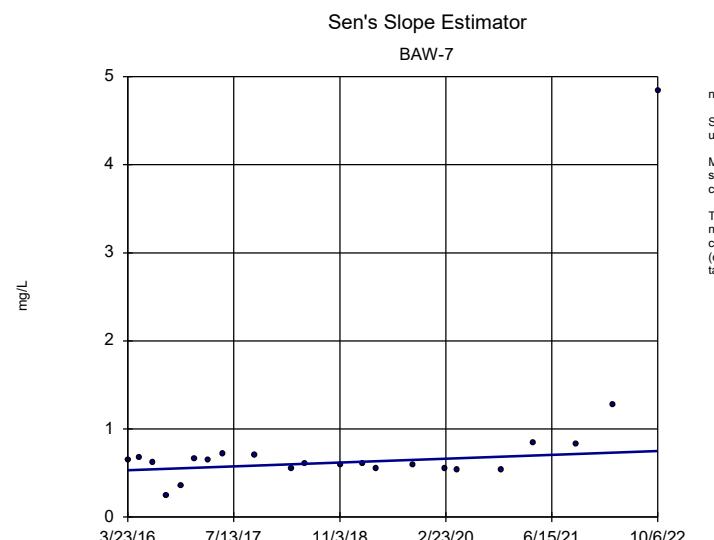
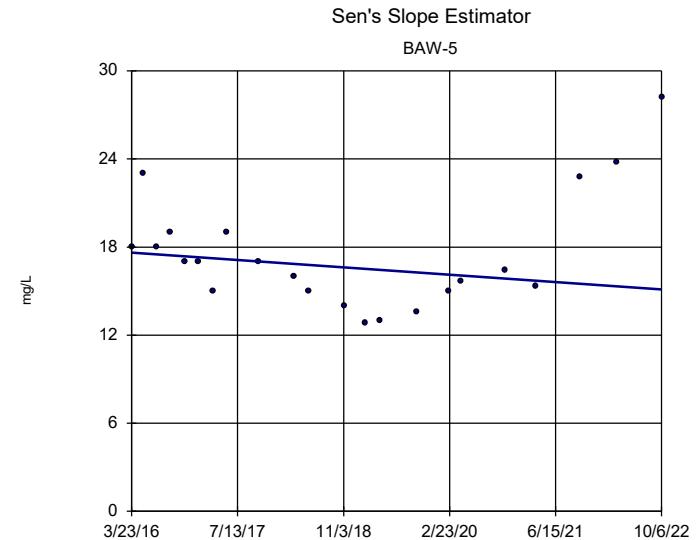
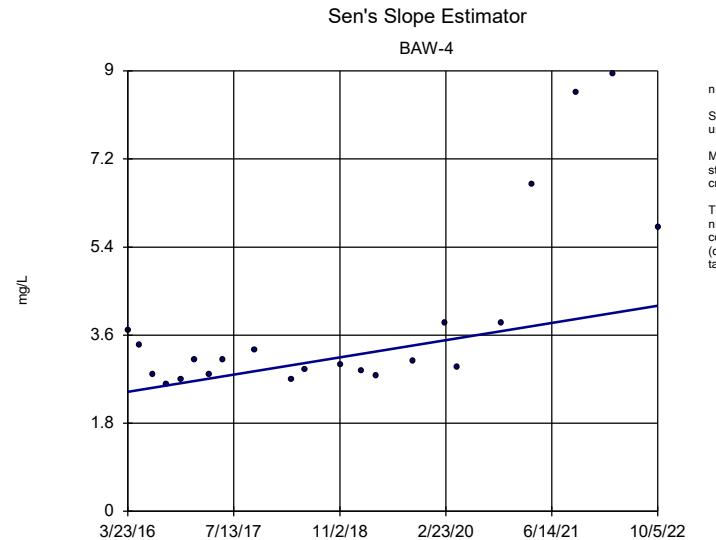


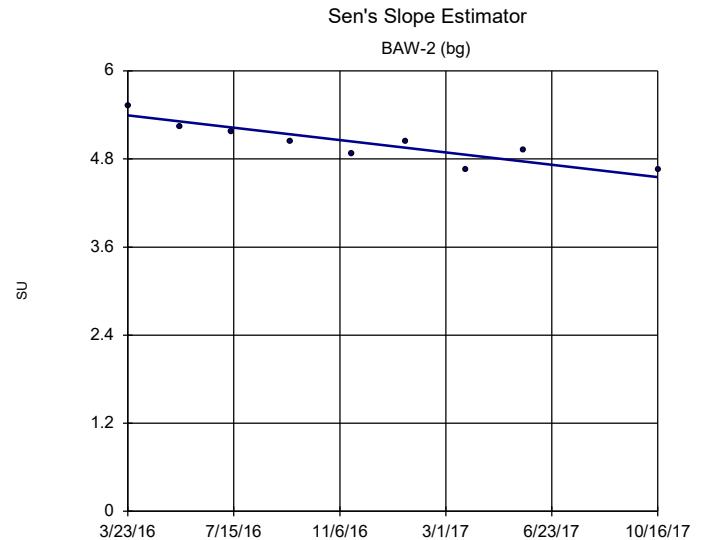
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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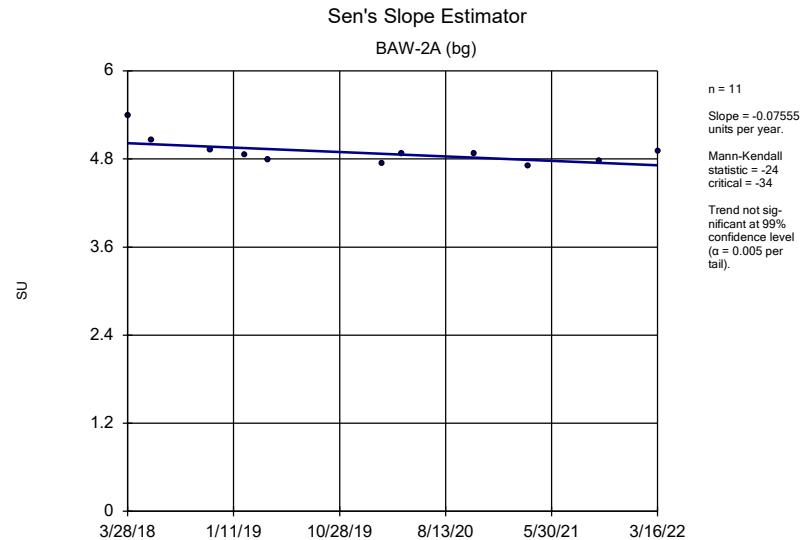


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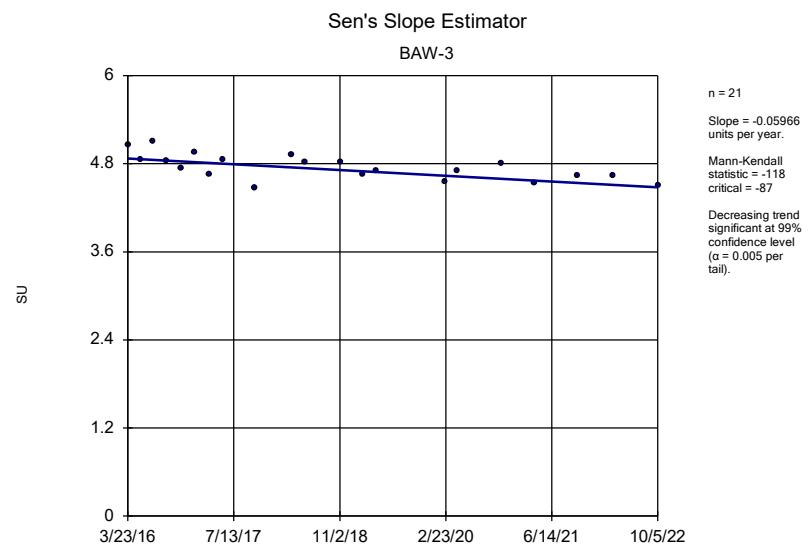




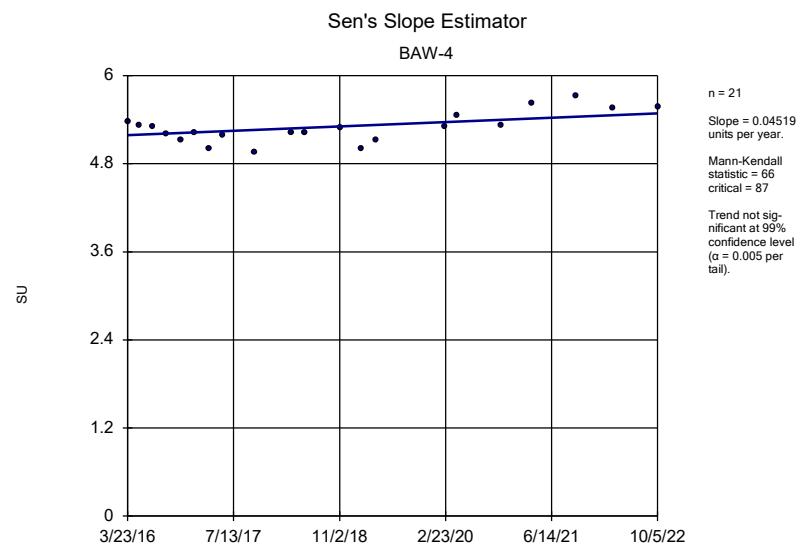
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



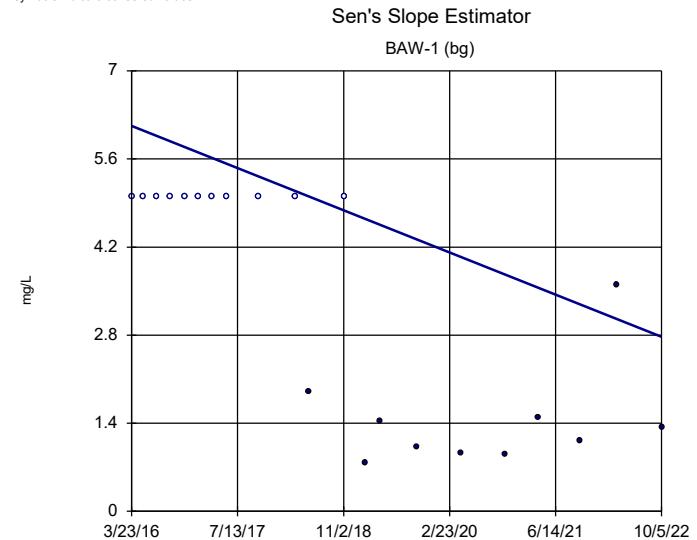
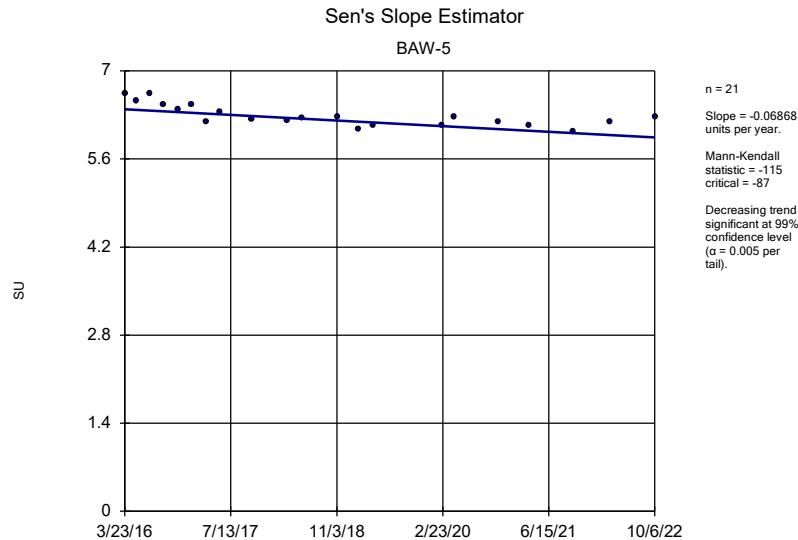
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



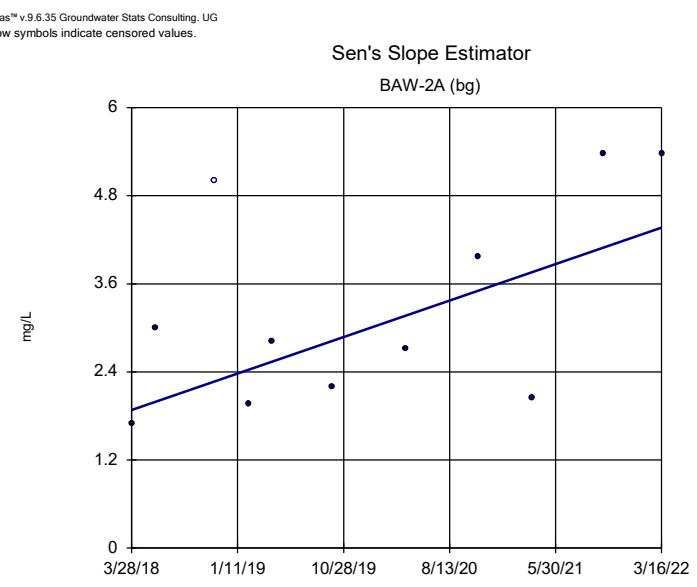
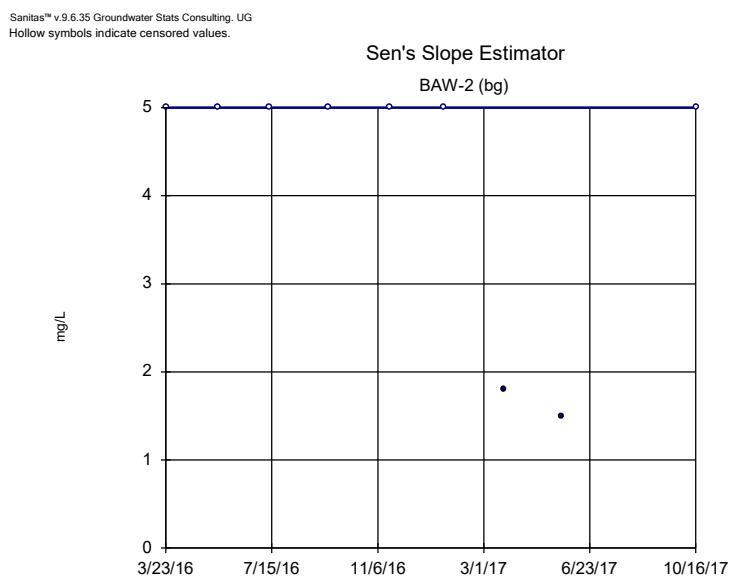
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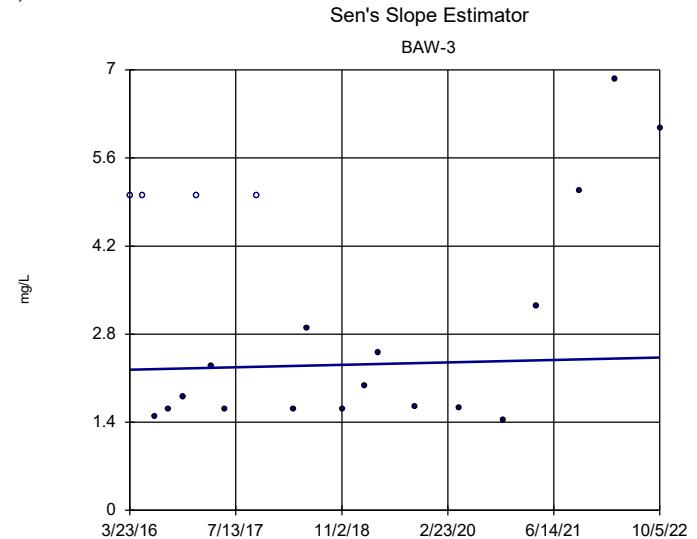


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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

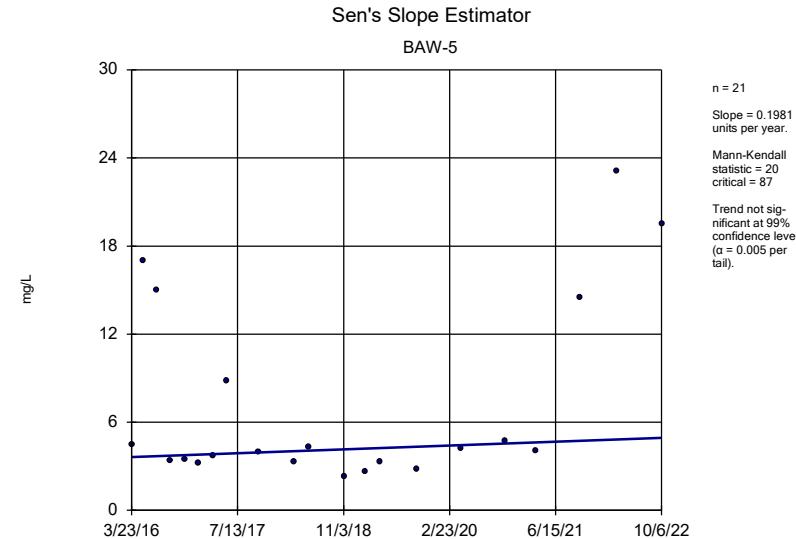


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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

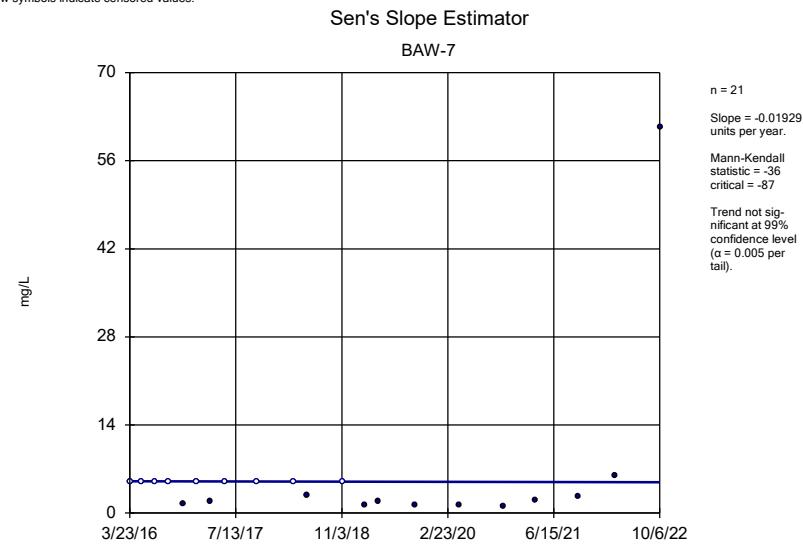




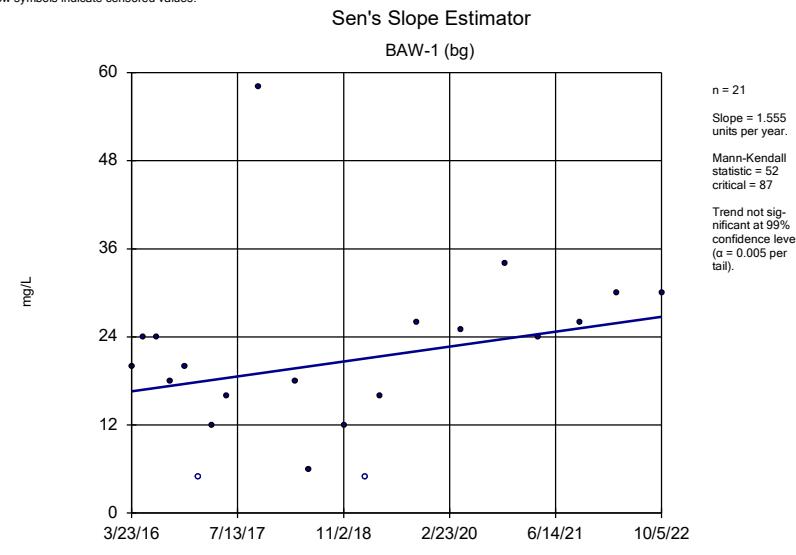
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Sulfate Analysis Run 11/2/2022 10:07 AM View: Trend Tests - App III PL Exceedances
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Sulfate Analysis Run 11/2/2022 10:07 AM View: Trend Tests - App III PL Exceedances
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Total Dissolved Solids Analysis Run 11/2/2022 10:07 AM View: Trend Tests - App III PL Exceedances
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

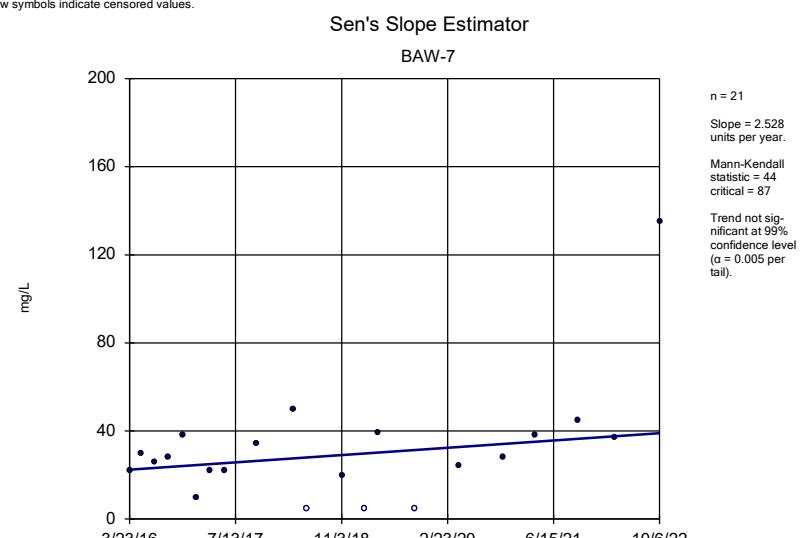
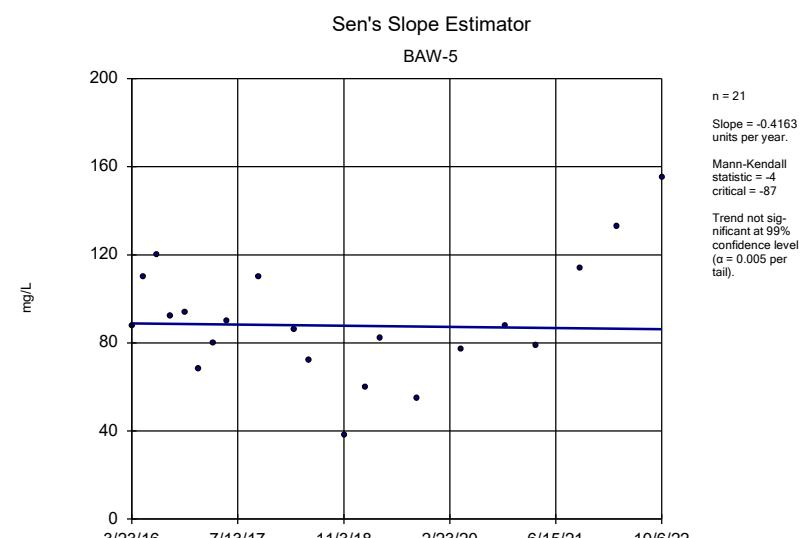
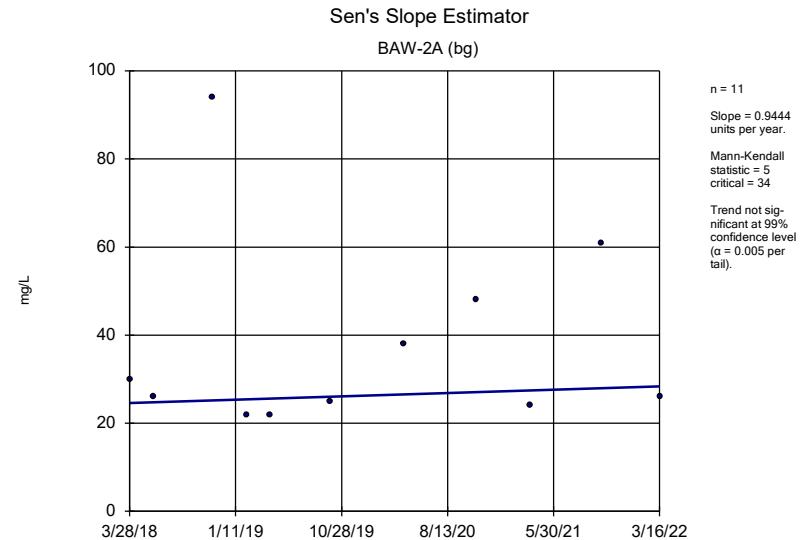
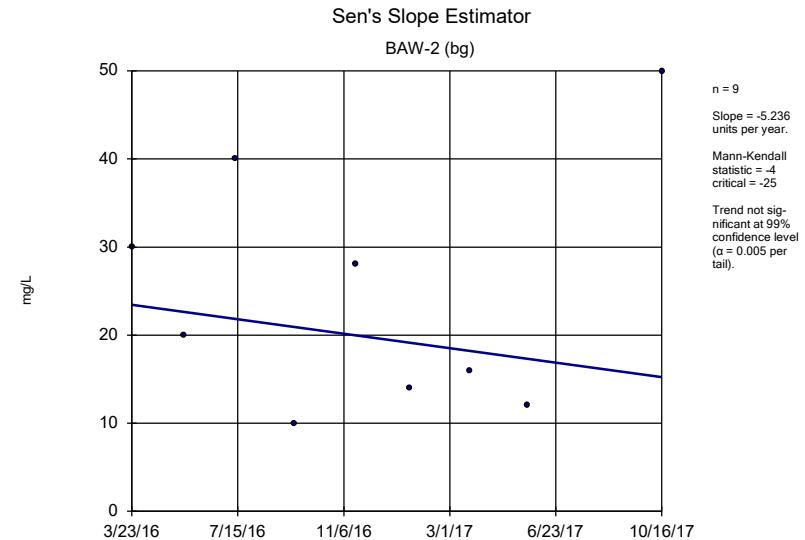


FIGURE F.

Upper Tolerance Limits

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/7/2022, 3:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.002	35	n/a	n/a	97.14	n/a	n/a	0.1661	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.001	41	n/a	n/a	100	n/a	n/a	0.1221	NP Inter(NDs)
Barium (mg/L)	n/a	0.0512	41	n/a	n/a	2.439	n/a	n/a	0.1221	NP Inter(normality)
Beryllium (mg/L)	n/a	0.001	37	n/a	n/a	97.3	n/a	n/a	0.1499	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	41	n/a	n/a	97.56	n/a	n/a	0.1221	NP Inter(NDs)
Chromium (mg/L)	n/a	0.00286	39	n/a	n/a	89.74	n/a	n/a	0.1353	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.002	41	n/a	n/a	7.317	n/a	n/a	0.1221	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	2.5	41	n/a	n/a	4.878	n/a	n/a	0.1221	NP Inter(normality)
Fluoride (mg/L)	n/a	0.1	43	n/a	n/a	90.7	n/a	n/a	0.1102	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	39	n/a	n/a	100	n/a	n/a	0.1353	NP Inter(NDs)
Lithium (mg/L)	n/a	0.00505	40	n/a	n/a	70	n/a	n/a	0.1285	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	33	n/a	n/a	93.94	n/a	n/a	0.184	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.005	37	n/a	n/a	89.19	n/a	n/a	0.1499	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	37	n/a	n/a	83.78	n/a	n/a	0.1499	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	37	n/a	n/a	97.3	n/a	n/a	0.1499	NP Inter(NDs)

FIGURE G.

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.051	2
Beryllium, Total (mg/L)	0.004		0.001	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.002	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

FIGURE H.

Confidence Intervals - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/7/2022, 3:19 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.1909	0.1499	0.04	Yes 21	0.1658	0.04547	0	None	x^2	0.01	Param.

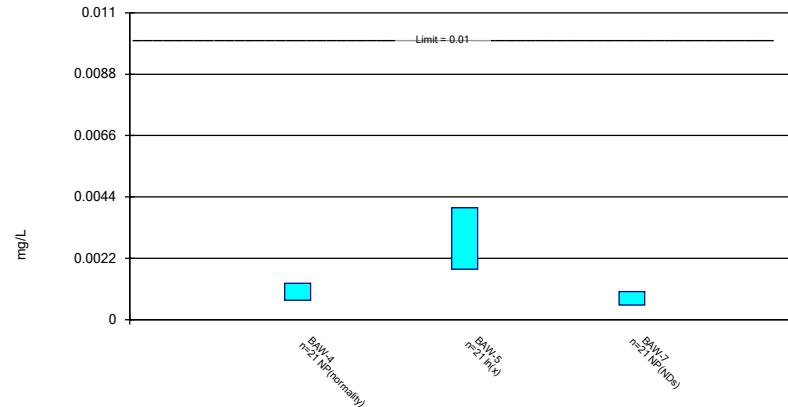
Confidence Intervals - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/7/2022, 3:19 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>ComplianceSig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.0013	0.00069	0.01	No 21	0.001315	0.001121	19.05	None	No	0.01	NP (normality)
Arsenic (mg/L)	BAW-5	0.004008	0.001811	0.01	No 21	0.003586	0.003312	0	None	In(x)	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No 21	0.0009533	0.0001474	90.48	None	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.03086	0.02234	2	No 21	0.0266	0.00772	0	None	No	0.01	Param.
Barium (mg/L)	BAW-4	0.012	0.00888	2	No 21	0.01294	0.007289	0	None	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.046	0.039	2	No 21	0.04606	0.009499	0	None	No	0.01	NP (normality)
Barium (mg/L)	BAW-7	0.014	0.011	2	No 21	0.01694	0.01794	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BAW-7	0.001	0.000185	0.004	No 19	0.0009571	0.000187	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BAW-3	0.0009016	0.0005983	0.005	No 21	0.0007499	0.0002749	4.762	None	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No 21	0.0009598	0.0001844	95.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No 20	0.002888	0.003824	85	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No 20	0.001905	0.0002438	85	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No 20	0.00213	0.0007057	85	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No 20	0.002003	0.00001342	95	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.006271	0.004868	0.006	No 21	0.00557	0.001272	0	None	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.001358	0.001006	0.006	No 21	0.001202	0.0003495	0	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BAW-5	0.000802	0.00042	0.006	No 21	0.0005771	0.0002298	80.95	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.001	0.000705	0.006	No 21	0.0011	0.001022	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.78	0.126	5	No 21	0.6023	0.7205	9.524	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.7712	0.1114	5	No 21	0.6262	0.8202	14.29	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.8564	0.3395	5	No 20	0.6551	0.562	5	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	1.07	0.2882	5	No 21	0.8112	0.8459	14.29	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No 22	0.09385	0.01991	90.91	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.0544	0.04	4	No 22	0.05858	0.02669	27.27	None	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.07	0.05	4	No 22	0.06407	0.02828	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No 22	0.094	0.01954	90.91	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.000236	0.015	No 20	0.0006714	0.0003848	55	None	No	0.01	NP (normality)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No 20	0.0008577	0.0002969	80	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No 20	0.0009576	0.0001896	95	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No 20	0.0009565	0.0001948	95	None	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.005	0.00322	0.04	No 21	0.004408	0.001284	66.67	None	No	0.01	NP (normality)
Lithium (mg/L)	BAW-4	0.0267	0.021	0.04	No 21	0.02313	0.007405	0	None	No	0.01	NP (normality)
Lithium (mg/L)	BAW-5	0.1909	0.1499	0.04	Yes 21	0.1658	0.04547	0	None	x^2	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0035	0.04	No 21	0.004714	0.001979	57.14	None	No	0.01	NP (normality)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No 17	0.0002065	0.00008133	82.35	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No 17	0.0001884	0.00003423	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No 17	0.0001926	0.00003056	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000151	0.002	No 17	0.0002504	0.0002471	76.47	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.015	0.00109	0.1	No 19	0.01141	0.006194	73.68	None	No	0.01	NP (normality)
Molybdenum (mg/L)	BAW-5	0.015	0.0011	0.1	No 19	0.006688	0.006061	31.58	None	No	0.01	NP (normality)
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No 19	0.004937	0.0002753	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00038	0.05	No 19	0.003336	0.002243	63.16	None	No	0.01	NP (normality)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No 19	0.004754	0.001071	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00036	0.05	No 19	0.003857	0.002001	73.68	None	No	0.01	NP (normality)
Thallium (mg/L)	BAW-3	0.001	0.000276	0.002	No 19	0.0008218	0.0003564	78.95	None	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-7	0.001	0.000153	0.002	No 19	0.0009554	0.0001943	94.74	None	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

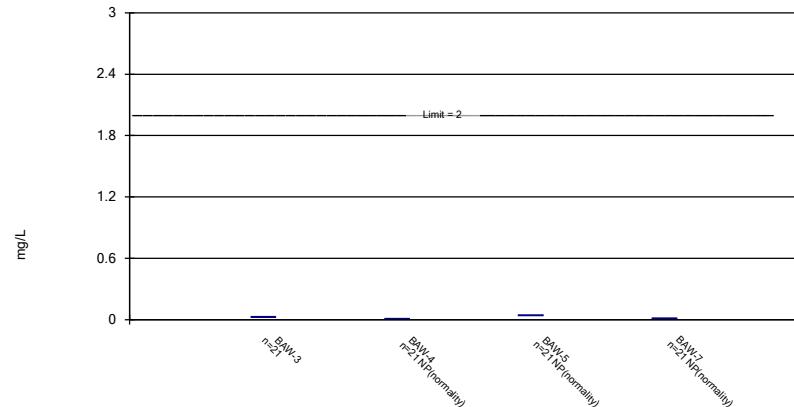
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

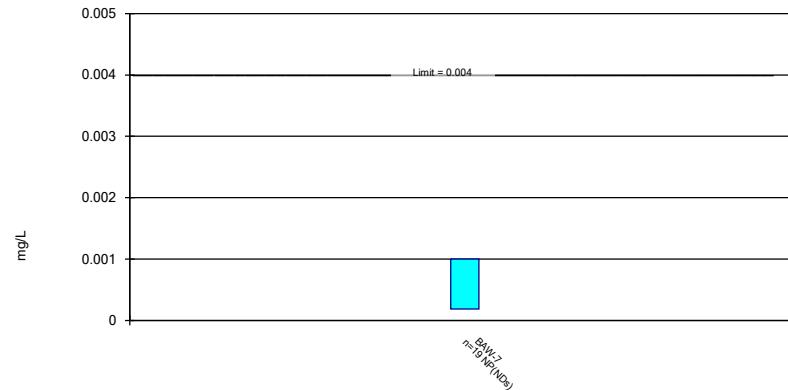
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

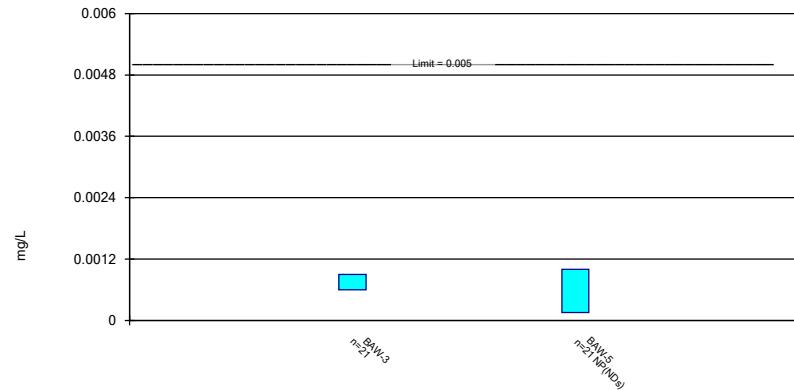
Compliance Limit is not exceeded. Per-well alpha = 0.01.



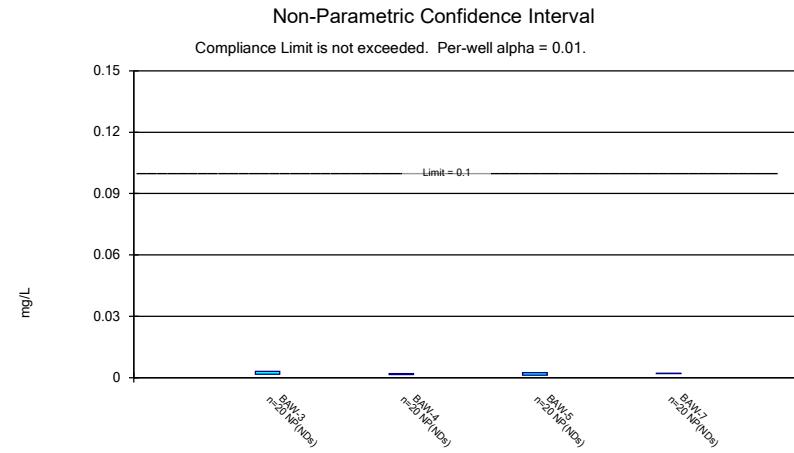
Constituent: Beryllium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

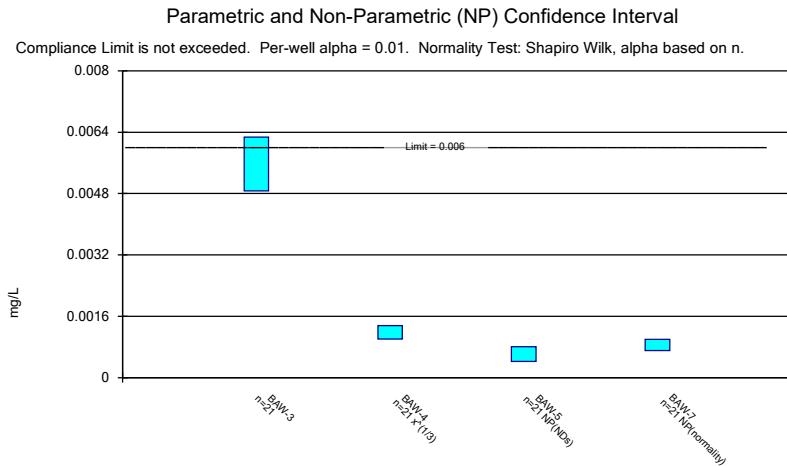
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



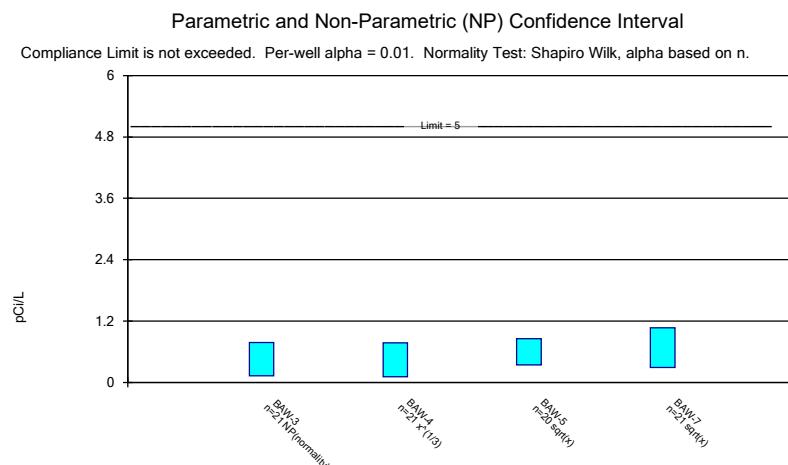
Constituent: Cadmium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



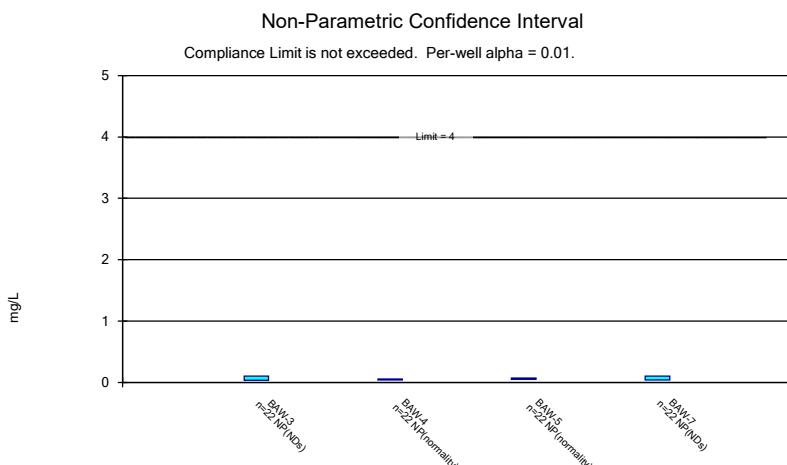
Constituent: Chromium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



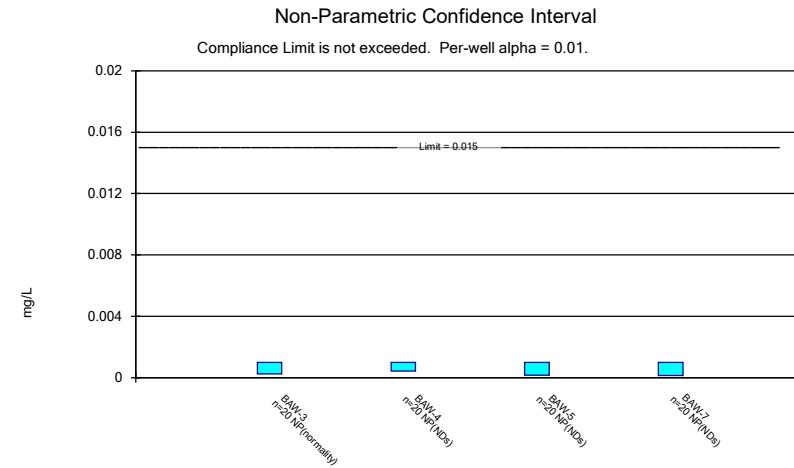
Constituent: Cobalt Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



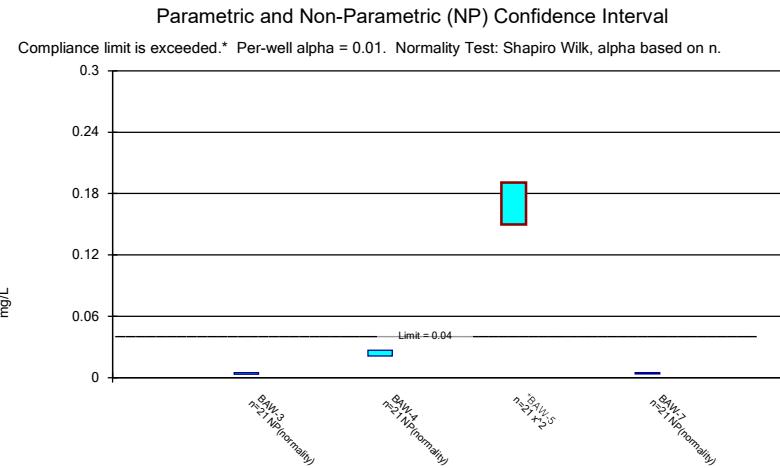
Constituent: Combined Radium 226 + 228 Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



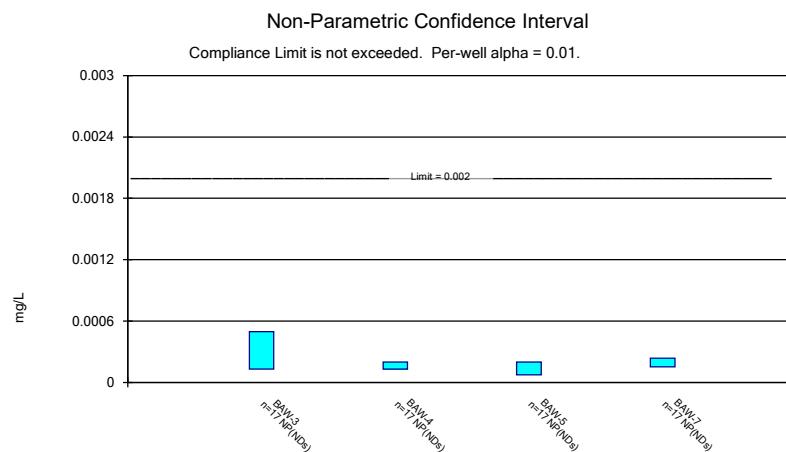
Constituent: Fluoride Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



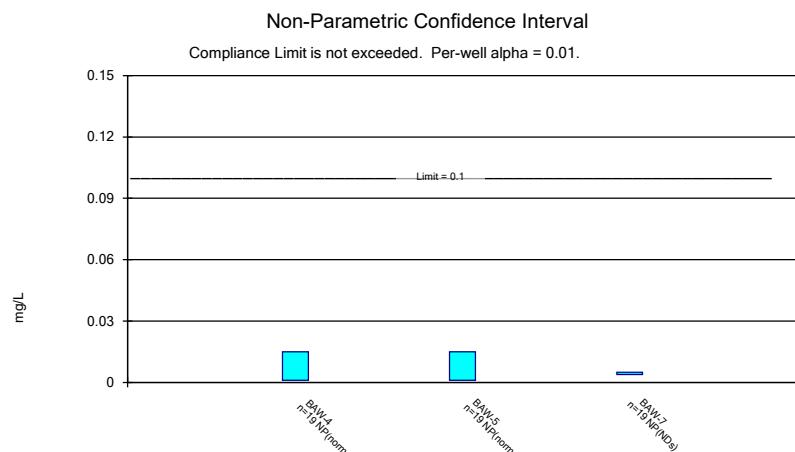
Constituent: Lead Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



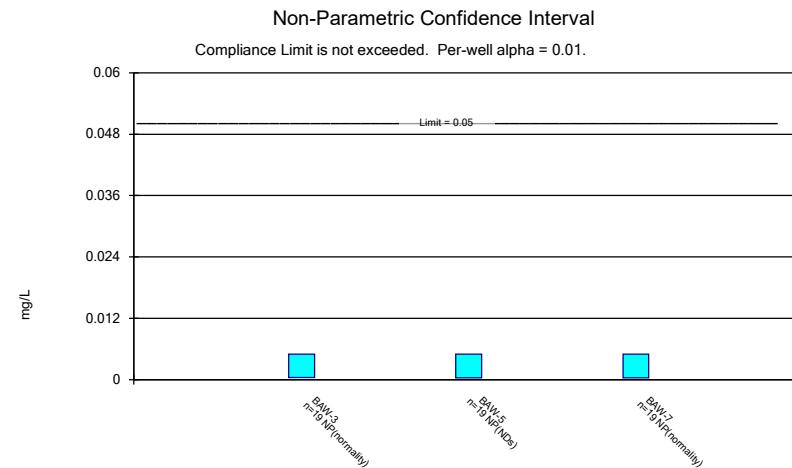
Constituent: Lithium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



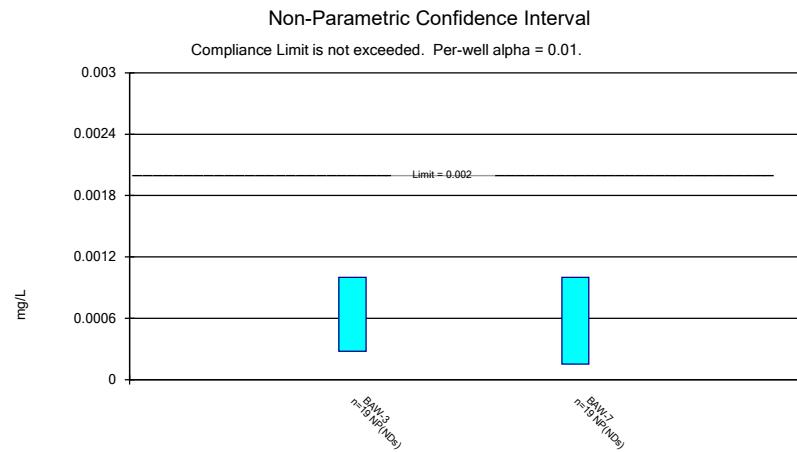
Constituent: Mercury Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Molybdenum Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Selenium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Thallium Analysis Run 12/7/2022 3:17 PM View: Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-4	BAW-5	BAW-7
3/23/2016	0.00087 (J)	0.0033	<0.001
5/17/2016	<0.0013	0.00089 (J)	<0.001
7/12/2016			<0.001
7/13/2016	0.00081 (J)	0.0039	
9/13/2016		0.0039	<0.001
9/14/2016	0.00069 (J)		
11/19/2016	0.0013	0.0037	0.0005 (J)
1/17/2017			<0.001
1/18/2017	<0.0013	0.0016	
3/22/2017			0.00052 (J)
3/23/2017	0.00078 (J)	0.0017	
5/24/2017	0.001 (J)	0.0021	<0.001
3/28/2018	<0.0013	0.0011 (J)	
3/29/2018			<0.001
6/2/2018	0.00068 (J)	0.0017	<0.001
11/8/2018	<0.0013		
11/9/2018		0.0021	<0.001
2/11/2019	0.000737 (J)	0.00232	
2/12/2019			<0.001
4/17/2019	0.000645 (J)	0.00218	
4/18/2019			<0.001
9/27/2019			<0.001
9/30/2019	0.000821 (J)	0.00272	
2/21/2020			<0.001
2/22/2020	0.000837 (J)	0.00177	
4/14/2020	0.000896 (J)	0.00177	<0.001
10/30/2020	0.000529 (J)	0.0013	
11/2/2020			<0.001
3/17/2021	0.000454 (J)	0.00385	
3/26/2021			<0.001
10/5/2021	0.00259		<0.001
10/6/2021		0.0125	
3/16/2022	0.00411	0.0101	<0.001
10/5/2022	0.00467		
10/6/2022		0.0108	<0.001
Mean	0.001315	0.003586	0.0009533
Std. Dev.	0.001121	0.003312	0.0001474
Upper Lim.	0.0013	0.004008	0.001
Lower Lim.	0.00069	0.001811	0.00052

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.013	0.011	0.044	0.013
5/17/2016		0.0085	0.055	0.012
5/18/2016	0.012			
7/12/2016			0.011	
7/13/2016	0.016	0.0073	0.041	
9/13/2016			0.046	0.012
9/14/2016	0.018	0.0095		
11/19/2016	0.021	0.012	0.044	0.012
1/17/2017	0.029			0.014
1/18/2017		0.0096	0.045	
3/22/2017				0.012
3/23/2017	0.024	0.0093	0.038	
5/24/2017	0.022	0.0096	0.046	0.012
3/28/2018	0.026	0.0086	0.043	
3/29/2018				0.011
6/2/2018	0.029	0.0087	0.043	0.011
11/8/2018	0.028	0.0091		
11/9/2018			0.039	0.011
2/11/2019		0.00931	0.0388	
2/12/2019	0.0274			0.0102
4/17/2019	0.0263	0.00888	0.0378	
4/18/2019				0.0101
9/27/2019				0.0121
9/30/2019	0.0343	0.0103	0.0424	
2/21/2020	0.0304			0.0117
2/22/2020		0.0108	0.0453	
4/14/2020	0.0335	0.00949 (J)	0.0452	0.0124
10/30/2020	0.0349	0.0116	0.0428	
11/2/2020				0.0117
3/17/2021		0.0224	0.0382	
3/26/2021	0.0253			0.0184
10/5/2021		0.0283		0.02
10/6/2021	0.03		0.0493	
3/16/2022	0.037	0.0326	0.0688	0.0245
10/5/2022	0.0415	0.0248		
10/6/2022			0.0747	0.0937
Mean	0.0266	0.01294	0.04606	0.01694
Std. Dev.	0.00772	0.007289	0.009499	0.01794
Upper Lim.	0.03086	0.012	0.046	0.014
Lower Lim.	0.02234	0.00888	0.039	0.011

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

BAW-7

3/23/2016	<0.001
5/17/2016	<0.001
7/12/2016	<0.001
9/13/2016	<0.001
11/19/2016	<0.001
1/17/2017	<0.001
3/22/2017	<0.001
5/24/2017	<0.001
3/29/2018	<0.001
11/9/2018	<0.001
2/12/2019	<0.001
4/18/2019	<0.001
2/21/2020	<0.001
4/14/2020	<0.001
11/2/2020	<0.001
3/26/2021	<0.001
10/5/2021	0.000185 (J)
3/16/2022	<0.001
10/6/2022	<0.001
Mean	0.0009571
Std. Dev.	0.000187
Upper Lim.	0.001
Lower Lim.	0.000185

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-5
3/23/2016	0.00041 (J)	<0.001
5/17/2016		<0.001
5/18/2016	<0.0025	
7/13/2016	0.00087 (J)	<0.001
9/13/2016		<0.001
9/14/2016	0.00078 (J)	
11/19/2016	0.00054 (J)	<0.001
1/17/2017	0.00048 (J)	
1/18/2017		<0.001
3/23/2017	0.00059 (J)	<0.001
5/24/2017	0.00081 (J)	<0.001
3/28/2018	0.0008 (J)	<0.001
6/2/2018	0.001 (J)	<0.001
11/8/2018	0.00085 (J)	
11/9/2018		<0.001
2/11/2019		<0.001
2/12/2019	0.000877 (J)	
4/17/2019	0.000915 (J)	<0.001
9/30/2019	0.00112 (J)	0.000155 (J)
2/21/2020	0.000962 (J)	
2/22/2020		<0.001
4/14/2020	0.00107 (J)	<0.001
10/30/2020	0.00084 (J)	<0.001
3/17/2021		<0.001
3/26/2021	0.000615 (J)	
10/6/2021	0.000338 (J)	<0.001
3/16/2022	0.000252 (J)	<0.001
10/5/2022	0.000379 (J)	
10/6/2022		<0.001
Mean	0.0007499	0.0009598
Std. Dev.	0.0002749	0.0001844
Upper Lim.	0.0009016	0.001
Lower Lim.	0.0005983	0.000155

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	0.0015 (J)	0.0012 (J)	<0.002
5/17/2016		<0.002	<0.002	<0.002
5/18/2016	<0.002			
7/12/2016			<0.002	
7/13/2016	0.003	0.0015 (J)	0.0024 (J)	
9/13/2016			<0.002	<0.002
9/14/2016	<0.002	<0.002		
11/19/2016	<0.002	0.0011 (J)	<0.002	<0.002
1/17/2017	<0.002			<0.002
1/18/2017		<0.002	<0.002	
3/22/2017				<0.002
3/23/2017	<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002	<0.002	0.005	
3/29/2018				<0.002
6/2/2018	<0.002	<0.002	<0.002	<0.002
11/8/2018	<0.002	<0.002		
11/9/2018			<0.002	<0.002
2/11/2019		<0.002	<0.002	
2/12/2019	0.00165 (J)			<0.002
4/17/2019	<0.002	<0.002	<0.002	
4/18/2019				<0.002
9/27/2019				0.00206 (J)
9/30/2019	<0.002	<0.002	<0.002	
2/21/2020	<0.002			<0.002
2/22/2020		<0.002	<0.002	
10/30/2020	<0.002	<0.002	<0.002	
11/2/2020				<0.002
3/17/2021		<0.002	<0.002	
3/26/2021	<0.002			<0.002
10/5/2021		<0.002		<0.002
10/6/2021	<0.002		<0.002	
3/16/2022	<0.002	<0.002	<0.002	<0.002
10/5/2022	0.0191	<0.002		
10/6/2022			<0.002	<0.002
Mean	0.002888	0.001905	0.00213	0.002003
Std. Dev.	0.003824	0.0002438	0.0007057	1.342E-05
Upper Lim.	0.003	0.002	0.0024	0.00206
Lower Lim.	0.00165	0.0015	0.0012	0.002

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.0055	0.00094 (J)	<0.0005	0.0011 (J)
5/17/2016		0.0007 (J)	<0.0005	0.001 (J)
5/18/2016	0.0059			
7/12/2016			0.00091 (J)	
7/13/2016	0.0048	0.0016 (J)	0.00042 (J)	
9/13/2016			<0.0005	0.001 (J)
9/14/2016	0.0063	0.0011 (J)		
11/19/2016	0.0056	0.0012 (J)	<0.0005	0.00083 (J)
1/17/2017	0.0046			0.00091 (J)
1/18/2017		0.0011 (J)	<0.0005	
3/22/2017				0.00098 (J)
3/23/2017	0.0049	0.0011 (J)	<0.0005	
5/24/2017	0.0052	0.0012 (J)	<0.0005	0.00098 (J)
3/28/2018	0.0063	0.00095 (J)	<0.0005	
3/29/2018				0.00063 (J)
6/2/2018	0.0068	0.0012 (J)	<0.0005	0.00087 (J)
11/8/2018	0.0068	0.0011 (J)		
11/9/2018			<0.0005	0.00076 (J)
2/11/2019		0.00093 (J)	<0.0005	
2/12/2019	0.00552			0.000661 (J)
4/17/2019	0.00603	0.00116 (J)	<0.0005	
4/18/2019				0.000705 (J)
9/27/2019				0.00071 (J)
9/30/2019	0.0062	0.001 (J)	<0.0005	
2/21/2020	0.00576			0.000634 (J)
2/22/2020		0.000907 (J)	<0.0005	
4/14/2020	0.00633	0.00105 (J)	<0.0005	0.000684 (J)
10/30/2020	0.00657	0.00102 (J)	<0.0005	
11/2/2020				0.000729 (J)
3/17/2021		0.00208	<0.0005	
3/26/2021	0.00339			0.000995
10/5/2021		0.00187		0.00112
10/6/2021	0.00336		0.000802	
3/16/2022	0.00289	0.00182	0.000967	0.00141
10/5/2022	0.00821	0.00121		
10/6/2022			0.00143	0.00548
Mean	0.00557	0.001202	0.0005771	0.0011
Std. Dev.	0.001272	0.0003495	0.0002298	0.001022
Upper Lim.	0.006271	0.001358	0.000802	0.001
Lower Lim.	0.004868	0.001006	0.00042	0.000705

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5	0.549	<5
5/17/2016		<5	0.551	<5
5/18/2016	<5			
7/12/2016			0.165 (U)	
7/13/2016	0.27 (U)	0.0365 (U)	0.859	
9/13/2016			0.367 (U)	0.341 (U)
9/14/2016	-0.0909 (U)	0.3 (U)		
11/19/2016	0.416	<5 (U)	<5 (U)	<5 (U)
1/17/2017	0.412 (U)			0.124 (U)
1/18/2017		0.235 (U)	0.289 (U)	
3/22/2017				0.0719 (U)
3/23/2017	0.0761 (U)	0.168 (U)	0.554	
5/24/2017	0.0415 (U)	-0.0607 (U)	0.831	0.441
3/28/2018	0.398	0.42	0.458	
3/29/2018				0.731
6/2/2018	-0.253 (U)	0.0844 (U)	0.226 (U)	0.303 (U)
11/8/2018	0.343 (U)	0.367 (U)		
11/9/2018			0.298 (U)	0.00226 (U)
2/11/2019		0.0402 (U)	0.15 (U)	
2/12/2019	0.581			0.094 (U)
4/17/2019	0.646	0.493	0.326 (U)	
4/18/2019				0.48
9/27/2019				0.497
9/30/2019	1	0.404		
2/21/2020	0.126 (U)			0.375
2/22/2020		0.53	0.47	
4/14/2020	0.338	0.0408 (U)	0.376 (U)	0.329 (U)
10/30/2020	0.485	0.344	0.528	
11/2/2020				0.535
3/17/2021		0.312 (U)	0.0889 (U)	
3/26/2021	0.78			0.813
10/5/2021		1.06		0.814
10/6/2021	0.503		0.931	
3/16/2022	0.286 (U)	0.314 (U)	1.39	1.39
10/21/2022	1.29	0.562 (U)	1.36	2.03
Mean	0.6023	0.6262	0.6551	0.8112
Std. Dev.	0.7205	0.8202	0.562	0.8459
Upper Lim.	0.78	0.7712	0.8564	1.07
Lower Lim.	0.126	0.1114	0.3395	0.2882

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.1	0.04 (J)	0.06 (J)	<0.1
5/17/2016		0.04 (J)	0.07 (J)	<0.1
5/18/2016	<0.1			
7/12/2016			<0.1	
7/13/2016	<0.1	0.05 (J)	0.08 (J)	
9/13/2016			0.06 (J)	<0.1
9/14/2016	<0.1	0.04 (J)		
11/19/2016	<0.1	0.04 (J)	0.06 (J)	<0.1
1/17/2017	<0.1			<0.1
1/18/2017		<0.1	0.05 (J)	
3/22/2017				<0.1
3/23/2017	<0.1	<0.1	0.05 (J)	
5/24/2017	<0.1	0.04 (J)	0.06 (J)	<0.1 (D)
10/16/2017	<0.1	<0.1	0.06 (J)	<0.1
3/28/2018	<0.1	0.04 (J)	0.06 (J)	
3/29/2018				<0.1
6/2/2018	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1	0.05 (J)		
11/9/2018			0.06 (J)	<0.1
2/11/2019		<0.1	0.0368 (J)	
2/12/2019	<0.1			<0.1
4/17/2019	<0.1	0.033 (J)	0.0421 (J)	
4/18/2019				<0.1
9/27/2019				<0.1
9/30/2019	<0.1	<0.1	0.045 (J)	
2/21/2020	<0.1			<0.1
2/22/2020		0.0317 (J)	0.0434 (J)	
4/14/2020	0.034 (J)	0.0508 (J)	0.059 (J)	0.0415 (J)
10/30/2020	<0.1	<0.1	<0.1	
11/2/2020				<0.1
3/17/2021		0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1			<0.1
10/5/2021		0.0505 (J)		<0.1
10/6/2021	<0.1		0.0725 (J)	
3/16/2022	0.0307 (J)	0.0462 (J)	0.176	0.0266 (J)
10/5/2022	<0.1	0.0322 (J)		
10/6/2022			0.0972 (J)	<0.1
Mean	0.09385	0.05858	0.06407	0.094
Std. Dev.	0.01991	0.02669	0.02828	0.01954
Upper Lim.	0.1	0.0544	0.07	0.1
Lower Lim.	0.034	0.04	0.05	0.0415

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	0.00039 (J)	<0.001	<0.001
5/17/2016		<0.001	<0.001	<0.001
5/18/2016	<0.001			
7/12/2016			<0.001	
7/13/2016	<0.001	<0.001	<0.001	
9/13/2016			<0.001	<0.001
9/14/2016	0.00056 (J)	<0.001		
11/19/2016	<0.001	0.00042 (J)	<0.001	<0.001
1/17/2017	<0.001			<0.001
1/18/2017		<0.001	<0.001	
3/22/2017				<0.001
3/23/2017	0.00038 (J)	<0.001	<0.001	
5/24/2017	0.00036 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001	<0.001	<0.001	
3/29/2018			<0.001	
11/8/2018	<0.001	<0.001		
11/9/2018			<0.001	<0.001
2/11/2019		<0.001	<0.001	
2/12/2019	0.000139 (J)			<0.001
4/17/2019	<0.001	<0.001	<0.001	
4/18/2019				<0.001
9/27/2019				0.000129 (J)
9/30/2019	0.000322 (J)	0.000191 (J)	0.000152 (J)	
2/21/2020	0.00015 (J)			<0.001
2/22/2020		<0.001	<0.001	
4/14/2020	0.000236 (J)	<0.001	<0.001	<0.001
10/30/2020	0.000136 (J)	<0.001	<0.001	
11/2/2020				<0.001
3/17/2021		0.000153 (J)	<0.001	
3/26/2021	0.000145 (J)			<0.001
10/5/2021		<0.001		<0.001
10/6/2021	<0.001		<0.001	
3/16/2022	<0.001	<0.001	<0.001	<0.001
10/5/2022	<0.001	<0.001		
10/6/2022			<0.001	<0.001
Mean	0.0006714	0.0008577	0.0009576	0.0009565
Std. Dev.	0.0003848	0.0002969	0.0001896	0.0001948
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.000236	0.00042	0.000152	0.000129

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.044	0.17	<0.005
5/17/2016		0.028	0.2	<0.005
5/18/2016	<0.005			
7/12/2016				<0.005
7/13/2016	<0.005	0.026	0.17	
9/13/2016			0.17	<0.005
9/14/2016	<0.005	0.026		
11/19/2016	<0.005	0.026	0.18	0.0035 (J)
1/17/2017	<0.005			<0.005
1/18/2017		0.027	0.2	
3/22/2017				<0.005
3/23/2017	<0.005	0.024	0.19	
5/24/2017	<0.005	0.027	0.21	<0.005
3/28/2018	0.0023 (J)	0.021	0.23	
3/29/2018				0.0026 (J)
6/2/2018	0.002 (J)	0.022	0.19	0.0029 (J)
11/8/2018	0.0024 (J)	0.025		
11/9/2018			0.18	0.0027 (J)
2/11/2019		0.0229	0.161	
2/12/2019	<0.005			<0.005
4/17/2019	0.00197 (J)	0.0236	0.174	
4/18/2019				0.00238 (J)
9/27/2019				0.00375 (J)
9/30/2019	0.00687	0.0249	0.166	
2/21/2020	<0.005			<0.005
2/22/2020		0.0211	0.169	
4/14/2020	<0.005	0.0224	0.192	<0.005
10/30/2020	<0.005	0.0267	0.194	
11/2/2020				<0.005
3/17/2021		0.0174	0.12	
3/26/2021	<0.005			<0.005
10/5/2021		0.0127		0.0045 (J)
10/6/2021	<0.005		0.0994	
3/16/2022	0.0038 (J)	0.0112	0.0629	0.00437 (J)
10/5/2022	0.00322 (J)	0.00676		
10/6/2022			0.0534	0.0123
Mean	0.004408	0.02313	0.1658	0.004714
Std. Dev.	0.001284	0.007405	0.04547	0.001979
Upper Lim.	0.005	0.0267	0.1909	0.005
Lower Lim.	0.00322	0.021	0.1499	0.0035

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	8.4E-05 (JB)	7.3E-05 (JB)	7.4E-05 (JB)	7.1E-05 (JB)
5/17/2016		<0.0002	<0.0002	<0.0002
5/18/2016	<0.0002			
7/12/2016			<0.0002	
7/13/2016	<0.0002	<0.0002	<0.0002	
9/13/2016			<0.0002	<0.0002
9/14/2016	<0.0002	<0.0002		
11/19/2016	<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002		<0.0002	<0.0002
1/18/2017		<0.0002	<0.0002	
3/22/2017			<0.0002	
3/23/2017	0.00013 (J)	0.00013 (J)	<0.0002	
5/24/2017	<0.0002	<0.0002	<0.0002	<0.0002
3/28/2018	<0.0002	<0.0002	<0.0002	
3/29/2018			<0.0002	
2/11/2019		<0.0002	<0.0002	
2/12/2019	<0.0002			<0.0002
4/17/2019	<0.0002	<0.0002	<0.0002	
4/18/2019				<0.0002
2/21/2020	<0.0002			<0.0002
2/22/2020		<0.0002	<0.0002	
10/30/2020	0.000497	<0.0002	<0.0002	
11/2/2020				<0.0002
3/17/2021		<0.0002	<0.0002	
3/26/2021	<0.0002			0.000235
10/5/2021		<0.0002		0.000151 (J)
10/6/2021	<0.0002		<0.0002	
3/16/2022	<0.0002	<0.0002	<0.0002	0.0012
10/5/2022	<0.0002	<0.0002		
10/6/2022			<0.0002	<0.0002
Mean	0.0002065	0.0001884	0.0001926	0.0002504
Std. Dev.	8.133E-05	3.423E-05	3.056E-05	0.0002471
Upper Lim.	0.000497	0.0002	0.0002	0.000235
Lower Lim.	0.00013	0.00013	7.4E-05	0.000151

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-4	BAW-5	BAW-7
3/23/2016	<0.015	0.0026 (J)	<0.005
5/17/2016	<0.015	0.0011 (J)	<0.005
7/12/2016			<0.005
7/13/2016	<0.015	0.0079 (J)	
9/13/2016		0.0038 (J)	<0.005
9/14/2016	<0.015		
11/19/2016	<0.015	0.0014 (J)	<0.005
1/17/2017			<0.005
1/18/2017	<0.015	0.001 (J)	
3/22/2017			0.0038 (J)
3/23/2017	<0.015	<0.015	
5/24/2017	<0.015	0.0014 (J)	<0.005
3/28/2018	<0.015	<0.015	
3/29/2018			<0.005
11/8/2018	<0.015		
11/9/2018		<0.015	<0.005
2/11/2019	<0.015	<0.015	
2/12/2019			<0.005
4/17/2019	<0.015	<0.015	
4/18/2019			<0.005
2/21/2020			<0.005
2/22/2020	0.000616 (J)	0.000627 (J)	
4/14/2020	<0.015	0.000747 (J)	<0.005
10/30/2020	<0.015	<0.015	
11/2/2020			<0.005
3/17/2021	0.0032 (J)	0.00328 (J)	
3/26/2021			<0.005
10/5/2021	0.00109 (J)		<0.005
10/6/2021		0.00364 (J)	
3/16/2022	0.000916 (J)	0.00533	<0.005
10/5/2022	0.000939 (J)		
10/6/2022		0.00424 (J)	<0.005
Mean	0.01141	0.006688	0.004937
Std. Dev.	0.006194	0.006061	0.0002753
Upper Lim.	0.015	0.015	0.005
Lower Lim.	0.00109	0.0011	0.0038

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-5	BAW-7
3/23/2016	0.00033 (J)	<0.005	<0.005
5/17/2016		<0.005	0.00026 (J)
5/18/2016	<0.005		
7/12/2016			<0.005
7/13/2016	0.00041 (J)	<0.005	
9/13/2016		<0.005	0.00031 (J)
9/14/2016	0.00079 (J)		
11/19/2016	<0.005	<0.005	<0.005
1/17/2017	<0.005		<0.005
1/18/2017		<0.005	
3/22/2017			0.0021
3/23/2017	<0.005	<0.005	
5/24/2017	0.00028 (J)	0.00033 (J)	0.00026 (J)
3/28/2018	0.00038 (J)	<0.005	
3/29/2018			0.00036 (J)
6/2/2018	0.00031 (J)	<0.005	<0.005
11/8/2018	0.00088 (J)		
11/9/2018		<0.005	<0.005
2/11/2019		<0.005	
2/12/2019	<0.005		<0.005
4/17/2019	<0.005	<0.005	
4/18/2019			<0.005
2/21/2020	<0.005		<0.005
2/22/2020		<0.005	
10/30/2020	<0.005	<0.005	
11/2/2020			<0.005
3/17/2021		<0.005	
3/26/2021	<0.005		<0.005
10/5/2021			<0.005
10/6/2021	<0.005	<0.005	
3/16/2022	<0.005	<0.005	<0.005
10/5/2022	<0.005		
10/6/2022		<0.005	<0.005
Mean	0.003336	0.004754	0.003857
Std. Dev.	0.002243	0.001071	0.002001
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.00038	0.00033	0.00036

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/7/2022 3:19 PM View: Confidence Intervals
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-3	BAW-7
3/23/2016	<0.001	<0.001
5/17/2016		<0.001
5/18/2016	<0.001	
7/12/2016		<0.001
7/13/2016	<0.001	
9/13/2016		<0.001
9/14/2016	9.5E-05 (J)	
11/19/2016	<0.001	<0.001
1/17/2017	<0.001	<0.001
3/22/2017		<0.001
3/23/2017	<0.001	
5/24/2017	<0.001	<0.001
3/28/2018	<0.001	
3/29/2018		<0.001
11/8/2018	8.5E-05 (J)	
11/9/2018		<0.001
2/12/2019	<0.001	<0.001
4/17/2019	<0.001	
4/18/2019		<0.001
2/21/2020	0.000276 (J)	<0.001
4/14/2020	0.000158 (J)	<0.001
10/30/2020	<0.001	
11/2/2020		<0.001
3/26/2021	<0.001	<0.001
10/5/2021		0.000153 (J)
10/6/2021	<0.001	
3/16/2022	<0.001	<0.001
10/5/2022	<0.001	
10/6/2022		<0.001
Mean	0.0008218	0.0009554
Std. Dev.	0.0003564	0.0001943
Upper Lim.	0.001	0.001
Lower Lim.	0.000276	0.000153