Georgia Power

Georgia Power Company
Plant McIntosh Inactive Landfill No. 3
Permit No. 051-008D(LI)
Effingham County

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Atlantic Coast Consulting, Inc.

PROFESSIONAL CERTIFICATION

This *2021 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company – Plant McIntosh Inactive Landfill No. 3* has been prepared in compliance with the United States Environmental Protection Agency Coal Combustion Residuals Rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. (ACC).

ATLANTIC COAST CONSULTING, INC.

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Date: July 30, 2021

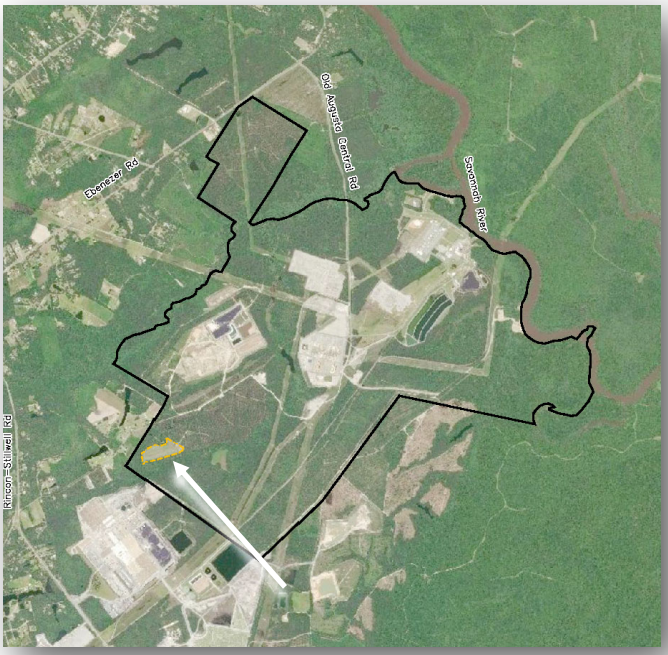
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Date: July 30, 2021



SUMMARY

This summary of the 2021 Annual Groundwater Monitoring and Corrective Action Report provides the groundwater monitoring and corrective action program status from July 2020 through June 2021 for Georgia Power Company (Georgia Power) Plant McIntosh Inactive Landfill No. 3 (Site). This summary was prepared by Atlantic Coast Consulting, Inc. (ACC) on behalf of Georgia Power.

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



Plant McIntosh and Inactive Landfill No. 3

The groundwater monitoring system is comprised of 6 upgradient and 5 downgradient wells installed from 1996 through 2017 to meet state monitoring requirements. Routine sampling and reporting began after background groundwater conditions were established in accordance with the Solid Waste Permit requirements specified in the Design and Operation (D&O) Plan. The monitoring program has been modified to include Appendix III parameters to meet the requirements of the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a) and 40 Code of Federal Regulations (CFR) § 257.95. Background groundwater conditions for Appendix III and IV parameters were established between September 2016 and October 2018. Alternate Source Demonstrations (ASDs) for total dissolved solids (TDS) and sulfate completed during 2017 - 2020 have presented evidence demonstrating that Statistically Significant Increases (SSIs) in groundwater are not due to a release from the unit. During the 2020 - 2021 annual reporting period, the Site remained in detection monitoring.

During the 2021 annual reporting period, ACC conducted groundwater sampling events in September 2020 and March 2021. Groundwater samples were submitted to Eurofins TestAmerica, Inc. (Eurofins) for analysis. Per the Coal Combustion Residuals (CCR) Rule, groundwater results for September 2020 and March 2021 data were evaluated in

accordance with the certified statistical methods. That evaluation showed that there are no SSIs of Appendix III[1] parameters.

Based on review of the Appendix III statistical results completed for the groundwater monitoring and corrective action program from July 2020 through June 2021, the Site will continue in detection monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to the website and provided to GA EPD semiannually.

[1] Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2021 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted for the reporting period of July 2020 through June 2021 at Plant McIntosh Inactive Landfill No. 3 (Site). Semiannual monitoring and reporting for the CCR unit are performed in accordance with the monitoring requirements of 40 CFR § 257.90 through § 257.95 of the Federal CCR rule, and GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

Groundwater monitoring is currently performed in accordance with the Solid Waste Permit (051-008D(LI)) requirements specified in the Design and Operation (D&O) Plan (Georgia Power, 2010). A GA EPD-approved 2017 permit minor modification added parameters included in Appendix III and IV of 40 CFR § 257 Subpart D to the groundwater monitoring plan. An application for a new Georgia CCR permit was submitted to GA EPD in November 2018 for the facility to replace the existing Solid Waste Permit and is currently under review.

This report provides the results of the sampling events conducted in September 2020 and March 2021 and includes: (1) a state-modified list of Appendix I detection parameters according to GA EPD Rule 391-3-4-.14 and the approved Solid Waste Permit; and (2) CCR detection monitoring sampling events for 40 CFR § 257 Appendix III constituents.

This document serves as the *2021 Annual Groundwater Monitoring and Corrective Action Report* in accordance with GA EPD Rule 391-3-4-.10(6)(a).

1.1 Site Description and Background

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

1.2 Regional Geology and Hydrogeologic Setting

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

Monitoring wells and piezometers are screened in the surficial aquifer between approximately 45 and 10 feet North American Vertical Datum of 1988 (NAVD88). The predominant groundwater flow direction across Plant McIntosh to the east.

1.3 Groundwater Monitoring Well Network and CCR Unit Description

A groundwater monitoring system was installed within the uppermost aquifer at Plant McIntosh Inactive Landfill No. 3. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Unit within the uppermost aquifer. Figure 2, Well Location Map, shows the monitoring well locations. Wells were located to serve as upgradient and downgradient

monitoring points based on groundwater flow direction (Table 1A, Monitoring Network Well Summary). Existing locations not included in the monitoring network are presented in Table 1B, Non-Network Well Summary. A Permit Minor Modification to abandon locations GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, and GWC-4B was approved by GA EPD on July 29, 2020. Abandonments were completed on December 3, 2020.

2.0 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed from July 2020 through June 2021 (the reporting period) and discusses any change in status of the monitoring program. All groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on Figure 2 in September 2020 and March 2021. Wells abandoned in December 2020 were not sampled during either groundwater sampling event. Wells that were installed in December 2020 were sampled during the March 2021 monitoring event. Pursuant to 40 CFR § 257.90(e)(3), a summary and description of groundwater sampling events completed at the Site during the past year is shown in Table 2, Groundwater Sampling Event Summary.

2.1 Monitoring Well Installation and Maintenance

After receiving GA EPD approval of a Permit Minor Modification, network wells GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, and GWC-4B were abandoned on December 3, 2020. Four wells (GWA-1B, GWC-1A, GWC-5A, GWC-6A) were installed December 4-9, 2020. These new wells were installed adjacent to existing wells slightly deeper in zones of higher permeability that are more representative of groundwater flow conditions at the site. The existing shallower wells are screened in clayey material and produce anomalous groundwater elevations relative to other Site monitoring network wells. A documentation report was submitted to GA EPD within 60 days of well development. The monitoring well abandonment and installation report is included in Appendix A, Groundwater Well Installation and Abandonment Report.

There were no other changes to the groundwater monitoring system during the annual monitoring period. The location of network and non-network wells and piezometers are shown on Figure 2. Other monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions. Well inspection checklists completed during semiannual sampling are included in Appendix B, Laboratory Analytical and Field Sampling Reports.

The well network was re-surveyed in June 2020. The top of the PVC well casing [top of casing (TOC) elevation] and the survey pin installed at each well pad were surveyed to within 0.5-foot horizontal accuracy and to 0.01-foot vertical accuracy. The horizontal location (i.e., northings and eastings) was recorded in feet relative to the North America Datum of 1983 (NAD83) with the vertical elevation recorded in feet relative to the North American Vertical Datum of 1988 (NAVD88). The new survey data are incorporated into this report's applicable tables; a copy of the well survey data certified by a Georgia Registered Land Surveyor was included in the 2020 Annual Groundwater Monitoring and Corrective Action Report (ACC, 2020a). Additionally, a memorandum was prepared to update and modify well construction details based on the updated survey data and included updated boring and well construction logs for the entire Site well network. The September 2020 Well Installation Addendum was submitted to GA EPD in September 2020 (ACC, 2020b).

2.2 Alternate Source Demonstrations

An Alternate Source Demonstration (ASD) was prepared in September 2020 to address statistically significant increases (SSIs) identified by statistical analysis of the March 2020 sampling results. Appendix III parameters, sulfate (three locations) and total dissolved solids (TDS) (one location) were addressed in the ASD.

In accordance with the GA EPD Rules for Solid Waste Management Chapter 391-3-4-.14(23)(c) and 40 CFR § 257.94(e), ASDs have previously been prepared for the following Appendix I SSIs:

- Barium: GWA-3A, Alternative Source Demonstration (ERM, 2017) and
- Cobalt: GWC-5, Alternative Source Demonstration (GEI, 2020).

The ASDs conclude that the unit was not the source of the elevated constituents. The ASD completed during the reporting period is provided in Appendix C, Alternate Source Demonstration.

2.3 Detection Monitoring Program

Detection monitoring is performed on a semiannual basis in accordance with the approved GA EPD Solid Waste Permit and the Site's D&O Plan. Semiannual sampling events were conducted in September 2020 and March 2021.

Groundwater samples from wells in the detection monitoring system were collected and analyzed for:

- Appendix III constituents according to 40 CFR § 257.94(a); and
- A state-modified Appendix I list of detection parameters according to GA EPD Rules for Solid Waste Management 391-3-4-.14 and the approved D&O plan. The state-modified analyte list includes barium, beryllium, chromium, cobalt, copper, lead, vanadium, and zinc.

A copy of the analytical data packages for each of the semiannual detection monitoring events is included in Appendix B.

2.4 Additional Sampling

The four wells (GWA-1B, GWC-1A, GWC-5A, GWC-6A) that were installed in December 2020 were sampled for the site-wide list of Appendix I and III analytes during the March 2021 monitoring event. No other additional sampling was completed during the monitoring period.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

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

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater elevations were recorded from piezometers and network wells at the Site. Groundwater elevations recorded during the monitoring events are summarized in Tables 3A and 3B, Summary of Groundwater Elevations – September 2020 and March 2021, respectively. Groundwater elevation data were used to develop Figure 3, Potentiometric Contour Map – September 2020 and Figure 4, Potentiometric Contour Map –

March 2021. The March 2021 potentiometric map includes wells that were installed in December 2020 to evaluate groundwater conditions at the Site. Wells selected for contouring were ones most consistent with overall Site groundwater flow pattern. As shown on the potentiometric surface maps, a potentiometric high exists in the western portion of the Site and groundwater flows generally eastward. The groundwater flow patterns observed during the monitoring events are consistent with historical patterns.

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

Equation

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

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

Groundwater flow velocities were calculated for the Site based on hydraulic gradients, average permeability based on previous slug test data, and an estimated effective porosity of 0.20. The groundwater flow velocity has been calculated and is tabulated in Tables 4A and 4B, Horizontal Groundwater Flow Velocity Calculations – September 2020 and March 2021, respectively. The calculated flow velocity was approximately 0.038 feet per day during the September 2020 event and 0.060 feet per day during the March 2021 event.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Purging and sampling was performed using a peristaltic pump. The pump intakes were located at the midpoint of the well screens (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations using procedures described in the latest version of the Region 4 US EPA SESD Operating Procedure for Field Equipment Cleaning and Decontamination as a guide.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll or AquaTroll (In-Situ field instruments) was used to monitor and record field water quality parameters (pH, specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) during well purging prior to sampling. Turbidity was measured using a LaMotte 2020we portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- ± 5% for specific conductance
- ± 10% or 0.2 mg/L (whichever is greater) for DO where DO > 0.5 milligrams per liter (mg/L). No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 5 nephelometric turbidity units (NTU)

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

3.3 Laboratory Analyses

Groundwater samples were collected during the monitoring events completed in September 2020 and March 2021. Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix B. Samples were analyzed for Appendix III parameters and Appendix I parameters required by the current state permit during the monitoring events performed in September 2020 and March 2021. Analytical data collected in the monitoring events are summarized in Tables 5A and 5B, Summary of Groundwater Analytical Data – September 2020 and March 2021, respectively.

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

3.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one set of QA/QC samples per every 10 samples. A set of QA/QC samples includes equipment blanks, field blanks, and duplicate samples. QA/QC sample data were evaluated during data validation and are included in Appendix B.

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

Values followed by a "J" flag in Tables 5A and/or 5B indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (RL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

4.0 STATISTICAL ANALYSIS

Statistical analysis of September 2020 and March 2021 groundwater monitoring data was completed by Groundwater Stats Consulting, LLC (GSC) following the appropriate certified statistical methodology for the Site. A summary of the statistical methodology used at the Site for routine groundwater monitoring is provided in Table 6, Statistical Method Summary. Statistical analysis methods and results are provided in Appendix D, Statistical Analysis Reports. A summary of methods and results are provided in the following sections.

4.1 Methods

The statistical method used at the Site was developed by GSC, using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, US EPA 530/ R-09-007 (US EPA, 2009). To develop the statistical methods, analytical data collected during the background period were evaluated and used to develop statistical limits for each

Appendix III parameter and Appendix I parameter required by the existing GA EPD permit. Sanitas groundwater statistical software was used to screen the data and perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations.

Statistically significant increasing trends identified in upgradient wells are not considered SSIs. Typically, when changes in concentrations are present upgradient of the facility, it is an indication of naturally changing groundwater quality.

4.1.1 September 2020 Statistical Methods

Statistical tests used to evaluate the September 2020 groundwater monitoring data consist of intrawell prediction limits combined with a 1-of-2 verification resample plan for all required state Appendix I parameters and Appendix III parameters chloride, pH, sulfate, and TDS. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. Intrawell statistical methods are a conservative first step that may be overly sensitive to natural variation, particularly for nonparametric limits with small background sample sizes. Therefore, for instances where an apparent SSI is identified by intrawell statistical methods, interwell statistical methods may be used as a reasonable second step to determine sitewide background. The two-step analysis is similar in concept to the procedure used in compliance monitoring programs where an interwell statistical limit is used to determine background (US EPA Unified Guidance [2009], Chapter 7, Section 7.5).

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

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for Appendix III parameters boron, calcium, and fluoride. 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.

4.1.2 March 2021 Statistical Methods

A permit minor modification was submitted to GA EPD on July 14, 2021, to allow for only interwell methods to be used for evaluation of state Appendix I parameters and Appendix III parameters. The selected statistical method for Plant McIntosh Inactive Landfill No. 3 was developed and updated in accordance with 40 CFR § 257.93(f) and EPD Rule 391-3-4-.10(6) using methodology presented in US EPA Unified Guidance (2009), US EPA 530/R-09-007 and as requested by EPD. Recent studies of waste placement with respect to when groundwater monitoring began supports interwell methods for all constituents as the primary statistical method as requested by GA EPD. Therefore, statistical tests used to evaluate the March 2021 groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix I and III parameters. Interwell PLs are constructed using pooled data from upgradient wells GWA-1A, GWA-2B, GWA-3A, GWA-4, GWA-5, and GWA-7A to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are SSIs. An "initial

exceedance" occurs when an Appendix I or III constituent reported in downgradient groundwater compliance monitoring well exceeds the constituent's associated PL. The 1-of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample verifies the initial exceedance. If the resample result is less than its relevant PL, the initial exceedance is not verified.

A summary of the statistical methodology used at the Site for the March 2021 routine groundwater monitoring data is provided in Table 6.

4.2 Statistical Analyses Results

Based on review of the Appendix I and III statistical analyses presented in Appendix D, no statistical exceedances were identified during the reporting period.

4.2.1 Summary of Results for September 2020 State Appendix I Parameters

Analytical data from the September 2020 monitoring event were statistically analyzed in accordance with the methods described in Section 4.1.1. The statistical analysis and comparisons to PLs are included in Appendix D.

Statistical analysis of the September 2020 Appendix I parameter data identified initial PL exceedances of zinc at GWC-2, GWC-4A, and GWC-5. Using the two-step analysis described in the statistical analysis report in Appendix D, no exceedances were noted above the interwell PLs for zinc. Therefore, during the September 2020 event, there were no parameters that constituted statistical exceedances.

4.2.2 Summary of Results for September 2020 Appendix III Parameters

Analytical data from the September 2020 monitoring event were statistically analyzed in accordance with the methods described in Section 4.1.1. The statistical analysis and comparisons to PLs are included in Appendix D.

Statistical analysis of the September 2020 Appendix III parameter data identified an initial PL exceedance of chloride at GWC-1. Using the two-step analysis described in Appendix D, the exceedance was not noted above the interwell PL. Therefore, during the September 2020 event, there were no parameters that constituted statistical exceedances.

4.2.3 Summary of Results for March 2021 State Appendix I Parameters

Analytical data from the March 2021 monitoring event were statistically analyzed in accordance with the methods described in Section 4.1.2 and Table 6. The statistical analysis and comparisons to PLs are included in Appendix D.

Statistical analysis of the March 2021 Appendix I parameter data identified PL exceedances of barium and cobalt at GWC-5. These exceedances were previously addressed by ASDs completed in August 2017[2] and February 2020[3], in accordance with the GA EPD Rules for Solid Waste Management Chapter 391-3-4-.14(23)(c). Therefore, during the March 2021 event, there are no statistical exceedances that have not been previously addressed by ASDs.

[2] Environmental Resources Management. August 9, 2017. *Alternate Source Demonstration*.
[3] GEI Consultants, Inc. February 27, 2020. *Alternate Source Demonstration*.

4.2.4 Summary of Results for March 2021 Appendix III Parameters

Analytical data from the March 2021 monitoring event were statistically analyzed in accordance with the methods described in Section 4.1.2 and Table 6. The statistical analysis and comparisons to PLs are included in Appendix D.

Statistical analysis of the March 2021 Appendix III parameter data identified no PL exceedances.

5.0 MONITORING PROGRAM STATUS

Based on current data, the only SSIs identified have been previously addressed by ASDs; therefore, the Site will remain in detection monitoring.

6.0 CONCLUSIONS AND FUTURE ACTIONS

This *2021 Annual Groundwater Monitoring and Corrective Action Report* for Georgia Power's Plant McIntosh Inactive Landfill No. 3 was prepared to fulfill the requirements of US EPA's CCR Rule and GA EPD Rules for Solid Waste Management Chapter 391-3-4-.10.

Statistical evaluation of Site groundwater monitoring data during the reporting period did not identify SSIs of Appendix III groundwater monitoring parameters or Appendix I parameters required by the existing GA EPD permit. The Site remains in detection monitoring.

The next semiannual detection monitoring event is planned for August 2021.

7.0 REFERENCES

ACC, 2020a, *2020 Annual Groundwater Monitoring and Corrective Action Report – Plant McIntosh Inactive Landfill No. 3.*

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

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US EPA, 2015, Field Equipment Cleaning and Decontamination – Operating Procedure: SESDPROC-205-R3, Athens, Georgia, 18 p.

US EPA, 2017. *National Functional Guidelines for Inorganic Superfund Methods Data Review,* Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [US EPA-540-R-2017-001]. Washington, DC.

TABLES

Atlantic Coast Consulting, Inc.

Table 1A
Monitoring Network Well Summary
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD88)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD88)	Purpose
GWA-1*	5/6/1998	852026.28	954546.93	36.00	30.90	25.64	41.26	Upgradient
GWA-1A	1/5/2017	852023.48	954556.79	37.53	29.23	27.53	39.23	Upgradient
GWA-2*	5/7/1998	851831.46	954854.59	33.00	33.17	27.65	38.52	Upgradient
GWA-2A*	1/10/2017	851830.61	954846.09	43.18	23.15	33.18	33.15	Upgradient
GWA-2B	8/29/2018	851831.06	954866.86	51.78	14.42	41.48	24.72	Upgradient
GWA-3A	5/16/1998	851893.61	955179.89	33.88	28.89	22.74	40.03	Upgradient
GWA-3B*	5/16/1998	851891.96	955180.00	18.56	44.22	7.75	55.03	Upgradient
GWA-4	5/7/1998	851980.91	955475.74	29.16	32.85	23.71	38.30	Upgradient
GWA-5	5/7/1998	852110.59	955844.69	33.00	27.43	22.58	37.85	Upgradient
GWA-7*	11/7/2000	852261.63	954667.90	36.00	31.77	25.20	42.57	Upgradient
GWA-7A	8/29/2018	852254.28	954654.74	46.94	20.98	36.64	31.28	Upgradient
GWC-1	1/22/1996	852446.79	955308.31	35.95	30.13	26.15	39.93	Downgradient
GWC-2	1/23/1996	852343.90	955958.27	36.79	27.40	26.99	37.20	Downgradient
GWC-3*	1/25/1996	852759.94	954845.83	35.56	31.35	25.76	41.15	Downgradient
GWC-4A	5/16/1998	852544.35	955702.05	36.96	29.64	24.73	41.87	Downgradient
GWC-4B*	5/16/1998	852546.24	955700.46	18.00	48.83	6.96	59.87	Downgradient
GWC-5	5/5/1998	852679.23	955461.61	31.00	37.08	21.15	46.93	Downgradient
GWC-6	5/6/1998	852469.31	955055.59	32.64	35.87	26.73	41.78	Downgradient

Notes:
1. ft BTOC indicates feet below top of casing.
2. Northings and eastings are feet relative to North American Datum 1983 (NAD83), State Plane Georgia East Zone.
3. NAVD88 indicates feet relative to North American Vertical Datum of 1988.
4. * Wells were abandoned per EPD-approved Minor Modification on December 3, 2020.
5. Wells resurveyed June 2020.

Table 1B
Non-Network Well Summary
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD88)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD88)	Purpose
GWA-1B	12/4/2020	852028.09	954564.84	58.53	8.83	47.96	19.40	Upgradient
GWC-1A	12/8/2020	852453.58	955300.47	47.37	19.39	36.83	29.93	Downgradient
GWC-5A	12/9/2020	852689.80	955477.18	42.60	25.24	32.45	35.39	Downgradient
GWC-6A	12/7/2020	852462.38	955046.58	42.43	25.94	32.08	36.29	Downgradient
PZ-1	8/29/2018	852400.01	954904.93	52.71	14.70	42.41	25.00	Piezometer
PZ-2	8/28/2018	852549.77	955306.02	42.27	24.99	31.97	35.29	Piezometer
PZ-3	8/30/2018	852032.57	955677.60	41.59	19.69	31.29	29.99	Piezometer

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

Table 2
Groundwater Sampling Event Summary
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Well	Hydraulic Location	Sept. 21-22, 2020	March 23-24, 2021
Purpose of Sampling Event		Semiannual Detection	Semiannual Detection
GWA-1A	Upgradient	X	X
GWA-1B	Upgradient	--	X
GWA-2B	Upgradient	X	X
GWA-3A	Upgradient	X	X
GWA-4	Upgradient	X	X
GWA-5	Upgradient	X	X
GWA-7A	Upgradient	X	X
GWC-1	Downgradient	X	X
GWC-1A	Downgradient	--	X
GWC-2	Downgradient	X	X
GWC-4A	Downgradient	X	X
GWC-5	Downgradient	X	X
GWC-5A	Downgradient	--	X
GWC-6	Downgradient	X	X
GWC-6A	Downgradient	--	X

Notes:
1. X indicates sample was collected.
2. Semiannual Detection Event includes Appendix III and Appendix I Parameters.
3. Wells GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, and GWC-4B were abandoned. Therefore, these wells were not sampled during the September 2020 and March 2021 monitoring events.
4. -- = Not sampled.

Atlantic Coast Consulting, Inc.

Table 3A
Summary of Groundwater Elevations
September 2020
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Well ID	Top-of-Casing Elevation (NAVD88)	Groundwater Elevation (NAVD88)
GWA-1*	66.90	54.63
GWA-1A	66.76	53.36
GWA-2*	66.17	52.35
GWA-2A*	66.33	48.28
GWA-2B	66.20	48.21
GWA-3A	62.77	48.42
GWA-3B*	62.78	49.55
GWA-4	62.01	47.73
GWA-5	60.43	47.01
GWA-7*	67.77	50.52
GWA-7A	67.92	46.54
GWC-1	66.08	47.32
GWC-2	64.19	46.10
GWC-3*	66.91	45.69
GWC-4A	66.60	46.82
GWC-4B*	66.83	DRY
GWC-5	68.08	49.03
GWC-6	68.51	47.90
PZ-1	67.41	46.61
PZ-2	67.26	46.86
PZ-3	61.28	47.34

Notes:
1. NAVD88 indicates feet relative to North American Vertical Datum of 1988.
2. Groundwater elevations measured September 14, 2020.
3. * Wells were abandoned per EPD-approved Minor Modification on December 3, 2020.

Table 3B
Summary of Groundwater Elevations
March 2021
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Well ID	Top-of-Casing Elevation (NAVD88)	Groundwater Elevation (NAVD88)
GWA-1A	66.76	56.66
GWA-1B	67.36	48.90
GWA-2B	66.20	50.74
GWA-3A	62.77	51.77
GWA-4	62.01	51.28
GWA-5	60.43	51.34
GWA-7A	67.92	48.78
GWC-1	66.08	49.98
GWC-1A	66.76	49.88
GWC-2	64.19	49.84
GWC-4A	66.60	49.90
GWC-5	68.08	50.62
GWC-5A	67.84	49.43
GWC-6	68.51	50.31
GWC-6A	68.37	49.31
PZ-1	67.41	48.98
PZ-2	67.26	49.51
PZ-3	61.28	50.98

Notes:
1. NAVD88 indicates feet relative to North American Vertical Datum of 1988.
2. Groundwater elevations measured March 22, 2021.

Table 4A
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS
September 2020
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Equation

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

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

Values Used in Calculation

Value			Source
K =	7.9E-04	cm/sec	See note 1.
	2.24	ft/day	
			Hydraulic gradient from
dh/dl_1 =	0.0036	unitless	GWA-5 to GWC-2
dh/dl_2 =	0.0031	unitless	GWA-3A to PZ-1
dh/dl_{avg} =	0.0034	unitless	Average of $dh/dl_{1,2}$
P_e =	0.20	unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{(2.24)\,(0.003)}{0.20}$$

v = 0.038 ft/day, or 14 ft/year

Notes

(1) Slug tests performed by Southern Company Services, Inc. (2002)

(2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 4B
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS
March 2021
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Equation

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

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

Values Used in Calculation

Value			Source
K =	7.9E-04	cm/sec	See note 1.
	2.24	ft/day	
			Hydraulic gradient from
dh/dl_1 =	0.0059	unitless	GWA-5 to GWC-2
dh/dl_2 =	0.0048	unitless	GWA-3A to PZ-1
dh/dl_{avg} =	0.0054	unitless	Average of $dh/dl_{1,2}$
P_e =	0.20	unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{(2.24)\,(0.005)}{0.20}$$

v = 0.060 ft/day, or 22 ft/year

Notes

(1) Slug tests performed by Southern Company Services, Inc. (2002)

(2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 5A
Summary of Groundwater Analytical Data - September 2020
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Substance		Well ID							
		GWA-1A	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-2
		9/21/2020	9/22/2020	9/21/2020	9/21/2020	9/22/2020	9/21/2020	9/22/2020	9/22/2020
APPENDIX III	Boron	0.11	0.73	0.11	0.073 J	0.097	0.61	0.098	0.083
	Calcium	1.8	16	3.1	1.4	2.9	13	0.21 J	2.1
	Chloride	8.1	8.0	19	5.4	6.3	6.5	6.9	5.4
	Fluoride	<0.026	0.039 J	<0.026	0.060 J	0.049 J	<0.026	<0.026	<0.026
	pH	4.95	5.83	4.69	4.60	4.99	5.35	4.66	5.04
	Sulfate	<0.38	52	<0.38	5.0	12	49	0.63 J	<0.38
	TDS	31	110	61	31	53	130	<10	30
Required by Permit	Barium	0.023	0.049	0.083	0.052	0.078	0.11	0.022	0.061
	Beryllium	0.00020 J	0.00042 J	0.00054 J	<0.00018	<0.00018	<0.00018	<0.00018	0.00025 J
	Chromium	0.0049	<0.0015	<0.0015	<0.0015	0.0017 J	<0.0015	0.0017 J	0.0036
	Cobalt	0.00030 J	<0.00013	0.0016 J	0.00059 J	0.00064 J	0.0025	0.00021 J	0.00092 J
	Copper	<0.00063	0.00096 J	<0.00063	<0.00063	0.0013 J	0.0018 J	<0.00063	<0.00063
	Lead	<0.00013	<0.00013	<0.00013	0.00025 J	0.0012	<0.00013	<0.00013	<0.00013
	Vanadium	<0.00099	<0.00099	<0.00099	0.0012	0.0056	<0.00099	<0.00099	<0.00099
	Zinc	<0.0032	0.0066	0.0055	0.013	0.039	0.0070	<0.0032	0.029

Notes:
1. Results for substances are reported in milligrams per liter (mg/L). pH results are reported in Standard Units.
2. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. Appendix III = indicator parameters evaluated during Detection Monitoring.
6. Parameters required by permit are Appendix I parameters included to meet GA EPD Rule 391-3-4-.14 requirements.

Table 5A
Summary of Groundwater Analytical Data - September 2020
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Substance		Well ID		
		GWC-4A	GWC-5	GWC-6
		9/22/2020	9/22/2020	9/22/2020
APPENDIX III	Boron	0.053 J	0.045 J	0.048 J
	Calcium	0.51	8.0	1.9
	Chloride	11	8.3	7.6
	Fluoride	<0.026	0.10	<0.026
	pH	4.92	5.87	4.73
	Sulfate	0.76 J	4.3	0.59 J
	TDS	36	440	30
Required by Permit	Barium	0.031	0.51	0.051
	Beryllium	<0.00018	0.0011 J	0.00021 J
	Chromium	<0.0015	<0.0015	<0.0015
	Cobalt	0.00042 J	0.011	0.00058 J
	Copper	<0.00063	<0.00063	<0.00063
	Lead	<0.00013	0.00013 J	<0.00013
	Vanadium	<0.00099	0.0015	0.0011
	Zinc	0.017	0.037	0.0053

Notes:
1. Results for substances are reported in milligrams per liter (mg/L). pH results are reported in Standard Units.
2. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. Appendix III = indicator parameters evaluated during Detection Monitoring.
6. Parameters required by permit are Appendix I parameters included to meet GA EPD Rule 391-3-4-.14 requirements.

Table 5B
Summary of Groundwater Analytical Data - March 2021
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Substance		Well ID							
		GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1
		3/23/2021	3/23/2021	3/23/2021	3/23/2021	3/24/2021	3/24/2021	3/23/2021	3/24/2021
APPENDIX III	Boron	<0.039	0.10	0.57	0.088	<0.039	0.048 J	1.5	<0.039
	Calcium	1.8	4.0	15	3.6	1.3	3.1	19	0.25 J
	Chloride	8.6	9.9	7.8	22	6.2	7.4	7.6	8.8
	Fluoride	<0.026	0.079 J	<0.026	<0.026	0.12	0.080 J	<0.026	<0.026
	pH	5.17	5.63	5.61	4.60	4.42	4.37	5.01	4.86
	Sulfate	<0.76	6.8	49	<0.76	7.0	16	88	0.77 J
	TDS	47	63	130	76	36	60	180	32
Required by Permit	Barium	0.023	0.021	0.044	0.093	0.052	0.096	0.048	0.023
	Beryllium	0.00021 J	<0.00018	0.00071 J	0.00063 J	0.00019 J	0.00026 J	0.00066 J	<0.00018
	Chromium	0.0047	<0.0015	<0.0015	0.0022	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.00028 J	0.00019 J	0.00096 J	0.0017 J	0.00069 J	0.00077 J	0.0030	0.00020 J
	Copper	<0.00063	0.0015 J	0.0011 J	<0.00063	<0.00063	0.00077 J	0.0027	<0.00063
	Lead	0.00017 J	<0.00013	<0.00013	0.00029 J	0.00021 J	0.00066 J	<0.00013	<0.00013
	Vanadium	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	0.0018	<0.00099	<0.00099
	Zinc	<0.0032	0.0098	0.0066	0.0092	0.0058	0.0085	0.0096	<0.0032

Notes:
1. Results for substances are reported in milligrams per liter (mg/L). pH results are reported in Standard Units.
2. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. Appendix III = indicator parameters evaluated during Detection Monitoring.
6. Parameters required by permit are Appendix I parameters included to meet GA EPD Rule 391-3-4-.14 requirements.

Table 5B
Summary of Groundwater Analytical Data - March 2021
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Substance		Well ID						
		GWC-1A	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
		3/24/2021	3/23/2021	3/24/2021	3/24/2021	3/24/2021	3/24/2021	3/23/2021
APPENDIX III	Boron	0.36	0.070 J	<0.039	<0.039	<0.039	<0.039	0.043 J
	Calcium	3.3	9.2	0.46 J	8.2	6.1	1.7	5.0
	Chloride	15	5.2	10	8.1	15	7.8	11
	Fluoride	0.046 J	<0.026	<0.026	0.038 J	<0.026	<0.026	<0.026
	pH	4.38	5.61	4.59	5.04	5.42	5.11	5.31
	Sulfate	1.0	0.80 J	<0.76	<0.76	26	0.76 J	10
	TDS	59	56	27	130	97	36	71
Required by Permit	Barium	0.29	0.083	0.031	0.50	0.055	0.044	0.098
	Beryllium	0.00039 J	0.00018 J	<0.00018	0.0029	<0.00018	0.00019 J	<0.00018
	Chromium	<0.0015	0.0048	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.0063	0.00069 J	0.00037 J	0.012	0.0023 J	0.00046 J	0.0034
	Copper	0.0010 J	<0.00063	<0.00063	<0.00063	<0.00063	<0.00063	<0.00063
	Lead	<0.00013	<0.00013	<0.00013	0.00034 J	0.00030 J	<0.00013	<0.00013
	Vanadium	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099
	Zinc	0.020	0.0085	0.010	0.034	0.013	0.0043 J	0.0091

Notes:

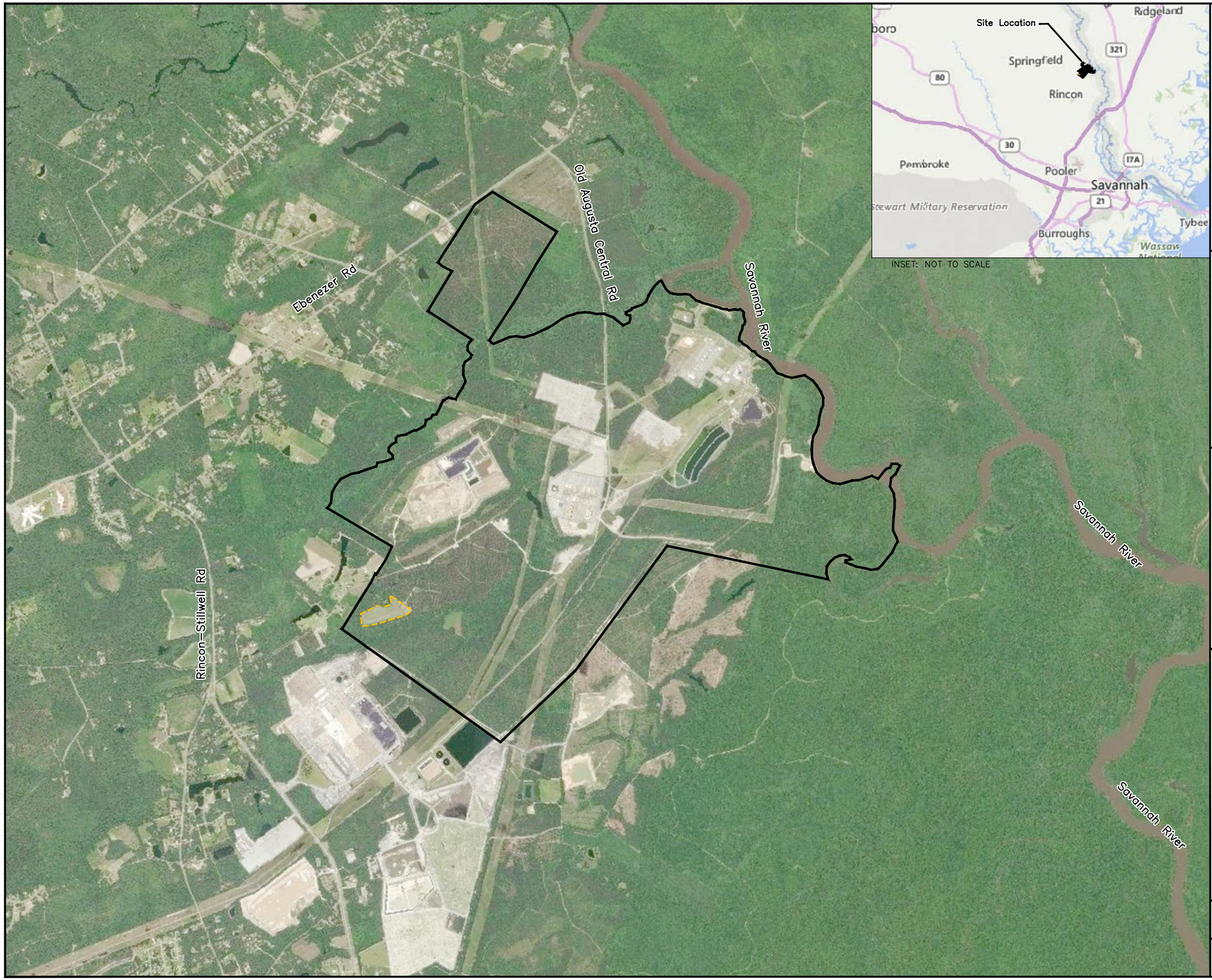
1. Results for substances are reported in milligrams per liter (mg/L). pH results are reported in Standard Units.
2. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. Appendix III = indicator parameters evaluated during Detection Monitoring.
6. Parameters required by permit are Appendix I parameters included to meet GA EPD Rule 391-3-4-.14 requirements.

Table 6
Statistical Method Summary
Plant McIntosh Inactive Landfill No. 3
Effingham County, Georgia

Plant McIntosh Inactive Landfill No. 3 Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	GWA-1A, GWA-1B, GWA-2B, GWA-3A, GWA-4, GWA-5, GWA-7A
	Downgradient Wells	GWC-1, GWC-2, GWC-4A, GWC-5, GWC-6
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
EPD Permit Metals	Detection Monitoring	Barium, Beryllium, Chromium, Cobalt, Copper, Lead, Vanadium, and Zinc
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits

Note:
1. The selected statistical method for Plant McIntosh Inactive Landfill No. 3 was developed and updated to analyze the March 2021 groundwater data in accordance with EPD Rule 391-3-4-.10(6) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities*, Unified Guidance, March 2009, EPA530/R-09-007 (Unified Guidance) and as requested by EPD.

FIGURES



INSET: NOT TO SCALE

ATLANTIC COAST CONSULTING, INC.

2,500 0 1,250 2,500

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
———	APPROXIMATE PROPERTY BOUNDARY
- - - - -	INACTIVE LANDFILL No. 3

PROJECT

Georgia Power

GEORGIA POWER COMPANY
PLANT MCINTOSH INACTIVE LANDFILL NO. 3

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

SITE LOCATION MAP

PROJECT NO. 1054-110 July 2021

DRAWN BY:	MM	FIGURE:
CHECKED BY:	EP	1



ATLANTIC COAST CONSULTING, INC.

200 0 100 200

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
GWC-1	MONITORING WELL
GWA-1B	NON–NETWORK WELL
PZ-1	PIEZOMETER

NOTES:
1. WELLS DENOTED BY ASTERISKS (GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, AND GWC-4B) WERE ABANDONDED IN DECEMBER 2020.
2. WELLS GWA-1B, GWC-1A, GWC-5A, AND GWC-6A WERE INSTALLED IN DECEMBER 2020.

EVAN B. PERRY
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 1744

PROJECT

Georgia Power

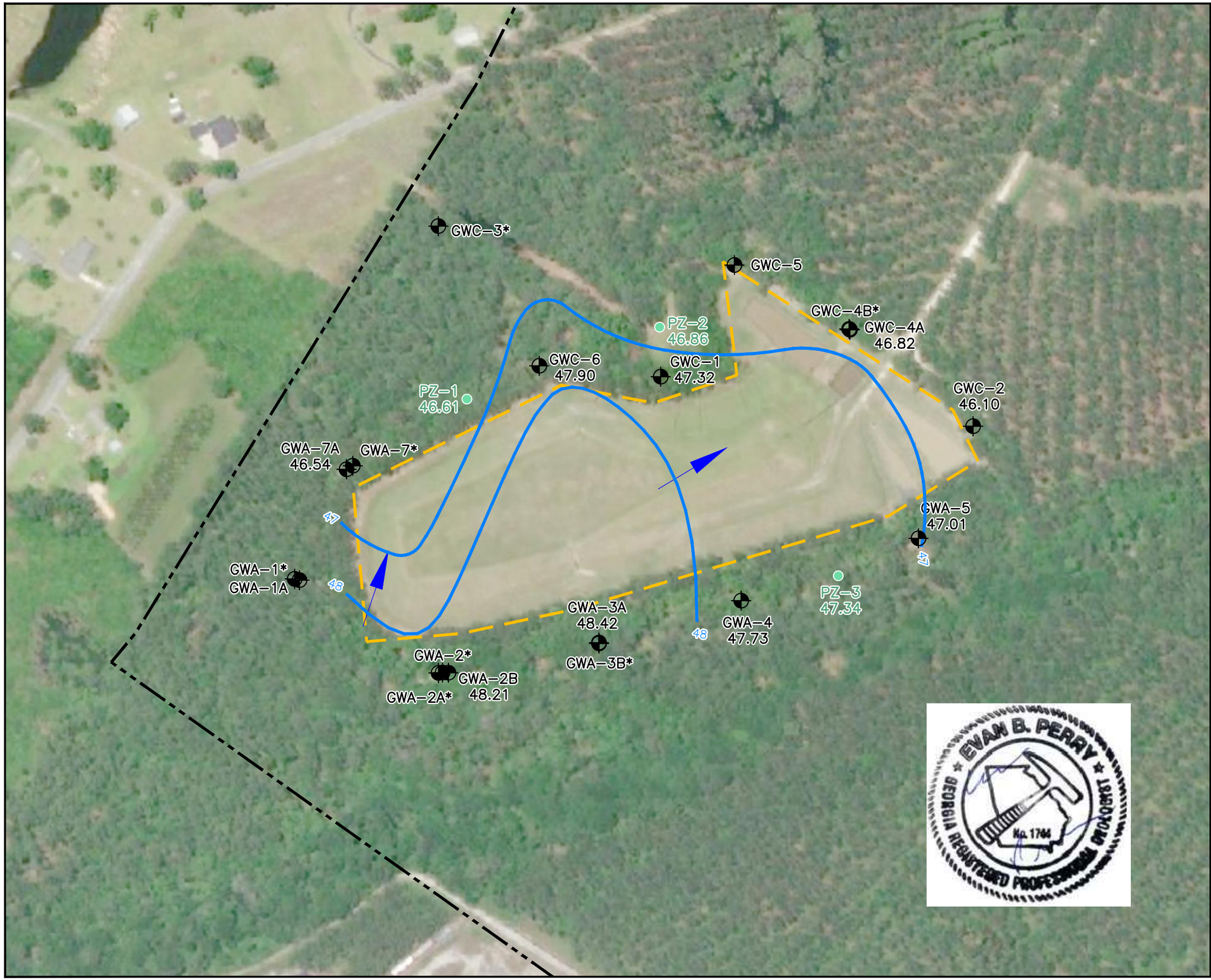
GEORGIA POWER COMPANY
PLANT MCINTOSH INACTIVE LANDFILL NO. 3

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

WELL LOCATION MAP

PROJECT NO. I054-110 July 2021

DRAWN BY:	MM	FIGURE:	2
CHECKED BY:	EP		



ATLANTIC COAST CONSULTING, INC.

200 0 100 200

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
GWC-1 47.32	MONITORING WELL GROUNDWATER ELEVATION (FT NAVD88)
PZ-1 46.61	PIEZOMETER GROUNDWATER ELEVATION (FT NAVD88)
47	GROUNDWATER ELEVATION CONTOUR (FT NAVD88)
	GROUNDWATER FLOW DIRECTION

NOTES:
1. DEPTHS TO WATER MEASURED SEPTEMBER 14, 2020.
2. FT NAVD88 = FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.
3. GWA-1, GWA-1A, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, GWC-4B, AND GWC-5 NOT USED TO CONSTRUCT POTENTIOMETRIC CONTOURS. WELLS SELECTED FOR CONTOURING WERE MOST CONSISTENT WITH OVERALL SITE GROUNDWATER FLOW PATTERN.
4. WELLS DENOTED BY ASTERISKS (GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, AND GWC-4B) WERE ABANDONED IN DECEMBER 2020.

EVAN B. PERRY * GEORGIA REGISTERED PROFESSIONAL * No. 1744

PROJECT

Georgia Power

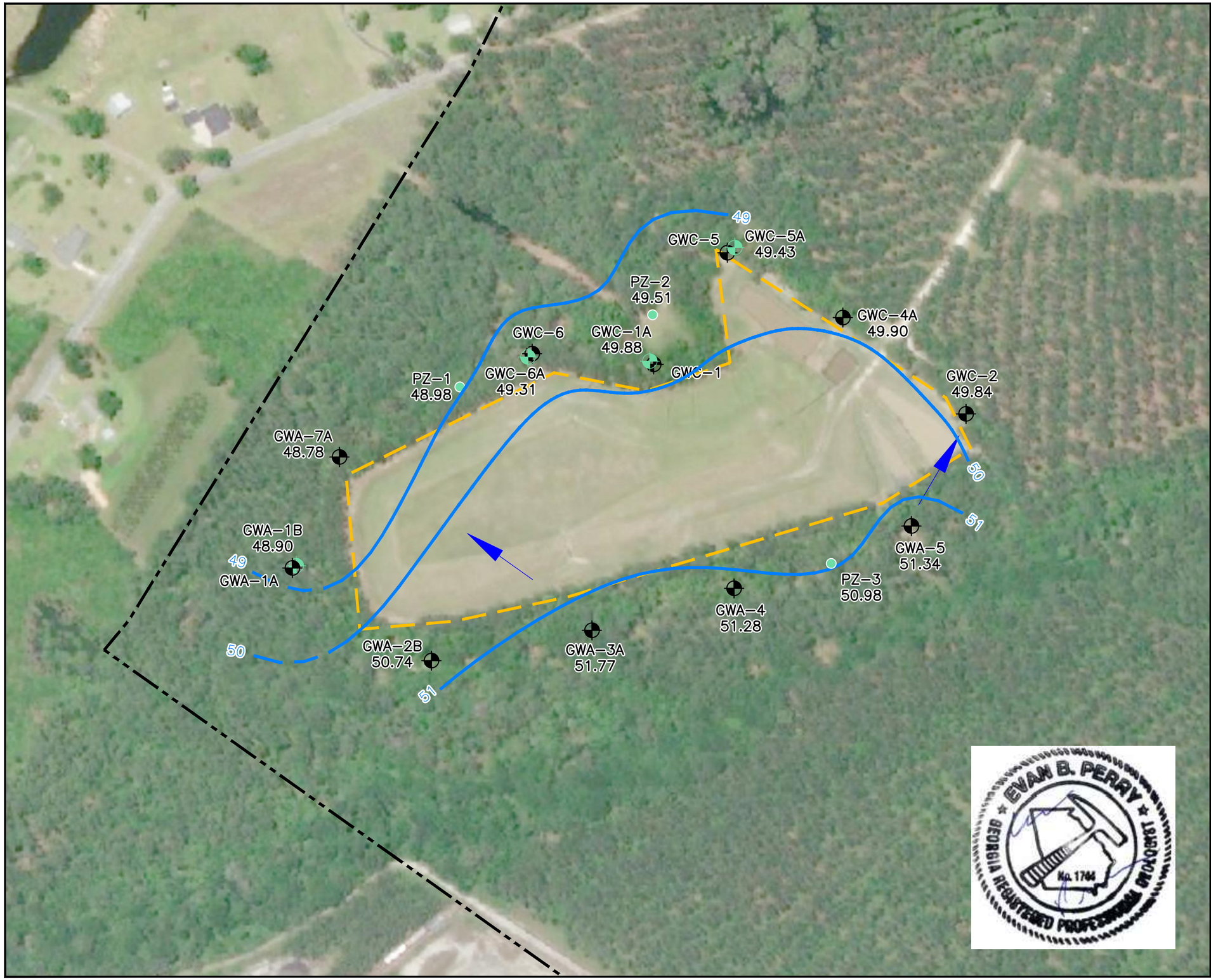
GEORGIA POWER COMPANY
PLANT McINTOSH
INACTIVE LANDFILL No. 3

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

POTENTIOMETRIC CONTOUR MAP SEPTEMBER 2020

PROJECT NO. I054-110 July 2021

DRAWN BY:	RW	FIGURE:
CHECKED BY:	EP	3



ATLANTIC COAST CONSULTING, INC.

200 0 100 200

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
GWC-1 47.32	MONITORING WELL GROUNDWATER ELEVATION (FT NAVD88)
PZ-1 46.61	PIEZOMETER GROUNDWATER ELEVATION (FT NAVD88)
47	GROUNDWATER ELEVATION CONTOUR (FT NAVD88)
	GROUNDWATER FLOW DIRECTION

NOTES:
1. DEPTHS TO WATER MEASURED MARCH 22, 2021.
2. FT NAVD88 = FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.
3. GWA-1A, GWC-1, GWC-5, AND GWC-6 NOT USED TO CONSTRUCT POTENTIOMETRIC CONTOURS. WELLS SELECTED FOR CONTOURING WERE MOST CONSISTENT WITH OVERALL SITE GROUNDWATER FLOW PATTERN.

EVAN B. PERRY GEORGIA REGISTERED PROFESSIONAL GEOLOGIST No. 1744

PROJECT

Georgia Power

GEORGIA POWER COMPANY
PLANT McINTOSH
INACTIVE LANDFILL No. 3

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

POTENTIOMETRIC CONTOUR MAP MARCH 2021

PROJECT NO. I054-110 JULY 2021

DRAWN BY:	RW	FIGURE:
CHECKED BY:	MM	4

APPENDICES

APPENDIX A

GROUNDWATER WELL INSTALLATION AND ABANDONMENT REPORT

Georgia Power

Georgia Power Company
Plant McIntosh Inactive Landfill No. 3

Rincon, Georgia
PERMIT #: 051-008D(LI)
Effingham County

Groundwater Well Installation and Abandonment Report

Atlantic Coast Consulting, Inc.

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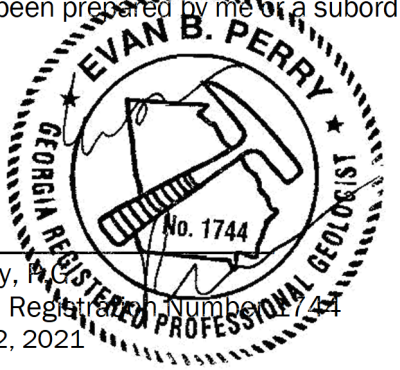
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Professional Geologist Certification

I, Evan B. Perry, certify that I am a qualified groundwater scientist as demonstrated by a Georgia state registered professional geologist certification. I have sufficient training and experience in groundwater hydrology and related fields to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that the data in this report have been prepared by me or a subordinate working under my direction.



Evan B. Perry, P.G.
Georgia P.G. Registration Number 1744
Date: March 2, 2021

1.0 Introduction

Plant McIntosh is located at 981 Old Augusta Central Road, in Effingham County, Georgia, approximately 4 miles northeast of the City of Rincon, and 20 miles north of the City of Savannah. The plant is situated on approximately 2,300 acres west of the Savannah River. Plant McIntosh Inactive Landfill No. 3 is located on the southwestern portion of the plant property.

A groundwater monitoring system was installed within the uppermost aquifer at Plant McIntosh Inactive Landfill No. 3. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Unit within the uppermost aquifer. Figure 1, Well Location Map, shows the site monitoring well and piezometer locations. The objective of this report is to document the installation of four new groundwater monitoring wells (GWA-1B, GWC-1A, GWC-5A, and GWC-6A) and the abandonment of seven groundwater monitoring wells (GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, and GWC-4B). A Permit Minor Modification to abandon the above groundwater monitoring network well locations was approved by EPD on July 29, 2020.

2.0 Drilling and Well Installation

The groundwater monitoring system is designed and installed according to accepted industry standards and following guidelines within the Manual for Groundwater Monitoring (GA EPD, 1991). The location and depths of the wells were selected based on the characterization of site-specific hydrogeologic conditions by a qualified professional engineer or geologist. The installation date, location, elevation, screen interval, and well designation are provided in the following sections. A summary of construction details is provided in Table 1, Summary of Well Installation Dates, Coordinates, Elevation Screen Interval and Purpose. A well location map is shown on Figure 1, Plant McIntosh LF No. 3 Well Location Map. Boring and Well Construction logs are included in Appendix A, Boring and Well Construction Logs.

2.1 Drilling Method

The abandonments and new Well installations were completed by Cascade Environmental, LP (Cascade). The wells were installed using rotosonic drilling techniques. A copy of Cascade's current bond that is on file with the Georgia Water Well Standards Advisory Council is provided in Appendix B, Driller's Bond.

Drilling equipment was steam-cleaned before the start of drilling and between each boring. Borings for the wells were drilled with a 6-inch core barrel. The depths for these wells were approximately ten feet deeper than the existing adjacent monitoring wells.

2.2 Screened Interval

The wells are screened in unconsolidated silty sand and/or clayey sand. The wells are constructed with 10 feet of screen.

2.3 Well Casing and Screens

The wells are constructed of 2-inch inside diameter ASTM Schedule 40 PVC casing affixed to pre-packed dual-wall slotted PVC screens. The casing and pre-packed screen arrived pre-cleaned and packaged by the manufacturer. Construction materials are sufficiently durable to resist chemical and physical degradation and not interfere with the quality of groundwater samples.

Solvent or glue was not used to construct the wells. Casing and screen sections are flush-threaded. Wells were constructed in accordance with accepted industry standards and followed guidelines within the Manual for Groundwater Monitoring (GA EPD, 1991).

2.4 Well Intake Design

The wells are designed and constructed to: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the wells; and (3) ensure sufficient structural integrity to prevent collapse. The wells are screened using 0.010-inch slotted PVC pre-packed dual-wall screen. The pre-packed dual-wall screen combines a centralized inner screen, a void for site-specific filter sand pack, and an outer conductor screen in one integrated unit. Based on the nature of deposits, the screen will retain at least 90 percent of the filter pack and 40 percent of the formation.

2.5 Filter Pack

A filter pack sand size #1A was used. This size sand is a 14-30 sieve range, medium fine well-rounded quartz (silica) sand with a uniformity coefficient of 1.6. Filter pack material was placed within the pre-packed dual-wall screens and in the annular space between the outside of the pre-pack screen and borehole wall to ensure an adequate thickness of filter pack material between the Well and the formation. Filter pack material placed in the annular space outside of the screen extends approximately 2 feet above the top of the screens. No bridging occurred during filter pack placement.

After placing the filter pack, the wells were pumped to ensure settlement of the filter pack, prior to installing the annular seal. The depth of top of filter pack was measured and recorded in the construction log provided in Appendix A.

2.6 Annular Seal

Approximately two feet of hydrated sodium bentonite overlies the filter pack. A cement and bentonite grout mix of 94/6 cement/bentonite was used as the annular sealant above the bentonite seal. The grout mixture was placed using the tremie method. A cement apron 4-feet by 4-feet by 4-inches was poured around each Well. The pads are mounded slightly outward to direct surface drainage away from the well.

2.7 Cap and Protective Casing

The above grade risers at each location are fitted with a locking cap and a lockable cover. A one-quarter inch vent hole in the PVC riser pipe provides an avenue for the escape of gas. The protective cap guards the casing from damage and the locking cap serves as a security device to prevent tampering.

Wells are clearly marked with signage with the proper designation. A weep hole was drilled in the outer protective casing near the bottom above the concrete pad for each Well. Pea gravel was placed inside the protective casing between the riser pipe and the outer casing.

2.8 Monitoring Well Abandonment

Seven wells (GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, and GWC-4B) were abandoned by grouting in place. Depths to water and bottom were measured at each location on December 3, 2020. The wells were filled with bentonite pellets to the top of the screened interval. Placement of bentonite was verified with a weighted tag line to ensure bridging did not occur. Bentonite pellets were hydrated with potable water in cases where the groundwater level was below at the top of the screen. The remaining PVC riser pipe was tremie grouted from the bottom up with a mixture of Aqua Guard grout and water. Locations were rechecked for grout settlement the day following abandonment and additional grout was added to ensure the grout column was flush with the ground surface. Except for GWA-3B and GWC-4B the concrete pads and bollards were removed, and the casing was cutoff flush with the ground surface. The ground surface was graded to surrounding surface condition. In the cases of GWA-3B and GWC-4B, the well shared a pad with an adjacent remaining location. Therefore, after grouting, the protective covers and PVC riser were cutoff flush with the top of the pad. Abandonment logs are provided in Appendix C, Well Abandonment Forms.

3.0 Well Development

The new wells were developed using a combination of surging and pumping to (1) restore the natural hydraulic conductivity of the formation, and (2) to remove fine-grained sediment to ensure low- turbidity groundwater samples. The wells were alternately surged and purged until a turbidity reading of less than 5 nephelometric turbidity units (NTU) was achieved. Turbidity, pH, temperature, and conductivity measurements were made to ensure that each location was fully developed. All equipment and tubing placed in the well was decontaminated or new. Development forms are included in Appendix D, Well Development Forms.

4.0 Survey

The horizontal and vertical locations of the newly installed wells were surveyed to the nearest, 0.01-foot by Gunnin Surveying, LLC. under the direction of a Georgia Registered Land Surveyor (RLS) on January 19, 2021. The elevations were measured on a survey pin embedded in the concrete pad, ground surface, and the top of PVC well casing. Northings and eastings are feet relative to Georgia State Plane East (NAD 83) and elevations are referenced to (NAVD 88). Well coordinates are provided in Table 1. A site map depicting the surveyed locations is included in Figure 1; a survey data sheet sealed by a Georgia RLS is included in Appendix E, Well Survey Data.

5.0 General References

Georgia Environmental Protection Division, Georgia Department of Natural Resources. Manual for Groundwater Monitoring, September 1991.

FIGURE



\\ATLANTA1\Projects\Industrial\054-Southern Company\110-Groundwater Consulting Services\Plant McIntosh\2-LF-3 GW Sampling And Reporting\2020 LF-3 GWM\2020 2nd SA\GWC\Plant McIntosh LF-3 Well Location Map.dwg 2/25/21 EVAN PERRY

ATLANTIC COAST CONSULTING, INC.

200 0 100 200

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
GWC-1	MONITORING WELL
PZ-1	PIEZOMETER

NOTES:
1. WELLS DENOTED BY ASTERISKS (GWA-1, GWA-2, GWA-2A, GWA-3B, GWA-7, GWC-3, AND GWC-4B) WERE ABANDONDED IN DECEMBER 2020.
2. WELLS GWA-1B, GWC-1A, GWC-5A, AND GWC-6A WERE INSTALLED IN DECEMBER 2020.

PROJECT

Georgia Power

GEORGIA POWER COMPANY
PLANT McINTOSH
INACTIVE LANDFILL No. 3

WELL LOCATION MAP

PROJECT NO. I054-110 March 2021

DRAWN BY:	MM	FIGURE:
CHECKED BY:	EP	1

TABLE

Atlantic Coast Consulting, Inc.

Table 1
Summary of Well Installation Dates, Coordinates, Elevation Screen Interval and Purpose

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Ground Elevation (NAVD 88)	Top of Casing Elevation (NAVD 88)	Top of Screen Elevation (NAVD 88)	Bottom of Screen Elevation (NAVD 88)	Total Depth (ft BTOC)	Purpose
GWA-1B	12/4/2020	852028.09	954564.84	64.39	67.36	19.40	9.40	58.53	Upgradient
GWC-1A	12/8/2020	852453.58	955300.47	64.00	66.76	29.93	19.93	47.37	Downgradient
GWC-5A	12/9/2020	852689.80	955477.18	65.64	67.84	35.59	25.59	42.60	Downgradient
GWC-6A	12/7/2020	852462.38	955046.58	65.66	68.37	36.29	26.29	42.43	Downgradient

Notes:
1. NAVD 88 indicates feet relative to North American Vertical Datum 1988
2. ft BTOC indicates feet below top of casing.

APPENDICES

APPENDIX A

Boring and Well Construction Logs

Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
Roswell, GA 30076
770-594-5998

WELL NUMBER GWA-1B

CLIENT Georgia Power
PROJECT Taylor Goble
PROJECT NUMBER I054-110
PROJECT LOCATION Plant McIntosh
DATE STARTED 12/4/20 **COMPLETED** 12/4/20
GROUND ELEVATION 64.39 ft **HOLE SIZE** 6 inch
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD T-300 Rotosonic
▼ **AFTER DRILLING** 18.43 ft / Elev 45.96 ft
LOGGED BY Taylor Goble **DRILLED BY** Tommy Ardito
NORTHING 852028.09 (GA State Plane West NAD83)
NOTES Elevation data are relative to NAVD88
EASTING 954564.84 (GA State Plane West NAD83)

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						Casing Top Elev: 67.36 ft Casing Type: PVC
			SP-SC		POORLY GRADED SAND WITH CLAY, (SP-SC) very dark gray (2.5Y 3/1), poorly graded, subrounded, fine grained, dry, loose, non plastic, with clay	
5						
					7.5 / 56.9	
			SC		CLAYEY SAND, (SC) light gray (2.5Y 7/1), poorly graded, subrounded, fine grained, wet, medium dense, low plasticity	
10						
	SS	2-3			13.5 / 50.9	
	SS	4-5	SC		CLAYEY SAND, (SC) light gray with tan (2.5Y 7/2), poorly graded, subrounded, fine grained, wet, medium dense, low plasticity, trace clay nodules	
15						
					18.0 / 46.4	
	SS	3-3	CL		SANDY LEAN CLAY, (CL) reddish yellow with orange (7.5YR 6/8), wet, very stiff, medium plasticity	▼
	SS	4-5				
20						Grout: 6.8 cu. ft.
					23.0 / 41.4	
	SS	2-4	SC		CLAYEY SAND, (SC) light gray with tannish orange (7.5YR 7/1), poorly graded, subrounded, fine grained, wet, dense, low plasticity	
	SS	4-5				
25						
					28.0 / 36.4	
	SS	3-4	SC		CLAYEY SAND, (SC) light brown with light gray (7.5YR 6/4), poorly graded, subrounded, fine grained, wet, dense, low plasticity	
	SS	5-6				
30						
					33.0 / 31.4	
	SS	0-0	CL		SANDY LEAN CLAY, (CL) light brown (7.5YR 6/4), fine grained, wet, medium stiff, medium plasticity	
	SS	0-2				
35						

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Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
Roswell, GA 30076
770-594-5998

WELL NUMBER GWA-1B

CLIENT Georgia Power **PROJECT** Taylor Goble

PROJECT NUMBER I054-110 **PROJECT LOCATION** Plant McIntosh

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35			CL		SANDY LEAN CLAY, (CL) light brown (7.5YR 6/4), fine grained, wet, medium stiff, medium plasticity *(continued)*	
					38.0	26.4
	SS	2-2	CL		SANDY LEAN CLAY, (CL) gray with light gray (7.5YR 5/1), fine to coarse grained, wet, loose, medium plasticity	
40	SS	2-3				
					43.0	21.4
	SS	3-2	CL		SANDY LEAN CLAY, (CL) very dark gray (7.5YR 3/1), fine to coarse grained, wet, medium dense, medium plasticity, with silt	
45	SS	4-18				
					48.0	16.4
	SS	5-8	SC		CLAYEY SAND, (SC) very dark gray (7.5YR 3/1), fine grained, wet, loose, medium plasticity, with silt	
50	SS	9-10				
	SS	2-6				
55	SS	12-16			55.0	9.4

Bentonite Seal: 0.33 cu. ft.
Filter Pack: 2.1 cu. ft.
Top of screen elevation: 19.40
Screen Interval
Bottom of screen elevation: 9.40

Bottom of borehole at 55.0 feet.

EVAN B. PERRY
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 1744

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Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
Roswell, GA 30076
770-594-5998

WELL NUMBER GWC-1A

CLIENT Georgia Power
PROJECT Taylor Goble
PROJECT NUMBER I054-110
PROJECT LOCATION Plant McIntosh
DATE STARTED 12/8/20 **COMPLETED** 12/8/20
GROUND ELEVATION 64.00 ft **HOLE SIZE** 6 inch
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD T-300 Rotosonic
▼ **AFTER DRILLING** 17.81 ft / Elev 46.19 ft
LOGGED BY Taylor Goble **DRILLED BY** Tommy Ardito
NORTHING 852453.58 (GA State Plane West NAD83)
NOTES Elevation data are relative to NAVD88
EASTING 955300.47 (GA State Plane West NAD83)

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
			SM		SILTY SAND, (SM) light gray with pale brown (10YR 7/1), fine grained, dry, non plastic, little clay
5					5.0
			SM		SILTY SAND, (SM) red (10R 4/8), fine grained, dry, non plastic, little clay
10					10.0
			SM		SILTY SAND, (SM) light brown with gray (7.5YR 6/3), fine grained, dry, non plastic, little clay, High plastic clay lense present
	SS	2-4			
15	SS	5-5			15.0
			SC		CLAYEY SAND, (SC) red with gray (10R 4/8), fine grained, moist, low plasticity, with clay
	SS	2-4			
20	SS	6-7			20.0
			SM		SILTY SAND, (SM) light brown to reddish yellow (7.5YR 6/4), fine to coarse grained, wet, non plastic, little clay, Quartz-rich
	SS	4-4			
25	SS	4-4			25.0
			SC		CLAYEY SAND, (SC) gray with brown (7.5YR 5/1), fine to coarse grained, wet, low plasticity, Quartz-rich
	SS	2-3			
30	SS	4-6			
	SS	3-2			
35	SS	4-4			

Casing Top Elev: 66.76 ft
Casing Type: PVC

WELL DIAGRAM

44.0
39.0
49.0
54.0
59.0

Grout: 5.1 cu. ft.
Bentonite Seal: 0.33 cu. ft.
Filter Pack: 2.1 cu. ft.

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Atlantic Coast Consulting, Inc
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770-594-5998

WELL NUMBER GWC-1A

CLIENT Georgia Power **PROJECT** Taylor Goble

PROJECT NUMBER I054-110 **PROJECT LOCATION** Plant McIntosh

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35					CLAYEY SAND, (SC) gray with brown (7.5YR 5/1), fine to coarse grained, wet, low plasticity, Quartz-rich *(continued)*	Top of screen elevation: 29.93
	SS	1-1	SC			
40	SS	2-1			40.0	24.0 Screen Interval
					CLAYEY SAND, (SC) light brown (7.5YR 6/3), coarse grained, wet, low plasticity, with fine to coarse gravel	
	SS	2-2	SC			
45	SS	3-3			45.0	19.0 Bottom of screen elevation: 19.93

Bottom of borehole at 45.0 feet.

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No. 1744

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Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
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770-594-5998

WELL NUMBER GWC-5A

CLIENT Georgia Power
PROJECT Taylor Goble
PROJECT NUMBER I054-110
PROJECT LOCATION Plant McIntosh
DATE STARTED 12/9/20 **COMPLETED** 12/9/20
GROUND ELEVATION 65.64 ft **HOLE SIZE** 6 inch
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD T-300 Rotosonic
▼ **AFTER DRILLING** 20.15 ft / Elev 45.49 ft
LOGGED BY Taylor Goble **DRILLED BY** Tommy Ardito
NORTHING 852689.80 (GA State Plane West NAD83)
NOTES Elevation data are relative to NAVD88
EASTING 955477.18 (GA State Plane West NAD83)

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
0							Casing Top Elev: 67.84 ft Casing Type: PVC
			SM		SILTY SAND, (SM) brown (7.5YR 4/6), fine grained, dry, very loose, non plastic, with silt, and organics	2.5 / 63.1	
5			CL		SANDY LEAN CLAY, (CL) gray with reddish orange (10YR 5/2), fine grained, dry, very soft to very stiff, medium plasticity		
10						11.0 / 54.6	
			SC-SM		CLAYEY SAND, (SC-SM) red with gray (10R 4/8), fine grained, wet, very stiff to stiff, medium plasticity		Grout: 4.2 cu. ft.
	SS	3-6				14.0 / 51.6	
15	SS	4-5	CL		SANDY LEAN CLAY, (CL) red with gray (10R 4/8), fine grained, wet, firm to stiff, medium plasticity		
						18.0 / 47.6	
	SS	3-3	SC		CLAYEY SAND, (SC) red with brown (10R 4/8), fine grained, wet, very stiff to stiff, medium plasticity		
20	SS	4-5					
							▼
	SS	1-2					
25	SS	2-3					
						26.0 / 39.6	Bentonite Seal: 0.33 cu. ft.
			SP-SM		POORLY GRADED SAND WITH SILT, (SP-SM) tan (7.5YR 6/4), fine grained, wet, loose, non plastic	28.0 / 37.6	
	SS	2-4	SC		CLAYEY SAND, (SC) light gray with light brown (7.5YR 7/1), fine grained, wet, stiff, medium plasticity		Filter Pack: 2.1 cu. ft.
30	SS	5-3				30.0 / 35.6	
					CLAYEY SAND, (SC) light brown (7.5YR 6/4), fine to coarse grained, wet, stiff, medium plasticity, quartz-rich		Top of screen elevation: 35.59
			SC				
	SS	3-2					
35	SS	2-3					

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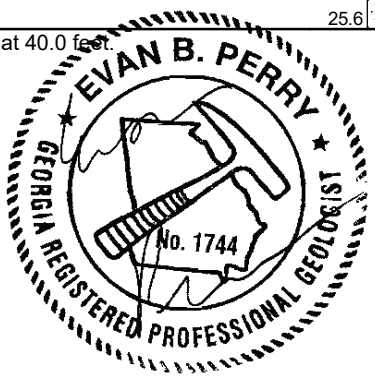
Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
Roswell, GA 30076
770-594-5998

WELL NUMBER GWC-5A

CLIENT Georgia Power **PROJECT** Taylor Goble

PROJECT NUMBER I054-110 **PROJECT LOCATION** Plant McIntosh

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35			SC		CLAYEY SAND, (SC) light brown (7.5YR 6/4), fine to coarse grained, wet, stiff, medium plasticity, quartz-rich *(continued)*	Screen Interval
					38.0 27.6	
	SS	1-6	SC		CLAYEY SAND, (SC) light brown (7.5YR 6/4), fine to coarse grained, wet, stiff, low plasticity, decrease clay content	Bottom of screen elevation: 25.59
40	SS	7-7			40.0 25.6	
					Bottom of borehole at 40.0 feet.	



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Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
Roswell, GA 30076
770-594-5998

WELL NUMBER GWC-6A

CLIENT Georgia Power
PROJECT Taylor Goble
PROJECT NUMBER I054-110
PROJECT LOCATION Plant McIntosh
DATE STARTED 12/7/20 **COMPLETED** 12/7/20
GROUND ELEVATION 65.66 ft **HOLE SIZE** 6 inch
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD T-300 Rotosonic
▼ **AFTER DRILLING** 22.55 ft / Elev 43.11 ft
LOGGED BY Taylor Goble **DRILLED BY** Tommy Ardito
NORTHING 852462.38 (GA State Plane West NAD83)
NOTES Elevation data are relative to NAVD88
EASTING 955046.58 (GA State Plane West NAD83)

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						Casing Top Elev: 68.37 ft Casing Type: PVC
			SM		SILTY SAND, (SM) gray (10YR 5/1), fine grained, dry, very loose to loose, non plastic	
3.0						62.7
			CL		SANDY LEAN CLAY, (CL) brown with gray (7.5YR 4/6), fine grained, dry, soft to hard, low plasticity, with silt, and organics	
5					5.0	60.7
			SC		CLAYEY SAND, (SC) brown with gray (7.5YR 4/6), fine grained, dry, soft to hard, medium plasticity	
10					10.0	55.7
			CL		SANDY LEAN CLAY, (CL) red with gray (10R 4/8), fine grained, wet, stiff, medium plasticity	
	SS	2-3				
	SS	4-7				
15					15.0	50.7
			CL		SANDY LEAN CLAY, (CL) red to brown (10R 4/8), fine grained, wet, stiff to very stiff, high plasticity	
	SS	2-3				
	SS	3-4				
20					20.0	45.7
			CL		SANDY LEAN CLAY, (CL) light gray and white (7.5YR 7/1), fine grained, wet, stiff to very stiff, high plasticity	
	SS	2-2				
	SS	4-5				
25					25.0	40.7
			SC		CLAYEY SAND, (SC) light brown (7.5YR 6/3), fine grained, wet, stiff, medium plasticity	
	SS	3-2				
	SS	2-3				
30					30.0	35.7
			SC		CLAYEY SAND, (SC) light brown (7.5YR 6/3), fine to coarse grained, wet, stiff, medium plasticity, quartz-rich	
	SS	3-2				
	SS	4-4				
35					35.0	30.7

Grout: 4.2 cu. ft.
Bentonite Seal: 0.33 cu. ft.
Filter Pack: 2.1 cu. ft.
Top of screen elevation: 36.29

(Continued Next Page)

GENERAL BH / TP / WELL - GINT STD US.GDT - 5/21/21 11:49 - \\ATLANTA\PROJECTS\INDUSTRIAL\I054-SOUTHERN COMPANY\110-GROUNDWATER CONSULTING SERVICES\PLANT MCINTOSH\2020 MCINTOSH DRILLING\WELL INSTALLS\MCINTOSH DRILLING 12-2020 V2.GPJ

Atlantic Coast Consulting, Inc
1150 North Meadow Parkway, Suite 100
Roswell, GA 30076
770-594-5998

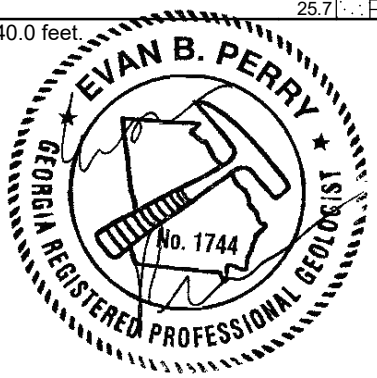
WELL NUMBER GWC-6A

CLIENT Georgia Power **PROJECT** Taylor Goble

PROJECT NUMBER I054-110 **PROJECT LOCATION** Plant McIntosh

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35						
			SC		CLAYEY SAND, (SC) light brown (7.5YR 6/3), fine to coarse grained, wet, stiff, low plasticity, decrease clay content	Screen Interval
	SS	4-2				
40	SS	2-5			40.0	25.7 Bottom of screen elevation: 26.29

Bottom of borehole at 40.0 feet.



GENERAL BH / TP / WELL - GINT STD US.GDT - 5/21/21 11:49 - \\ATLANTA\PROJECTS\INDUSTRIAL\I054-SOUTHERN COMPANY\110-GROUNDWATER CONSULTING SERVICES\PLANT MCINTOSH\2020 MCINTOSH DRILLING\WELL INSTALLS\MCINTOSH DRILLING 12-2020 V2.GPJ

APPENDIX B

Driller's Bond

COPY

CONTINUATION CERTIFICATE

Atlantic Specialty Insurance Company , Surety upon

a certain Bond No. **800031223**

dated effective June 30, 2017
(MONTH-DAY-YEAR)

on behalf of Michael C. Rice and Cascade Drilling, L.P., any and all employees, officers and partners
(PRINCIPAL)

and in favor of State of Georgia
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2019
(MONTH-DAY-YEAR)

and ending on June 30, 2021
(MONTH-DAY-YEAR)

Amount of bond Thirty Thousand and Zero/100 ($30,000.00)

Description of bond Water Well Contractor Performance Bond

Premium: $1,200.00

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on May 9, 2019
(MONTH-DAY-YEAR)
Atlantic Specialty Insurance Company

By _____
Attorney-in-Fact Elizabeth R. Hahn

Parker, Smith & Feek, Inc.
Agent

2233 112th Ave NE Bellevue, WA 98004
Address of Agent

(425) 709-3600
Telephone Number of Agent

S-0157/GE 8/08

XDP

OneBeacon
INSURANCE GROUP

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **sixty million dollars ($60,000,000)** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-sixth day of October, 2017.

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

By _____
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA
HENNEPIN COUNTY

On this twenty-sixth day of October, 2017, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

TARA JANELLE STAFFORD
NOTARY PUBLIC - MINNESOTA
My Commission Expires
January 31, 2020

_____
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 9 day of May 2019

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

This Power of Attorney expires
October 1, 2019

_____
Christopher V. Jerry, Secretary

APPENDIX C

Well Abandonment Forms

Well Abandonment Documentation Form

ATLANTIC COAST CONSULTING, INC.

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWA-1
Project Number	I054-110	**Weather**	Sunny	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~52 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	32.93'			**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2"	**L.F.**	23'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC			**Pack Type & Size**	20/30 quartz sand	**Protective**	
Joint Type	Flush Threaded O-ring			**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2"	**L.F.**	10'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft³** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.7 ft³ **Actual Grout Volume:** 0.7 ft³

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets in well to the top of screen.
4. Filled 2" PVC with Aqua Guard grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Concrete pad and well casing material disposed of on site at approved location.

Notes:

No obstructions or bridging noted in the well during well tagging.
Water level 13.08' btoc shortly before abandonment.

Well Abandonment Documentation Form

ATLANTIC COAST CONSULTING, INC.

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWA-2
Project Number	I054-110	**Weather**	Partly Cloudy	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~62 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	33.75'			**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2"	**L.F.**	28'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC			**Pack Type & Size**	10/30 quartz sand	**Protective**	
Joint Type	Flush Threaded O-ring			**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2"	**L.F.**	5'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft³** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.7 ft³ **Actual Grout Volume:** 0.7 ft³

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets in well to the top of screen.
4. Filled 2" PVC with Aqua Guard grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Concrete pad and well casing material disposed of on site at approved location.

Notes:

No obstructions or bridging noted in the well during well tagging.
Water level 14.80' btoc shortly before abandonment.

Well Abandonment Documentation Form

ATLANTIC COAST CONSULTING, INC.

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWA-2A
Project Number	I054-110	**Weather**	Partly Cloudy	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~63 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	43.18'			**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2"	**L.F.**	33'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC			**Pack Type & Size**	20/40 quartz sand	**Protective**	
Joint Type	Flush Threaded O-ring			**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2"	**L.F.**	10'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft³** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.9 ft³ **Actual Grout Volume:** 0.9 ft³

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets inside well to the top of screen.
4. Filled 2" PVC with Aqua Guard bentonite grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Concrete pad and well casing material disposed of on site at approved location.

Notes:

No obstructions or bridging noted in the well during well tagging.
Water level 18.83' btoc shortly before abandonment.

Well Abandonment Documentation Form

ATLANTIC COAST CONSULTING, INC.

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWA-3B
Project Number	I054-110	**Weather**	Sunny	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~62 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	18.57'	**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2" **L.F.** 8'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC	**Pack Type & Size**	10/30 quartz sand	**Protective**	
Joint Type	Flush Threaded O-ring	**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2" **L.F.** 10'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft³** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.35 ft³ **Actual Grout Volume:** 0.35 ft³

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets in well to the top of the screen.
4. Filled 2" PVC with Aqua Guard grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Well casing material disposed of on site at approved location. Well pad left in place (shared with GWA-3A).

Notes:

No obstructions or bridging noted in the well during well tagging.
Water level 13.89' btoc shortly before abandonment.

ATLANTIC COAST CONSULTING, INC.

Well Abandonment Documentation Form

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWA-7
Project Number	I054-110	**Weather**	Sunny	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~62 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	32.93'			**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2"	**L.F.**	23'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC			**Pack Type & Size**	10/30 quartz sand	**Protective**	
Joint Type	Flush Threaded O-ring			**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2"	**L.F.**	10'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft³** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.7 ft³ **Actual Grout Volume:** 0.7 ft³

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets in well to the top of the screen.
4. Filled 2" PVC with Aqua Guard grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Concrete pad and well casing material disposed of on site at approved location.

Notes:

No obstructions or bridging noted in the well during well tagging.
Water level 18.06' btoc shortly before abandonment.

ATLANTIC COAST CONSULTING, INC.

Well Abandonment Documentation Form

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWC-3
Project Number	I054-110	**Weather**	Sunny	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~63 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	36.70'			**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2"	**L.F.**	26'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC			**Pack Type & Size**	#2 Filter Sand	**Protective**	
Joint Type	Flush Threaded O-ring			**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2"	**L.F.**	10'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft³** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.75 ft³ **Actual Grout Volume:** 0.75 ft³

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets in well to the top of the screen.
4. Filled 2" PVC with bentonite/Portland cement grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Concrete pad and well casing material disposed of on site at approved location.

Notes:

No obstructions or bridging noted in the well during well tagging.
Water level 22.13' btoc shortly before abandonment.

Well Abandonment Documentation Form

ATLANTIC COAST CONSULTING, INC.

General Information

Project Name	McIntosh LF No. 3 Well Abandonment	**Inspector**	Taylor Goble	**Well Id.**	GWC-4B
Project Number	I054-110	**Weather**	Sunny	**Sheet** 1 **of** 1	
Drilling Company	Cascade	**Temperature**	~62 degrees F	**Started**	12/3/2020
Client Name	Southern Company	**Driller**	Tommy Ardito	**Completed**	12/3/2020

Well Construction Information

Well Depth (ft btoc)	14.72'			**Screen Type**	Sch. 40 PVC	**Grout Type**	Portland Cement
Well Casing Dia.	2"	**L.F.**	23'	**Slot Size (in.)**	0.010" Machine slot	**End Cap/Sump**	4"
Casing Type	Sch. 40 PVC			**Pack Type & Size**	20/30 quartz sand	**Protective**	
Joint Type	Flush Threaded O-ring			**Seal Type**	Bentonite	**Casing**	Steel
Well Screen Dia.	2"	**L.F.**	10'			**Well Pad Size**	4'x 4' x 4"

ft bgs = feet below ground surface, **ft btoc =** feet below top of casing, **ft^3** = cubic feet, **N/A** = not applicable

Abandonment Procedures and Volumes

Expected Grout Volume: 0.3 ft^3 **Actual Grout Volume:** 0.3 ft^3

1.Tagged depth to bottom, as well as depth to water with an electronic water level indicator.
2. Removed protective casing and well housing materials.
3. Poured bentonite pellets in well to the top of the screen.
4. Filled 2" PVC with Aqua Guard grout mixture utilizing tremie pipe method.
5. After adequate period of settling, location was topped off with additional grout as needed.
6. Well casing material disposed of on site at approved location. Well pad left in place (shared with GWC-4A).

Notes:

Original log denotes well as 18.0' btoc total depth, but was measured as 14.72' btoc shortly before abandonment. No obstructions or bridging noted in the well during well tagging.

Well was dry shortly before abandonment.

APPENDIX D

Well Development Forms

Atlantic Coast Consulting, Inc.
Well Development Field Record

Job Name: Plant Mcintosh LF No. 3 Drilling Job No. I054-110 Well No. GWA-1B

Developed By: Ryan Walker Date of Installation: 12/8/2020 Sheet 1 of 1

Started Dev. 12-09-20 / 1414 Completed Dev. 12-09-20 / 1600

Date / Time Date / Time

W.L. Before Dev. 18.15 / 12-09-20 / 1404 W.L. After Dev. 19.96 / 12-09-20 / 1600

BGS / Date / Time BGS / Date / Time

Well Depth Before Dev.: 55.34 BGS Well Depth After Dev.: 55.34 BGS

Water Column (H): 37.19 Ft. Well Dia.: 2 In. Well Volume: 5.95 Gal.

Screen Length: 10 Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters				Remarks
		Specific Cond. (umhos/cm)	Temperature (^{o}C)	pH (S.U.)	Turbidity (NTU)	
12-09-20/1455	41	172	17.3	7.27	5.17	
12-09-20/1500	46	154	18.8	6.93	2.68	
12-09-20/1505	51	152	18.8	6.89	2.35	
12-09-20/1510	56	144	18.9	6.85	2.05	
12-09-20/1515	61	143	18.9	6.84	3.51	
12-09-20/1520	66	418	18.8	6.84	6.64	
12-09-20/1525	71	139	18.9	6.84	4.89	
12-09-20/1530	76	134	18.9	6.79	3.46	
12-09-20/1535	81	134	18.9	6.79	2.73	
12-09-20/1540	86	133	19.0	6.80	2.18	
12-09-20/1545	91	130	18.9	6.80	2.09	
12-09-20/1550	96	127	18.9	6.80	10.6	
12-09-20/1555	101	126	18.9	6.81	4.32	
12-09-20/1600	106	126	18.8	6.81	1.59	
		Total Volume Removed (gal): 106				

Development Method: Surged Pump Q= 1.0 gpm

WL/TD on electronic log all listed as BGS

Purged 40 Gallons during pre-development on 12/09/2020.

Notes: H = well depth (BGS) - W.L. (BGS)

Well volume in pipe:

2" diameter well: 0.16 X H = volume in gallons

4" diameter well: 0.66 X H = voume in gallons

Atlantic Coast Consulting, Inc.
Well Development Field Record

Job Name: Plant Mcintosh LF No. 3 Drilling Job No. I054-110 Well No. GWC-1A

Developed By: Taylor Goble Date of Installation: 12/4/2020 Sheet 1 of 1

Started Dev. 12-010-20 / 1445 Completed Dev. 12/10/2010

Date / Time Date / Time

W.L. Before Dev. 20.57 / 12-10-20 / 1440 W.L. After Dev. 23.61 / 12-10-20 / 1650

BGS / Date / Time BGS / Date / Time

Well Depth Before Dev.: 47.35 BTOC Well Depth After Dev.: 47.37 BTOC

Water Column (H): 26.78 Ft. Well Dia.: 2 In. Well Volume: 4.39 Gal.

Screen Length: 10 Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters				Remarks
		Specific Cond. (umhos/cm)	Temperature (^{o}C)	pH (S.U.)	Turbidity (NTU)	
12-10-20/1625	40	109	20.2	5.83	23.3	
12-10-20/1630	43	108	20.2	5.50	7.3	
12-10-20/1635	46	107	20.2	5.43	5.4	
12-10-20/1640	49	106	20.2	5.41	4.4	
		Total Volume Removed (gal): 49				

Development Method: Surged Pump Q= 0.75 gpm

WL/TD on electronic log all listed as BTOC

Purged 40 Gallons during pre-development on 12/10/2020.

Notes: H = well depth (BTOC) - W.L. (BTOC)

Well volume in pipe:

2" diameter well: 0.16 X H = volume in gallons

4" diameter well: 0.66 X H = voume in gallons

Atlantic Coast Consulting, Inc.
Well Development Field Record

Job Name: Plant Mcintosh LF No. 3 Drilling Job No. I054-110 Well No. GWC-5A

Developed By: Taylor Goble Date of Installation: 12/9/2020 Sheet 1 of 1

Started Dev. 12-10-20 / 1135 Completed Dev. 12-10-20 / 1325

Date / Time Date / Time

W.L. Before Dev. 22.35 / 12-10-20 / 1120 W.L. After Dev. 22.75 / 12-10-20 / 1330

BGS / Date / Time BGS / Date / Time

Well Depth Before Dev.: 42.60 BTOC Well Depth After Dev.: 42.60 BTOC

Water Column (H): 20.25 Ft. Well Dia.: 2 In. Well Volume: 3.32 Gal.

Screen Length: 10 Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters				Remarks
		Specific Cond. (umhos/cm)	Temperature (^{o}C)	pH (S.U.)	Turbidity (NTU)	
12-10-20/1225	50	338	20.8	5.81	186	
12-10-20/1245	70	220	20.2	5.84	46.3	
12-10-20/1305	90	189	20.2	5.44	25.5	
12-10-20/1310	94	169	20.2	5.39	14.7	
12-10-20/1315	98	150	20.2	5.34	11	
12-10-20/1320	104	141	20.3	5.32	9.1	
12-10-20/1325	109	138	20.3	5.31	4.7	
		Total Volume Removed (gal): 109				

Development Method: Surged Pump Q= 1.0 gpm

WL/TD on electronic log all listed as BTOC

Purged 50 Gallons during pre-development on 12/10/2020.

Notes: H = well depth (BTOC) - W.L. (BTOC)

Well volume in pipe:

2" diameter well: 0.16 X H = volume in gallons

4" diameter well: 0.66 X H = voume in gallons

Atlantic Coast Consulting, Inc.
Well Development Field Record

Job Name: Plant Mcintosh LF No. 3 Drilling Job No. I054-110 Well No. GWC-6A

Developed By: Ryan Walker Date of Installation: 12/7/2020 Sheet 1 of 1

Started Dev. 12-10-20 / 1312 Completed Dev. 12-10-20 / 1530

Date / Time Date / Time

W.L. Before Dev. 22.55 / 12-10-20 / 1300 W.L. After Dev. 35.61 / 12-10-20 / 1530

TOC / Date / Time TOC / Date / Time

Well Depth Before Dev.: 42.42 BTOC Well Depth After Dev.: 42.43 BTOC

Water Column (H): 19.87 Ft. Well Dia.: 2 In. Well Volume: 3.18 Gal.

Screen Length: 10 Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters				Remarks
		Specific Cond. (umhos/cm)	Temperature (^{o}C)	pH (S.U.)	Turbidity (NTU)	
12-10-20/1351	9.75	87	19.8	5.76	21.7	
12-10-20/1410	14.5	74	19.9	5.55	6.45	
12-10-20/1415	14.75	73	19.5	5.57	6.51	
12-10-20/1420	15	71	19.9	5.53	6.84	
12-10-20/1425	15.25	70	19.9	5.51	7.66	
12-10-20/1430	15.5	71	19.9	5.59	11.6	
12-10-20/1440	16	69	19.8	5.53	51	
12-10-20/1505	17.25	64	19.8	5.46	7.74	
12-10-20/1510	17.5	63	19.8	5.46	3.9	
12-10-20/1515	17.75	63	19.8	5.46	2.43	
12-10-20/1520	18	63	19.8	5.43	3.17	
12-10-20/1525	18.25	63	19.8	5.46	4.22	
12-10-20/1530	18.5	63	19.8	5.44	3.41	
		Total Volume Removed (gal): 18.5				

Development Method: Surged Pump Q= 0.25 gpm

WL/TD on electronic log all listed as TOC

Purged 9.5 Gallons during pre-development on 12/10/2020.

Notes: H = well depth (BTOC) - W.L. (BTOC)

Well volume in pipe:

2" diameter well: 0.16 X H = volume in gallons

4" diameter well: 0.66 X H = voume in gallons

APPENDIX E

Well Survey Data

107 Mountain Brook Dr., Ste. 104
Canton, GA 30115

GUNNIN
LAND SURVEYING

www.gunninsurvey.com
678.880.7502

DATE: January 26, 2021

TO: Atlantic Coastal Consulting, Inc
1150 Northmeadow Parkway
Suite 100
Roswell, GA 30076

ATTN: Evan Perry of Atlantic Coastal Consulting

SUBJECT: Plant Mcintosh Landfill #3: 4 Wells

The following data has been established on the existing wells using Georgia State Plane East Zone (NAD 83 horizontal and NAVD 88 vertical). Wells were surveyed to the following tolerances: 0.01' vertical and 0.5' horizontal via conventional survey methods, GPS, OPUS processing, and level loops. Each well was cross-checked for horizontal and vertical accuracy. Date of Survey: 1/19/2021.

WELL ID	NORTHING	EASTING	ELEVATION	ELEVATION	ELEVATION
	NAIL	NAIL	NAIL	TOP OF CASE	TOP OF PVC
GWA-1B	852028.09	954564.84	64.39	67.58	67.36
GWC-1A	852453.58	955300.47	64.00	66.95	66.76
GWC-5A	852689.80	955477.18	65.64	68.13	67.84
GWC-6A	852462.38	955046.58	65.66	68.59	68.37

Sincerely yours,

Gunnin Land Surveying, LLC.

GEORGIA REGISTERED No. 3079 LAND SURVEYOR JESSE R. GUNNIN

Jesse R. Gunnin, L.S. Principal Surveyor



ATLANTIC COAST
CONSULTING, INC.

APPENDIX B

LABORATORY ANALYTICAL AND FIELD SAMPLING REPORTS

eurofins | Environment Testing America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-111398-1
Client Project/Site: CCR - Plant McIntosh Ash Landfill #3
Revision: 1

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

Attn: Kristen N Jurinko

Authorized for release by:
11/12/2020 12:03:30 PM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: 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: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Job ID: 180-111398-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-111398-1

Comments
111220 Revised report to add J qualifiers to B for the following samples: GWA-4 (180-111398-4), GWC-4A (-9), GWC-5 (-10), GWC-6 (-11), LF3-DUP-02 (-13), LF3-FB-01-09-21-20 (-14), and LF3-FB-02-09-22-20 (-15).
This report replaces the report previously issued on 102720.

Receipt
The samples were received on 9/24/2020 9:15 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.7º C and 3.8º C.

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

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

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

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

Definitions/Glossary

Client: Southern Company
Job ID: 180-111398-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Qualifiers

HPLC/IC

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

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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
Job ID: 180-111398-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	11-01-20
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111398-1	GWA-1A	Water	09/21/20 16:28	09/24/20 09:15	
180-111398-2	GWA-2B	Water	09/22/20 09:42	09/24/20 09:15	
180-111398-3	GWA-3A	Water	09/21/20 15:34	09/24/20 09:15	
180-111398-4	GWA-4	Water	09/21/20 16:51	09/24/20 09:15	
180-111398-5	GWA-5	Water	09/22/20 09:58	09/24/20 09:15	
180-111398-6	GWA-7A	Water	09/21/20 15:29	09/24/20 09:15	
180-111398-7	GWC-1	Water	09/22/20 14:06	09/24/20 09:15	
180-111398-8	GWC-2	Water	09/22/20 13:43	09/24/20 09:15	
180-111398-9	GWC-4A	Water	09/22/20 12:27	09/24/20 09:15	
180-111398-10	GWC-5	Water	09/22/20 11:07	09/24/20 09:15	
180-111398-11	GWC-6	Water	09/22/20 12:55	09/24/20 09:15	
180-111398-12	LF3-DUP-01	Water	09/21/20 00:00	09/24/20 09:15	
180-111398-13	LF3-DUP-02	Water	09/22/20 00:00	09/24/20 09:15	
180-111398-14	LF3-FB-01-09-21-20	Water	09/21/20 15:42	09/24/20 09:15	
180-111398-15	LF3-FB-02-09-22-20	Water	09/22/20 10:00	09/24/20 09:15	
180-111398-16	LF3-FERB-01-09-21-20	Water	09/21/20 16:45	09/24/20 09:15	
180-111398-17	LF3-FERB-02-09-22-20	Water	09/22/20 12:45	09/24/20 09:15	

Method Summary

Client: Southern Company
Job ID: 180-111398-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

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

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-1A
Date Collected: 09/21/20 16:28
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332056	10/02/20 08:17	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 18:56	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 19:26	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/21/20 16:28	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-2B
Date Collected: 09/22/20 09:42
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332056	10/02/20 09:04	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:14	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 19:30	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 09:42	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-3A
Date Collected: 09/21/20 15:34
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332056	10/02/20 09:20	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:17	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 19:48	RSK	TAL PIT
	Instrument ID: A									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-3A
Date Collected: 09/21/20 15:34
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-3
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	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
Total/NA	Analysis	Field Sampling		1			333009	09/21/20 15:34	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-4
Date Collected: 09/21/20 16:51
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332056	10/02/20 09:36	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:21	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 19:51	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/21/20 16:51	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-5
Date Collected: 09/22/20 09:58
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332056	10/02/20 09:52	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:25	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 19:55	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 09:58	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-7A

Date Collected: 09/21/20 15:29
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-6

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 300.0 R2.1		1			332056	10/02/20 10:08	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:35	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:05	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/21/20 15:29	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-1

Date Collected: 09/22/20 14:06
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-7

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 300.0 R2.1		1			332056	10/02/20 10:23	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:39	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:09	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 14:06	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-2

Date Collected: 09/22/20 13:43
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-8

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 300.0 R2.1		1			332056	10/02/20 12:20	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:42	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:13	RSK	TAL PIT
	Instrument ID: A									

Client Sample ID: GWC-2

Lab Sample ID: 180-111398-8

Date Collected: 09/22/20 13:43

Matrix: Water

Date Received: 09/24/20 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	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 13:43	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-4A

Lab Sample ID: 180-111398-9

Date Collected: 09/22/20 12:27

Matrix: Water

Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/02/20 21:59	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:46	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:16	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331210	09/25/20 06:45	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 12:27	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-5

Lab Sample ID: 180-111398-10

Date Collected: 09/22/20 11:07

Matrix: Water

Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/02/20 23:02	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:49	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:20	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 11:07	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-6

Lab Sample ID: 180-111398-11

Date Collected: 09/22/20 12:55

Matrix: Water

Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/02/20 23:23	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:53	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:23	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333009	09/22/20 12:55	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: LF3-DUP-01

Lab Sample ID: 180-111398-12

Date Collected: 09/21/20 00:00

Matrix: Water

Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/02/20 23:43	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 19:57	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:27	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: LF3-DUP-02

Lab Sample ID: 180-111398-13

Date Collected: 09/22/20 00:00

Matrix: Water

Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/03/20 00:46	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 20:00	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:30	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-FB-01-09-21-20

Lab Sample ID: 180-111398-14

Date Collected: 09/21/20 15:42
Matrix: Water
Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/03/20 01:07	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 20:04	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:34	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: LF3-FB-02-09-22-20

Lab Sample ID: 180-111398-15

Date Collected: 09/22/20 10:00
Matrix: Water
Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/03/20 01:28	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 20:07	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:40	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: LF3-FERB-01-09-21-20

Lab Sample ID: 180-111398-16

Date Collected: 09/21/20 16:45
Matrix: Water
Date Received: 09/24/20 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 300.0 R2.1		1			332057	10/03/20 01:49	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 20:18	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:50	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-FERB-02-09-22-20

Date Collected: 09/22/20 12:45
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332057	10/03/20 02:09	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	332471	10/06/20 13:47	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334010	10/17/20 20:22	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	334180	10/21/20 09:34	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 20:54	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331211	09/25/20 06:48	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KHM = Kyle Mucroski
TJO = Tyler Oliver

Batch Type: Analysis

AGJ = Andy Johnson
AVS = Abbey Smith
EPS = Evan Scheuer
RSK = Robert Kurtz

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-1A

Date Collected: 09/21/20 16:28
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.1**		1.0	0.32	mg/L			10/02/20 08:17	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 08:17	1
Sulfate	<0.38		1.0	0.38	mg/L			10/02/20 08:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.023**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 18:56	1
Beryllium	**0.00020**	**J**	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 18:56	1
Boron	**0.11**		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 18:56	1
Calcium	**1.8**		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 18:56	1
Chromium	**0.0049**		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 18:56	1
Cobalt	**0.00030**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 18:56	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 19:26	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 18:56	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 18:56	1
Zinc	<0.0032		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 18:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**31**		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.95**				SU			09/21/20 16:28	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-2B

Date Collected: 09/22/20 09:42
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.0		1.0	0.32	mg/L			10/02/20 09:04	1
Fluoride	0.039	J	0.10	0.026	mg/L			10/02/20 09:04	1
Sulfate	52		1.0	0.38	mg/L			10/02/20 09:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.049		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:14	1
Beryllium	0.00042	J	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:14	1
Boron	0.73		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:14	1
Calcium	16		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:14	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:14	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:14	1
Copper	0.00096	J	0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 19:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:14	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:14	1
Zinc	0.0066		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.83				SU			09/22/20 09:42	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-3A

Date Collected: 09/21/20 15:34
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		1.0	0.32	mg/L			10/02/20 09:20	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 09:20	1
Sulfate	<0.38		1.0	0.38	mg/L			10/02/20 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.083**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:17	1
Beryllium	**0.00054**	**J**	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:17	1
Boron	**0.11**		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:17	1
Calcium	**3.1**		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:17	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:17	1
Cobalt	**0.0016**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:17	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 19:48	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:17	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:17	1
Zinc	**0.0055**		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**61**		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.69**				SU			09/21/20 15:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-4

Date Collected: 09/21/20 16:51
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.4**		1.0	0.32	mg/L			10/02/20 09:36	1
Fluoride	**0.060**	**J**	0.10	0.026	mg/L			10/02/20 09:36	1
Sulfate	**5.0**		1.0	0.38	mg/L			10/02/20 09:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.052**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:21	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:21	1
Boron	**0.073**	**J**	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:21	1
Calcium	**1.4**		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:21	1
Cobalt	**0.00059**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:21	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 19:51	1
Lead	**0.00025**	**J**	0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:21	1
Vanadium	**0.0012**		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:21	1
Zinc	**0.013**		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**31**		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.60**				SU			09/21/20 16:51	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-5

Date Collected: 09/22/20 09:58
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.3		1.0	0.32	mg/L			10/02/20 09:52	1
Fluoride	0.049	J	0.10	0.026	mg/L			10/02/20 09:52	1
Sulfate	12		1.0	0.38	mg/L			10/02/20 09:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.078		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:25	1
Boron	0.097		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:25	1
Calcium	2.9		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:25	1
Chromium	0.0017	J	0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:25	1
Cobalt	0.00064	J	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:25	1
Copper	0.0013	J	0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 19:55	1
Lead	0.0012		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:25	1
Vanadium	0.0056		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:25	1
Zinc	0.039		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	53		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.99				SU			09/22/20 09:58	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWA-7A

Date Collected: 09/21/20 15:29
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.5**		1.0	0.32	mg/L			10/02/20 10:08	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 10:08	1
Sulfate	**49**		1.0	0.38	mg/L			10/02/20 10:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.11**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:35	1
Boron	**0.61**		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:35	1
Calcium	**13**		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:35	1
Cobalt	**0.0025**		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:35	1
Copper	**0.0018**	**J**	0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:05	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:35	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:35	1
Zinc	**0.0070**		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.35**				SU			09/21/20 15:29	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWC-1

Date Collected: 09/22/20 14:06
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.9**		1.0	0.32	mg/L			10/02/20 10:23	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 10:23	1
Sulfate	**0.63**	**J**	1.0	0.38	mg/L			10/02/20 10:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.022**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:39	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:39	1
Boron	**0.098**		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:39	1
Calcium	**0.21**	**J**	0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:39	1
Chromium	**0.0017**	**J**	0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:39	1
Cobalt	**0.00021**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:39	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:09	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:39	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:39	1
Zinc	<0.0032		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.66**				SU			09/22/20 14:06	1

Client Sample ID: GWC-2

Date Collected: 09/22/20 13:43
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.4**		1.0	0.32	mg/L			10/02/20 12:20	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 12:20	1
Sulfate	<0.38		1.0	0.38	mg/L			10/02/20 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.061**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:42	1
Beryllium	**0.00025**	**J**	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:42	1
Boron	**0.083**		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:42	1
Calcium	**2.1**		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:42	1
Chromium	**0.0036**		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:42	1
Cobalt	**0.00092**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:42	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:13	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:42	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:42	1
Zinc	**0.029**		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**30**		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.04**				SU			09/22/20 13:43	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWC-4A

Date Collected: 09/22/20 12:27
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.32	mg/L			10/02/20 21:59	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 21:59	1
Sulfate	**0.76**	**J**	1.0	0.38	mg/L			10/02/20 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.031**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:46	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:46	1
Boron	**0.053**	**J**	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:46	1
Calcium	**0.51**		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:46	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:46	1
Cobalt	**0.00042**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:46	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:46	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:46	1
Zinc	**0.017**		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		10	10	mg/L			09/25/20 06:45	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.92**				SU			09/22/20 12:27	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWC-5

Date Collected: 09/22/20 11:07
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.3		1.0	0.32	mg/L			10/02/20 23:02	1
Fluoride	0.10		0.10	0.026	mg/L			10/02/20 23:02	1
Sulfate	4.3		1.0	0.38	mg/L			10/02/20 23:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.51		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:49	1
Beryllium	0.0011	J	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:49	1
Boron	0.045	J B	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:49	1
Calcium	8.0		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:49	1
Cobalt	0.011		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:49	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:20	1
Lead	0.00013	J	0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:49	1
Vanadium	0.0015		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:49	1
Zinc	0.037		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		10	10	mg/L			09/25/20 06:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.87				SU			09/22/20 11:07	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: GWC-6

Date Collected: 09/22/20 12:55
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.32	mg/L			10/02/20 23:23	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 23:23	1
Sulfate	0.59	J	1.0	0.38	mg/L			10/02/20 23:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.051		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:53	1
Beryllium	0.00021	J	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:53	1
Boron	0.048	J B	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:53	1
Calcium	1.9		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:53	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:53	1
Cobalt	0.00058	J	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:53	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:23	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:53	1
Vanadium	0.0011		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:53	1
Zinc	0.0053		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30		10	10	mg/L			09/25/20 06:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.73				SU			09/22/20 12:55	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-DUP-01

Date Collected: 09/21/20 00:00
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		1.0	0.32	mg/L			10/02/20 23:43	1
Fluoride	0.032	J	0.10	0.026	mg/L			10/02/20 23:43	1
Sulfate	<0.38		1.0	0.38	mg/L			10/02/20 23:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.086		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 19:57	1
Beryllium	0.00045	J	0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 19:57	1
Boron	0.080	B	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 19:57	1
Calcium	3.2		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 19:57	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 19:57	1
Cobalt	0.0016	J	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 19:57	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:27	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 19:57	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 19:57	1
Zinc	0.0067		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 19:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	65		10	10	mg/L			09/25/20 06:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-DUP-02

Date Collected: 09/22/20 00:00
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.4**		1.0	0.32	mg/L			10/03/20 00:46	1
Fluoride	**0.028**	**J**	0.10	0.026	mg/L			10/03/20 00:46	1
Sulfate	**0.38**	**J**	1.0	0.38	mg/L			10/03/20 00:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.022**		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 20:00	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 20:00	1
Boron	**0.063**	**J B**	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 20:00	1
Calcium	**0.19**	**J**	0.50	0.13	mg/L		10/06/20 13:47	10/17/20 20:00	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 20:00	1
Cobalt	**0.00023**	**J**	0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 20:00	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 20:00	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 20:00	1
Zinc	**0.0033**	**J**	0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**40**		10	10	mg/L			09/25/20 06:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-FB-01-09-21-20

Date Collected: 09/21/20 15:42
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/03/20 01:07	1
Fluoride	**0.031**	**J**	0.10	0.026	mg/L			10/03/20 01:07	1
Sulfate	<0.38		1.0	0.38	mg/L			10/03/20 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 20:04	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 20:04	1
Boron	**0.040**	**J B**	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 20:04	1
Calcium	<0.13		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 20:04	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 20:04	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 20:04	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:34	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 20:04	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 20:04	1
Zinc	<0.0032		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 20:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:48	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-FB-02-09-22-20

Date Collected: 09/22/20 10:00
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-15

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/03/20 01:28	1
Fluoride	**0.028**	**J**	0.10	0.026	mg/L			10/03/20 01:28	1
Sulfate	<0.38		1.0	0.38	mg/L			10/03/20 01:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 20:07	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 20:07	1
Boron	**0.039**	**J B**	0.080	0.039	mg/L		10/06/20 13:47	10/17/20 20:07	1
Calcium	<0.13		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 20:07	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 20:07	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 20:07	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 20:07	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 20:07	1
Zinc	<0.0032		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 20:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-FERB-01-09-21-20

Date Collected: 09/21/20 16:45
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-16

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/03/20 01:49	1
Fluoride	**0.030**	**J**	0.10	0.026	mg/L			10/03/20 01:49	1
Sulfate	<0.38		1.0	0.38	mg/L			10/03/20 01:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 20:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 20:18	1
Boron	<0.039		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 20:18	1
Calcium	<0.13		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 20:18	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 20:18	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 20:18	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:50	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 20:18	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 20:18	1
Zinc	<0.0032		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-111398-1

Client Sample ID: LF3-FERB-02-09-22-20

Date Collected: 09/22/20 12:45
Date Received: 09/24/20 09:15

Lab Sample ID: 180-111398-17

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/03/20 02:09	1
Fluoride	<0.026		0.10	0.026	mg/L			10/03/20 02:09	1
Sulfate	<0.38		1.0	0.38	mg/L			10/03/20 02:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 20:22	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 20:22	1
Boron	<0.039		0.080	0.039	mg/L		10/06/20 13:47	10/17/20 20:22	1
Calcium	<0.13		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 20:22	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 20:22	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 20:22	1
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 20:54	1
Lead	**0.0013**		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 20:22	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 20:22	1
Zinc	**0.026**		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:48	1

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

Lab Sample ID: MB 180-332056/6
Matrix: Water
Analysis Batch: 332056

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/02/20 05:20	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 05:20	1
Sulfate	<0.38		1.0	0.38	mg/L			10/02/20 05:20	1

Lab Sample ID: LCS 180-332056/5
Matrix: Water
Analysis Batch: 332056

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.8		mg/L		98	90 - 110
Fluoride	2.50	2.45		mg/L		98	90 - 110
Sulfate	50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: 180-111398-1 MS
Matrix: Water
Analysis Batch: 332056

Client Sample ID: GWA-1A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.1		50.0	54.2		mg/L		92	90 - 110
Fluoride	<0.026		2.50	2.30		mg/L		92	90 - 110
Sulfate	<0.38		50.0	47.3		mg/L		95	90 - 110

Lab Sample ID: 180-111398-1 MSD
Matrix: Water
Analysis Batch: 332056

Client Sample ID: GWA-1A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.1		50.0	54.0		mg/L		92	90 - 110	0	20
Fluoride	<0.026		2.50	2.29		mg/L		92	90 - 110	1	20
Sulfate	<0.38		50.0	47.4		mg/L		95	90 - 110	0	20

Lab Sample ID: 180-111398-8 MS
Matrix: Water
Analysis Batch: 332056

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.4		50.0	52.9		mg/L		95	90 - 110
Fluoride	<0.026		2.50	2.34		mg/L		94	90 - 110
Sulfate	<0.38		50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: 180-111398-8 MSD
Matrix: Water
Analysis Batch: 332056

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.4		50.0	53.8		mg/L		97	90 - 110	2	20
Fluoride	<0.026		2.50	2.35		mg/L		94	90 - 110	1	20
Sulfate	<0.38		50.0	49.8		mg/L		100	90 - 110	1	20

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

Lab Sample ID: MB 180-332057/33
Matrix: Water
Analysis Batch: 332057

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/02/20 21:38	1
Fluoride	<0.026		0.10	0.026	mg/L			10/02/20 21:38	1
Sulfate	<0.38		1.0	0.38	mg/L			10/02/20 21:38	1

Lab Sample ID: LCS 180-332057/32
Matrix: Water
Analysis Batch: 332057

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.9		mg/L		98	90 - 110
Fluoride	2.50	2.40		mg/L		96	90 - 110
Sulfate	50.0	47.3		mg/L		95	90 - 110

Lab Sample ID: 180-111398-9 MS
Matrix: Water
Analysis Batch: 332057

Client Sample ID: GWC-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	11		50.0	57.5		mg/L		93	90 - 110
Fluoride	<0.026		2.50	2.41		mg/L		96	90 - 110
Sulfate	0.76	J	50.0	47.8		mg/L		94	90 - 110

Lab Sample ID: 180-111398-9 MSD
Matrix: Water
Analysis Batch: 332057

Client Sample ID: GWC-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	11		50.0	57.8		mg/L		94	90 - 110	1	20
Fluoride	<0.026		2.50	2.43		mg/L		97	90 - 110	1	20
Sulfate	0.76	J	50.0	48.1		mg/L		95	90 - 110	1	20

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

Lab Sample ID: MB 180-332471/1-A
Matrix: Water
Analysis Batch: 334010

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		10/06/20 13:47	10/17/20 18:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/06/20 13:47	10/17/20 18:35	1
Calcium	<0.13		0.50	0.13	mg/L		10/06/20 13:47	10/17/20 18:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/06/20 13:47	10/17/20 18:35	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/06/20 13:47	10/17/20 18:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/06/20 13:47	10/17/20 18:35	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		10/06/20 13:47	10/17/20 18:35	1
Zinc	<0.0032		0.0050	0.0032	mg/L		10/06/20 13:47	10/17/20 18:35	1

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

Lab Sample ID: MB 180-332471/1-A
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		10/06/20 13:47	10/21/20 14:07	1

Lab Sample ID: LCS 180-332471/2-A
Matrix: Water
Analysis Batch: 334010

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	1.00		mg/L		100	80 - 120
Beryllium	0.500	0.440		mg/L		88	80 - 120
Calcium	25.0	27.0		mg/L		108	80 - 120
Chromium	0.500	0.460		mg/L		92	80 - 120
Cobalt	0.500	0.486		mg/L		97	80 - 120
Lead	0.500	0.471		mg/L		94	80 - 120
Vanadium	0.500	0.463		mg/L		93	80 - 120
Zinc	0.250	0.239		mg/L		95	80 - 120

Lab Sample ID: LCS 180-332471/2-A
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.26		mg/L		101	80 - 120

Lab Sample ID: 180-111398-1 MS
Matrix: Water
Analysis Batch: 334010

Client Sample ID: GWA-1A
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.023		1.00	1.04		mg/L		102	75 - 125
Beryllium	0.00020	J	0.500	0.468		mg/L		94	75 - 125
Boron	0.11		1.25	1.24		mg/L		91	75 - 125
Calcium	1.8		25.0	29.3		mg/L		110	75 - 125
Chromium	0.0049		0.500	0.484		mg/L		96	75 - 125
Cobalt	0.00030	J	0.500	0.484		mg/L		97	75 - 125
Lead	<0.00013		0.500	0.480		mg/L		96	75 - 125
Vanadium	<0.00099		0.500	0.483		mg/L		97	75 - 125
Zinc	<0.0032		0.250	0.244		mg/L		98	75 - 125

Lab Sample ID: 180-111398-1 MSD
Matrix: Water
Analysis Batch: 334010

Client Sample ID: GWA-1A
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.023		1.00	1.05		mg/L		102	75 - 125	0	20
Beryllium	0.00020	J	0.500	0.467		mg/L		93	75 - 125	0	20
Boron	0.11		1.25	1.28		mg/L		94	75 - 125	3	20
Calcium	1.8		25.0	28.7		mg/L		107	75 - 125	2	20
Chromium	0.0049		0.500	0.469		mg/L		93	75 - 125	3	20
Cobalt	0.00030	J	0.500	0.481		mg/L		96	75 - 125	1	20

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

Lab Sample ID: 180-111398-1 MSD
Matrix: Water
Analysis Batch: 334010

Client Sample ID: GWA-1A
Prep Type: Total Recoverable
Prep Batch: 332471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	<0.00013		0.500	0.478		mg/L		96	75 - 125	0	20
Vanadium	<0.00099		0.500	0.472		mg/L		94	75 - 125	2	20
Zinc	<0.0032		0.250	0.238		mg/L		95	75 - 125	2	20

Lab Sample ID: MB 180-334180/1-A
Matrix: Water
Analysis Batch: 334457

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334180

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.00063		0.0020	0.00063	mg/L		10/21/20 09:34	10/22/20 19:08	1

Lab Sample ID: LCS 180-334180/2-A
Matrix: Water
Analysis Batch: 334457

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.500	0.511		mg/L		102	80 - 120

Lab Sample ID: 180-111398-2 MS
Matrix: Water
Analysis Batch: 334457

Client Sample ID: GWA-2B
Prep Type: Total Recoverable
Prep Batch: 334180

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.00096	J	0.500	0.498		mg/L		99	75 - 125

Lab Sample ID: 180-111398-2 MSD
Matrix: Water
Analysis Batch: 334457

Client Sample ID: GWA-2B
Prep Type: Total Recoverable
Prep Batch: 334180

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.00096	J	0.500	0.487		mg/L		97	75 - 125	2	20

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

Lab Sample ID: MB 180-331210/2
Matrix: Water
Analysis Batch: 331210

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:45	1

Lab Sample ID: LCS 180-331210/1
Matrix: Water
Analysis Batch: 331210

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	632	622		mg/L		98	80 - 120

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

Lab Sample ID: MB 180-331211/2
Matrix: Water
Analysis Batch: 331211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/25/20 06:48	1

Lab Sample ID: LCS 180-331211/1
Matrix: Water
Analysis Batch: 331211

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			632	632		mg/L		100	80 - 120		

Lab Sample ID: 180-111398-10 DU
Matrix: Water
Analysis Batch: 331211

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

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	440			438		mg/L				0.2	10

HPLC/IC

Analysis Batch: 332056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-2	GWA-2B	Total/NA	Water	EPA 300.0 R2.1	
180-111398-3	GWA-3A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-4	GWA-4	Total/NA	Water	EPA 300.0 R2.1	
180-111398-5	GWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-111398-6	GWA-7A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-7	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-111398-8	GWC-2	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332056/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332056/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111398-1 MS	GWA-1A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-1 MSD	GWA-1A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-8 MS	GWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-111398-8 MSD	GWC-2	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 332057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-9	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-10	GWC-5	Total/NA	Water	EPA 300.0 R2.1	
180-111398-11	GWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-111398-12	LF3-DUP-01	Total/NA	Water	EPA 300.0 R2.1	
180-111398-13	LF3-DUP-02	Total/NA	Water	EPA 300.0 R2.1	
180-111398-14	LF3-FB-01-09-21-20	Total/NA	Water	EPA 300.0 R2.1	
180-111398-15	LF3-FB-02-09-22-20	Total/NA	Water	EPA 300.0 R2.1	
180-111398-16	LF3-FERB-01-09-21-20	Total/NA	Water	EPA 300.0 R2.1	
180-111398-17	LF3-FERB-02-09-22-20	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332057/33	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332057/32	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111398-9 MS	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	
180-111398-9 MSD	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 332471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total Recoverable	Water	3005A	
180-111398-2	GWA-2B	Total Recoverable	Water	3005A	
180-111398-3	GWA-3A	Total Recoverable	Water	3005A	
180-111398-4	GWA-4	Total Recoverable	Water	3005A	
180-111398-5	GWA-5	Total Recoverable	Water	3005A	
180-111398-6	GWA-7A	Total Recoverable	Water	3005A	
180-111398-7	GWC-1	Total Recoverable	Water	3005A	
180-111398-8	GWC-2	Total Recoverable	Water	3005A	
180-111398-9	GWC-4A	Total Recoverable	Water	3005A	
180-111398-10	GWC-5	Total Recoverable	Water	3005A	
180-111398-11	GWC-6	Total Recoverable	Water	3005A	
180-111398-12	LF3-DUP-01	Total Recoverable	Water	3005A	
180-111398-13	LF3-DUP-02	Total Recoverable	Water	3005A	
180-111398-14	LF3-FB-01-09-21-20	Total Recoverable	Water	3005A	
180-111398-15	LF3-FB-02-09-22-20	Total Recoverable	Water	3005A	
180-111398-16	LF3-FERB-01-09-21-20	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 332471 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-17	LF3-FERB-02-09-22-20	Total Recoverable	Water	3005A	
MB 180-332471/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-332471/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-111398-1 MS	GWA-1A	Total Recoverable	Water	3005A	
180-111398-1 MSD	GWA-1A	Total Recoverable	Water	3005A	

Analysis Batch: 334010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total Recoverable	Water	EPA 6020B	332471
180-111398-2	GWA-2B	Total Recoverable	Water	EPA 6020B	332471
180-111398-3	GWA-3A	Total Recoverable	Water	EPA 6020B	332471
180-111398-4	GWA-4	Total Recoverable	Water	EPA 6020B	332471
180-111398-5	GWA-5	Total Recoverable	Water	EPA 6020B	332471
180-111398-6	GWA-7A	Total Recoverable	Water	EPA 6020B	332471
180-111398-7	GWC-1	Total Recoverable	Water	EPA 6020B	332471
180-111398-8	GWC-2	Total Recoverable	Water	EPA 6020B	332471
180-111398-9	GWC-4A	Total Recoverable	Water	EPA 6020B	332471
180-111398-10	GWC-5	Total Recoverable	Water	EPA 6020B	332471
180-111398-11	GWC-6	Total Recoverable	Water	EPA 6020B	332471
180-111398-12	LF3-DUP-01	Total Recoverable	Water	EPA 6020B	332471
180-111398-13	LF3-DUP-02	Total Recoverable	Water	EPA 6020B	332471
180-111398-14	LF3-FB-01-09-21-20	Total Recoverable	Water	EPA 6020B	332471
180-111398-15	LF3-FB-02-09-22-20	Total Recoverable	Water	EPA 6020B	332471
180-111398-16	LF3-FERB-01-09-21-20	Total Recoverable	Water	EPA 6020B	332471
180-111398-17	LF3-FERB-02-09-22-20	Total Recoverable	Water	EPA 6020B	332471
MB 180-332471/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	332471
LCS 180-332471/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	332471
180-111398-1 MS	GWA-1A	Total Recoverable	Water	EPA 6020B	332471
180-111398-1 MSD	GWA-1A	Total Recoverable	Water	EPA 6020B	332471

Prep Batch: 334180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total Recoverable	Water	3005A	
180-111398-2	GWA-2B	Total Recoverable	Water	3005A	
180-111398-3	GWA-3A	Total Recoverable	Water	3005A	
180-111398-4	GWA-4	Total Recoverable	Water	3005A	
180-111398-5	GWA-5	Total Recoverable	Water	3005A	
180-111398-6	GWA-7A	Total Recoverable	Water	3005A	
180-111398-7	GWC-1	Total Recoverable	Water	3005A	
180-111398-8	GWC-2	Total Recoverable	Water	3005A	
180-111398-9	GWC-4A	Total Recoverable	Water	3005A	
180-111398-10	GWC-5	Total Recoverable	Water	3005A	
180-111398-11	GWC-6	Total Recoverable	Water	3005A	
180-111398-12	LF3-DUP-01	Total Recoverable	Water	3005A	
180-111398-13	LF3-DUP-02	Total Recoverable	Water	3005A	
180-111398-14	LF3-FB-01-09-21-20	Total Recoverable	Water	3005A	
180-111398-15	LF3-FB-02-09-22-20	Total Recoverable	Water	3005A	
180-111398-16	LF3-FERB-01-09-21-20	Total Recoverable	Water	3005A	
180-111398-17	LF3-FERB-02-09-22-20	Total Recoverable	Water	3005A	
MB 180-334180/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-334180/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 334180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-2 MS	GWA-2B	Total Recoverable	Water	3005A	
180-111398-2 MSD	GWA-2B	Total Recoverable	Water	3005A	

Analysis Batch: 334271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-332471/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	332471
LCS 180-332471/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	332471

Analysis Batch: 334457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total Recoverable	Water	EPA 6020B	334180
180-111398-2	GWA-2B	Total Recoverable	Water	EPA 6020B	334180
180-111398-3	GWA-3A	Total Recoverable	Water	EPA 6020B	334180
180-111398-4	GWA-4	Total Recoverable	Water	EPA 6020B	334180
180-111398-5	GWA-5	Total Recoverable	Water	EPA 6020B	334180
180-111398-6	GWA-7A	Total Recoverable	Water	EPA 6020B	334180
180-111398-7	GWC-1	Total Recoverable	Water	EPA 6020B	334180
180-111398-8	GWC-2	Total Recoverable	Water	EPA 6020B	334180
180-111398-9	GWC-4A	Total Recoverable	Water	EPA 6020B	334180
180-111398-10	GWC-5	Total Recoverable	Water	EPA 6020B	334180
180-111398-11	GWC-6	Total Recoverable	Water	EPA 6020B	334180
180-111398-12	LF3-DUP-01	Total Recoverable	Water	EPA 6020B	334180
180-111398-13	LF3-DUP-02	Total Recoverable	Water	EPA 6020B	334180
180-111398-14	LF3-FB-01-09-21-20	Total Recoverable	Water	EPA 6020B	334180
180-111398-15	LF3-FB-02-09-22-20	Total Recoverable	Water	EPA 6020B	334180
180-111398-16	LF3-FERB-01-09-21-20	Total Recoverable	Water	EPA 6020B	334180
180-111398-17	LF3-FERB-02-09-22-20	Total Recoverable	Water	EPA 6020B	334180
MB 180-334180/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	334180
LCS 180-334180/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	334180
180-111398-2 MS	GWA-2B	Total Recoverable	Water	EPA 6020B	334180
180-111398-2 MSD	GWA-2B	Total Recoverable	Water	EPA 6020B	334180

General Chemistry

Analysis Batch: 331210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total/NA	Water	SM 2540C	
180-111398-2	GWA-2B	Total/NA	Water	SM 2540C	
180-111398-3	GWA-3A	Total/NA	Water	SM 2540C	
180-111398-4	GWA-4	Total/NA	Water	SM 2540C	
180-111398-5	GWA-5	Total/NA	Water	SM 2540C	
180-111398-6	GWA-7A	Total/NA	Water	SM 2540C	
180-111398-7	GWC-1	Total/NA	Water	SM 2540C	
180-111398-8	GWC-2	Total/NA	Water	SM 2540C	
180-111398-9	GWC-4A	Total/NA	Water	SM 2540C	
MB 180-331210/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-331210/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 331211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-10	GWC-5	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 331211 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-11	GWC-6	Total/NA	Water	SM 2540C	
180-111398-12	LF3-DUP-01	Total/NA	Water	SM 2540C	
180-111398-13	LF3-DUP-02	Total/NA	Water	SM 2540C	
180-111398-14	LF3-FB-01-09-21-20	Total/NA	Water	SM 2540C	
180-111398-15	LF3-FB-02-09-22-20	Total/NA	Water	SM 2540C	
180-111398-16	LF3-FERB-01-09-21-20	Total/NA	Water	SM 2540C	
180-111398-17	LF3-FERB-02-09-22-20	Total/NA	Water	SM 2540C	
MB 180-331211/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-331211/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-111398-10 DU	GWC-5	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 333009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111398-1	GWA-1A	Total/NA	Water	Field Sampling	
180-111398-2	GWA-2B	Total/NA	Water	Field Sampling	
180-111398-3	GWA-3A	Total/NA	Water	Field Sampling	
180-111398-4	GWA-4	Total/NA	Water	Field Sampling	
180-111398-5	GWA-5	Total/NA	Water	Field Sampling	
180-111398-6	GWA-7A	Total/NA	Water	Field Sampling	
180-111398-7	GWC-1	Total/NA	Water	Field Sampling	
180-111398-8	GWC-2	Total/NA	Water	Field Sampling	
180-111398-9	GWC-4A	Total/NA	Water	Field Sampling	
180-111398-10	GWC-5	Total/NA	Water	Field Sampling	
180-111398-11	GWC-6	Total/NA	Water	Field Sampling	

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

Chain of Custody Record

244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: R. Walker / T. Goble	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone: 770-594-5998	E-Mail: shali.brown@eurofinset.com		Page: 1 of 2
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #: SCS10382606			
Email: SCS Contacts	WO #:			
Project Name: Plant McIntosh Landfill #3	Project #: 18019950			
Site: Georgia	SSOW#:			

Analysis Requested

180-111398 Chain of Custody

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, 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)

Other:

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)	APP III Metals: B,Ca	Cl, F, SO_4, & TDS (EPA 300.0 & SM 2540C)	Custom State & Permit Metals (EPA 6020): Ba,Be,Cr,Co,Cu,Pb,V,Zn	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D		
GWA-1A	9-21-20	1628	G	W	N	N	✓	✓	✓	2	pH = 4.95
GWA-2B	9-22-20	0942	G	W	N	N	✓	✓	✓	2	pH = 5.83
GWA-3A	9-21-20	1534	G	W	N	N	✓	✓	✓	2	pH = 4.69
GWA-4	9-21-20	1651	G	W	N	N	✓	✓	✓	2	pH = 4.60
GWA-5	9-22-20	0958	G	W	N	N	✓	✓	✓	2	pH = 4.99
GWA-7A	9-21-20	1529	G	W	N	N	✓	✓	✓	2	pH = 5.35
GWC-1	9-22-20	1406	G	W	N	N	✓	✓	✓	2	pH = 4.66
GWC-2	9-22-20	1343	G	W	N	N	✓	✓	✓	2	pH = 5.04
GWC-4A	9-22-20	1227	G	W	N	N	✓	✓	✓	2	pH = 4.92
GWC-5	9-22-20	1107	G	W	N	N	✓	✓	✓	2	pH = 5.87
GWC-6	9-22-20	1255	G	W	N	N	✓	✓	✓	2	pH=4.73

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		9-23-20/1500	ACC		9-23-20 1500	
2		9-23-20 1503			9-24-20	ETAP
3					9:15	

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver

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

Chain of Custody Record

ATLANTA 244-

eurofins Environment Testing America

Client Information	Sampler: R.Walker / T.Goble	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone: 770-598-5994	E-Mail: shali.brown@eurofinset.com		Page: 2 of 2
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #: SCS10382606			
Email: SCS Contacts	WO #:			
Project Name: Plant McIntosh Landfill #3	Project #: 18019950			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, 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)

Other:

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)	APP III Metals: B,Ca	Cl, F, SO_4, & TDS (EPA 300.0 & SM 2540C)	Custom State & Permit Metals (EPA 6020): Ba,Be,Cr,Co,Cu,Pb,V,Zn	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D		
LF3-Dup-01	9-21-20	—	G	W	N	N	✓	✓	✓	2	pH =
LF3-Dup-02	9-22-20	—	G	W	N	N	✓	✓	✓	2	pH =
LF3-FB-01-09-21-20	9-21-20	1542	G	W	N	N	✓	✓	✓	2	pH =
LF3-FB-02-09-22-20	9-22-20	1000	G	W	N	N	✓	✓	✓	2	pH =
LF3-FERB-01-09-21-20	9-21-20	1645	G	W	N	N	✓	✓	✓	2	pH =
LF3-FERB-02-09-22-20	9-22-20	1245	G	W	N	N	✓	✓	✓	2	pH =
											pH =
											pH = Last COC of Project
											pH =
											pH =

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		9-23-20/1500	ACC		9-23-20 1500	
2		9-23-20 1503			9-24-20 9:15	ETAPH
3						

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

Ver: 8/8/2019

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111398-1

Login Number: 111398
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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

LEVEL 2A LABORATORY DATA VALIDATIONS

McIntosh Inactive Landfill No. 3

2nd Semiannual Event

September 2020

Georgia Power Company – McIntosh Landfill 3

Quality Control Review of Analytical Data – September 2020

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh for groundwater samples collected at McIntosh LF3 between September 21, 2020 and September 22, 2020. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 180-111398 was revised by the laboratory to apply J qualifiers for results detected between reporting limit (RL) and method detection limit (MDL).

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Determination of Inorganic Anions (USEPA Method 300.0), and Solids in Water (Standard Methods 2540C).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)[1] and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)[2]. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

DATA QUALITY OBJECTIVES

Laboratory Precision: Laboratory goals for precision were met.

Field Precision: Field goals for precision were met, with the exceptions of Boron on GWA-3A (180-111398-3) and Sulfate and Boron on GWC-1 (180-111398-7) as described in the qualifications section below.

Accuracy: Laboratory goals for accuracy were met.

Detection Limits: Project goals for detection limits were met.

Completeness: There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: Holding time requirements were met.

QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

J: The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

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

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples GWA-3A (180-111398-3) and LF3-DUP-01 (180-111398-12) were qualified as estimated (J) for Boron as the field relative percent difference (RPD) exceeded QC criteria (31.58% above the limit of 25).

- Samples GWC-1 (180-111398-7) and LF3-DUP-02 (180-111398-13) were qualified as estimated (J) for Sulfate and Boron as the field RPDs exceeded QC criteria (49.50% and 43.48%, respectively above limit of 25).

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh LF3 sampled between September 21, 2020 and September 22, 2020 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

[1]USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

[2]USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – McIntosh LF3

Sample Summary Table – September 2020

						Analyses		
SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Metals (6020B)	Anions (300.0)	TDS (SM 2540C)
111398	GWA-1A	9/21/2020	180-111398-1	GW		X	X	X
111398	GWA-2B	9/22/2020	180-111398-2	GW		X	X	X
111398	GWA-3A	9/21/2020	180-111398-3	GW		X	X	X
111398	GWA-4	9/21/2020	180-111398-4	GW		X	X	X
111398	GWA-5	9/22/2020	180-111398-5	GW		X	X	X
111398	GWA-7A	9/21/2020	180-111398-6	GW		X	X	X
111398	GWC-1	9/22/2020	180-111398-7	GW		X	X	X
111398	GWC-2	9/22/2020	180-111398-8	GW		X	X	X
111398	GWC-4A	9/22/2020	180-111398-9	GW		X	X	X
111398	GWC-5	9/22/2020	180-111398-10	GW		X	X	X
111398	GWC-6	9/22/2020	180-111398-11	GW		X	X	X
111398	LF3-DUP-01	9/21/2020	180-111398-12	GW	FD (GWA-3A)	X	X	X
111398	LF3-DUP-02	9/22/2020	180-111398-13	GW	FD (GWC-1)	X	X	X
111398	LF3-FB-01-09-21-20	9/21/2020	180-111398-14	WQ	FB	X	X	X
111398	LF3-FB-02-09-22-20	9/22/2020	180-111398-15	WQ	FB	X	X	X
111398	LF3-FERB-01-09-21-20	9/21/2020	180-111398-16	WQ	EB	X	X	X
111398	LF3-FERB-02-09-22-20	9/22/2020	180-111398-17	WQ	EB	X	X	X

Abbreviations:
EB – Equipment Blank
FB – Field Blank
FD – Field Duplicate
GW – Groundwater
QC – Quality Control
TDS – Total Dissolved Solids
WQ – Water Quality Control

TABLE 2

Georgia Power Company – McIntosh LF3

Qualifier Summary Table – September 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
111398	GWA-3A	Boron			J	RPD exceeds field goal
111398	LF3-DUP-01	Boron			J	RPD exceeds field goal
111398	GWC-1	Sulfate			J	RPD exceeds field goal
111398	LF3-DUP-02	Sulfate			J	RPD exceeds field goal
111398	GWC-1	Boron			J	RPD exceeds field goal
111398	LF3-DUP-02	Boron			J	RPD exceeds field goal

Abbreviations:
MDC – Minimum Detectable Concentration
MS/MSD – Matrix Spike / Matrix Spike Duplicate
MDL – Method Detection Limit
RL – Reporting Limit
RPD – Relative Percent Difference
SDG – Sample Delivery Group
TDS – Total Dissolved Solids

Qualifiers:
J – Estimated Result
U – Non-Detect Result

Product Name: Low-Flow System

Date: 2020-09-21 16:29:25

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Peristaltic Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	McIntosh LF3	Tubing Diameter	0.10 in
Site Name	McIntosh LF3	Tubing Length	37 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	646770		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	32 ft

Well Information:		Pumping Information:	
Well ID	GWA-1A	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2371442 L
Well Total Depth	37.36 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	13.24 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	16:08:36	600.03	20.82	4.97	52.51	0.55	13.40	0.89	45.90
Last 5	16:13:36	900.03	20.65	4.96	52.46	0.33	13.40	0.85	45.21
Last 5	16:18:36	1200.04	20.56	4.95	52.22	0.21	13.40	0.83	45.95
Last 5	16:23:36	1500.04	20.53	4.95	52.31	0.20	13.40	0.83	46.35
Last 5	16:28:36	1800.04	20.47	4.95	52.39	0.49	13.40	0.84	46.66
Variance 0			-0.09	-0.01	-0.24			-0.02	0.73
Variance 1			-0.02	-0.00	0.09			-0.00	0.41
Variance 2			-0.06	-0.00	0.08			0.01	0.31

Notes

Sampled at 16:28. Sunny, 80’s. FERB-01 here.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 09:43:47

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Peristaltic Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	McIntosh LF3	Tubing Diameter	0.10 in
Site Name	McIntosh LF3	Tubing Length	63 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	646770		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	GWA-2B	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	0.2772996 L
Well Total Depth	63.09 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	18 in
Depth to Water	17.97 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	09:22:56	900.04	19.13	5.77	202.71	0.18	19.30	3.20	99.14
Last 5	09:27:56	1200.04	19.12	5.83	202.32	0.16	19.40	3.15	93.35
Last 5	09:32:56	1500.04	19.19	5.80	201.75	0.12	19.40	3.13	92.18
Last 5	09:37:56	1800.04	19.24	5.82	201.08	0.12	19.50	3.12	89.73
Last 5	09:42:56	2100.04	19.25	5.83	201.29	0.11	19.50	3.10	88.46
Variance 0			0.08	-0.04	-0.56			-0.02	-1.17
Variance 1			0.04	0.03	-0.68			-0.02	-2.45
Variance 2			0.01	0.00	0.21			-0.01	-1.27

Notes

Sampled at 09:42. Sunny, 60’s.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-21 15:36:07

Project Information:		Pump Information:	
Operator Name	Taylor Goble	Pump Model/Type	peristaltic Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	33.90 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	28.90 ft

Well Information:		Pumping Information:	
Well ID	GWA-3A	Final Pumping Rate	90 mL/min
Well diameter	2 in	Total System Volume	0.2139776 L
Well Total Depth	33.90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10 in
Depth to Water	14.38 ft	Total Volume Pumped	3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	15:14:37	600.01	18.57	4.84	86.86	1.16	14.96	0.35	14.57
Last 5	15:19:37	900.00	18.46	4.75	86.25	0.64	15.01	0.30	7.53
Last 5	15:24:37	1199.99	18.33	4.73	83.26	0.51	15.06	0.25	6.00
Last 5	15:29:37	1499.98	18.20	4.72	82.65	0.47	15.11	0.21	6.28
Last 5	15:34:37	1799.98	18.35	4.69	82.08	0.41	15.16	0.19	7.89
Variance 0			-0.12	-0.02	-2.99			-0.04	-1.53
Variance 1			-0.13	-0.01	-0.61			-0.04	0.28
Variance 2			0.14	-0.03	-0.57			-0.03	1.61

Notes

Sampled at 1534. Partly cloudy 74 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-21 16:53:59

Project Information:		Pump Information:	
Operator Name	Taylor Goble	Pump Model/Type	peristaltic pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	29.17 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	24.17 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	50 mL/min
Well diameter	2 in	Total System Volume	0.2139776 L
Well Total Depth	29.17 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14 in
Depth to Water	14.27 ft	Total Volume Pumped	1.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	16:31:17	600.02	19.81	4.64	44.48	0.80	14.82	1.24	-12.89
Last 5	16:36:17	900.00	19.19	4.63	44.81	0.66	14.99	1.02	-15.43
Last 5	16:41:17	1199.99	18.96	4.61	45.05	0.31	15.17	0.96	-15.15
Last 5	16:46:17	1499.98	18.80	4.61	45.24	0.25	15.33	0.94	-14.61
Last 5	16:51:17	1799.97	18.79	4.60	45.38	0.22	15.55	0.92	-13.81
Variance 0			-0.24	-0.02	0.24			-0.06	0.29
Variance 1			-0.16	-0.01	0.20			-0.02	0.53
Variance 2			-0.01	-0.01	0.14			-0.02	0.81

Notes

Sampled at 1651. Cloudy 74 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 10:00:09

Project Information:		Pump Information:	
Operator Name	Taylor Goble	Pump Model/Type	peristaltic pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	28.48 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	23.48 ft

Well Information:		Pumping Information:	
Well ID	GWA-5	Final Pumping Rate	80 mL/min
Well diameter	2 in	Total System Volume	0.2139776 L
Well Total Depth	28.48 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	25 in
Depth to Water	13.21 ft	Total Volume Pumped	2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	09:38:34	600.02	16.47	4.87	83.87	3.57	13.80	0.36	11.82
Last 5	09:43:34	900.00	16.58	4.97	79.28	4.18	14.18	0.35	8.10
Last 5	09:48:34	1199.99	16.56	4.98	78.21	4.57	14.60	0.31	8.08
Last 5	09:53:34	1499.98	16.74	5.00	76.58	4.73	15.03	0.29	10.89
Last 5	09:58:34	1799.98	16.79	4.99	76.67	4.55	15.44	0.28	15.23
Variance 0			-0.02	0.01	-1.07			-0.04	-0.02
Variance 1			0.18	0.02	-1.62			-0.02	2.81
Variance 2			0.05	-0.01	0.09			-0.02	4.34

Notes

Sampled at 0958. Sunny 62 degrees. LF3-FB-02 poured here at 1000.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-21 15:30:08

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Peristaltic Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	53 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	646770		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	GWA-7A	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2618552 L
Well Total Depth	53.09 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	21.46 ft	Total Volume Pumped	3.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:09:21	600.04	20.96	5.32	183.72	2.72	22.20	0.55	59.88
Last 5	15:14:21	900.04	20.83	5.29	184.29	2.14	22.20	0.50	60.44
Last 5	15:19:21	1200.04	20.78	5.26	182.10	1.33	22.20	0.48	58.23
Last 5	15:24:21	1500.04	20.67	5.29	183.58	1.62	22.20	0.55	57.28
Last 5	15:29:21	1800.04	20.64	5.35	182.33	1.32	22.20	0.48	51.25
Variance 0			-0.05	-0.02	-2.19			-0.02	-2.21
Variance 1			-0.11	0.02	1.49			0.07	-0.95
Variance 2			-0.03	0.07	-1.26			-0.06	-6.03

Notes

Sampled at 15:29. Sunny, 80’s. FB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 14:07:33

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Peristaltic Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	646770		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	50 ft

Well Information:		Pumping Information:	
Well ID	GWC-1	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	0.264944 L
Well Total Depth	55.81 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	18.80 ft	Total Volume Pumped	3.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:46:30	600.04	21.54	4.75	49.61	0.59	18.90	2.68	183.22
Last 5	13:51:30	900.04	21.71	4.71	49.21	1.32	18.90	2.74	190.22
Last 5	13:56:30	1200.04	21.94	4.68	48.72	1.05	18.90	2.69	195.91
Last 5	14:01:30	1500.04	22.83	4.68	47.80	0.42	18.90	2.61	199.72
Last 5	14:06:30	1800.04	23.19	4.66	47.38	0.31	18.90	2.55	205.31
Variance 0			0.23	-0.03	-0.49			-0.06	5.69
Variance 1			0.89	0.00	-0.92			-0.07	3.81
Variance 2			0.36	-0.02	-0.42			-0.07	5.59

Notes

Sampled at 14:06. Sunny, 70’s. Dup-2 here.

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 13:44:11

Project Information:		Pump Information:	
Operator Name	Taylor Goble	Pump Model/Type	peristaltic pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	37.35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	32.35 ft

Well Information:		Pumping Information:	
Well ID	GWC-2	Final Pumping Rate	130 mL/min
Well diameter	2 in	Total System Volume	0.2186109 L
Well Total Depth	37.35 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	18.02 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	13:23:29	600.01	19.86	5.08	49.46	0.34	18.07	1.52	10.31
Last 5	13:28:29	900.00	19.54	5.05	49.24	1.00	18.08	1.41	11.93
Last 5	13:33:29	1199.99	19.41	5.05	49.26	0.62	18.08	1.36	12.91
Last 5	13:38:29	1499.99	19.40	5.06	49.35	0.61	18.08	1.32	13.81
Last 5	13:43:29	1799.98	19.42	5.04	48.85	0.59	18.08	1.31	15.33
Variance 0			-0.12	-0.00	0.02			-0.05	0.99
Variance 1			-0.02	0.01	0.09			-0.04	0.90
Variance 2			0.02	-0.02	-0.50			-0.01	1.52

Notes

Sampled at 1343. Sunny 73 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 12:27:49

Project Information:		Pump Information:	
Operator Name	Taylor Goble	Pump Model/Type	peristaltic pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	36.99 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	31.99 ft

Well Information:		Pumping Information:	
Well ID	GWC-4A	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2186109 L
Well Total Depth	36.99 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	19.83 ft	Total Volume Pumped	3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	12:07:16	600.01	19.06	4.91	62.90	5.02	20.25	0.41	-4.57
Last 5	12:12:16	900.00	18.95	4.92	63.38	1.89	20.27	0.27	-12.49
Last 5	12:17:16	1200.00	19.32	4.92	63.05	1.02	20.28	0.23	-15.34
Last 5	12:22:16	1499.98	20.04	4.92	62.34	1.53	20.28	0.21	-18.96
Last 5	12:27:16	1799.98	20.01	4.91	62.36	1.36	20.28	0.19	-18.78
Variance 0			0.38	-0.01	-0.32			-0.04	-2.86
Variance 1			0.71	0.00	-0.71			-0.03	-3.62
Variance 2			-0.03	-0.00	0.02			-0.01	0.18

Notes

Sampled at 1227. Sunny 70 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 11:08:52

Project Information:		Pump Information:	
Operator Name	Taylor Goble	Pump Model/Type	peristaltic pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	30.59 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	25.59 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	50 mL/min
Well diameter	2 in	Total System Volume	0.2201554 L
Well Total Depth	30.59 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	8 in
Depth to Water	19.14 ft	Total Volume Pumped	1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	10:47:50	600.01	16.73	5.83	587.47	0.77	19.44	0.86	50.16
Last 5	10:52:50	900.00	17.20	5.85	589.04	0.52	19.56	0.55	48.25
Last 5	10:57:50	1199.99	17.37	5.87	598.09	0.72	19.68	0.46	45.90
Last 5	11:02:50	1499.98	17.45	5.86	602.57	0.82	19.77	0.42	46.05
Last 5	11:07:50	1799.97	17.50	5.87	600.98	0.66	19.87	0.39	45.15
Variance 0			0.17	0.02	9.04			-0.09	-2.36
Variance 1			0.08	-0.00	4.48			-0.04	0.15
Variance 2			0.04	0.00	-1.59			-0.02	-0.89

Notes

Sampled at 1107. Sunny 66 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 12:55:59

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Peristaltic Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant McIntosh LF3	Tubing Diameter	0.10 in
Site Name	Plant McIntosh LF3	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	646770		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	40 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	50 mL/min
Well diameter	2 in	Total System Volume	0.2494997 L
Well Total Depth	45.12 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	115 in
Depth to Water	20.69 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:35:03	8102.08	21.09	4.80	45.95	1.34	30.00	1.69	124.96
Last 5	12:40:03	8402.08	21.12	4.77	46.29	0.88	30.10	1.68	130.10
Last 5	12:45:03	8702.08	21.10	4.71	46.55	0.94	30.20	1.67	137.10
Last 5	12:50:03	9002.08	21.13	4.76	46.68	0.72	30.30	1.69	138.06
Last 5	12:55:03	9302.08	21.18	4.73	46.89	0.97	30.40	1.60	142.57
Variance 0			-0.02	-0.06	0.26			-0.02	7.00
Variance 1			0.03	0.05	0.13			0.02	0.95
Variance 2			0.06	-0.03	0.21			-0.09	4.52

Notes

Sampled at 12:55. Sunny, 70’s.

Grab Samples

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: Ryan Walker

INSTRUMENT S/N: 19010C073360

INSTRUMENT TYPE: Hach 2100 Q

CAL. SOLUTION:		
0 NTU -	LOT # NA	EXP. DATE: New DI water
10 NTU -	LOT #	EXP. DATE:
20 NTU -	LOT #	EXP. DATE:

Calibration Date: 9/15/20

Calibation Solution	Instrument Reading	
0.0	0.21	NTU
10.0	9.69	NTU
20.0	18.1	NTU

Calibration Date: 9/16/20

Calibation Solution	Instrument Reading	
0.0	0.20	NTU
10.0	9.72	NTU
20.0	20.1	NTU

Calibration Date: 9/17/20

Calibation Solution	Instrument Reading	
0.0	0.19	NTU
10.0	9.78	NTU
20.0	20.2	NTU

Calibration Date: 9/21/20

Calibation Solution	Instrument Reading	
0.0	0.26	NTU
10.0	9.54	NTU
20.0	20.4	NTU

Calibration Date: 9/22/20

Calibation Solution	Instrument Reading	
0.0	0.30	NTU
10.0	9.86	NTU
20.0	20.6	NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: Ryan Walker

WATER LEVEL: Heron

WATER LEVEL S/N: 24424

INSTRUMENT S/N: 646770

INSTRUMENT TYPE: Insitu SmarTroll

CAL. SOLUTION/S:

ID: pH 4	LOT #: 20010025	EXP. DATE:	08/2021
ID: pH 7	LOT #: 19340057	EXP. DATE:	08/2021
ID: pH 10	LOT #: 19320102	EXP. DATE:	08/2021
ID: Cond	LOT #: 19460167	EXP. DATE:	08/2021
ID: ORP	LOT #: 20010025	EXP. DATE:	08/2021
ID:	LOT #:	EXP. DATE:	
ID:	LOT #:	EXP. DATE:	

Calibration Date: 9/15/20

RDO: 100% sat. = 95.3

PH: 4.00 = 4.40 7.00 = 7.23 10.00 = 10.06

CONDUCTIVITY: 4455

ORP (mV) 198.7

Calibration Date: 9/16/20

RDO: 100% sat. = 95.4

PH: 4.00 = 4.54 7.00 = 7.38 10.00 = 10.09

CONDUCTIVITY: 4476

ORP (mV) 210.7

Calibration Date: 9/17/20

RDO: 100% sat. = 98.3

PH: 4.00 = 4.59 7.00 = 7.45 10.00 = 10.09

CONDUCTIVITY: 4457

ORP (mV) 208.4

Calibration Date: 9/21/20

RDO: 100% sat. = 95.3

PH: 4.00 = 4.57 7.00 = 7.38 10.00 = 10.01

CONDUCTIVITY: 4453

ORP (mV) 205.0

Calibration Date: 9/22/20

RDO: 100% sat. = 94.0

PH: 4.00 = 4.71 7.00 = 7.41 10.00 = 9.97

CONDUCTIVITY: 4484

ORP (mV) 217.7

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: T. Goble

WATER LEVEL: Solinst

WATER LEVEL S/N: 2369486

INSTRUMENT S/N: 463068

INSTRUMENT TYPE: Insitu SmarTroll

CAL. SOLUTION/S:				
ID: Auto Cal	LOT #: 20010025	EXP. DATE:	8/21
ID: pH 7	LOT #: 19340057	EXP. DATE:	8/21
ID: pH 10	LOT #: 19320102	EXP. DATE:	8/21
ID: ORP	LOT #: 19460167	EXP. DATE:	8/21
ID:	LOT #:	EXP. DATE:	
ID:	LOT #:	EXP. DATE:	
ID:	LOT #:	EXP. DATE:	

Calibration Date: 9-21-20

RDO: 100% sat. = 99.4

PH: 4.00 = 4.55 7.00 = 7.39 10.00 = 10.20

CONDUCTIVITY: 4518 = 4490

ORP (mV) 228 = 197.9

Calibration Date: 9-22-20

RDO: 100% sat. = 102.1

PH: 4.00 = 4.66 7.00 = 7.39 10.00 = 10.12

CONDUCTIVITY: 4490 = 4303

ORP (mV) 228 = 203.8

Calibration Date:

RDO: 100% sat. =

PH: 4.00 = 7.00 = 10.00 =

CONDUCTIVITY:

ORP (mV)

Calibration Date:

RDO: 100% sat. =

PH: 4.00 = 7.00 = 10.00 =

CONDUCTIVITY:

ORP (mV)

Calibration Date:

RDO: 100% sat. =

PH: 4.00 = 7.00 = 10.00 =

CONDUCTIVITY:

ORP (mV)

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: T. Goble

INSTRUMENT S/N: 11090C012514

INSTRUMENT TYPE: Hach 2100 Q

CAL. SOLUTION:

0 NTU -	LOT #	NA	EXP. DATE: New DI water
10 NTU -	LOT #	A9311	EXP. DATE: Feb 21
20 NTU -	LOT #	A9254	EXP. DATE: Dec 20

Calibration Date: 9-21-20

Calibation Solution	Instrument Reading	
0.0	0.33	NTU
10.0	9.95	NTU
20.0	19.6	NTU

100 = 95.7
800 = 810

Calibration Date: 9-22-20

Calibation Solution	Instrument Reading	
0.0	0.17	NTU
10.0	10.3	NTU
20.0	20.5	NTU

100 = 101
800 = 812

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

1 - Location/Identification		GWA-1	GWA-1A	GWA-2	GWA-2A	GWA-2B	GWA-3A	GWA-3B	GWA-4	GWA-5	GWA-7	GWA-7A
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

2 - Protective Outer Casing		GWA-1	GWA-1A	GWA-2	GWA-2A	GWA-2B	GWA-3A	GWA-3B	GWA-4	GWA-5	GWA-7	GWA-7A
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

3 - Surface Pad		GWA-1	GWA-1A	GWA-2	GWA-2A	GWA-2B	GWA-3A	GWA-3B	GWA-4	GWA-5	GWA-7	GWA-7A
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

4 - Internal Well Casing		GWA-1	GWA-1A	GWA-2	GWA-2A	GWA-2B	GWA-3A	GWA-3B	GWA-4	GWA-5	GWA-7	GWA-7A
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

5 - Sampling (Groundwater Monitoring Wells Only):

		GWA-1	GWA-1A	GWA-2	GWA-2A	GWA-2B	GWA-3A	GWA-3B	GWA-4	GWA-5	GWA-7	GWA-7A
a	Does the well recharge adequately when purged?	N/A	Yes	N/A	N/A	Yes	Yes	N/A	Yes	Yes	N/A	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	No	N/A	N/A	No	No	N/A	No	No	N/A	No

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	GWA-1	GWA-1A	GWA-2	GWA-2A	GWA-2B	GWA-3A	GWA-3B	GWA-4	GWA-5	GWA-7	GWA-7A
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

1 - Location/Identification		GWC-1	GWC-2	GWC-3	GWC-4A	GWC-4B	GWC-5	GWC-6	PZ-1	PZ-2	PZ-3	
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

2 - Protective Outer Casing		GWC-1	GWC-2	GWC-3	GWC-4A	GWC-4B	GWC-5	GWC-6	PZ-1	PZ-2	PZ-3	
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

3 - Surface Pad		GWC-1	GWC-2	GWC-3	GWC-4A	GWC-4B	GWC-5	GWC-6	PZ-1	PZ-2	PZ-3	
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

4 - Internal Well Casing		GWC-1	GWC-2	GWC-3	GWC-4A	GWC-4B	GWC-5	GWC-6	PZ-1	PZ-2	PZ-3	
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	

Facility Name: Plant McIntosh LF-3
Staff: T. Goble
Date: 9/14/2020

5 - Sampling (Groundwater Monitoring Wells Only):

		GWC-1	GWC-2	GWC-3	GWC-4A	GWC-4B	GWC-5	GWC-6	PZ-1	PZ-2	PZ-3	
a	Does the well recharge adequately when purged?	Yes	Yes	N/A	Yes	N/A	Yes	Yes	N/A	N/A	N/A	
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	N/A	No	N/A	No	No	N/A	N/A	N/A	

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	GWC-1	GWC-2	GWC-3	GWC-4A	GWC-4B	GWC-5	GWC-6	PZ-1	PZ-2	PZ-3	
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

7 - Corrective actions completed and Notes:

1) GWC-4A and GWC-4B: Redrilled weep hole

eurofins | Environment Testing America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-119064-1
Client Project/Site: CCR - Plant McIntosh Ash Landfill #3

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

Attn: Kristen N Jurinko

Authorized for release by:
4/23/2021 8:20:57 AM

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

LINKS

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

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

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Job ID: 180-119064-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-119064-1

Comments
No additional comments.

Receipt
The samples were received on 3/26/2021 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 3 coolers at receipt time were 2.8º C, 2.9º C and 2.9º C.

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

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

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

General Chemistry
Method SM 2540C: The following sample was analyzed outside of analytical holding time due to analyst error. GWA-1A (180-119064-1).

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

Definitions/Glossary

Client: Southern Company
Job ID: 180-119064-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Qualifiers

HPLC/IC

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

Metals

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

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

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
Job ID: 180-119064-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

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

Sample Summary

Client: Southern Company
Job ID: 180-119064-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119064-1	GWA-1A	Water	03/23/21 13:45	03/26/21 09:00	
180-119064-2	GWA-2B	Water	03/23/21 15:17	03/26/21 09:00	
180-119064-3	GWA-3A	Water	03/23/21 13:28	03/26/21 09:00	
180-119064-4	GWA-4	Water	03/24/21 17:15	03/26/21 09:00	
180-119064-5	GWA-5	Water	03/24/21 16:28	03/26/21 09:00	
180-119064-6	GWA-7A	Water	03/23/21 10:20	03/26/21 09:00	
180-119064-7	GWC-1	Water	03/24/21 09:52	03/26/21 09:00	
180-119064-8	GWC-2	Water	03/23/21 16:19	03/26/21 09:00	
180-119064-9	GWC-4A	Water	03/24/21 11:08	03/26/21 09:00	
180-119064-10	GWC-5	Water	03/24/21 11:50	03/26/21 09:00	
180-119064-11	GWC-6	Water	03/24/21 10:10	03/26/21 09:00	
180-119064-12	FB-1	Water	03/23/21 13:40	03/26/21 09:00	
180-119064-13	EB-1	Water	03/24/21 15:40	03/26/21 09:00	
180-119064-14	DUP-1	Water	03/23/21 00:00	03/26/21 09:00	

Method Summary

Client: Southern Company
Job ID: 180-119064-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

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

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWA-1A

Date Collected: 03/23/21 13:45
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 17:01	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 13:26	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	352807	04/12/21 20:18	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/23/21 13:45	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-2B

Date Collected: 03/23/21 15:17
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 18:13	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 13:45	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/23/21 15:17	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-3A

Date Collected: 03/23/21 13:28
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 18:31	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 13:47	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/23/21 13:28	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWA-4

Date Collected: 03/24/21 17:15
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352357	04/08/21 12:35	SAT	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 13:50	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/24/21 17:15	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-5

Date Collected: 03/24/21 16:28
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 11:13	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 13:53	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/24/21 16:28	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWA-7A

Date Collected: 03/23/21 10:20
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-6

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 300.0 R2.1		1			352360	04/08/21 12:33	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 13:56	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/23/21 10:20	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWC-1

Date Collected: 03/24/21 09:52
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-7

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 300.0 R2.1		1			352360	04/08/21 15:32	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:13	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/24/21 09:52	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-2

Date Collected: 03/23/21 16:19
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-8

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 300.0 R2.1		1			352360	04/08/21 19:24	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:15	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/23/21 16:19	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-4A

Date Collected: 03/24/21 11:08
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-9

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 300.0 R2.1		1			352360	04/08/21 20:53	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:18	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/24/21 11:08	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-5
Lab Sample ID: 180-119064-10
Date Collected: 03/24/21 11:50
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 18:48	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:21	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/24/21 11:50	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-6
Lab Sample ID: 180-119064-11
Date Collected: 03/24/21 10:10
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 19:06	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:24	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351076	03/24/21 10:10	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1
Lab Sample ID: 180-119064-12
Date Collected: 03/23/21 13:40
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 14:38	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:32	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EB-1
Lab Sample ID: 180-119064-13
Date Collected: 03/24/21 15:40
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 14:20	SAT	TAL PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: EB-1

Date Collected: 03/24/21 15:40
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:35	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351454	03/31/21 19:47	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Date Collected: 03/23/21 00:00
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 12:51	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352440	04/08/21 14:33	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353123	04/14/21 14:37	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

Batch Type: Analysis

FDS = Sampler Field
GRB = Gabriel Berghe
KMM = Kendric Moore
RJR = Ron Rosenbaum
SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWA-1A

Date Collected: 03/23/21 13:45
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.6**		1.0	0.71	mg/L			04/08/21 17:01	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 17:01	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 17:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.023**		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:26	1
Beryllium	**0.00021**	**J**	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:26	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:26	1
Calcium	**1.8**		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:26	1
Chromium	**0.0047**		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:26	1
Cobalt	**0.00028**	**J**	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:26	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:26	1
Lead	**0.00017**	**J**	0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:26	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:26	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**47**	**H**	10	10	mg/L			04/12/21 20:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.17**				SU			03/23/21 13:45	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWA-2B

Date Collected: 03/23/21 15:17
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.71	mg/L			04/08/21 18:13	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 18:13	1
Sulfate	49		1.0	0.76	mg/L			04/08/21 18:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.044		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:45	1
Beryllium	0.00071	J	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:45	1
Boron	0.57		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:45	1
Calcium	15		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:45	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:45	1
Cobalt	0.00096	J	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:45	1
Copper	0.0011	J	0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:45	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:45	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:45	1
Zinc	0.0066		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		10	10	mg/L			03/30/21 21:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.61				SU			03/23/21 15:17	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWA-3A

Date Collected: 03/23/21 13:28
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22**		1.0	0.71	mg/L			04/08/21 18:31	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 18:31	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 18:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.093**		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:47	1
Beryllium	**0.00063**	**J**	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:47	1
Boron	**0.088**		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:47	1
Calcium	**3.6**		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:47	1
Chromium	**0.0022**		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:47	1
Cobalt	**0.0017**	**J**	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:47	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:47	1
Lead	**0.00029**	**J**	0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:47	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:47	1
Zinc	**0.0092**		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**76**		10	10	mg/L			03/30/21 21:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.60**				SU			03/23/21 13:28	1

Client Sample ID: GWA-4

Date Collected: 03/24/21 17:15
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.2		1.0	0.71	mg/L			04/08/21 12:35	1
Fluoride	0.12		0.10	0.026	mg/L			04/08/21 12:35	1
Sulfate	7.0		1.0	0.76	mg/L			04/08/21 12:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.052		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:50	1
Beryllium	0.00019	J	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:50	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:50	1
Calcium	1.3		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:50	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:50	1
Cobalt	0.00069	J	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:50	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:50	1
Lead	0.00021	J	0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:50	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:50	1
Zinc	0.0058		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		10	10	mg/L			03/31/21 19:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.42				SU			03/24/21 17:15	1

Client Sample ID: GWA-5

Date Collected: 03/24/21 16:28
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		1.0	0.71	mg/L			04/08/21 11:13	1
Fluoride	0.080	J	0.10	0.026	mg/L			04/08/21 11:13	1
Sulfate	16		1.0	0.76	mg/L			04/08/21 11:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.096		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:53	1
Beryllium	0.00026	J	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:53	1
Boron	0.048	J	0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:53	1
Calcium	3.1		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:53	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:53	1
Cobalt	0.00077	J	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:53	1
Copper	0.00077	J	0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:53	1
Lead	0.00066	J	0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:53	1
Vanadium	0.0018		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:53	1
Zinc	0.0085		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		10	10	mg/L			03/31/21 19:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.37				SU			03/24/21 16:28	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWA-7A

Date Collected: 03/23/21 10:20
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.71	mg/L			04/08/21 12:33	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 12:33	1
Sulfate	88		1.0	0.76	mg/L			04/08/21 12:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.048		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:56	1
Beryllium	0.00066	J	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:56	1
Boron	1.5		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:56	1
Calcium	19		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:56	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:56	1
Cobalt	0.0030		0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:56	1
Copper	0.0027		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:56	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:56	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:56	1
Zinc	0.0096		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		10	10	mg/L			03/30/21 21:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.01				SU			03/23/21 10:20	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWC-1

Date Collected: 03/24/21 09:52
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.8**		1.0	0.71	mg/L			04/08/21 15:32	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 15:32	1
Sulfate	**0.77**	**J**	1.0	0.76	mg/L			04/08/21 15:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.023**		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:13	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:13	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:13	1
Calcium	**0.25**	**J**	0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:13	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:13	1
Cobalt	**0.00020**	**J**	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:13	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:13	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:13	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:13	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		10	10	mg/L			03/31/21 19:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.86**				SU			03/24/21 09:52	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWC-2

Date Collected: 03/23/21 16:19
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.71	mg/L			04/08/21 19:24	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 19:24	1
Sulfate	0.80	J	1.0	0.76	mg/L			04/08/21 19:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.083		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:15	1
Beryllium	0.00018	J	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:15	1
Boron	0.070	J	0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:15	1
Calcium	9.2		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:15	1
Chromium	0.0048		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:15	1
Cobalt	0.00069	J	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:15	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:15	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:15	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:15	1
Zinc	0.0085		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		10	10	mg/L			03/30/21 21:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.61				SU			03/23/21 16:19	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWC-4A

Date Collected: 03/24/21 11:08
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**		1.0	0.71	mg/L			04/08/21 20:53	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 20:53	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 20:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.031**		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:18	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:18	1
Calcium	**0.46**	**J**	0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:18	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:18	1
Cobalt	**0.00037**	**J**	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:18	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:18	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:18	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:18	1
Zinc	**0.010**		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**27**		10	10	mg/L			03/31/21 19:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.59**				SU			03/24/21 11:08	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWC-5

Date Collected: 03/24/21 11:50
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.1**		1.0	0.71	mg/L			04/08/21 18:48	1
Fluoride	**0.038**	**J**	0.10	0.026	mg/L			04/08/21 18:48	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 18:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.50**		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:21	1
Beryllium	**0.0029**		0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:21	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:21	1
Calcium	**8.2**		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:21	1
Cobalt	**0.012**		0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:21	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:21	1
Lead	**0.00034**	**J**	0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:21	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:21	1
Zinc	**0.034**		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		10	10	mg/L			03/31/21 19:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.04**				SU			03/24/21 11:50	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: GWC-6

Date Collected: 03/24/21 10:10
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.8**		1.0	0.71	mg/L			04/08/21 19:06	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 19:06	1
Sulfate	**0.76**	**J**	1.0	0.76	mg/L			04/08/21 19:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.044**		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:24	1
Beryllium	**0.00019**	**J**	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:24	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:24	1
Calcium	**1.7**		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:24	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:24	1
Cobalt	**0.00046**	**J**	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:24	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:24	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:24	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:24	1
Zinc	**0.0043**	**J**	0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		10	10	mg/L			03/31/21 19:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.11**				SU			03/24/21 10:10	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: FB-1

Date Collected: 03/23/21 13:40
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 14:38	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 14:38	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 14:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:32	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:32	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:32	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:32	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:32	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:32	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:32	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:32	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:32	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/30/21 21:24	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: EB-1

Date Collected: 03/24/21 15:40
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 14:20	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 14:20	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:35	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:35	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:35	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:35	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:35	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:35	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/31/21 19:47	1

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #3

Job ID: 180-119064-1

Client Sample ID: DUP-1

Date Collected: 03/23/21 00:00
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119064-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.9		1.0	0.71	mg/L			04/08/21 12:51	1
Fluoride	0.091	J	0.10	0.026	mg/L			04/08/21 12:51	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 12:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.023		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 14:37	1
Beryllium	0.00019	J	0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 14:37	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 14:37	1
Calcium	1.9		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 14:37	1
Chromium	0.0048		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 14:37	1
Cobalt	0.00027	J	0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 14:37	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 14:37	1
Lead	0.00017	J	0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 14:37	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 14:37	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44		10	10	mg/L			03/30/21 21:24	1

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

Lab Sample ID: MB 180-352357/6
Matrix: Water
Analysis Batch: 352357

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 09:25	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 09:25	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 09:25	1

Lab Sample ID: LCS 180-352357/5
Matrix: Water
Analysis Batch: 352357

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	47.8		mg/L		96	90 - 110
Fluoride	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	47.5		mg/L		95	90 - 110

Lab Sample ID: 180-119064-4 MS
Matrix: Water
Analysis Batch: 352357

Client Sample ID: GWA-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.2		50.0	58.7		mg/L		105	90 - 110
Fluoride	0.12		2.50	2.79		mg/L		107	90 - 110
Sulfate	7.0		50.0	58.8		mg/L		104	90 - 110

Lab Sample ID: 180-119064-4 MSD
Matrix: Water
Analysis Batch: 352357

Client Sample ID: GWA-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.2		50.0	58.4		mg/L		104	90 - 110	0	20
Fluoride	0.12		2.50	2.86		mg/L		109	90 - 110	2	20
Sulfate	7.0		50.0	58.7		mg/L		103	90 - 110	0	20

Lab Sample ID: MB 180-352360/39
Matrix: Water
Analysis Batch: 352360

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 20:36	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 20:36	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 20:36	1

Lab Sample ID: MB 180-352360/6
Matrix: Water
Analysis Batch: 352360

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 08:53	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 08:53	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 08:53	1

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

Lab Sample ID: LCS 180-352360/38
Matrix: Water
Analysis Batch: 352360

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	54.1		mg/L		108	90 - 110
Fluoride	2.50	2.51		mg/L		101	90 - 110
Sulfate	50.0	54.0		mg/L		108	90 - 110

Lab Sample ID: LCS 180-352360/5
Matrix: Water
Analysis Batch: 352360

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.8		mg/L		106	90 - 110
Fluoride	2.50	2.51		mg/L		100	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Lab Sample ID: 180-119064-5 MS
Matrix: Water
Analysis Batch: 352360

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.4		50.0	55.7		mg/L		97	90 - 110
Fluoride	0.080	J	2.50	2.40		mg/L		93	90 - 110
Sulfate	16		50.0	63.8		mg/L		95	90 - 110

Lab Sample ID: 180-119064-5 MSD
Matrix: Water
Analysis Batch: 352360

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.4		50.0	57.1		mg/L		99	90 - 110	3	20
Fluoride	0.080	J	2.50	2.44		mg/L		94	90 - 110	1	20
Sulfate	16		50.0	65.4		mg/L		98	90 - 110	2	20

Lab Sample ID: 180-119064-7 MS
Matrix: Water
Analysis Batch: 352360

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.8		50.0	57.4		mg/L		97	90 - 110
Fluoride	<0.026		2.50	2.31		mg/L		92	90 - 110
Sulfate	0.77	J	50.0	49.2		mg/L		97	90 - 110

Lab Sample ID: 180-119064-7 MSD
Matrix: Water
Analysis Batch: 352360

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.8		50.0	56.9		mg/L		96	90 - 110	1	20
Fluoride	<0.026		2.50	2.29		mg/L		91	90 - 110	1	20
Sulfate	0.77	J	50.0	48.6		mg/L		96	90 - 110	1	20

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

Lab Sample ID: 180-119064-9 MS
Matrix: Water
Analysis Batch: 352360

Client Sample ID: GWC-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10		50.0	58.1		mg/L		96	90 - 110
Fluoride	<0.026		2.50	2.33		mg/L		93	90 - 110
Sulfate	<0.76		50.0	48.9		mg/L		98	90 - 110

Lab Sample ID: 180-119064-9 MSD
Matrix: Water
Analysis Batch: 352360

Client Sample ID: GWC-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10		50.0	58.6		mg/L		97	90 - 110	1	20
Fluoride	<0.026		2.50	2.34		mg/L		94	90 - 110	1	20
Sulfate	<0.76		50.0	49.1		mg/L		98	90 - 110	1	20

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

Lab Sample ID: MB 180-352440/1-A
Matrix: Water
Analysis Batch: 353123

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 352440

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 14:33	04/14/21 13:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:33	04/14/21 13:16	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:33	04/14/21 13:16	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 14:33	04/14/21 13:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:33	04/14/21 13:16	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:33	04/14/21 13:16	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/08/21 14:33	04/14/21 13:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:33	04/14/21 13:16	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/08/21 14:33	04/14/21 13:16	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/08/21 14:33	04/14/21 13:16	1

Lab Sample ID: LCS 180-352440/2-A
Matrix: Water
Analysis Batch: 353123

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 352440

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.979		mg/L		98	80 - 120
Beryllium	0.500	0.536		mg/L		107	80 - 120
Boron	1.25	1.11		mg/L		89	80 - 120
Calcium	25.0	27.1		mg/L		108	80 - 120
Chromium	0.500	0.501		mg/L		100	80 - 120
Cobalt	0.500	0.469		mg/L		94	80 - 120
Copper	0.500	0.465		mg/L		93	80 - 120
Lead	0.500	0.482		mg/L		96	80 - 120
Vanadium	0.500	0.497		mg/L		99	80 - 120
Zinc	0.250	0.226		mg/L		90	80 - 120

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

Lab Sample ID: 180-119064-1 MS
Matrix: Water
Analysis Batch: 353123

Client Sample ID: GWA-1A
Prep Type: Total Recoverable
Prep Batch: 352440

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.023		1.00	1.02		mg/L		99	75 - 125
Beryllium	0.00021	J	0.500	0.529		mg/L		106	75 - 125
Boron	<0.039		1.25	1.13		mg/L		90	75 - 125
Calcium	1.8		25.0	28.8		mg/L		108	75 - 125
Chromium	0.0047		0.500	0.500		mg/L		99	75 - 125
Cobalt	0.00028	J	0.500	0.470		mg/L		94	75 - 125
Copper	<0.00063		0.500	0.478		mg/L		96	75 - 125
Lead	0.00017	J	0.500	0.485		mg/L		97	75 - 125
Vanadium	<0.00099		0.500	0.492		mg/L		98	75 - 125
Zinc	<0.0032		0.250	0.228		mg/L		91	75 - 125

Lab Sample ID: 180-119064-1 MSD
Matrix: Water
Analysis Batch: 353123

Client Sample ID: GWA-1A
Prep Type: Total Recoverable
Prep Batch: 352440

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.023		1.00	1.02		mg/L		99	75 - 125	0	20
Beryllium	0.00021	J	0.500	0.542		mg/L		108	75 - 125	3	20
Boron	<0.039		1.25	1.18		mg/L		94	75 - 125	4	20
Calcium	1.8		25.0	29.0		mg/L		109	75 - 125	1	20
Chromium	0.0047		0.500	0.499		mg/L		99	75 - 125	0	20
Cobalt	0.00028	J	0.500	0.469		mg/L		94	75 - 125	0	20
Copper	<0.00063		0.500	0.473		mg/L		95	75 - 125	1	20
Lead	0.00017	J	0.500	0.485		mg/L		97	75 - 125	0	20
Vanadium	<0.00099		0.500	0.501		mg/L		100	75 - 125	2	20
Zinc	<0.0032		0.250	0.227		mg/L		91	75 - 125	0	20

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

Lab Sample ID: MB 180-351287/2
Matrix: Water
Analysis Batch: 351287

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/30/21 21:24	1

Lab Sample ID: LCS 180-351287/1
Matrix: Water
Analysis Batch: 351287

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	492		mg/L		108	80 - 120

Lab Sample ID: MB 180-351454/2
Matrix: Water
Analysis Batch: 351454

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/31/21 19:47	1

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

Lab Sample ID: LCS 180-351454/1
Matrix: Water
Analysis Batch: 351454

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			457	492		mg/L		108	80 - 120		

Lab Sample ID: MB 180-352807/2
Matrix: Water
Analysis Batch: 352807

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/12/21 20:18	1

Lab Sample ID: LCS 180-352807/1
Matrix: Water
Analysis Batch: 352807

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			486	498		mg/L		102	80 - 120		

HPLC/IC

Analysis Batch: 352357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-4	GWA-4	Total/NA	Water	EPA 300.0 R2.1	
MB 180-352357/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-352357/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-119064-4 MS	GWA-4	Total/NA	Water	EPA 300.0 R2.1	
180-119064-4 MSD	GWA-4	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 352360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-1	GWA-1A	Total/NA	Water	EPA 300.0 R2.1	
180-119064-2	GWA-2B	Total/NA	Water	EPA 300.0 R2.1	
180-119064-3	GWA-3A	Total/NA	Water	EPA 300.0 R2.1	
180-119064-5	GWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-119064-6	GWA-7A	Total/NA	Water	EPA 300.0 R2.1	
180-119064-7	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-119064-8	GWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-119064-9	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	
180-119064-10	GWC-5	Total/NA	Water	EPA 300.0 R2.1	
180-119064-11	GWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-119064-12	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-119064-13	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-119064-14	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-352360/39	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-352360/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-352360/38	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-352360/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-119064-5 MS	GWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-119064-5 MSD	GWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-119064-7 MS	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-119064-7 MSD	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-119064-9 MS	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	
180-119064-9 MSD	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 352440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-1	GWA-1A	Total Recoverable	Water	3005A	
180-119064-2	GWA-2B	Total Recoverable	Water	3005A	
180-119064-3	GWA-3A	Total Recoverable	Water	3005A	
180-119064-4	GWA-4	Total Recoverable	Water	3005A	
180-119064-5	GWA-5	Total Recoverable	Water	3005A	
180-119064-6	GWA-7A	Total Recoverable	Water	3005A	
180-119064-7	GWC-1	Total Recoverable	Water	3005A	
180-119064-8	GWC-2	Total Recoverable	Water	3005A	
180-119064-9	GWC-4A	Total Recoverable	Water	3005A	
180-119064-10	GWC-5	Total Recoverable	Water	3005A	
180-119064-11	GWC-6	Total Recoverable	Water	3005A	
180-119064-12	FB-1	Total Recoverable	Water	3005A	
180-119064-13	EB-1	Total Recoverable	Water	3005A	
180-119064-14	DUP-1	Total Recoverable	Water	3005A	
MB 180-352440/1-A	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 352440 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-352440/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-119064-1 MS	GWA-1A	Total Recoverable	Water	3005A	
180-119064-1 MSD	GWA-1A	Total Recoverable	Water	3005A	

Analysis Batch: 353123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-1	GWA-1A	Total Recoverable	Water	EPA 6020B	352440
180-119064-2	GWA-2B	Total Recoverable	Water	EPA 6020B	352440
180-119064-3	GWA-3A	Total Recoverable	Water	EPA 6020B	352440
180-119064-4	GWA-4	Total Recoverable	Water	EPA 6020B	352440
180-119064-5	GWA-5	Total Recoverable	Water	EPA 6020B	352440
180-119064-6	GWA-7A	Total Recoverable	Water	EPA 6020B	352440
180-119064-7	GWC-1	Total Recoverable	Water	EPA 6020B	352440
180-119064-8	GWC-2	Total Recoverable	Water	EPA 6020B	352440
180-119064-9	GWC-4A	Total Recoverable	Water	EPA 6020B	352440
180-119064-10	GWC-5	Total Recoverable	Water	EPA 6020B	352440
180-119064-11	GWC-6	Total Recoverable	Water	EPA 6020B	352440
180-119064-12	FB-1	Total Recoverable	Water	EPA 6020B	352440
180-119064-13	EB-1	Total Recoverable	Water	EPA 6020B	352440
180-119064-14	DUP-1	Total Recoverable	Water	EPA 6020B	352440
MB 180-352440/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	352440
LCS 180-352440/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	352440
180-119064-1 MS	GWA-1A	Total Recoverable	Water	EPA 6020B	352440
180-119064-1 MSD	GWA-1A	Total Recoverable	Water	EPA 6020B	352440

General Chemistry

Analysis Batch: 351287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-2	GWA-2B	Total/NA	Water	SM 2540C	
180-119064-3	GWA-3A	Total/NA	Water	SM 2540C	
180-119064-6	GWA-7A	Total/NA	Water	SM 2540C	
180-119064-8	GWC-2	Total/NA	Water	SM 2540C	
180-119064-12	FB-1	Total/NA	Water	SM 2540C	
180-119064-14	DUP-1	Total/NA	Water	SM 2540C	
MB 180-351287/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351287/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 351454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-4	GWA-4	Total/NA	Water	SM 2540C	
180-119064-5	GWA-5	Total/NA	Water	SM 2540C	
180-119064-7	GWC-1	Total/NA	Water	SM 2540C	
180-119064-9	GWC-4A	Total/NA	Water	SM 2540C	
180-119064-10	GWC-5	Total/NA	Water	SM 2540C	
180-119064-11	GWC-6	Total/NA	Water	SM 2540C	
180-119064-13	EB-1	Total/NA	Water	SM 2540C	
MB 180-351454/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351454/1	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Southern Company
Job ID: 180-119064-1
Project/Site: CCR - Plant McIntosh Ash Landfill #3

General Chemistry

Analysis Batch: 352807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-1	GWA-1A	Total/NA	Water	SM 2540C	
MB 180-352807/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-352807/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 351076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119064-1	GWA-1A	Total/NA	Water	Field Sampling	
180-119064-2	GWA-2B	Total/NA	Water	Field Sampling	
180-119064-3	GWA-3A	Total/NA	Water	Field Sampling	
180-119064-4	GWA-4	Total/NA	Water	Field Sampling	
180-119064-5	GWA-5	Total/NA	Water	Field Sampling	
180-119064-6	GWA-7A	Total/NA	Water	Field Sampling	
180-119064-7	GWC-1	Total/NA	Water	Field Sampling	
180-119064-8	GWC-2	Total/NA	Water	Field Sampling	
180-119064-9	GWC-4A	Total/NA	Water	Field Sampling	
180-119064-10	GWC-5	Total/NA	Water	Field Sampling	
180-119064-11	GWC-6	Total/NA	Water	Field Sampling	

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

Chain of Custody Record

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Client Information	Sampler: T. Goble / J. Benisford	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: ~~1 of 2~~ TG
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 2
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #: SCS10382606			
Email: SCS Contacts	WO #:			
Project Name: Plant McIntosh Landfill #3	Project #: 18019950			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, M - Hexane, N - None, O - AsNaO2, P - Na2O4S

180-119064 Chain of Custody

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)	APP III Metals: B,Ca	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Custom State 8 Permit Metals (EPA 6020): Ba,Be,Cr,Co,Cu,Pb,V,Zn	Total Number of	Special Instructions/Note:
			Preservation Code:				D	N	D		
GWA-1A	3-23-21	1345	G	W	N	N	✓	✓	✓	2	pH = 5.17
GWA-2B	3-23-21	1517	G	W	N	N	✓	✓	✓	2	pH = 5.61
GWA-3A	3-23-21	1328	G	W	N	N	✓	✓	✓	2	pH = 4.60
GWA-4	3-24-21	1715	G	W	N	N	✓	✓	✓	2	pH = 4.42
GWA-5	3-24-21	1628	G	W	N	N	✓	✓	✓	2	pH = 4.37
GWA-7A	3-23-21	1020	G	W	N	N	✓	✓	✓	2	pH = 5.01
GWC-1	3-24-21	0952	G	W	N	N	✓	✓	✓	2	pH = 4.86
GWC-2	3-23-21	1619	G	W	N	N	✓	✓	✓	2	pH = 5.61
GWC-4A	3-24-21	1108	G	W	N	N	✓	✓	✓	2	pH = 4.59
GWC-5	3-24-21	1150	G	W	N	N	✓	✓	✓	2	pH = 5.04
GWC-6	3-24-21	1010	G	W	N	N	✓	✓	✓	2	pH = 5.11

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/25/21 12:57	ETA		3/25/21 1257	ETA
2	3/25/21 1620	Date/Time:	Company	Received by:	Date/Time: 3-26-21	Company ~~ETA~~ FTA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:00	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 8/8/2019

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: T. Goble / J. Berisford	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 2 of 2
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #: SCS10382606			
Email: SCS Contacts	WO #:			
Project Name: Plant McIntosh Landfill #3	Project #: 18019950			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

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)	APP III Metals: B,Ca	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Custom State 8 Permit Metals (EPA 6020): Ba,Be,Cr,Co,Cu,Pb,V,Zn	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D		
FB-1	3-23-21	1340	G	W	N	N	✓	✓	✓	2	pH = —
EB-1	3-24-21	1540	G	W	N	N	✓	✓	✓	2	pH = —
Dup-1	3-23-21	—	G	W	N	N	✓	✓	✓	2	pH = —
											pH =
											pH =
											pH =
											pH =
											pH =
											pH =
											pH =

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 3/25/21 1251	Company ACC	Received by:	Date/Time: 3/25/21 1251	Company ETA
Relinquished by: 3/25/21	Date/Time: 1600	Company ETA	Received by:	Date/Time: 3-26-21	Company ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:00	Company

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

Ver: 8/8/2019

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119064-1

Login Number: 119064
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 180-119068-1
Client Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells
Revision: 1

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

Attn: Kristen N Jurinko

Authorized for release by:
4/27/2021 2:26:01 PM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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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
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Job ID: 180-119068-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-119068-1

Comments
042721 Revised report to correct field pH results on sample -4. This report replaces the report previously issued on 041421.

Receipt
The samples were received on 3/26/2021 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 4 coolers at receipt time were 2.7º C, 2.8º C, 2.9º C and 3.6º C.

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

Metals
Methods 6020, 6020A, 6020B: The continuing calibration verification (CCV) associated with batch 180-352969 recovered above the upper control limit for boron. The samples associated with this CCV were batch QC only for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 180-352969/72), (LCS 180-352170/2-A) and (MB 180-352170/1-A).

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

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

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

Definitions/Glossary

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
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
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

Sample Summary

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119068-1	GWA-1B	Water	03/23/21 14:55	03/26/21 09:00	
180-119068-2	GWC-6A	Water	03/23/21 16:40	03/26/21 09:00	
180-119068-3	GWC-5A	Water	03/24/21 15:25	03/26/21 09:00	
180-119068-4	GWC-1A	Water	03/24/21 16:25	03/26/21 09:00	

Method Summary

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

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

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Client Sample ID: GWA-1B
Lab Sample ID: 180-119068-1
Date Collected: 03/23/21 14:55
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 13:27	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352170	04/07/21 07:15	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352969	04/13/21 13:00	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351060	03/23/21 14:55	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-6A
Lab Sample ID: 180-119068-2
Date Collected: 03/23/21 16:40
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 13:09	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352170	04/07/21 07:15	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352969	04/13/21 13:04	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351060	03/23/21 16:40	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: GWC-5A
Lab Sample ID: 180-119068-3
Date Collected: 03/24/21 15:25
Matrix: Water
Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 12:15	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352170	04/07/21 07:15	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352969	04/13/21 13:07	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351455	03/31/21 19:49	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351060	03/24/21 15:25	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Client Sample ID: GWC-1A
Date Collected: 03/24/21 16:25
Date Received: 03/26/21 09:00

Lab Sample ID: 180-119068-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 17:55	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352170	04/07/21 07:15	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352969	04/13/21 13:11	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351455	03/31/21 19:49	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351060	03/24/21 16:25	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

RJR = Ron Rosenbaum

Batch Type: Analysis

FDS = Sampler Field
GRB = Gabriel Berghe
KMM = Kendric Moore
RSK = Robert Kurtz
SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Client Sample ID: GWA-1B
Lab Sample ID: 180-119068-1
Date Collected: 03/23/21 14:55
Matrix: Water
Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.71	mg/L			04/08/21 13:27	1
Fluoride	0.079	J	0.10	0.026	mg/L			04/08/21 13:27	1
Sulfate	6.8		1.0	0.76	mg/L			04/08/21 13:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.021		0.010	0.0016	mg/L		04/07/21 07:15	04/13/21 13:00	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/07/21 07:15	04/13/21 13:00	1
Boron	0.10		0.080	0.039	mg/L		04/07/21 07:15	04/13/21 13:00	1
Calcium	4.0		0.50	0.13	mg/L		04/07/21 07:15	04/13/21 13:00	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/07/21 07:15	04/13/21 13:00	1
Cobalt	0.00019	J	0.0025	0.00013	mg/L		04/07/21 07:15	04/13/21 13:00	1
Copper	0.0015	J	0.0020	0.00063	mg/L		04/07/21 07:15	04/13/21 13:00	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/07/21 07:15	04/13/21 13:00	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/07/21 07:15	04/13/21 13:00	1
Zinc	0.0098		0.0050	0.0032	mg/L		04/07/21 07:15	04/13/21 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	63		10	10	mg/L			03/30/21 21:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.63				SU			03/23/21 14:55	1

Client Sample Results

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Client Sample ID: GWC-6A
Lab Sample ID: 180-119068-2
Date Collected: 03/23/21 16:40
Matrix: Water
Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.71	mg/L			04/08/21 13:09	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 13:09	1
Sulfate	**10**		1.0	0.76	mg/L			04/08/21 13:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.098**		0.010	0.0016	mg/L		04/07/21 07:15	04/13/21 13:04	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/07/21 07:15	04/13/21 13:04	1
Boron	**0.043**	**J**	0.080	0.039	mg/L		04/07/21 07:15	04/13/21 13:04	1
Calcium	**5.0**		0.50	0.13	mg/L		04/07/21 07:15	04/13/21 13:04	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/07/21 07:15	04/13/21 13:04	1
Cobalt	**0.0034**		0.0025	0.00013	mg/L		04/07/21 07:15	04/13/21 13:04	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/07/21 07:15	04/13/21 13:04	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/07/21 07:15	04/13/21 13:04	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/07/21 07:15	04/13/21 13:04	1
Zinc	**0.0091**		0.0050	0.0032	mg/L		04/07/21 07:15	04/13/21 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**71**		10	10	mg/L			03/30/21 21:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.31**				SU			03/23/21 16:40	1

Client Sample ID: GWC-5A
Lab Sample ID: 180-119068-3

Date Collected: 03/24/21 15:25
Matrix: Water
Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15**		1.0	0.71	mg/L			04/08/21 12:15	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 12:15	1
Sulfate	**26**		1.0	0.76	mg/L			04/08/21 12:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.055**		0.010	0.0016	mg/L		04/07/21 07:15	04/13/21 13:07	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/07/21 07:15	04/13/21 13:07	1
Boron	<0.039		0.080	0.039	mg/L		04/07/21 07:15	04/13/21 13:07	1
Calcium	**6.1**		0.50	0.13	mg/L		04/07/21 07:15	04/13/21 13:07	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/07/21 07:15	04/13/21 13:07	1
Cobalt	**0.0023**	**J**	0.0025	0.00013	mg/L		04/07/21 07:15	04/13/21 13:07	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/07/21 07:15	04/13/21 13:07	1
Lead	**0.00030**	**J**	0.0010	0.00013	mg/L		04/07/21 07:15	04/13/21 13:07	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/07/21 07:15	04/13/21 13:07	1
Zinc	**0.013**		0.0050	0.0032	mg/L		04/07/21 07:15	04/13/21 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**97**		10	10	mg/L			03/31/21 19:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.42**				SU			03/24/21 15:25	1

Client Sample Results

Client: Southern Company
Job ID: 180-119068-1
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Client Sample ID: GWC-1A
Lab Sample ID: 180-119068-4
Date Collected: 03/24/21 16:25
Matrix: Water
Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		1.0	0.71	mg/L			04/08/21 17:55	1
Fluoride	0.046	J	0.10	0.026	mg/L			04/08/21 17:55	1
Sulfate	1.0		1.0	0.76	mg/L			04/08/21 17:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29		0.010	0.0016	mg/L		04/07/21 07:15	04/13/21 13:11	1
Beryllium	0.00039	J	0.0025	0.00018	mg/L		04/07/21 07:15	04/13/21 13:11	1
Boron	0.36		0.080	0.039	mg/L		04/07/21 07:15	04/13/21 13:11	1
Calcium	3.3		0.50	0.13	mg/L		04/07/21 07:15	04/13/21 13:11	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/07/21 07:15	04/13/21 13:11	1
Cobalt	0.0063		0.0025	0.00013	mg/L		04/07/21 07:15	04/13/21 13:11	1
Copper	0.0010	J	0.0020	0.00063	mg/L		04/07/21 07:15	04/13/21 13:11	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/07/21 07:15	04/13/21 13:11	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/07/21 07:15	04/13/21 13:11	1
Zinc	0.020		0.0050	0.0032	mg/L		04/07/21 07:15	04/13/21 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	59		10	10	mg/L			03/31/21 19:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.38				SU			03/24/21 16:25	1

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

Lab Sample ID: MB 180-352360/6
Matrix: Water
Analysis Batch: 352360

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 08:53	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 08:53	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 08:53	1

Lab Sample ID: LCS 180-352360/5
Matrix: Water
Analysis Batch: 352360

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.8		mg/L		106	90 - 110
Fluoride	2.50	2.51		mg/L		100	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

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

Lab Sample ID: MB 180-352170/1-A
Matrix: Water
Analysis Batch: 352969

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 352170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		04/07/21 07:15	04/13/21 11:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/07/21 07:15	04/13/21 11:10	1
Boron	<0.039	^+	0.080	0.039	mg/L		04/07/21 07:15	04/13/21 11:10	1
Calcium	<0.13		0.50	0.13	mg/L		04/07/21 07:15	04/13/21 11:10	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/07/21 07:15	04/13/21 11:10	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/07/21 07:15	04/13/21 11:10	1
Copper	<0.00063		0.0020	0.00063	mg/L		04/07/21 07:15	04/13/21 11:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/07/21 07:15	04/13/21 11:10	1
Vanadium	<0.00099		0.0010	0.00099	mg/L		04/07/21 07:15	04/13/21 11:10	1
Zinc	<0.0032		0.0050	0.0032	mg/L		04/07/21 07:15	04/13/21 11:10	1

Lab Sample ID: LCS 180-352170/2-A
Matrix: Water
Analysis Batch: 352969

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 352170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	1.02		mg/L		102	80 - 120
Beryllium	0.500	0.503		mg/L		101	80 - 120
Boron	1.25	1.27	^+	mg/L		102	80 - 120
Calcium	25.0	28.3		mg/L		113	80 - 120
Chromium	0.500	0.506		mg/L		101	80 - 120
Cobalt	0.500	0.514		mg/L		103	80 - 120
Copper	0.500	0.507		mg/L		101	80 - 120
Lead	0.500	0.512		mg/L		102	80 - 120
Vanadium	0.500	0.509		mg/L		102	80 - 120
Zinc	0.250	0.264		mg/L		106	80 - 120

Client: Southern Company
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Job ID: 180-119068-1

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

Lab Sample ID: MB 180-351287/2
Matrix: Water
Analysis Batch: 351287

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/30/21 21:24	1

Lab Sample ID: LCS 180-351287/1
Matrix: Water
Analysis Batch: 351287

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			457	492		mg/L		108	80 - 120		

Lab Sample ID: MB 180-351455/2
Matrix: Water
Analysis Batch: 351455

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/31/21 19:49	1

Lab Sample ID: LCS 180-351455/1
Matrix: Water
Analysis Batch: 351455

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			457	464		mg/L		102	80 - 120		

Lab Sample ID: 180-119068-3 DU
Matrix: Water
Analysis Batch: 351455

Client Sample ID: GWC-5A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	97			91.0		mg/L				6	10

QC Association Summary

Client: Southern Company
Project/Site: Plant McIntosh Ash Landfill #3 - Additional Wells

Job ID: 180-119068-1

HPLC/IC

Analysis Batch: 352360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119068-1	GWA-1B	Total/NA	Water	EPA 300.0 R2.1	
180-119068-2	GWC-6A	Total/NA	Water	EPA 300.0 R2.1	
180-119068-3	GWC-5A	Total/NA	Water	EPA 300.0 R2.1	
180-119068-4	GWC-1A	Total/NA	Water	EPA 300.0 R2.1	
MB 180-352360/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-352360/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 352170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119068-1	GWA-1B	Total Recoverable	Water	3005A	
180-119068-2	GWC-6A	Total Recoverable	Water	3005A	
180-119068-3	GWC-5A	Total Recoverable	Water	3005A	
180-119068-4	GWC-1A	Total Recoverable	Water	3005A	
MB 180-352170/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-352170/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 352969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119068-1	GWA-1B	Total Recoverable	Water	EPA 6020B	352170
180-119068-2	GWC-6A	Total Recoverable	Water	EPA 6020B	352170
180-119068-3	GWC-5A	Total Recoverable	Water	EPA 6020B	352170
180-119068-4	GWC-1A	Total Recoverable	Water	EPA 6020B	352170
MB 180-352170/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	352170
LCS 180-352170/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	352170

General Chemistry

Analysis Batch: 351287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119068-1	GWA-1B	Total/NA	Water	SM 2540C	
180-119068-2	GWC-6A	Total/NA	Water	SM 2540C	
MB 180-351287/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351287/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 351455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119068-3	GWC-5A	Total/NA	Water	SM 2540C	
180-119068-4	GWC-1A	Total/NA	Water	SM 2540C	
MB 180-351455/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351455/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-119068-3 DU	GWC-5A	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 351060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119068-1	GWA-1B	Total/NA	Water	Field Sampling	
180-119068-2	GWC-6A	Total/NA	Water	Field Sampling	
180-119068-3	GWC-5A	Total/NA	Water	Field Sampling	
180-119068-4	GWC-1A	Total/NA	Water	Field Sampling	

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: J. Berisford	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #: SCS10382606			
Email: SCS Contacts	WO #:			
Project Name: Plant McIntosh Landfill #3 - Additional wells	Project #: 18019950			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, 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)

Other:

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)	APP III Metals: B,Ca	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Custom State 8 Permit Metals (EPA 6020): Ba,Be,Cr,Co,Cu,Pb,V,Zn	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D		
GWA-1B	3-23-21	1455	G	W	N	N	✓	✓	✓	2	pH = 5.63
GWC-6A	3-23-21	1640	G	W	N	N	✓	✓	✓	2	pH = 5.31
GWC-5A	3-24-21	1525	G	W	N	N	✓	✓	✓	2	pH = 5.42
GWC-1A	3-24-21	1625	G	W	N	N	✓	✓	✓	2	pH = 4.38
											pH =
											pH =
											pH =
											pH =
											pH =
											pH =
											pH =

180-119068 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 3/25/21 12:57	Company ETN	Received by:	Date/Time: 3/25/21 12:57	Company ETN
Relinquished by: 3/25/21	Date/Time: 16:00	Company ETN	Received by: Alice Water	Date/Time: 3-26-21	Company Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 800	Company

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

Ver: 8/8/2019

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119068-1

Login Number: 119068
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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

LEVEL 2A LABORATORY DATA VALIDATIONS

McIntosh Inactive Landfill No. 3

Annual Event

March 2021

Georgia Power Company – McIntosh Landfill 3

Quality Control Review of Analytical Data – March 2021

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh for groundwater samples collected at McIntosh LF3 between March 23, 2021 and March 24, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 180-119068 was revised to correct an errant field pH data entry.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Determination of Inorganic Anions (USEPA Method 300.0), and Solids in Water (Standard Methods 2540C).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)[1] and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)[2]. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

DATA QUALITY OBJECTIVES

Laboratory Precision: Laboratory goals for precision were met.

Field Precision: Field goals for precision were met.

Accuracy: Laboratory goals for accuracy were met.

Detection Limits: Project goals for detection limits were met.

Completeness: There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: Holding time requirements were met, with the exceptions of TDS on GWA-1A (180-119064-1) as described in the qualifications section below.

QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

J: The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

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

H: The analysis was performed outside the method holding time

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Sample GWA-1A (180-119064-1) was qualified as estimated (H) for TDS as the analysis was performed outside the method holding time (19th day past holding time of 7 days).

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh LF3 sampled between March 23, 2021 and March 24, 2021 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

[1]USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

[2]USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – McIntosh LF3

Sample Summary Table – March 2021

						Analyses		
SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Metals (6020B)	Anions (300.0)	TDS (SM 2540C)
119064	GWA-1A	3/23/2021	180-119064-1	GW		X	X	X
119064	GWA-2B	3/23/2021	180-119064-2	GW		X	X	X
119064	GWA-3A	3/23/2021	180-119064-3	GW		X	X	X
119064	GWA-4	3/24/2021	180-119064-4	GW		X	X	X
119064	GWA-5	3/24/2021	180-119064-5	GW		X	X	X
119064	GWA-7A	3/23/2021	180-119064-6	GW		X	X	X
119064	GWC-1	3/24/2021	180-119064-7	GW		X	X	X
119064	GWC-2	3/23/2021	180-119064-8	GW		X	X	X
119064	GWC-4A	3/24/2021	180-119064-9	GW		X	X	X
119064	GWC-5	3/24/2021	180-119064-10	GW		X	X	X
119064	GWC-6	3/24/2021	180-119064-11	GW		X	X	X
119064	FB-1	3/23/2021	180-119064-12	WQ	FB	X	X	X
119064	EB-1	3/24/2021	180-119064-13	WQ	EB	X	X	X
119064	DUP-1	3/23/2021	180-119064-14	GW	FD (GWA-1A)	X	X	X
119068	GWA-1B	3/23/2021	180-119068-1	GW		X	X	X
119068	GWC-6A	3/23/2021	180-119068-2	GW		X	X	X
119068	GWC-5A	3/24/2021	180-119068-3	GW		X	X	X
119068	GWC-1A	3/24/2021	180-119068-4	GW		X	X	X

Abbreviations:
EB – Equipment Blank
FB – Field Blank
FD – Field Duplicate
GW – Groundwater
QC – Quality Control
TDS – Total Dissolved Solids
WQ – Water Quality Control

TABLE 2

Georgia Power Company – McIntosh LF3

Qualifier Summary Table – March 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
119064	GWA-1A	TDS			H	Lab missed holding time

Abbreviations:
MDC – Minimum Detectable Concentration
MS/MSD – Matrix Spike / Matrix Spike Duplicate
MDL – Method Detection Limit
RL – Reporting Limit
RPD – Relative Percent Difference
SDG – Sample Delivery Group
TDS – Total Dissolved Solids

Qualifiers:
J – Estimated Result
ND – Non-Detect Result
H – Holding Time Exceeded

Low-Flow Test Report:

Test Date / Time: 3/23/2021 12:25:57 PM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWA-1A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 27.26 ft** **Total Depth: 37.36 ft** **Initial Depth to Water: 9.96 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 32 ft** **Estimated Total Volume Pumped: 27 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 2.3 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, start time-1045, sample time-1345, technical problem-saved as two logs, DUP-1 here

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/23/2021 12:25 PM	00:00	5.22 pH	21.33 °C	44.97 µS/cm	1.32 mg/L	7.64 NTU	233.8 mV	9.96 ft	150.00 ml/min
3/23/2021 12:30 PM	05:00	5.18 pH	19.15 °C	44.57 µS/cm	1.23 mg/L	7.72 NTU	233.0 mV	10.20 ft	150.00 ml/min
3/23/2021 12:35 PM	10:00	5.13 pH	19.09 °C	44.74 µS/cm	0.87 mg/L	7.94 NTU	235.6 mV	10.20 ft	150.00 ml/min
3/23/2021 12:40 PM	15:00	5.13 pH	19.14 °C	44.54 µS/cm	0.79 mg/L	8.71 NTU	235.1 mV	10.20 ft	150.00 ml/min
3/23/2021 12:45 PM	20:00	5.13 pH	19.09 °C	44.52 µS/cm	0.74 mg/L	8.10 NTU	234.1 mV	10.20 ft	150.00 ml/min
3/23/2021 12:50 PM	25:00	5.14 pH	19.27 °C	44.45 µS/cm	0.74 mg/L	8.04 NTU	233.2 mV	10.20 ft	150.00 ml/min
3/23/2021 12:55 PM	30:00	5.16 pH	19.44 °C	44.46 µS/cm	0.72 mg/L	8.22 NTU	231.4 mV	10.20 ft	150.00 ml/min
3/23/2021 1:00 PM	35:00	5.16 pH	19.22 °C	44.35 µS/cm	0.69 mg/L	7.94 NTU	231.0 mV	10.20 ft	150.00 ml/min
3/23/2021 1:05 PM	40:00	5.16 pH	19.17 °C	44.46 µS/cm	0.71 mg/L	7.72 NTU	230.5 mV	10.20 ft	150.00 ml/min
3/23/2021 1:10 PM	45:00	5.16 pH	19.21 °C	44.39 µS/cm	0.72 mg/L	7.95 NTU	230.4 mV	10.20 ft	150.00 ml/min
3/23/2021 1:15 PM	50:00	5.16 pH	19.33 °C	44.64 µS/cm	0.72 mg/L	7.22 NTU	230.3 mV	10.20 ft	150.00 ml/min
3/23/2021 1:20 PM	55:00	5.16 pH	19.22 °C	44.46 µS/cm	0.70 mg/L	7.94 NTU	230.2 mV	10.20 ft	150.00 ml/min
3/23/2021 1:25 PM	01:00:00	5.15 pH	19.48 °C	44.38 µS/cm	0.70 mg/L	8.43 NTU	230.0 mV	10.20 ft	150.00 ml/min
3/23/2021 1:30 PM	01:05:00	5.17 pH	19.44 °C	44.51 µS/cm	0.70 mg/L	8.17 NTU	229.2 mV	10.20 ft	150.00 ml/min
3/23/2021 1:35 PM	01:10:00	5.16 pH	19.45 °C	44.18 µS/cm	0.69 mg/L	7.75 NTU	229.1 mV	10.20 ft	150.00 ml/min

3/23/2021 1:40 PM	01:15:00	5.17 pH	19.52 °C	44.66 µS/cm	0.73 mg/L	7.09 NTU	229.1 mV	10.20 ft	150.00 ml/min
3/23/2021 1:45 PM	01:20:00	5.17 pH	19.72 °C	44.60 µS/cm	0.71 mg/L	6.02 NTU	228.5 mV	10.20 ft	150.00 ml/min

Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/23/2021 2:05:03 PM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWA-1B **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 48.61 ft** **Total Depth: 58.61 ft** **Initial Depth to Water: 18.43 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 53 ft** **Estimated Total Volume Pumped: 12.5 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 2 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1455

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/23/2021 2:05 PM	00:00	5.22 pH	24.29 °C	46.54 µS/cm	0.87 mg/L	5.58 NTU	244.7 mV	18.43 ft	250.00 ml/min
3/23/2021 2:10 PM	05:00	5.45 pH	20.05 °C	45.18 µS/cm	0.99 mg/L	2.66 NTU	239.7 mV	18.60 ft	250.00 ml/min
3/23/2021 2:15 PM	10:00	5.36 pH	19.98 °C	45.03 µS/cm	0.49 mg/L	2.31 NTU	207.2 mV	18.60 ft	250.00 ml/min
3/23/2021 2:20 PM	15:00	5.36 pH	20.10 °C	44.77 µS/cm	0.19 mg/L	1.87 NTU	143.5 mV	18.60 ft	250.00 ml/min
3/23/2021 2:25 PM	20:00	5.38 pH	19.96 °C	44.62 µS/cm	0.13 mg/L	2.04 NTU	106.0 mV	18.60 ft	250.00 ml/min
3/23/2021 2:30 PM	25:00	5.41 pH	20.12 °C	44.67 µS/cm	0.10 mg/L	1.91 NTU	79.6 mV	18.60 ft	250.00 ml/min
3/23/2021 2:35 PM	30:00	5.44 pH	19.99 °C	46.75 µS/cm	0.09 mg/L	1.39 NTU	64.5 mV	18.60 ft	250.00 ml/min
3/23/2021 2:40 PM	35:00	5.54 pH	20.08 °C	53.61 µS/cm	0.08 mg/L	1.84 NTU	51.7 mV	18.60 ft	250.00 ml/min
3/23/2021 2:45 PM	40:00	5.62 pH	20.12 °C	60.69 µS/cm	0.07 mg/L	1.72 NTU	37.4 mV	18.60 ft	250.00 ml/min
3/23/2021 2:50 PM	45:00	5.64 pH	19.96 °C	62.54 µS/cm	0.07 mg/L	1.44 NTU	29.0 mV	18.60 ft	250.00 ml/min
3/23/2021 2:55 PM	50:00	5.63 pH	20.00 °C	62.28 µS/cm	0.07 mg/L	1.69 NTU	22.9 mV	18.60 ft	250.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/23/2021 2:17:43 PM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWA-2B **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 53.09 ft** **Total Depth: 63.09 ft** **Initial Depth to Water: 15.37 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 58 ft** **Estimated Total Volume Pumped: 7200 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 120 ml/min** **Final Draw Down: 25 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes:
Sampled at 1517. Partly cloudy 73 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/23/2021 2:17 PM	00:00	5.61 pH	22.41 °C	165.28 µS/cm	9.18 mg/L	0.14 NTU	319.6 mV	15.37 ft	120.00 ml/min
3/23/2021 2:22 PM	05:00	6.07 pH	20.70 °C	179.45 µS/cm	6.42 mg/L	0.38 NTU	308.7 mV	15.95 ft	120.00 ml/min
3/23/2021 2:27 PM	10:00	6.06 pH	20.61 °C	179.48 µS/cm	6.35 mg/L	3.39 NTU	306.5 mV	16.88 ft	120.00 ml/min
3/23/2021 2:32 PM	15:00	6.07 pH	20.47 °C	179.47 µS/cm	6.35 mg/L	0.17 NTU	303.9 mV	17.16 ft	120.00 ml/min
3/23/2021 2:37 PM	20:00	6.07 pH	20.50 °C	179.18 µS/cm	6.24 mg/L	0.19 NTU	300.7 mV	17.30 ft	120.00 ml/min
3/23/2021 2:42 PM	25:00	6.04 pH	20.59 °C	178.68 µS/cm	6.01 mg/L	0.35 NTU	298.1 mV	17.40 ft	120.00 ml/min
3/23/2021 2:47 PM	30:00	5.90 pH	20.77 °C	177.16 µS/cm	5.08 mg/L	0.37 NTU	296.6 mV	17.49 ft	120.00 ml/min
3/23/2021 2:52 PM	35:00	5.85 pH	20.86 °C	175.76 µS/cm	4.53 mg/L	0.31 NTU	294.2 mV	17.49 ft	120.00 ml/min
3/23/2021 2:57 PM	40:00	5.77 pH	21.01 °C	174.08 µS/cm	3.79 mg/L	0.76 NTU	291.8 mV	17.49 ft	120.00 ml/min
3/23/2021 3:02 PM	45:00	5.67 pH	20.99 °C	171.69 µS/cm	2.69 mg/L	1.73 NTU	289.9 mV	17.49 ft	120.00 ml/min
3/23/2021 3:07 PM	50:00	5.61 pH	21.14 °C	170.98 µS/cm	2.01 mg/L	3.76 NTU	287.1 mV	17.49 ft	120.00 ml/min
3/23/2021 3:12 PM	55:00	5.60 pH	21.24 °C	170.46 µS/cm	1.87 mg/L	3.64 NTU	282.3 mV	17.49 ft	120.00 ml/min
3/23/2021 3:17 PM	01:00:00	5.61 pH	21.31 °C	170.54 µS/cm	1.88 mg/L	3.52 NTU	276.4 mV	17.49 ft	120.00 ml/min

Samples

Low-Flow Test Report:

Test Date / Time: 3/23/2021 12:29:22 PM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWA-3A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 23.9 ft** **Total Depth: 33.9 ft** **Initial Depth to Water: 10.93 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 29 ft** **Estimated Total Volume Pumped: 6974 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 120 ml/min** **Final Draw Down: 38 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes: Sampled at 1328. Partly cloudy 70 degrees. FB-1 taken here at 1340.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/23/2021 12:29 PM	00:00	4.71 pH	19.14 °C	80.60 µS/cm	5.68 mg/L	6.39 NTU	285.1 mV	10.93 ft	100.00 ml/min
3/23/2021 12:34 PM	05:00	4.69 pH	19.17 °C	81.04 µS/cm	4.15 mg/L	1.76 NTU	299.2 mV	11.84 ft	120.00 ml/min
3/23/2021 12:39 PM	10:00	4.68 pH	19.07 °C	80.99 µS/cm	4.02 mg/L	1.77 NTU	317.0 mV	12.62 ft	120.00 ml/min
3/23/2021 12:43 PM	13:57	4.68 pH	19.04 °C	81.16 µS/cm	3.94 mg/L	2.79 NTU	335.6 mV	12.91 ft	120.00 ml/min
3/23/2021 12:48 PM	18:57	4.68 pH	19.19 °C	81.31 µS/cm	3.84 mg/L	2.94 NTU	351.8 mV	13.24 ft	120.00 ml/min
3/23/2021 12:53 PM	23:57	4.67 pH	19.46 °C	81.88 µS/cm	3.60 mg/L	4.89 NTU	364.4 mV	13.51 ft	120.00 ml/min
3/23/2021 12:58 PM	28:57	4.66 pH	19.76 °C	82.44 µS/cm	3.37 mg/L	2.27 NTU	375.1 mV	13.75 ft	120.00 ml/min
3/23/2021 1:03 PM	33:57	4.64 pH	19.80 °C	83.57 µS/cm	2.96 mg/L	2.58 NTU	384.2 mV	13.89 ft	120.00 ml/min
3/23/2021 1:08 PM	38:57	4.64 pH	19.81 °C	83.66 µS/cm	2.78 mg/L	4.75 NTU	391.1 mV	14.14 ft	120.00 ml/min
3/23/2021 1:13 PM	43:57	4.62 pH	19.52 °C	84.51 µS/cm	2.50 mg/L	4.61 NTU	396.6 mV	14.28 ft	120.00 ml/min
3/23/2021 1:18 PM	48:57	4.61 pH	19.62 °C	84.39 µS/cm	2.37 mg/L	10.10 NTU	398.1 mV	14.28 ft	120.00 ml/min
3/23/2021 1:23 PM	53:57	4.60 pH	19.79 °C	84.94 µS/cm	2.19 mg/L	6.65 NTU	397.2 mV	14.28 ft	120.00 ml/min
3/23/2021 1:28 PM	58:57	4.60 pH	19.93 °C	84.87 µS/cm	2.23 mg/L	4.55 NTU	399.1 mV	14.28 ft	120.00 ml/min

Samples

Low-Flow Test Report:

Test Date / Time: 3/24/2021 4:45:32 PM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWA-4 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 19.17 ft** **Total Depth: 29.17 ft** **Initial Depth to Water: 10.69 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 24 ft** **Estimated Total Volume Pumped: 2200 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 50 ml/min** **Final Draw Down: 35 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes:
Sampled at 1715. Partly cloudy 80 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/24/2021 4:45 PM	00:00	4.73 pH	25.61 °C	55.42 µS/cm	6.16 mg/L	3.19 NTU	243.1 mV	10.69 ft	100.00 ml/min
3/24/2021 4:50 PM	05:00	4.48 pH	20.24 °C	41.30 µS/cm	5.18 mg/L	0.89 NTU	268.5 mV	11.70 ft	100.00 ml/min
3/24/2021 4:55 PM	10:00	4.32 pH	19.96 °C	41.11 µS/cm	5.03 mg/L	0.90 NTU	281.6 mV	12.82 ft	70.00 ml/min
3/24/2021 5:00 PM	15:00	4.30 pH	20.63 °C	41.24 µS/cm	5.02 mg/L	1.49 NTU	285.3 mV	13.20 ft	70.00 ml/min
3/24/2021 5:05 PM	20:00	4.40 pH	20.47 °C	42.55 µS/cm	4.99 mg/L	1.98 NTU	282.2 mV	13.30 ft	50.00 ml/min
3/24/2021 5:10 PM	25:00	4.41 pH	20.43 °C	42.53 µS/cm	4.95 mg/L	3.61 NTU	284.2 mV	13.41 ft	50.00 ml/min
3/24/2021 5:15 PM	30:00	4.42 pH	20.23 °C	42.46 µS/cm	4.90 mg/L	4.44 NTU	285.4 mV	13.50 ft	50.00 ml/min

Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/24/2021 3:38:32 PM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWA-5 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.48 ft** **Total Depth: 28.48 ft** **Initial Depth to Water: 9.13 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 23 ft** **Estimated Total Volume Pumped: 3600 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 60 ml/min** **Final Draw Down: 4.08 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes:
Sampled at 1628. Partly cloudy 80 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/24/2021 3:38 PM	00:00	5.16 pH	23.59 °C	79.08 µS/cm	3.87 mg/L	7.96 NTU	156.3 mV	9.13 ft	100.00 ml/min
3/24/2021 3:43 PM	05:00	4.30 pH	20.21 °C	73.58 µS/cm	3.72 mg/L	6.49 NTU	222.3 mV	10.80 ft	100.00 ml/min
3/24/2021 3:48 PM	10:00	4.08 pH	20.14 °C	73.64 µS/cm	3.74 mg/L	7.62 NTU	243.6 mV	11.52 ft	80.00 ml/min
3/24/2021 3:53 PM	15:00	4.03 pH	20.43 °C	73.22 µS/cm	3.61 mg/L	7.31 NTU	252.9 mV	12.28 ft	80.00 ml/min
3/24/2021 3:58 PM	20:00	4.06 pH	21.05 °C	73.38 µS/cm	3.59 mg/L	6.76 NTU	256.4 mV	12.76 ft	60.00 ml/min
3/24/2021 4:03 PM	25:00	4.10 pH	21.26 °C	73.22 µS/cm	3.54 mg/L	5.89 NTU	259.9 mV	12.85 ft	60.00 ml/min
3/24/2021 4:08 PM	30:00	4.16 pH	21.73 °C	73.52 µS/cm	3.76 mg/L	5.52 NTU	261.8 mV	12.94 ft	60.00 ml/min
3/24/2021 4:13 PM	35:00	4.33 pH	23.48 °C	71.60 µS/cm	6.63 mg/L	5.62 NTU	257.9 mV	13.04 ft	60.00 ml/min
3/24/2021 4:18 PM	40:00	4.34 pH	22.17 °C	72.82 µS/cm	3.95 mg/L	5.02 NTU	259.1 mV	13.11 ft	60.00 ml/min
3/24/2021 4:23 PM	45:00	4.36 pH	22.08 °C	72.67 µS/cm	3.69 mg/L	4.65 NTU	261.7 mV	13.16 ft	60.00 ml/min
3/24/2021 4:28 PM	50:00	4.37 pH	22.22 °C	72.77 µS/cm	3.56 mg/L	4.33 NTU	264.1 mV	13.21 ft	60.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/23/2021 9:45:09 AM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWA-7A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 36.94 ft** **Total Depth: 46.94 ft** **Initial Depth to Water: 19.09 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 41 ft** **Estimated Total Volume Pumped: 4.2 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 120 ml/min** **Final Draw Down: 10.9 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1020

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/23/2021 9:45 AM	00:00	5.87 pH	17.12 °C	9.24 µS/cm	9.37 mg/L	6.78 NTU	232.6 mV	19.09 ft	120.00 ml/min
3/23/2021 9:50 AM	05:00	4.97 pH	18.30 °C	209.39 µS/cm	0.74 mg/L	6.60 NTU	207.2 mV	19.80 ft	120.00 ml/min
3/23/2021 9:55 AM	10:00	4.99 pH	18.47 °C	207.01 µS/cm	0.40 mg/L	5.07 NTU	209.3 mV	20.00 ft	120.00 ml/min
3/23/2021 10:00 AM	15:00	5.01 pH	18.57 °C	206.08 µS/cm	0.27 mg/L	3.99 NTU	210.4 mV	20.00 ft	120.00 ml/min
3/23/2021 10:05 AM	20:00	5.03 pH	18.55 °C	207.26 µS/cm	0.22 mg/L	2.74 NTU	211.5 mV	20.00 ft	120.00 ml/min
3/23/2021 10:10 AM	25:00	5.02 pH	18.75 °C	208.55 µS/cm	0.19 mg/L	2.94 NTU	213.0 mV	20.00 ft	120.00 ml/min
3/23/2021 10:15 AM	30:00	5.02 pH	18.75 °C	209.67 µS/cm	0.18 mg/L	2.89 NTU	213.6 mV	20.00 ft	120.00 ml/min
3/23/2021 10:20 AM	35:00	5.01 pH	18.80 °C	211.10 µS/cm	0.17 mg/L	2.11 NTU	214.3 mV	20.00 ft	120.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/24/2021 9:22:51 AM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWC-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 45.81 ft** **Total Depth: 55.81 ft** **Initial Depth to Water: 16.02 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 50 ft** **Estimated Total Volume Pumped: 4500 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 150 ml/min Final Draw Down: 0.1 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes:
Sampled at 0952. Partly cloudy 62 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/24/2021 9:22 AM	00:00	7.89 pH	17.37 °C	107.20 µS/cm	4.79 mg/L	0.33 NTU	237.8 mV	16.02 ft	150.00 ml/min
3/24/2021 9:27 AM	05:00	4.73 pH	18.35 °C	50.21 µS/cm	1.23 mg/L	0.63 NTU	228.3 mV	16.07 ft	150.00 ml/min
3/24/2021 9:32 AM	10:00	4.82 pH	18.45 °C	51.48 µS/cm	0.96 mg/L	0.94 NTU	223.5 mV	16.12 ft	150.00 ml/min
3/24/2021 9:37 AM	15:00	4.84 pH	18.60 °C	50.07 µS/cm	0.85 mg/L	1.13 NTU	226.8 mV	16.12 ft	150.00 ml/min
3/24/2021 9:42 AM	20:00	4.85 pH	18.75 °C	48.61 µS/cm	0.76 mg/L	3.64 NTU	231.2 mV	16.12 ft	150.00 ml/min
3/24/2021 9:47 AM	25:00	4.84 pH	18.75 °C	48.59 µS/cm	0.73 mg/L	2.40 NTU	235.6 mV	16.12 ft	150.00 ml/min
3/24/2021 9:52 AM	30:00	4.86 pH	18.86 °C	48.88 µS/cm	0.74 mg/L	2.72 NTU	237.4 mV	16.12 ft	150.00 ml/min

Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/24/2021 3:50:16 PM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWC-1A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 37.4 ft** **Total Depth: 47.4 ft** **Initial Depth to Water: 16.76 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 42 ft** **Estimated Total Volume Pumped: 5.25 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 12 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1625

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/24/2021 3:50 PM	00:00	5.48 pH	30.59 °C	0.05 µS/cm	7.28 mg/L	2.11 NTU	70.7 mV	16.76 ft	150.00 ml/min
3/24/2021 3:55 PM	05:00	4.64 pH	21.82 °C	75.24 µS/cm	1.50 mg/L	2.33 NTU	97.2 mV	17.30 ft	150.00 ml/min
3/24/2021 4:00 PM	10:00	4.50 pH	21.11 °C	75.85 µS/cm	1.38 mg/L	2.04 NTU	108.4 mV	17.80 ft	150.00 ml/min
3/24/2021 4:05 PM	15:00	4.40 pH	20.96 °C	75.60 µS/cm	0.96 mg/L	1.72 NTU	118.9 mV	17.80 ft	150.00 ml/min
3/24/2021 4:10 PM	20:00	4.37 pH	20.94 °C	77.28 µS/cm	0.75 mg/L	1.38 NTU	127.1 mV	17.80 ft	150.00 ml/min
3/24/2021 4:15 PM	25:00	4.37 pH	20.76 °C	78.01 µS/cm	0.62 mg/L	2.94 NTU	134.0 mV	17.80 ft	150.00 ml/min
3/24/2021 4:20 PM	30:00	4.38 pH	20.64 °C	81.30 µS/cm	0.56 mg/L	1.37 NTU	141.2 mV	17.80 ft	150.00 ml/min
3/24/2021 4:25 PM	35:00	4.38 pH	20.62 °C	80.09 µS/cm	0.52 mg/L	1.26 NTU	147.9 mV	17.80 ft	150.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/23/2021 3:49:06 PM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWC-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 27.35 ft** **Total Depth: 37.35 ft** **Initial Depth to Water: 14.28 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 32 ft** **Estimated Total Volume Pumped: 4500 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 150 ml/min Final Draw Down: 0.15 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes:
Sampled at 1619. Partly cloudy 74 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/23/2021 3:49 PM	00:00	5.84 pH	28.55 °C	0.05 µS/cm	7.73 mg/L	0.09 NTU	253.4 mV	14.28 ft	150.00 ml/min
3/23/2021 3:54 PM	05:00	5.84 pH	21.85 °C	98.48 µS/cm	2.89 mg/L	0.80 NTU	263.7 mV	14.34 ft	150.00 ml/min
3/23/2021 3:59 PM	10:00	5.75 pH	21.77 °C	96.48 µS/cm	2.71 mg/L	0.81 NTU	264.4 mV	14.40 ft	150.00 ml/min
3/23/2021 4:04 PM	15:00	5.71 pH	22.00 °C	93.58 µS/cm	2.53 mg/L	0.63 NTU	262.1 mV	14.43 ft	150.00 ml/min
3/23/2021 4:09 PM	20:00	5.64 pH	22.01 °C	84.99 µS/cm	2.23 mg/L	0.49 NTU	261.4 mV	14.43 ft	150.00 ml/min
3/23/2021 4:14 PM	25:00	5.63 pH	21.69 °C	83.18 µS/cm	2.17 mg/L	0.39 NTU	261.1 mV	14.43 ft	150.00 ml/min
3/23/2021 4:19 PM	30:00	5.61 pH	21.43 °C	81.46 µS/cm	2.10 mg/L	0.33 NTU	262.1 mV	14.43 ft	150.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/24/2021 10:38:32 AM
Project: McIntosh LF3
Operator Name: Taylor Goble

Location Name: GWC-4A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 26.99 ft** **Total Depth: 36.99 ft** **Initial Depth to Water: 16.65 ft**	**Pump Type: Peristaltic pump** **Tubing Type: Poly** **Pump Intake From TOC: 32 ft** **Estimated Total Volume Pumped: 3000 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 100 ml/min Final Draw Down: 0.55 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 608421**

Test Notes:
Sampled at 1108. Partly cloudy 65 degrees

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/24/2021 10:38 AM	00:00	4.58 pH	19.76 °C	49.15 µS/cm	1.67 mg/L	0.37 NTU	249.5 mV	16.65 ft	100.00 ml/min
3/24/2021 10:43 AM	05:00	4.59 pH	19.84 °C	50.69 µS/cm	1.47 mg/L	0.38 NTU	256.8 mV	17.03 ft	100.00 ml/min
3/24/2021 10:48 AM	10:00	4.59 pH	19.96 °C	50.39 µS/cm	1.41 mg/L	0.70 NTU	262.5 mV	17.20 ft	100.00 ml/min
3/24/2021 10:53 AM	15:00	4.59 pH	20.02 °C	50.13 µS/cm	1.36 mg/L	1.38 NTU	267.4 mV	17.20 ft	100.00 ml/min
3/24/2021 10:58 AM	20:00	4.58 pH	20.14 °C	49.39 µS/cm	1.29 mg/L	0.26 NTU	272.1 mV	17.20 ft	100.00 ml/min
3/24/2021 11:03 AM	25:00	4.59 pH	20.25 °C	49.39 µS/cm	1.20 mg/L	0.21 NTU	276.0 mV	17.20 ft	100.00 ml/min
3/24/2021 11:08 AM	30:00	4.59 pH	20.34 °C	48.24 µS/cm	1.13 mg/L	0.22 NTU	279.6 mV	17.20 ft	100.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/24/2021 10:45:12 AM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWC-5 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 20.59 ft** **Total Depth: 30.59 ft** **Initial Depth to Water: 17.39 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 25 ft** **Estimated Total Volume Pumped: 4.9 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 75 ml/min** **Final Draw Down: 34.9 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1150

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/24/2021 10:45 AM	00:00	4.73 pH	19.75 °C	0.06 µS/cm	9.08 mg/L	2.13 NTU	182.3 mV	17.39 ft	75.00 ml/min
3/24/2021 10:50 AM	05:00	5.04 pH	19.34 °C	195.79 µS/cm	0.91 mg/L	4.43 NTU	204.8 mV	18.30 ft	75.00 ml/min
3/24/2021 10:55 AM	10:00	5.05 pH	19.37 °C	194.16 µS/cm	0.60 mg/L	6.05 NTU	216.5 mV	18.70 ft	75.00 ml/min
3/24/2021 11:00 AM	15:00	5.05 pH	19.50 °C	193.25 µS/cm	0.50 mg/L	5.72 NTU	223.4 mV	19.20 ft	75.00 ml/min
3/24/2021 11:05 AM	20:00	5.05 pH	19.59 °C	196.34 µS/cm	0.40 mg/L	5.09 NTU	226.8 mV	19.60 ft	75.00 ml/min
3/24/2021 11:10 AM	25:00	5.06 pH	19.57 °C	225.22 µS/cm	0.55 mg/L	5.25 NTU	226.0 mV	19.90 ft	75.00 ml/min
3/24/2021 11:15 AM	30:00	5.06 pH	19.63 °C	224.44 µS/cm	0.40 mg/L	4.10 NTU	230.2 mV	20.10 ft	75.00 ml/min
3/24/2021 11:20 AM	35:00	5.06 pH	19.78 °C	225.32 µS/cm	0.33 mg/L	3.46 NTU	242.4 mV	20.20 ft	75.00 ml/min
3/24/2021 11:25 AM	40:00	5.07 pH	19.98 °C	212.87 µS/cm	0.33 mg/L	3.34 NTU	241.2 mV	20.30 ft	75.00 ml/min
3/24/2021 11:30 AM	45:00	5.07 pH	20.21 °C	211.50 µS/cm	0.32 mg/L	3.29 NTU	244.1 mV	20.30 ft	75.00 ml/min
3/24/2021 11:35 AM	50:00	5.06 pH	20.31 °C	208.40 µS/cm	0.37 mg/L	3.45 NTU	243.2 mV	20.30 ft	75.00 ml/min
3/24/2021 11:40 AM	55:00	5.06 pH	20.44 °C	225.86 µS/cm	0.38 mg/L	3.22 NTU	235.9 mV	20.30 ft	75.00 ml/min
3/24/2021 11:45 AM	01:00:00	5.05 pH	20.66 °C	224.69 µS/cm	0.45 mg/L	3.19 NTU	239.2 mV	20.30 ft	75.00 ml/min
3/24/2021 11:50 AM	01:05:00	5.04 pH	20.76 °C	223.67 µS/cm	0.34 mg/L	3.17 NTU	245.8 mV	20.30 ft	75.00 ml/min

Low-Flow Test Report:

Test Date / Time: 3/24/2021 1:35:13 PM
Project: McIntosh LF3 (3)
Operator Name: J. Berisford

Location Name: GWC-5A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 32.63 ft** **Total Depth: 42.63 ft** **Initial Depth to Water: 18.33 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 37 ft** **Estimated Total Volume Pumped: 16.5 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 6.8 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1525

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/24/2021 1:35 PM	00:00	4.83 pH	31.92 °C	0.94 µS/cm	7.23 mg/L	12.0 NTU	197.0 mV	18.33 ft	150.00 ml/min
3/24/2021 1:40 PM	05:00	5.39 pH	22.53 °C	123.56 µS/cm	1.60 mg/L	6.37 NTU	202.8 mV	18.80 ft	150.00 ml/min
3/24/2021 1:45 PM	10:00	5.30 pH	21.98 °C	125.40 µS/cm	1.18 mg/L	6.66 NTU	218.8 mV	18.90 ft	150.00 ml/min
3/24/2021 1:50 PM	15:00	5.27 pH	21.75 °C	129.01 µS/cm	0.95 mg/L	6.11 NTU	225.9 mV	18.90 ft	150.00 ml/min
3/24/2021 1:55 PM	20:00	5.27 pH	21.68 °C	130.73 µS/cm	0.84 mg/L	3.48 NTU	226.1 mV	18.90 ft	150.00 ml/min
3/24/2021 2:00 PM	25:00	5.27 pH	21.72 °C	133.46 µS/cm	0.77 mg/L	3.08 NTU	219.0 mV	18.90 ft	150.00 ml/min
3/24/2021 2:05 PM	30:00	5.28 pH	21.53 °C	133.72 µS/cm	0.69 mg/L	2.58 NTU	203.5 mV	18.90 ft	150.00 ml/min
3/24/2021 2:10 PM	35:00	5.29 pH	21.75 °C	133.09 µS/cm	0.60 mg/L	2.15 NTU	166.7 mV	18.90 ft	150.00 ml/min
3/24/2021 2:15 PM	40:00	5.31 pH	21.70 °C	128.97 µS/cm	0.47 mg/L	3.58 NTU	120.9 mV	18.90 ft	150.00 ml/min
3/24/2021 2:20 PM	45:00	5.33 pH	21.47 °C	126.56 µS/cm	0.40 mg/L	3.12 NTU	91.9 mV	18.90 ft	150.00 ml/min
3/24/2021 2:25 PM	50:00	5.36 pH	21.58 °C	126.84 µS/cm	0.36 mg/L	9.27 NTU	64.7 mV	18.90 ft	150.00 ml/min
3/24/2021 2:30 PM	55:00	5.44 pH	21.39 °C	121.65 µS/cm	0.32 mg/L	20.0 NTU	20.3 mV	18.90 ft	150.00 ml/min
3/24/2021 2:35 PM	01:00:00	5.44 pH	21.55 °C	111.42 µS/cm	0.27 mg/L	22.0 NTU	-27.9 mV	18.90 ft	150.00 ml/min
3/24/2021 2:40 PM	01:05:00	5.22 pH	21.81 °C	116.28 µS/cm	1.02 mg/L	4.73 NTU	-13.7 mV	18.90 ft	150.00 ml/min
3/24/2021 2:45 PM	01:10:00	5.19 pH	22.05 °C	103.00 µS/cm	0.89 mg/L	2.13 NTU	11.5 mV	18.90 ft	150.00 ml/min

3/24/2021 2:50 PM	01:15:00	5.23 pH	22.13 °C	108.81 µS/cm	0.89 mg/L	1.55 NTU	17.3 mV	18.90 ft	150.00 ml/min
3/24/2021 2:55 PM	01:20:00	5.45 pH	22.21 °C	97.51 µS/cm	0.25 mg/L	18.0 NTU	-39.3 mV	18.90 ft	150.00 ml/min
3/24/2021 3:00 PM	01:25:00	5.28 pH	22.55 °C	115.42 µS/cm	0.97 mg/L	15.0 NTU	-31.2 mV	18.90 ft	150.00 ml/min
3/24/2021 3:05 PM	01:30:00	5.40 pH	22.99 °C	104.74 µS/cm	0.74 mg/L	7.07 NTU	-27.9 mV	18.90 ft	150.00 ml/min
3/24/2021 3:10 PM	01:35:00	5.47 pH	23.59 °C	92.58 µS/cm	0.32 mg/L	6.11 NTU	-63.4 mV	18.90 ft	150.00 ml/min
3/24/2021 3:15 PM	01:40:00	5.41 pH	25.07 °C	122.19 µS/cm	1.09 mg/L	6.07 NTU	-48.1 mV	18.90 ft	150.00 ml/min
3/24/2021 3:20 PM	01:45:00	5.40 pH	25.67 °C	123.24 µS/cm	1.18 mg/L	4.92 NTU	-23.2 mV	18.90 ft	150.00 ml/min
3/24/2021 3:25 PM	01:50:00	5.42 pH	25.83 °C	119.73 µS/cm	1.09 mg/L	4.87 NTU	-24.0 mV	18.90 ft	150.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/24/2021 9:20:05 AM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWC-6 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 35.12 ft** **Total Depth: 45.12 ft** **Initial Depth to Water: 18.08 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 40 ft** **Estimated Total Volume Pumped: 3.75 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 75 ml/min** **Final Draw Down: 81.8 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1010

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/24/2021 9:20 AM	00:00	6.46 pH	18.01 °C	7.57 µS/cm	9.45 mg/L	3.11 NTU	227.7 mV	18.08 ft	75.00 ml/min
3/24/2021 9:25 AM	05:00	5.01 pH	18.25 °C	63.76 µS/cm	4.74 mg/L	3.04 NTU	186.2 mV	18.80 ft	75.00 ml/min
3/24/2021 9:30 AM	10:00	5.04 pH	18.13 °C	56.07 µS/cm	4.61 mg/L	3.21 NTU	182.2 mV	19.60 ft	75.00 ml/min
3/24/2021 9:35 AM	15:00	5.08 pH	18.28 °C	42.24 µS/cm	4.46 mg/L	3.36 NTU	181.4 mV	20.40 ft	75.00 ml/min
3/24/2021 9:40 AM	20:00	5.08 pH	18.32 °C	41.04 µS/cm	4.47 mg/L	3.48 NTU	183.3 mV	21.10 ft	75.00 ml/min
3/24/2021 9:45 AM	25:00	5.09 pH	18.43 °C	37.64 µS/cm	4.44 mg/L	3.21 NTU	185.0 mV	21.80 ft	75.00 ml/min
3/24/2021 9:50 AM	30:00	5.09 pH	18.58 °C	37.72 µS/cm	4.34 mg/L	2.97 NTU	186.1 mV	22.50 ft	75.00 ml/min
3/24/2021 9:55 AM	35:00	5.10 pH	18.66 °C	37.00 µS/cm	4.37 mg/L	3.55 NTU	186.6 mV	23.30 ft	75.00 ml/min
3/24/2021 10:00 AM	40:00	5.10 pH	18.65 °C	33.69 µS/cm	4.35 mg/L	3.94 NTU	187.6 mV	24.10 ft	75.00 ml/min
3/24/2021 10:05 AM	45:00	5.10 pH	18.74 °C	32.57 µS/cm	4.23 mg/L	3.72 NTU	188.1 mV	24.60 ft	75.00 ml/min
3/24/2021 10:10 AM	50:00	5.11 pH	18.67 °C	32.89 µS/cm	4.42 mg/L	3.86 NTU	188.4 mV	24.90 ft	75.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 3/23/2021 3:25:06 PM
Project: McIntosh LF3
Operator Name: J. Berisford

Location Name: GWC-6A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 32.48 ft** **Total Depth: 42.48 ft** **Initial Depth to Water: 19 ft**	**Pump Type: Peri. Pump** **Tubing Type: Poly** **Pump Intake From TOC: 37 ft** **Estimated Total Volume Pumped: 15 liter** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 5 in**	**Instrument Used: Aqua TROLL 500** **Serial Number: 601857**

Test Notes:
Sunny, 70s, sample time-1640

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
3/23/2021 3:25 PM	00:00	5.35 pH	25.82 °C	0.05 µS/cm	7.68 mg/L	1.76 NTU	151.2 mV	19.00 ft	200.00 ml/min
3/23/2021 3:30 PM	05:00	5.40 pH	20.68 °C	89.55 µS/cm	1.49 mg/L	5.21 NTU	147.7 mV	19.20 ft	200.00 ml/min
3/23/2021 3:35 PM	10:00	5.32 pH	20.41 °C	88.12 µS/cm	1.18 mg/L	2.81 NTU	154.9 mV	19.30 ft	200.00 ml/min
3/23/2021 3:40 PM	15:00	5.30 pH	20.34 °C	85.99 µS/cm	1.04 mg/L	3.84 NTU	157.3 mV	19.40 ft	200.00 ml/min
3/23/2021 3:45 PM	20:00	5.29 pH	20.46 °C	83.02 µS/cm	0.88 mg/L	5.87 NTU	159.7 mV	19.40 ft	200.00 ml/min
3/23/2021 3:50 PM	25:00	5.32 pH	20.61 °C	81.13 µS/cm	0.93 mg/L	6.44 NTU	160.5 mV	19.40 ft	200.00 ml/min
3/23/2021 3:55 PM	30:00	5.36 pH	20.57 °C	73.33 µS/cm	1.07 mg/L	6.33 NTU	160.3 mV	19.00 ft	200.00 ml/min
3/23/2021 4:00 PM	35:00	5.36 pH	20.65 °C	72.24 µS/cm	1.04 mg/L	6.54 NTU	160.9 mV	19.40 ft	200.00 ml/min
3/23/2021 4:05 PM	40:00	5.37 pH	20.67 °C	71.28 µS/cm	0.97 mg/L	2.87 NTU	160.4 mV	19.40 ft	200.00 ml/min
3/23/2021 4:10 PM	45:00	5.37 pH	20.55 °C	66.34 µS/cm	0.98 mg/L	2.00 NTU	158.8 mV	19.40 ft	200.00 ml/min
3/23/2021 4:15 PM	50:00	5.35 pH	20.53 °C	65.23 µS/cm	0.85 mg/L	1.94 NTU	156.9 mV	19.40 ft	200.00 ml/min
3/23/2021 4:20 PM	55:00	5.33 pH	20.38 °C	61.54 µS/cm	0.81 mg/L	1.33 NTU	155.6 mV	19.40 ft	200.00 ml/min
3/23/2021 4:25 PM	01:00:00	5.30 pH	20.35 °C	59.62 µS/cm	0.78 mg/L	1.04 NTU	155.1 mV	19.40 ft	200.00 ml/min
3/23/2021 4:30 PM	01:05:00	5.30 pH	20.35 °C	74.72 µS/cm	0.75 mg/L	1.92 NTU	152.6 mV	19.40 ft	200.00 ml/min
3/23/2021 4:35 PM	01:10:00	5.31 pH	20.45 °C	74.71 µS/cm	0.70 mg/L	1.52 NTU	150.9 mV	19.40 ft	200.00 ml/min

3/23/2021 4:40 PM	01:15:00	5.31 pH	20.46 °C	73.46 µS/cm	0.66 mg/L	1.77 NTU	149.3 mV	19.40 ft	200.00 ml/min

Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: T. Goble

WATER LEVEL: Solinst

WATER LEVEL S/N: 378591

INSTRUMENT S/N: 608421

INSTRUMENT TYPE: AquaTroll

CAL. SOLUTION/S:

ID: ORP	LOT #: 32001	EXP. DATE: Oct/21	
ID: pH4	LOT #: OGD046	EXP. DATE: 04/22	
ID: pH7	LOT #: 1GB200	EXP. DATE: 02/23	
ID: pH10	LOT #: OGJ170	EXP. DATE: 10/22	
ID: Cond	LOT #: OGE1033	EXP. DATE: 09/21	
ID:	LOT #:	EXP. DATE:	
ID:	LOT #:	EXP. DATE:	

Midday pH check

Must be less that .10

(6.90-7.10 range)

Recalibrate if not within range

Calibration Date: 3-23-21

RDO: 100% sat. = 93.42

PH: 4.00 = 4.22 7.00 = 7.21 10.00 = 10.09

PH Recal (if needed): 4.00 = 7.00 = 10.00 =

CONDUCTIVITY: 1413 = 1309

ORP (mV) 240 = 238.7

Midday pH check

7.0 = 7.05

7.0= 7.05 post recal check ✓

Calibration Date: 3-24-21

RDO: 100% sat. = 101.57

PH: 4.00 = 3.97 7.00 = 6.97 10.00 = 10.09

PH Recal (if needed): 4.00 = 4.13 7.00 = 7.15 10.00 = 10.04

CONDUCTIVITY: 1413 = 1365

ORP (mV) 240 = 235.7

Midday pH check

7.0 = 7.13

7.0= 6.99 post recal check ✓

Calibration Date:

RDO: 100% sat. =

PH: 4.00 = 7.00 = 10.00 =

PH Recal (if needed): 4.00 = 7.00 = 10.00 =

CONDUCTIVITY: =

ORP (mV) =

Midday pH check

7.0 =

7.0= post recal check

Calibration Date:

RDO: 100% sat. =

PH: 4.00 = 7.00 = 10.00 =

PH Recal (if needed): 4.00 = 7.00 = 10.00 =

CONDUCTIVITY: =

ORP (mV) =

Midday pH check

7.0 =

7.0= post recal check

Calibration Date:

RDO: 100% sat. =

PH: 4.00 = 7.00 = 10.00 =

PH Recal (if needed): 4.00 = 7.00 = 10.00 =

CONDUCTIVITY: =

ORP (mV) =

Midday pH check

7.0 =

7.0= post recal check

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: T. Goble

INSTRUMENT S/N: 17120C063767

INSTRUMENT TYPE: Hach 2100Q

CAL. SOLUTION:

0 NTU - LOT # New DI EXP. DATE: —

10 NTU - LOT # A0136 EXP. DATE: Aug/21

20 NTU - LOT # A0139 EXP. DATE: Aug/21

Calibration Date: 3-23-21

Calibation Solution	Instrument Reading	
0.0	0.21	NTU
10.0	9.58	NTU
20.0	20.5	NTU

100 = 101
800 = 800

Calibration Date: 3-24-21

Calibation Solution	Instrument Reading	
0.0	0.20	NTU
10.0	10.2	NTU
20.0	20.2	NTU

100 = 102
800 = 802

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: McIntosh

TECHNICIAN: JBenfield

WATER LEVEL: Solinst

WATER LEVEL S/N: 267307

INSTRUMENT S/N: 601857

INSTRUMENT TYPE: AquaTroll

CAL. SOLUTION/S:

ID: pH 4	LOT # : 06T407	EXP. DATE:	9/22
ID: pH 7	LOT # : 1BB200	EXP. DATE:	2123
ID: pH 10	LOT # : 06T225	EXP. DATE:	9/22
ID: Cond	LOT # : 06H087	EXP. DATE:	9/21
ID: ORP	LOT # : 06L034	EXP. DATE:	9/21
ID:	LOT # :	EXP. DATE:	
ID:	LOT # :	EXP. DATE:	

Midday pH check

Must be less that .10

(6.90-7.10 range)

Recalibrate if not within range

Calibration Date: 3/23

RDO: 100% sat. = 101.82 — *Midday pH check*

PH: 4.00 = 3.94 | 7.00 = 7.05 | 10.00 = 10.03 | 7.0 = 7.07

PH Recal (if needed): 4.00 = | 7.00 = | 10.00 = | 7.0= post recal check

CONDUCTIVITY: 1413 = 1448

ORP (mV) 240 = 238.1

Calibration Date: 3/24

RDO: 100% sat. = 96.87 — *Midday pH check*

PH: 4.00 = 4.05 | 7.00 = 6.99 | 10.00 = 10.11 | 7.0 = 7.02

PH Recal (if needed): 4.00 = | 7.00 = | 10.00 = | 7.0= post recal check

CONDUCTIVITY: 1413 = 1407

ORP (mV) 240 = 238.6

Calibration Date:

RDO: 100% sat. = — *Midday pH check*

PH: 4.00 = | 7.00 = | 10.00 = | 7.0 =

PH Recal (if needed): 4.00 = | 7.00 = | 10.00 = | 7.0= post recal check

CONDUCTIVITY: =

ORP (mV) =

Calibration Date:

RDO: 100% sat. = — *Midday pH check*

PH: 4.00 = | 7.00 = | 10.00 = | 7.0 =

PH Recal (if needed): 4.00 = | 7.00 = | 10.00 = | 7.0= post recal check

CONDUCTIVITY: =

ORP (mV) =

Calibration Date:

RDO: 100% sat. = — *Midday pH check*

PH: 4.00 = | 7.00 = | 10.00 = | 7.0 =

PH Recal (if needed): 4.00 = | 7.00 = | 10.00 = | 7.0= post recal check

CONDUCTIVITY: =

ORP (mV) =

ATLANTIC COAST CONSULTING, INC.

Daily Instrument Calibration Log

SITE: Plant McIntosh

TECHNICIAN: JBradford

INSTRUMENT S/N: 14767

INSTRUMENT TYPE: Hach 2100Q

CAL. SOLUTION:

0 NTU - LOT #	NA	EXP. DATE:	DI H2O
10 NTU - LOT #	140136	EXP. DATE:	Aug-21
20 NTU - LOT #	140139	EXP. DATE:	Aug-21

Calibration Date: 3/23

Calibation Solution	Instrument Reading	
0.0	0.49	NTU
10.0	10.4	NTU
20.0	20.4	NTU

Calibration Date: 3/24

Calibation Solution	Instrument Reading	
0.0	0.39	NTU
10.0	10.2	NTU
20.0	20.5	NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibation Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

1 - Location/Identification		GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-1A	GWC-2	GWC-4A
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

2 - Protective Outer Casing		GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-1A	GWC-2	GWC-4A
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

3 - Surface Pad		GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-1A	GWC-2	GWC-4A
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

4 - Internal Well Casing		GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-1A	GWC-2	GWC-4A
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-1A	GWC-2	GWC-4A
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	No	No	No

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	GWA-1A	GWA-1B	GWA-2B	GWA-3A	GWA-4	GWA-5	GWA-7A	GWC-1	GWC-1A	GWC-2	GWC-4A
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:
GWC-2 - Well ID sign needs to be reattached to well. Corrective action still needed.

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

1 - Location/Identification		GWC-5	GWC-5A	GWC-6	GWC-6A	PZ-1	PZ-2	PZ-3				
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
c	Does the well require protection from traffic?	No	No	No	No	No	No	No				
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

2 - Protective Outer Casing		GWC-5	GWC-5A	GWC-6	GWC-6A	PZ-1	PZ-2	PZ-3				
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

3 - Surface Pad		GWC-5	GWC-5A	GWC-6	GWC-6A	PZ-1	PZ-2	PZ-3				
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

4 - Internal Well Casing		GWC-5	GWC-5A	GWC-6	GWC-6A	PZ-1	PZ-2	PZ-3				
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No				

Facility Name: Plant McIntosh LF-3
Staff: J. Berisford
Date: 3/22/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		GWC-5	GWC-5A	GWC-6	GWC-6A	PZ-1	PZ-2	PZ-3				
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No				

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	GWC-5	GWC-5A	GWC-6	GWC-6A	PZ-1	PZ-2	PZ-3				
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

7 - Corrective actions completed and Notes:

APPENDIX C

ALTERNATE SOURCE DEMONSTRATION

Georgia Power Company
Plant McIntosh Inactive Landfill No. 3

Permit No. 051-008D(LI)
Effingham County

Alternate Source Demonstration

September 2020

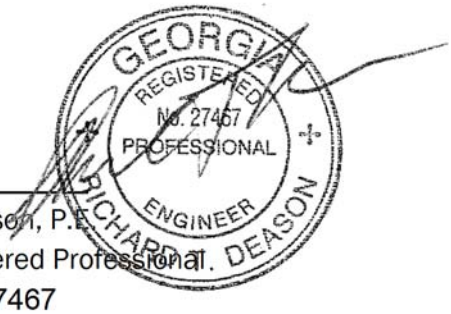
Atlantic Coast Consulting, Inc.

Certification Statement

I hereby certify that the information contained in this alternate source demonstration is accurate in accordance with 40 CFR 257.94(e)(2) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management, Rule 391-3-4-.10(6)(a).



Evan B. Perry, P.G.
Georgia Registered Professional Geologist No. 1744
Preparer
Date: September 15, 2020



Richard T. Deason, P.E.
Georgia Registered Professional Engineer No. 27467
Reviewer
Date: September 15, 2020

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Tables

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Table 3 – Summary of Field Blank, Equipment Blank, and Duplicate Sample Results

Figures

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Figure 2 – March 2020 Potentiometric Surface Map
Figure 3 – Site-Wide Sulfate Time Series
Figure 4 – GWC-5 Groundwater Elevation and Specific Conductance Time Series
Figure 5 – GWC-5 TDS Time Series
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Attachments

Attachment A – Geologic Cross-Sections and GWC-5 Well Construction Data
Attachment B – June 2020 GWC-5 Field Sampling Log

1.0 Introduction

This document presents an alternate source demonstration (ASD) for statistically significant increases (SSIs) of sulfate and total dissolved solids (TDS) identified on July 27, 2020. This ASD has been prepared pursuant to 40 CFR 257.94(e)(2) and Georgia Environmental Protection (EPD) Rules for Solid Waste Management Chapter 391.-3-4-.10(6)(a), and demonstrates that the SSIs resulted from an error in sampling, analysis and natural variation in groundwater quality.

Georgia Power Company (GPC) Plant McIntosh is located at 981 Old Augusta Road Central, in Effingham County, Georgia, approximately 4 miles northeast of the City of Rincon, and 18 miles north of the City of Savannah. The plant is situated on approximately 2,300 acres west of the Savannah River. Plant McIntosh Inactive Landfill No. 3 (Site) is located on the southwestern portion of the plant property. The Site is permitted by EPD [Permit No. 051-008D(LI)] and was issued a closure certificate on March 21, 2008. Figure 1, Site Map, depicts the Plant location referenced to regional landmarks. A recent potentiometric surface map is provided for reference as Figure 2, March 2020 Potentiometric Surface Map.

Appendix III SSIs for samples collected in March 2020 were identified within 90 days of data receipt on July 27, 2020 (ACC, 2020). Three SSIs were for low levels of sulfate in samples from GWC-1, GWC-4A, and GWC-6 (i.e. below levels detected in several upgradient background monitoring wells) and were not resampled. The remaining SSI for TDS in the sample from GWC-5 was resampled on June 30, 2020 and the initial SSI was confirmed. SSIs reported for the March 2020 data set are presented in Table 1, Summary of March 2020 SSIs.

Table 1. Summary of March 2020 SSIs

Constituent	Location	Initial Concentration	Verification Resample Concentration	Intra-Well Prediction Limit	Inter-Well Prediction Limit (for reference)
Appendix III Analytes					
Sulfate	GWC-1	3.5	NS	1.0	110
Sulfate	GWC-4A	2.5	NS	2.33	110
Sulfate	GWC-6	2.2	NS	1.47	110
TDS	GWC-5	750	710	648	156

Notes:

1. Units are milligrams per liter (mg/L).
2. Initial samples collected March 11-31, 2020; verification resample for GWC-5 collected June 30, 2020.
3. NS indicates not sampled.

Sulfate and TDS are both statistically evaluated using intra-well statistics. However, the sulfate concentrations causing the intra-well SSIs are substantially less than the inter-well prediction limit of 110 milligrams per liter (mg/L). In the case of TDS, the initial and resample concentrations exceed both prediction limits.

2.0 Alternate Source Demonstration

As allowed by §257.94(e)(2) and EPD Rule 391.-3-4-.10(6)(a), the site may demonstrate that a source other than the CCR unit caused the SSI for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. This report demonstrates an alternate source for the sulfate and TDS SSIs and that assessment monitoring is not required.

These SSIs are not the result of a release from Landfill No. 3 and are the result of natural variability in groundwater quality, which is also considered statistical error because the variability is not accommodated by the current background data set. Each SSI occurs as a single parameter exceedance at each well. SSIs for other constituents that would be indicative of a CCR release do not occur. A release from Landfill No. 3 would cause SSIs of multiple Appendix III parameters such as boron, calcium, and sulfate. This has not occurred. The March 2020 Appendix III data are summarized in Table 2, March 2020 Appendix III Parameter Concentrations.

Most notably, boron was not detected above the reporting limit in any sample (estimated "J" value reported for GWC-1). The absence of multiple SSIs and the absence of statistically significant increasing trends in TDS at GWC-5 and sulfate at GWC-1, GWC-4A, and GWC-6 supports the conclusion that the Appendix III SSIs are not the result of a release from Landfill No. 3.

Table 2. March 2020 Appendix III Parameter Concentrations

Location	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
GWC-1	0.040 J	1.6	6.4	< 0.026	5.21	**3.5**	37
GWC-4A	< 0.039	0.048 J	14	0.028 J	4.66	**2.5**	52
GWC-5	< 0.039	12	8.2	0.16	6.17	11	**750**
GWC-6	< 0.039	1.7	7.6	< 0.026	5.23	**2.2**	67

Notes:

1. Units are milligrams per liter (mg/L) except pH are standard units.
2. Samples collected March 11-31, 2020.
3. Bold Value indicates an SSI.
4. "J" indicates the substance was detected at a low-level less than the precision of the laboratory instrument. The value shown is qualified as an estimated value.
5. < indicates constituent not detected at the reporting limit shown.

2.1 Sulfate SSIs

Based on review of site data and the information provided in this section, the SSIs for sulfate are primarily attributed to natural variability in site groundwater not accommodated by the background data set. Error in sampling and analysis appears to be an additional influence contributing to the SSIs. Based on this demonstration, assessment monitoring is not required.

2.1.1 Natural Variability

Well-specific background data are used to calculate an intra-well statistical limit. Slight concentration changes may result in SSIs even if levels are below site-wide background ranges. The concentrations of sulfate in wells GWC-1, GWC-4A, and GWC-6 are less than levels routinely detected in other site-wide samples including upgradient groundwater. Five upgradient background groundwater monitoring wells (GWA-2B, GWA-3B, GWA-4, GWA-5, and GWA-7A) have produced sulfate levels greater than those reported in samples from GWC-1, GWC-4A, and GWC-6. Three of the five upgradient wells (GWA-3B, GWA-4 and GWA-5) have data sets encompassing all Appendix III data sets collected to date (i.e., at least 12 samples). A graph depicting site-wide sulfate concentrations is provided in Figure 3, Site-Wide Sulfate Time Series.

Figure 3 shows that upgradient wells GWA-3B, GWA-4, and GWA-5, have consistently higher concentrations of sulfate compared to the sulfate concentrations in wells exhibiting SSIs (GWC-1, GWC-4A, and GWC-6). The mean concentrations of sulfate in the upgradient wells GWA-3B, GWA-4, and GWA-5 are 7.2, 4.5, and 19 mg/L, respectively. The mean concentrations of sulfate in wells GWC-1, GWC-4A, and GWC-6 are 1.0, 1.1, and 0.92 mg/L, respectively. The concentrations of sulfate in wells GWC-1, GWC-4A, and GWC-6 are lower than upgradient wells GWA-3B, GWA-4, and GWA-5, therefore, the sulfate SSIs are caused by levels lower than those present in site background. These results therefore do not exceed inter-well prediction limits as shown in Table 1.

2.1.2 Review of Quality Control Sample Data

Review of equipment blank and duplicate data identified low-level detections of sulfate, indicating that sampling or analytical variability has contributed to the low-level concentrations of the SSIs. Two field blanks (LF3-FB-01 and LF3-FB-02), two equipment blanks (LF3-FERB-01 and LF3-FERB-02), and two duplicate samples (LF3-DUP-01 and LF3-DUP-02) were collected during the March 2020 monitoring event. A field blank is prepared by filling a set of sample containers with pre-packaged ASTM Type I reagent grade water. Equipment blanks are samples obtained by circulating pre-packaged ASTM Type I reagent grade water through decontaminated sample collection equipment (bailer, pump, etc.) and into the appropriate sample containers for analysis. Duplicate samples are collected contemporaneously with parent samples. Laboratory analytical results and data validation of equipment and field blanks collected in March 2020 are presented in the 2020 Annual Groundwater Monitoring

and Corrective Action Report (ACC, 2020) and summarized on Table 3, Summary of Field Blank, Equipment Blank, and Duplicate Sample Results.

As shown in Table 3 there were low level "J" value detections of sulfate in both equipment blank samples. Non-detect sulfate results in the two field blanks indicate the lack of sulfate in the pre-packaged ASTM Type I reagent grade water. Therefore, detections of sulfate in the equipment blanks are a function of field or laboratory procedures. Sulfate concentrations in equipment blanks are greater than or equal to the amounts that exceeded intra-well prediction limits at GWC-4A and GWC-6 of 0.17 and 0.73 mg/L, respectively (ACC, 2020). The equipment blank does not fully account for the sulfate concentration at GWC-1.

The data validation report in the 2020 Annual Groundwater Monitoring and Corrective Action Report (ACC, 2020) presented calculated relative percent differences (RPD) values of 80% and 46% for the duplicates of sulfate results for GWC-1 and GWC-2, respectively. The results of the two duplicate samples exceed USEPA criteria for data quality acceptance of 20% (USEPA, 1989). Most notably, the duplicate sample result for GWC-1 of 1.5 mg/L was much lower than the GWC-1 parent sample result of 3.5 mg/L. Based on these results a degree of error in laboratory analysis is present in the sulfate results. Although the duplicate sample result for GWC-1 is greater than intra-well statistical limit of 1.0 mg/L, the error in analysis and sampling exhibited by the equipment blank and field duplicate is sufficient to account for the SSI at GWC-1.

Table 3. Summary of Field Blank, Equipment Blank, and Duplicate Sample Results

Blank ID	Sulfate Concentration
LF3-FERB-01	0.83 J
LF3-FERB-02	0.73 J
LF3-FB-01	<0.38
LF3-FB-02	<0.38
LF3-DUP-01 (Duplicate of GWC-1)	1.5 (GWC-1 = 3.5)
LF3-DUP-02 (GWC-2)	1.6 (GWC-2 = 1.0)

Notes:

1. Units are milligrams per liter (mg/L).
2. < indicates constituent not detected at the reporting limit shown.
3. "J" indicates the substance was detected at a low-level less than the precision of the laboratory instrument. The value shown is qualified as an estimated value.
4. FERB indicates field equipment blank.
5. FB indicates field blank.
6. DUP indicates sample duplicate.

2.2 TDS SSI

As discussed in this section, the single parameter SSI for TDS at well GWC-5 is attributed to natural variability and not the result of a release from Landfill No. 3. The conditions that are causing the SSI at this location have been previously discussed in other ASDs (ERM, 2017 and GEI, 2020) and are further discussed below.

2.2.1 Localized Geochemistry and Hydrology

Two SSIs for Appendix I metals (barium and cobalt) were previously identified at GWC-5 (ERM, 2017 and GEI, 2020). The previous ASDs attributed SSIs to localized changes in geochemistry. Changes in surface water hydrology are documented to have affected geochemistry local to GWC-5 in the ASD for barium SSIs (ERM, 2017). GWC-5 is also located along the edge of a ditch that may be susceptible to flooding during periods of heavy rainfall.

Variability of geochemistry is demonstrated by time series plots provided in Figure 4, GWC-5 Groundwater Elevation and Specific Conductance Time Series, Figure 5, GWC-5 TDS Time Series, and Figure 6, GWC-5 pH Time Series. Based on the time series observations, it appears that groundwater conditions at GWC-5 were influenced similarly during intervals between January 2016 - June 2016 and December 2019 – March 2020. Variability in geochemistry and groundwater elevation at GWC-5 is also attributed to the material the well is screened in as described in Section 2.2.2.

2.2.2 Well Construction and Field Sampling

GWC-5 is primarily screened within low permeability zones that are not optimal for monitoring. The screened interval depth contributes to the variable geochemistry (i.e., influenced by surficial hydrology that is not representative of aquifer conditions) and results in the TDS SSI, as well as the previously identified barium and cobalt SSIs. A subset of former groundwater monitoring network wells (GWA-1, GWA-2, GWA-2A, GWA-3B, GWC-4B, and GWA-7) were characterized as poor producers for sampling purposes. The low production was attributed to installation of these locations in low hydraulic conductivity silts and clays. These zones were previously characterized as Units 1 and 2 in the facility's permit drawings. These locations were ultimately clustered with deeper locations installed in sandy material characterized as Unit 3 in the facility's permit drawings. After evaluation of the deeper replacements, improvements in sampling were noted (i.e., sustainable flow rates for sampling and low sample turbidities). A well abandonment request for the former shallow locations was completed in 2020 and subsequently approved by EPD (GEI, 2020). A field sampling log demonstrating the poor recharge and water column drawdown even at low purge rates for GWC-5 is provided in Attachment B – June 2020 GWC-5 Field Sampling Log

Based on a review of geologic cross-sections and the boring log for GWC-5 only approximately 2 feet of the well screen is in the productive sandy interval (i.e., Unit 3). Although groundwater elevations increased on a site-wide basis between December 2019 and March 2020, the 7.09

feet of increase at GWC-5 was more than for most site wells and not consistent with historical trends (i.e., the water level from GWC-5 was not able to be used to construct the March 2020 potentiometric contour map). Therefore, during periods of higher precipitation, the low permeability lithology creates a localized low-yielding perched zone at GWC-5 that is not consistent across Landfill No. 3. The boring log for GWC-5 and cross-sections from the recent abandonment request are provided in Attachment A, Geologic Cross-Sections and GWC-5 Well Construction Data.

Based on review of site data and the information provided above, the SSI for TDS is attributed to natural variability in site groundwater not accommodated by the background data set. Based on this demonstration, assessment monitoring is not required.

3.0 Summary and Recommendations

Based on a review of available information and evaluation of Site data the SSIs identified in Table 1 are not the result of a release from the CCR unit. At all four locations only one of seven Appendix III parameters is considered an SSI. Boron is not detected above the reporting limit in the samples from any of the SSI locations. The three sulfate SSIs are for low level concentrations less than site background. The low-level statistical exceedances for sulfate are attributed to natural variability and laboratory or field procedures.

The SSI for TDS in groundwater monitoring well GWC-5 is attributed to localized geochemical variability due to surface hydrology and well construction. GWC-5 is primarily screened in a low-yielding perched zone that is not consistent across Landfill No. 3.

Georgia Power recommends evaluating a replacement well for GWC-5. A potential replacement well with a screened interval located entirely within the more transmissive Unit 3 is proposed. An elevation of approximately 30 – 40 ft NAVD would be targeted for consistency with other replacement wells. The sandy interval at this elevation is expected to provide data most representative of groundwater conditions within the uppermost aquifer at the Site. Details regarding proposed well replacement will be provided to EPD.

This ASD demonstrates that the observed SSIs are not the result of a release from Landfill No. 3. Therefore, pursuant to 40 CFR 257.94(e)(2) and EPD Rules for Solid Waste Management Chapter 391.-3-4-.10(6)(a), Landfill No. 3 will remain in detection monitoring.

4.0 References

Atlantic Coast Consulting, Inc. (ACC), *2020 Annual Groundwater Monitoring and Corrective Action Report –Plant McIntosh Inactive Landfill No. 3*, July 2020.

Environmental Resources Management (ERM), *Alternate Source Demonstration –Plant McIntosh Ash Disposal Site No. 3*, August 2017.

GEI Consultants, Inc. (GEI), *Alternate Source Demonstration –Plant McIntosh CCR Inactive Landfill No.3*, February 2020.

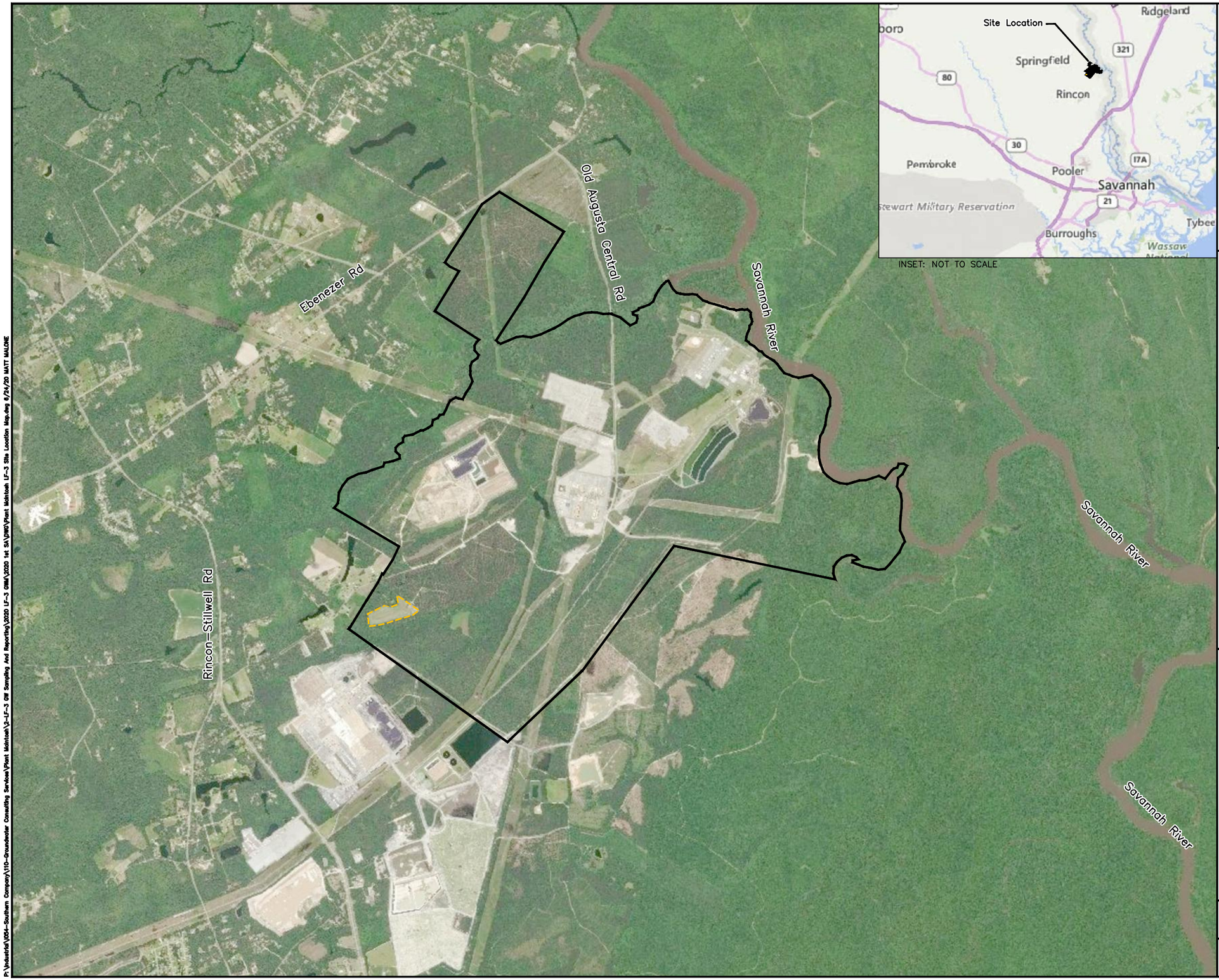
GEI Consultants, Inc. (GEI), *Monitoring Well Abandonment Request –Plant McIntosh CCR Inactive Landfill No.3*, February 2020.

Groundwater Stats Consulting. (GSC), *Plant McIntosh Landfill #3 Statistical Analysis – March/April 2020 Semi-Annual Sample Event*, June 2020.

Thomas, A.G., *Specific Conductance as an Indicator of Total Dissolved Solids in Cold, Dilute Waters,* Hydrological Sciences Journal, 31,1, p81-92, March 1986.

U.S. EPA Waste Management Division Office of Solid Waste, 1989, EPA 530/SW89-031 Interim Final RCRA Investigation (RFI) Guidance, Volume II or IV.

FIGURES



INSET: NOT TO SCALE

ATLANTIC COAST CONSULTING, INC.

2,500 0 1,250 2,500

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
———	APPROXIMATE PROPERTY BOUNDARY
- - - - -	INACTIVE LANDFILL No. 3

PROJECT

Georgia Power

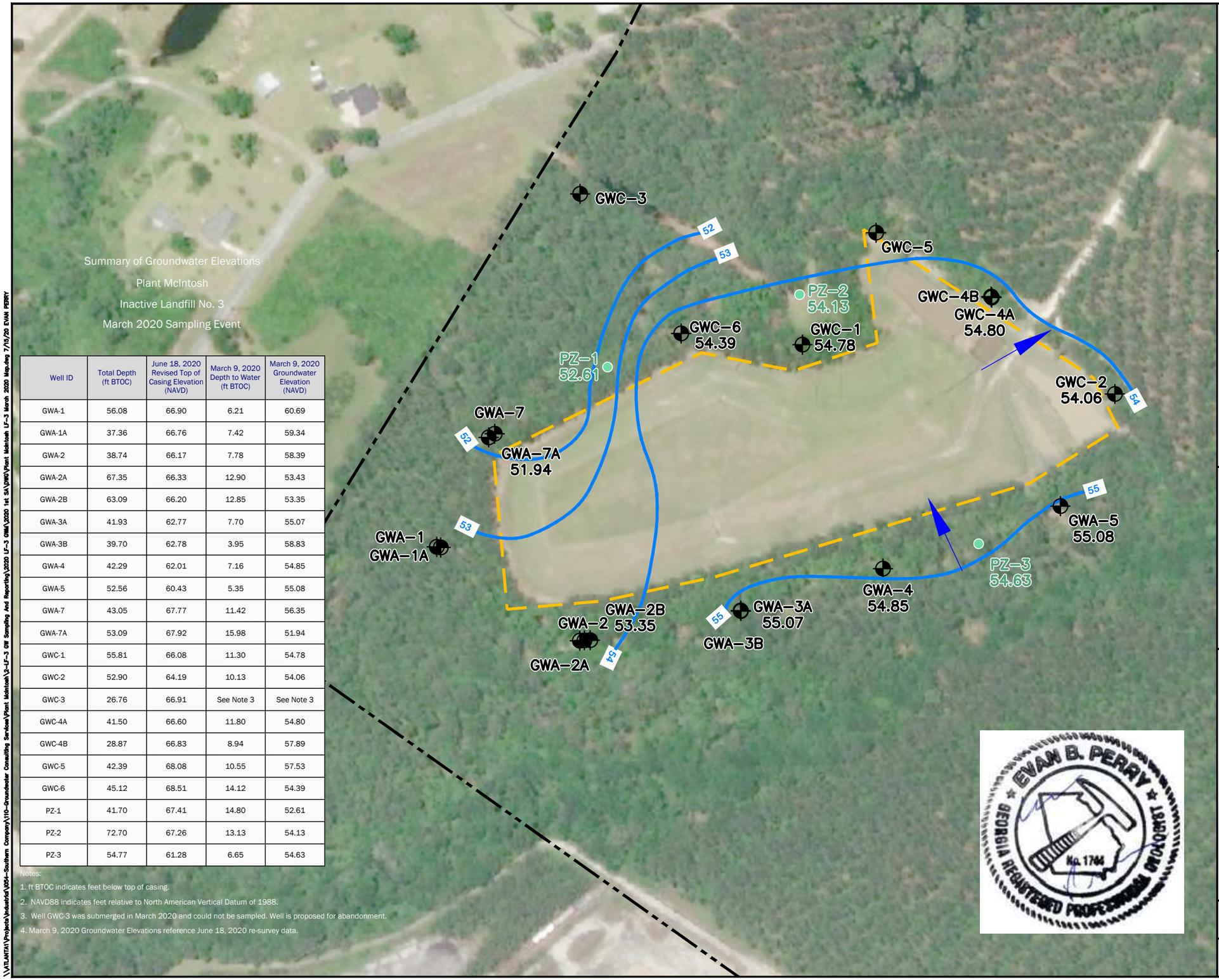
GEORGIA POWER COMPANY
PLANT McINTOSH

SITE LOCATION MAP

PROJECT NO. 1054-110 Sept. 2020

DRAWN BY:	MM	FIGURE:
CHECKED BY:	EP	1

P:\Industrial\1054-Southern Company\110-Groundwater Consulting Services\Plant McIntosh\2-LF-3 GW Sampling And Reporting\2020 LF-3 GWA\2020 1st SA\PWO\Plant McIntosh LF-3 Site Location Map.dwg 9/24/20 MATT MALONE



Summary of Groundwater Elevations

Plant McIntosh

Inactive Landfill No. 3

March 2020 Sampling Event

Well ID	Total Depth (ft BTOC)	June 18, 2020 Revised Top of Casing Elevation (NAVD)	March 9, 2020 Depth to Water (ft BTOC)	March 9, 2020 Groundwater Elevation (NAVD)
GWA-1	56.08	66.90	6.21	60.69
GWA-1A	37.36	66.76	7.42	59.34
GWA-2	38.74	66.17	7.78	58.39
GWA-2A	67.35	66.33	12.90	53.43
GWA-2B	63.09	66.20	12.85	53.35
GWA-3A	41.93	62.77	7.70	55.07
GWA-3B	39.70	62.78	3.95	58.83
GWA-4	42.29	62.01	7.16	54.85
GWA-5	52.56	60.43	5.35	55.08
GWA-7	43.05	67.77	11.42	56.35
GWA-7A	53.09	67.92	15.98	51.94
GWC-1	55.81	66.08	11.30	54.78
GWC-2	52.90	64.19	10.13	54.06
GWC-3	26.76	66.91	See Note 3	See Note 3
GWC-4A	41.50	66.60	11.80	54.80
GWC-4B	28.87	66.83	8.94	57.89
GWC-5	42.39	68.08	10.55	57.53
GWC-6	45.12	68.51	14.12	54.39
PZ-1	41.70	67.41	14.80	52.61
PZ-2	72.70	67.26	13.13	54.13
PZ-3	54.77	61.28	6.65	54.63

Notes:

1. ft BTOC indicates feet below top of casing.
2. NAVD88 indicates feet relative to North American Vertical Datum of 1988.
3. Well GWC-3 was submerged in March 2020 and could not be sampled. Well is proposed for abandonment.
4. March 9, 2020 Groundwater Elevations reference June 18, 2020 re-survey data.

ATLANTIC COAST CONSULTING, INC.

200 0 100 200

SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
GWC-1 54.78	NETWORK MONITORING WELL GROUNDWATER ELEVATION
PZ-1 52.61	PIEZOMETER GROUNDWATER ELEVATION
	GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

NOTES:

1. GWA-1, GWA-1A, GWA-2, GWA-2A, GWA-3B, GWC-3, GWC-4B, GWC-5, AND GWA-7 NOT USED TO CALCULATE POTENTIOMETRIC CONTOURS.
2. GWA-1, GWA-2, GWA-2A, GWA-3B, GWC-3, GWC-4B, AND GWA-7 ARE PROPOSED FOR ABANDONMENT.

EVAN B. PERRY ★ GEORGIA REGISTERED PROFESSIONAL GEOLOGIST ★ No. 1744

PROJECT

Georgia Power

GEORGIA POWER COMPANY
PLANT McINTOSH
INACTIVE LANDFILL No. 3

POTENTIOMETRIC CONTOUR MAP MARCH 2020

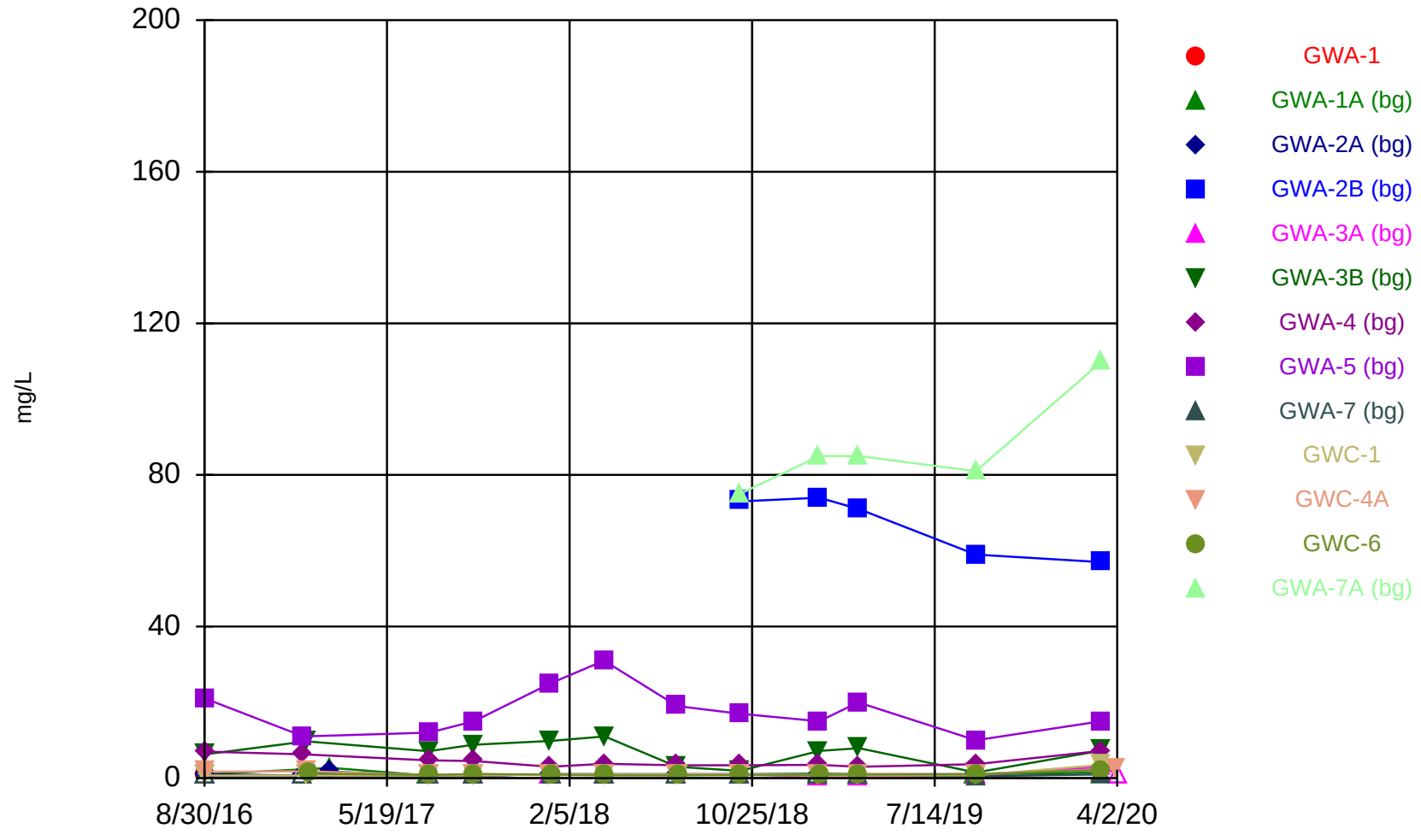
PROJECT NO. I054-110 Sept. 2020

DRAWN BY:	MM	FIGURE:
CHECKED BY:	EP	2

\\ATLANTA1\Projects\Industrial\054--Southern Company\110--Groundwater Consulting Services\Plant McIntosh\2--LF-3 GW Sampling And Reporting\2020 LF-3 GWA\2020 1st SA\DWG\Plant McIntosh LF-3 March 2020 Map.dwg 7/15/20 EVAN PERRY

Sanitas™ v.9.6.26 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Figure 3. Site-Wide Sulfate Time Series



Constituent: Sulfate

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Figure 4. GWC-5 Groundwater Elevation and Specific Conductance Time Series

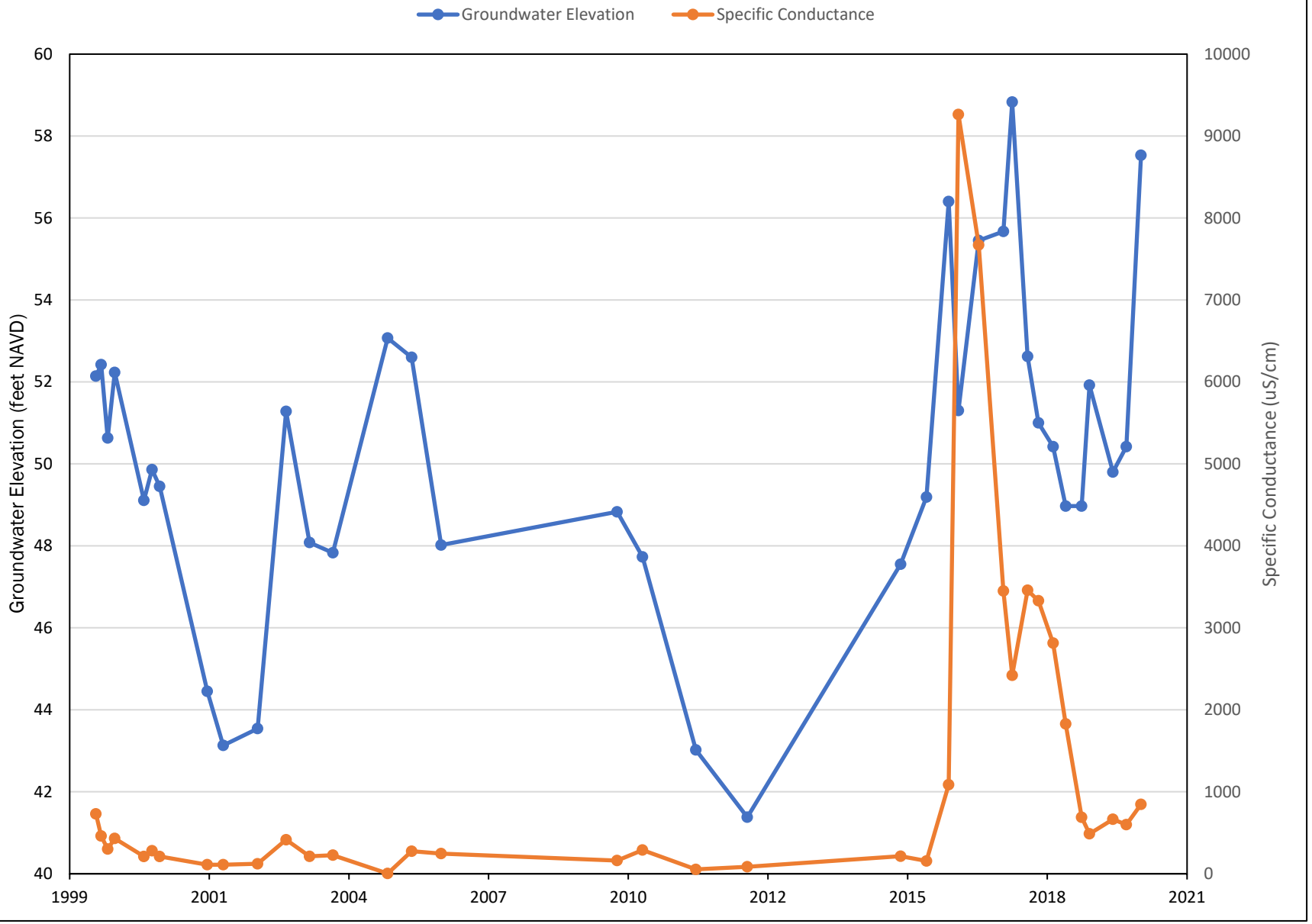


Figure 5. GWC-5 TDS Time Series

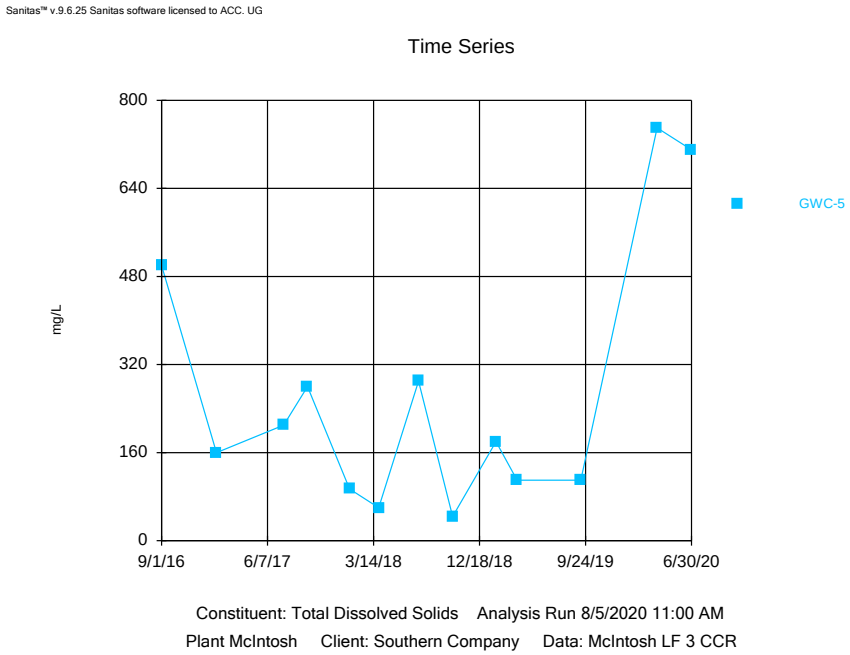
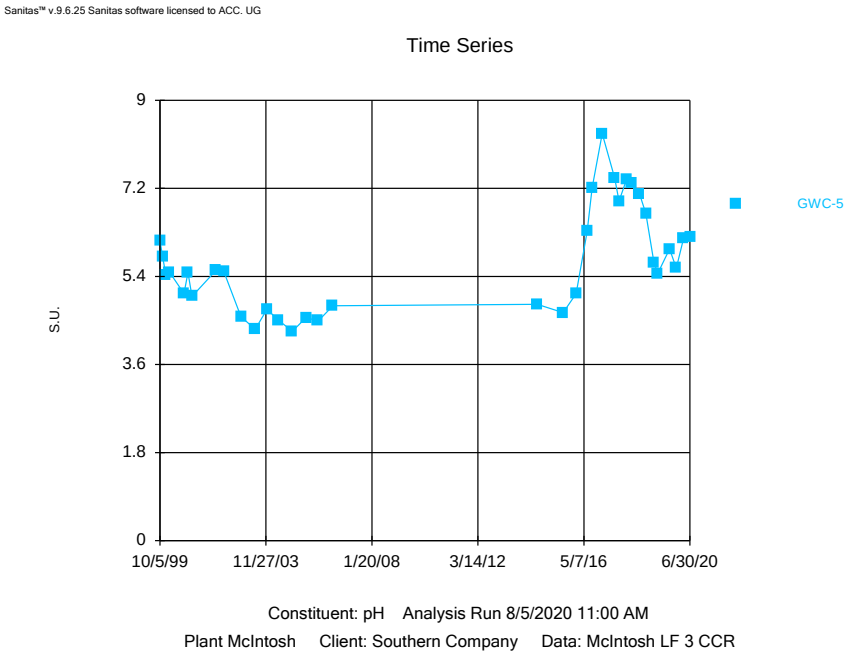


Figure 6. GWC-5 pH Time Series



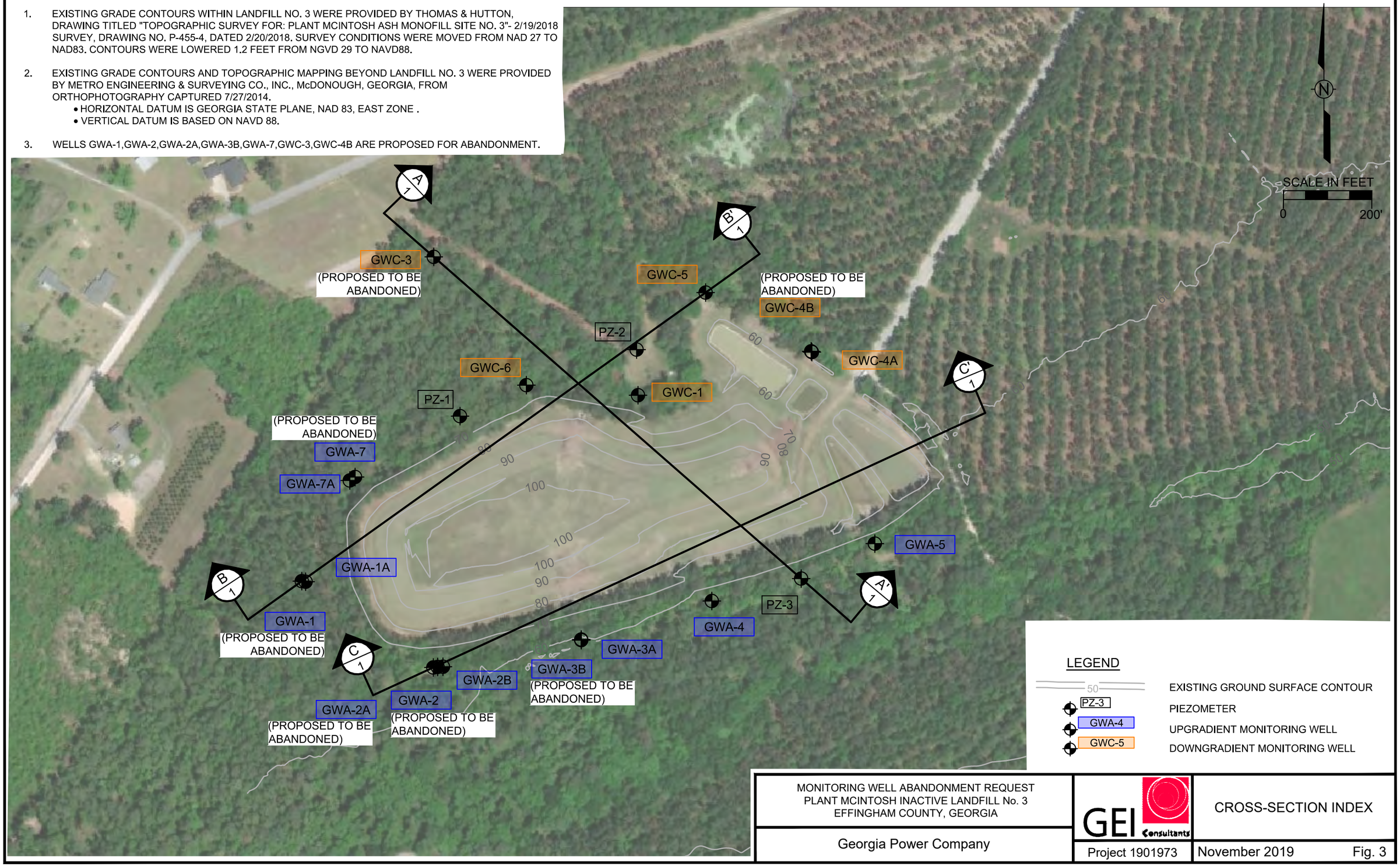
ATTACHMENT A

NOTES:

1. EXISTING GRADE CONTOURS WITHIN LANDFILL NO. 3 WERE PROVIDED BY THOMAS & HUTTON, DRAWING TITLED "TOPOGRAPHIC SURVEY FOR: PLANT MCINTOSH ASH MONOFILL SITE NO. 3"- 2/19/2018 SURVEY, DRAWING NO. P-455-4, DATED 2/20/2018. SURVEY CONDITIONS WERE MOVED FROM NAD 27 TO NAD83. CONTOURS WERE LOWERED 1.2 FEET FROM NGVD 29 TO NAVD88.

2. EXISTING GRADE CONTOURS AND TOPOGRAPHIC MAPPING BEYOND LANDFILL NO. 3 WERE PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC., McDONOUGH, GEORGIA, FROM ORTHOPHOTOGRAPHY CAPTURED 7/27/2014.
   - HORIZONTAL DATUM IS GEORGIA STATE PLANE, NAD 83, EAST ZONE .
   - VERTICAL DATUM IS BASED ON NAVD 88.

3. WELLS GWA-1,GWA-2,GWA-2A,GWA-3B,GWA-7,GWC-3,GWC-4B ARE PROPOSED FOR ABANDONMENT.



LEGEND

- 50 — EXISTING GROUND SURFACE CONTOUR
- PZ-3 — PIEZOMETER
- GWA-4 — UPGRADIENT MONITORING WELL
- GWC-5 — DOWNGRADIENT MONITORING WELL

MONITORING WELL ABANDONMENT REQUEST
PLANT MCINTOSH INACTIVE LANDFILL No. 3
EFFINGHAM COUNTY, GEORGIA

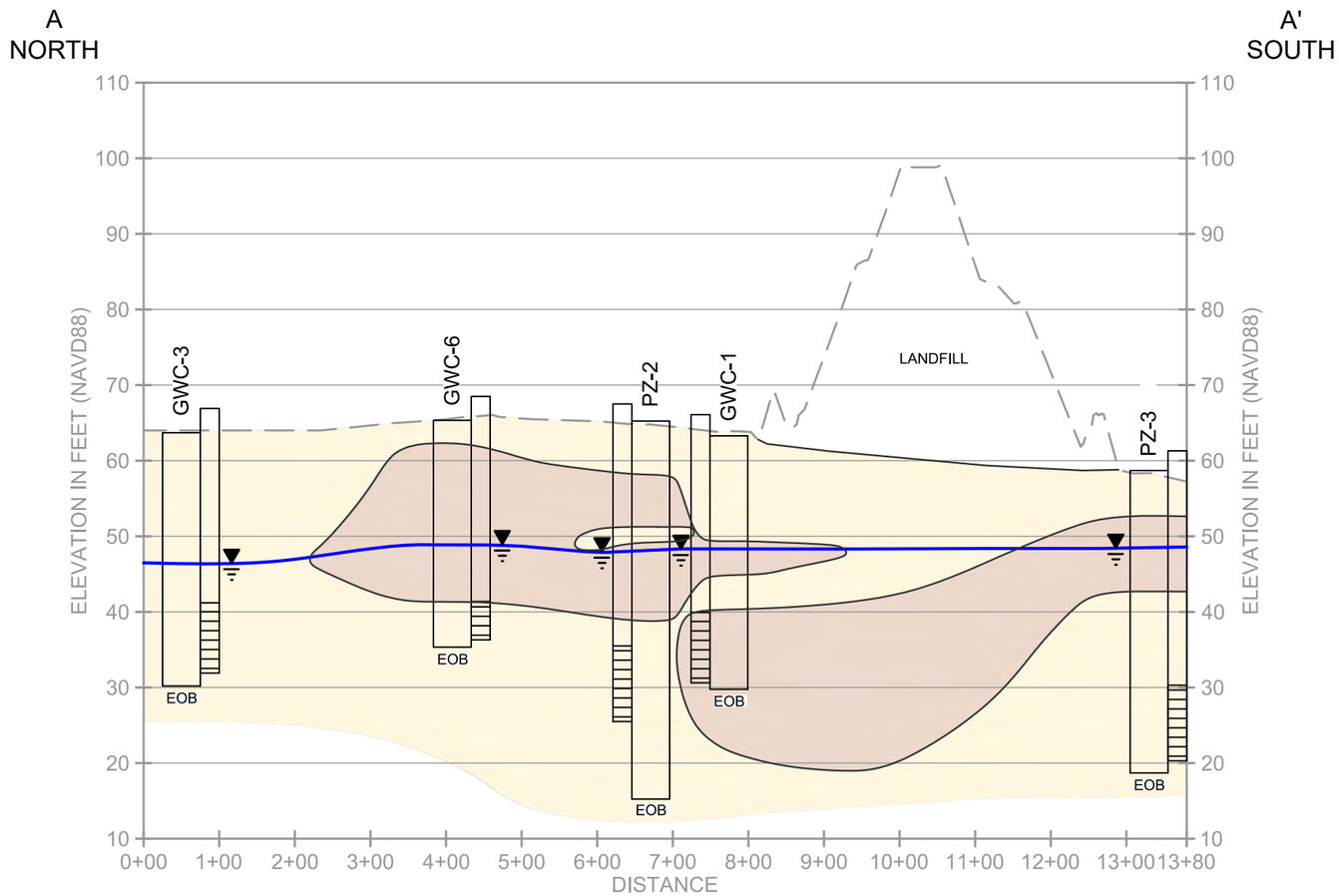
Georgia Power Company

GEI Consultants

CROSS-SECTION INDEX

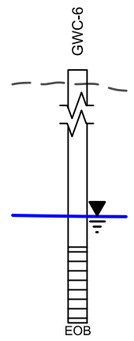
Project 1901973 | November 2019 | Fig. 3

J:\Landfills\Georgia Power\McIntosh\1901973_lf3 xs gw\1901973002 lf3 xs gw INDEX



CROSS-SECTION A-A'
SCALE: HORIZ. 1"=200'
VERT. 1"=20'

LEGEND



PIEZOMETER OR MONITORING WELL

GROUND SURFACE

GROUNDWATER ELEVATION (9/9/2019)

SCREEN INTERVAL

END OF BORING

SAND, SILTY SAND, CLAYEY SAND

SILT

CLAY, SANDY CLAY

NOTES:
1. GROUNDWATER ELEVATION (9/9/2019)
2. WELLS GWA-1,GWA-2,GWA-2A,GWA-3B,GWA-7,GWC-3, GWC-4B ARE PROPOSED FOR ABANDONMENT

SCALE IN FEET
20'
0

SCALE IN FEET
0
200'

MONITORING WELL ABANDONMENT REQUEST
PLANT MCINTOSH INACTIVE LANDFILL No. 3
EFFINGHAM COUNTY, GEORGIA

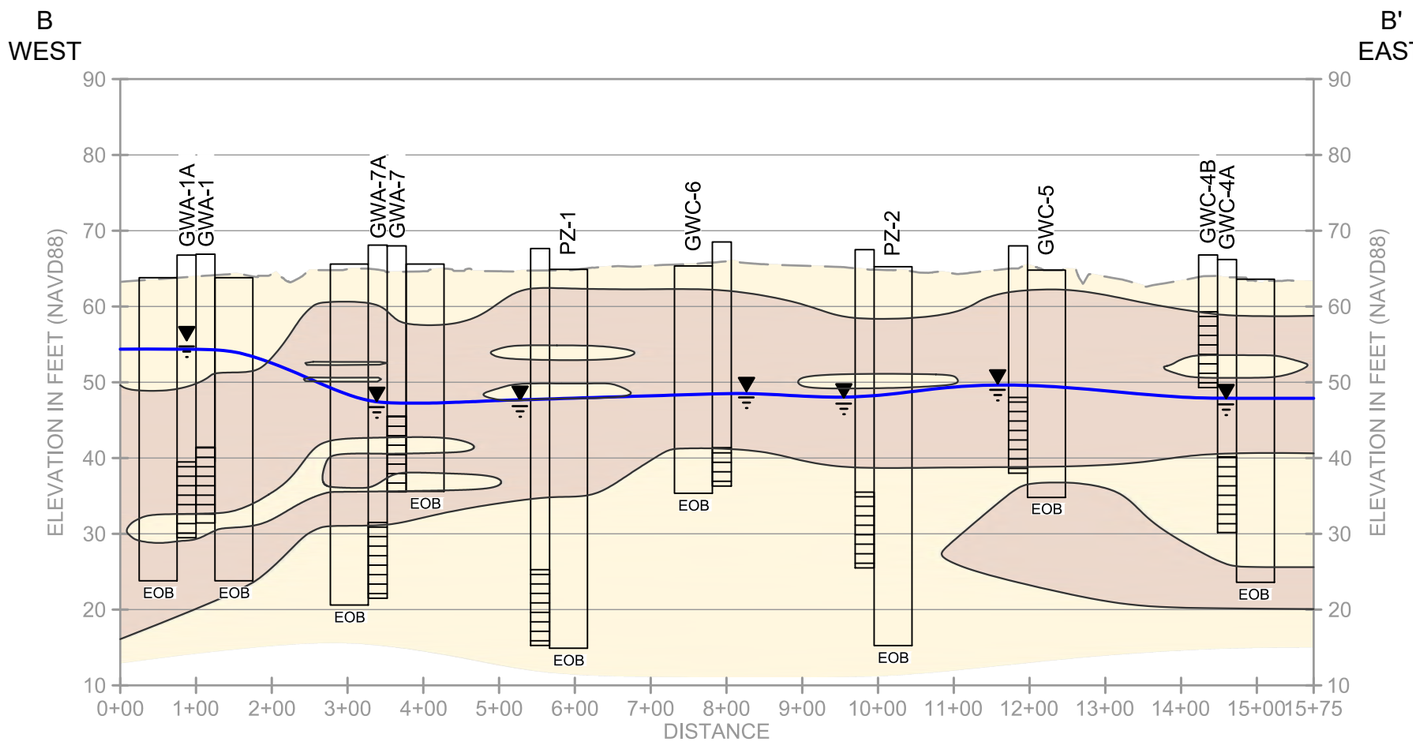
Georgia Power Company

GEI Consultants

CROSS-SECTION A-A'

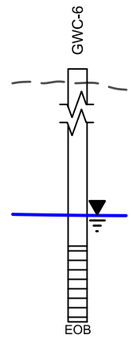
Project 1901973 | November 2019 | Fig. 4

J:\Landfills\Georgia Power\McIntosh\1901973_lf3 xs gw\1901973001 lf3 xs gw



CROSS-SECTION B-B'
SCALE: HORIZ. 1"=200'
VERT. 1"=20'

LEGEND



PIEZOMETER OR MONITORING WELL

GROUND SURFACE

GROUNDWATER ELEVATION (9/9/2019)

SCREEN INTERVAL

END OF BORING

SAND, SILTY SAND, CLAYEY SAND

SILT

CLAY, SANDY CLAY

NOTES:
1. GROUNDWATER ELEVATION (9/9/2019)
2. WELLS GWA-1,GWA-2,GWA-2A,GWA-3B,GWA-7,GWC-3, GWC-4B ARE PROPOSED FOR ABANDONMENT

SCALE IN FEET
20'
0

SCALE IN FEET
0
200'

MONITORING WELL ABANDONMENT REQUEST
PLANT MCINTOSH INACTIVE LANDFILL No. 3
EFFINGHAM COUNTY, GEORGIA

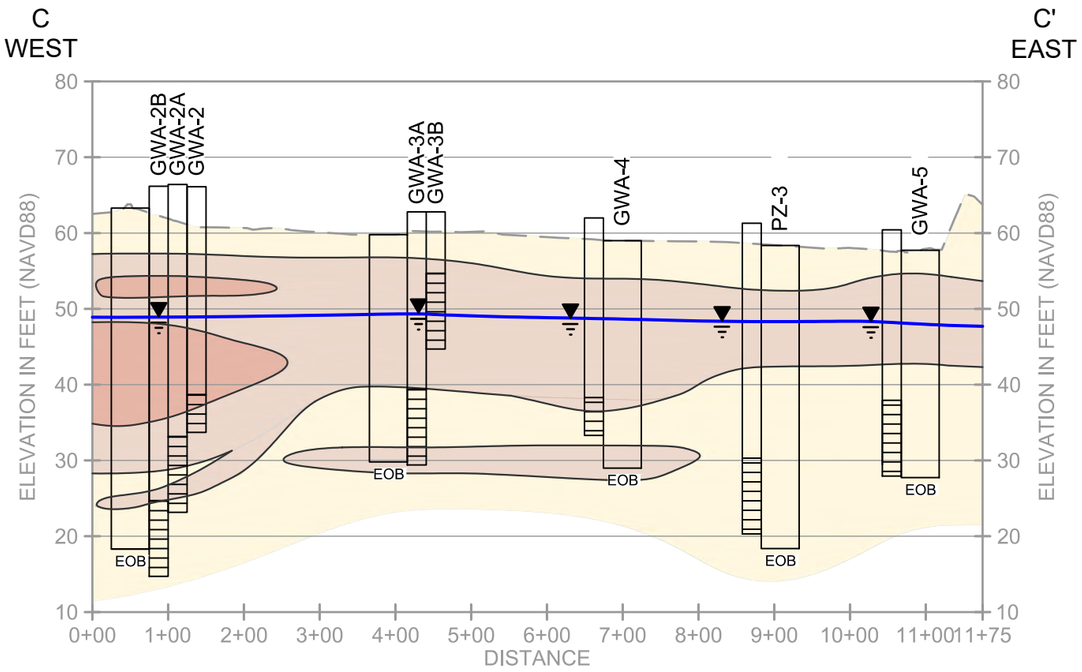
Georgia Power Company

GEI Consultants

CROSS-SECTION B-B'

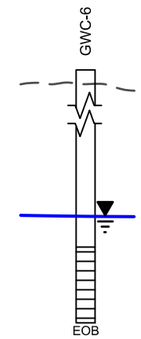
Project 1901973 | November 2019 | Fig. 5

J:\Landfills\Georgia Power\McIntosh\1901973_lf3 xs gw\1901973001 lf3 xs gw



CROSS-SECTION C-C'
SCALE: HORIZ. 1"=200'
VERT. 1"=20'

LEGEND



PIEZOMETER OR MONITORING WELL

GROUND SURFACE

GROUNDWATER ELEVATION (9/9/2019)

SCREEN INTERVAL

END OF BORING

SAND, SILTY SAND, CLAYEY SAND

SILT

CLAY, SANDY CLAY

NOTES:
1. GROUNDWATER ELEVATION (9/9/2019)
2. WELLS GWA-1,GWA-2,GWA-2A,GWA-3B,GWA-7,GWC-3, GWC-4B ARE PROPOSED FOR ABANDONMENT

SCALE IN FEET
0 20'

SCALE IN FEET
0 200'

MONITORING WELL ABANDONMENT REQUEST
PLANT MCINTOSH INACTIVE LANDFILL No. 3
EFFINGHAM COUNTY, GEORGIA

Georgia Power Company

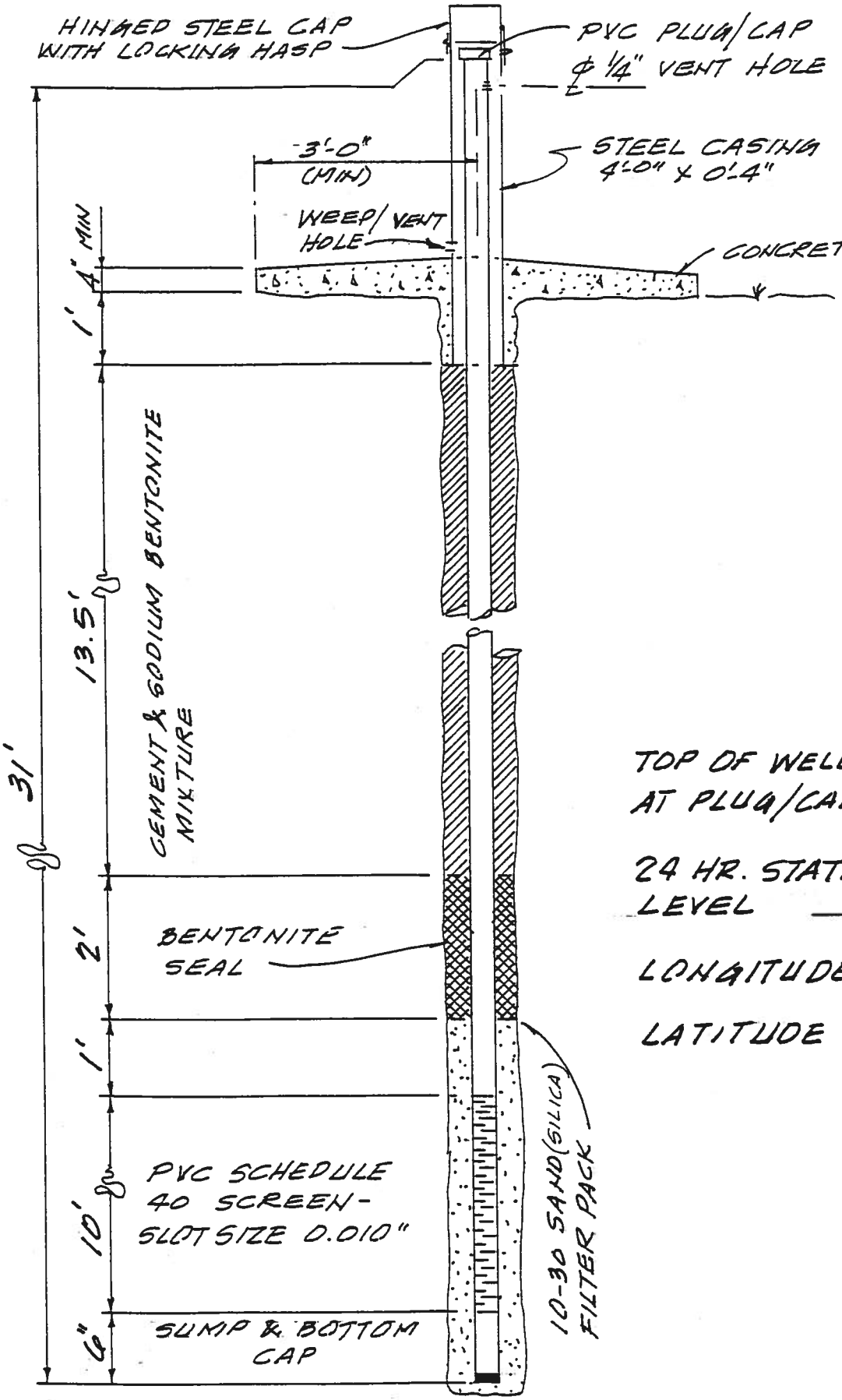
GEI Consultants

CROSS-SECTION C-C'

Project 1901973 | November 2019 | Fig. 6

J:\Landfills\Georgia Power\McIntosh\1901973_lf3 xs gw\1901973001 lf3 xs gw

WELL Nº GWC-5



TOP OF WELL ELEVATION AT PLUG/CAP _____

24 HR. STATIC WATER LEVEL 21.49

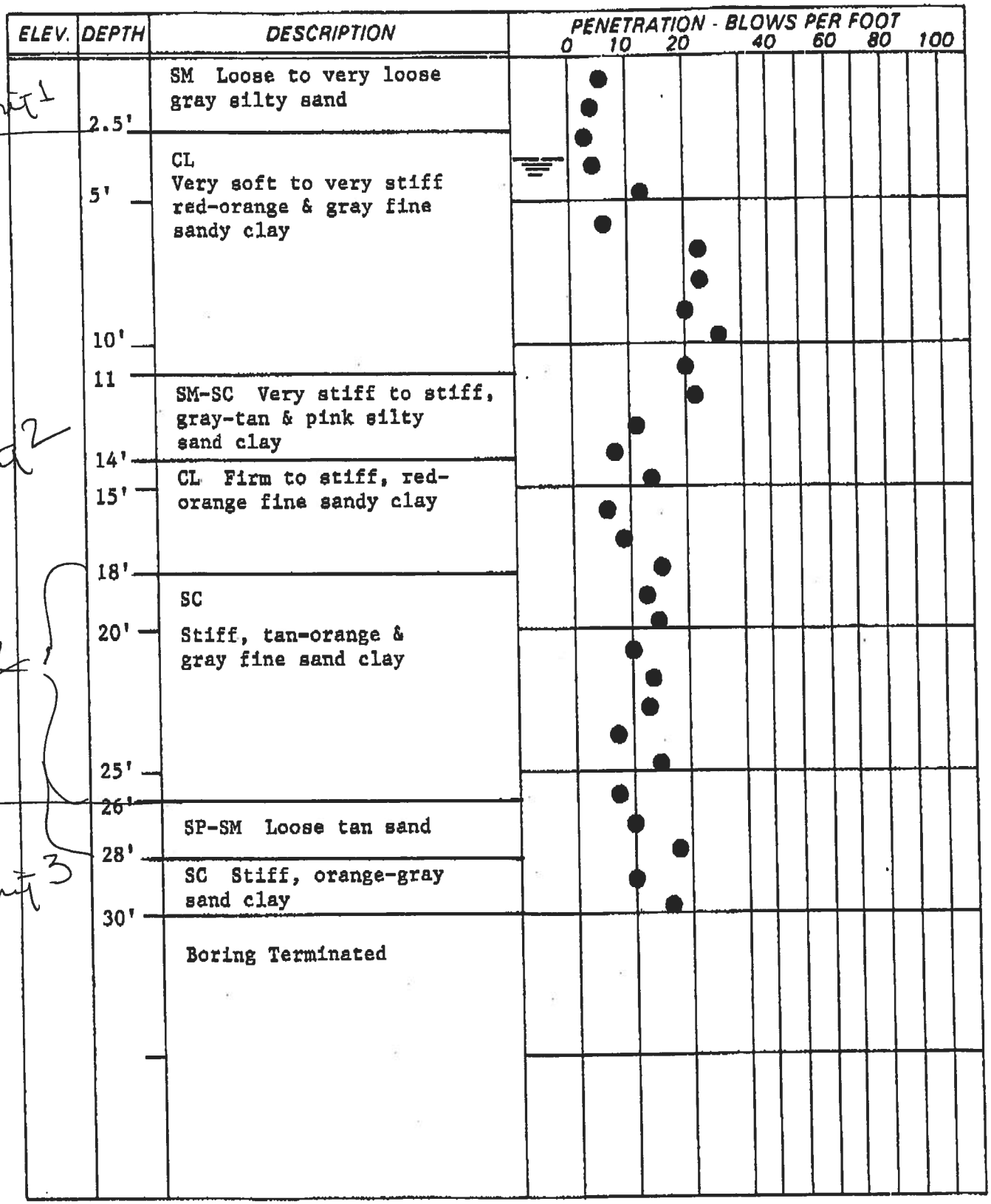
LONGITUDE _____

LATITUDE _____

SCALE: 1/2" = 1'-0" VERT.
1" = 1'-0" HORZ

TEST BORING RECORD

FIELD CLASSIFIED



Penetration is number of blows of 140 lb. hammer falling 30 in. required to drive 2.0 in. O.D. sampler one foot.

BORING NO. G.W.C.-5

WHITAKER LABORATORY, INC.

JOB SEPCO Plant McIntosh

DATE 5/5/98

ATTACHMENT B

Low-Flow Test Report:

Test Date / Time: 6/30/2020 10:21:09 AM
Project: Plant McIntosh - Landfill #3
Operator Name: J. Berisford

Location Name: GWC-5 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 20.96 ft** **Total Depth: 30.59 ft** **Initial Depth to Water: 16.31 ft**	**Pump Type: Peri pump** **Tubing Type: Poly** **Pump Intake From TOC: 25 ft** **Estimated Total Volume Pumped: 56500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 143.88 in**	**Instrument Used: Aqua TROLL 400** **Serial Number: 714344**

Test Notes:
Sunny, sample time 1350

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
6/30/2020 10:21 AM	00:00	4.62 pH	34.12 °C	0.14 µS/cm	7.09 mg/L		79.6 mV		200.00 ml/min
6/30/2020 10:26 AM	05:00	6.70 pH	25.01 °C	1,129.3 µS/cm	4.57 mg/L	1.93 NTU	152.2 mV	17.40 ft	200.00 ml/min
6/30/2020 10:31 AM	10:00	6.42 pH	25.47 °C	1,167.0 µS/cm	1.89 mg/L	1.19 NTU	162.5 mV	18.20 ft	200.00 ml/min
6/30/2020 10:36 AM	15:00	6.39 pH	23.34 °C	1,235.0 µS/cm	0.31 mg/L	1.38 NTU	170.5 mV	18.70 ft	200.00 ml/min
6/30/2020 10:41 AM	20:00	6.37 pH	23.32 °C	1,212.4 µS/cm	0.19 mg/L	1.22 NTU	161.2 mV	19.00 ft	200.00 ml/min
6/30/2020 10:46 AM	25:00	6.37 pH	23.83 °C	1,200.9 µS/cm	0.20 mg/L	1.59 NTU	159.8 mV	19.20 ft	200.00 ml/min
6/30/2020 10:51 AM	30:00	6.36 pH	24.70 °C	1,239.1 µS/cm	0.26 mg/L	1.39 NTU	167.1 mV	19.30 ft	200.00 ml/min
6/30/2020 10:56 AM	35:00	6.36 pH	25.67 °C	1,202.5 µS/cm	0.27 mg/L	1.33 NTU	167.9 mV	19.50 ft	200.00 ml/min
6/30/2020 11:01 AM	40:00	6.37 pH	24.00 °C	1,194.6 µS/cm	0.19 mg/L	1.48 NTU	158.4 mV	19.80 ft	200.00 ml/min
6/30/2020 11:06 AM	45:00	6.36 pH	23.92 °C	1,204.3 µS/cm	0.19 mg/L	1.51 NTU	156.8 mV	20.00 ft	200.00 ml/min
6/30/2020 11:11 AM	50:00	6.36 pH	24.18 °C	1,180.6 µS/cm	0.20 mg/L	1.65 NTU	155.7 mV	20.30 ft	200.00 ml/min
6/30/2020 11:16 AM	55:00	6.36 pH	24.15 °C	1,193.9 µS/cm	0.21 mg/L	1.11 NTU	154.4 mV	20.50 ft	200.00 ml/min
6/30/2020 11:21 AM	01:00:00	6.36 pH	24.05 °C	1,187.3 µS/cm	0.21 mg/L	1.29 NTU	153.3 mV	20.50 ft	200.00 ml/min
6/30/2020 11:26 AM	01:05:00	6.36 pH	22.13 °C	1,161.8 µS/cm	0.16 mg/L	2.75 NTU	163.1 mV	22.00 ft	500.00 ml/min
6/30/2020 11:31 AM	01:10:00	6.35 pH	21.72 °C	1,141.4 µS/cm	0.19 mg/L	1.06 NTU	152.1 mV	22.90 ft	500.00 ml/min

6/30/2020 11:36 AM	01:15:00	6.32 pH	21.81 °C	1,126.9 µS/cm	0.22 mg/L	2.92 NTU	161.0 mV	23.60 ft	500.00 ml/min
6/30/2020 11:41 AM	01:20:00	6.03 pH	21.81 °C	759.12 µS/cm	0.14 mg/L	5.22 NTU	149.2 mV	24.20 ft	500.00 ml/min
6/30/2020 11:46 AM	01:25:00	5.88 pH	22.17 °C	564.08 µS/cm	0.14 mg/L	29.00 NTU	142.4 mV	24.80 ft	500.00 ml/min
6/30/2020 11:51 AM	01:30:00	6.02 pH	23.94 °C	626.56 µS/cm	0.17 mg/L	44.00 NTU	141.4 mV	25.20 ft	200.00 ml/min
6/30/2020 11:56 AM	01:35:00	6.15 pH	23.43 °C	763.63 µS/cm	0.21 mg/L	60.00 NTU	142.2 mV	25.20 ft	200.00 ml/min
6/30/2020 12:01 PM	01:40:00	6.15 pH	22.84 °C	828.49 µS/cm	0.46 mg/L	73.00 NTU	141.3 mV	26.00 ft	300.00 ml/min
6/30/2020 12:06 PM	01:45:00	6.16 pH	22.93 °C	815.04 µS/cm	2.07 mg/L	29.00 NTU	150.6 mV	26.80 ft	300.00 ml/min
6/30/2020 12:11 PM	01:50:00	6.27 pH	22.93 °C	982.47 µS/cm	1.86 mg/L	18.00 NTU	152.4 mV	27.60 ft	300.00 ml/min
6/30/2020 12:16 PM	01:55:00	6.33 pH	23.18 °C	1,078.4 µS/cm	1.34 mg/L	11.00 NTU	152.5 mV	28.00 ft	300.00 ml/min
6/30/2020 12:21 PM	02:00:00	6.33 pH	23.35 °C	1,046.6 µS/cm	1.74 mg/L	7.39 NTU	142.9 mV	28.50 ft	300.00 ml/min
6/30/2020 12:26 PM	02:05:00	6.34 pH	23.85 °C	1,038.2 µS/cm	2.15 mg/L	4.49 NTU	150.9 mV	28.90 ft	300.00 ml/min
6/30/2020 12:31 PM	02:10:00	6.33 pH	24.20 °C	1,009.0 µS/cm	2.43 mg/L	2.29 NTU	141.6 mV	28.90 ft	250.00 ml/min
6/30/2020 12:36 PM	02:15:00	6.33 pH	24.60 °C	1,007.6 µS/cm	2.39 mg/L	2.73 NTU	140.5 mV	28.90 ft	250.00 ml/min
6/30/2020 12:41 PM	02:20:00	6.27 pH	24.51 °C	869.17 µS/cm	3.09 mg/L	2.11 NTU	139.6 mV	28.80 ft	250.00 ml/min
6/30/2020 12:46 PM	02:25:00	6.24 pH	24.24 °C	836.86 µS/cm	3.47 mg/L	1.94 NTU	138.7 mV	28.70 ft	250.00 ml/min
6/30/2020 12:51 PM	02:30:00	6.23 pH	24.53 °C	829.21 µS/cm	3.56 mg/L	1.85 NTU	138.0 mV	28.70 ft	250.00 ml/min
6/30/2020 12:56 PM	02:35:00	6.22 pH	24.63 °C	830.88 µS/cm	3.66 mg/L	2.10 NTU	137.1 mV	28.60 ft	250.00 ml/min
6/30/2020 1:01 PM	02:40:00	6.24 pH	25.50 °C	836.64 µS/cm	4.24 mg/L	1.83 NTU	143.7 mV	28.60 ft	250.00 ml/min
6/30/2020 1:06 PM	02:45:00	6.22 pH	25.35 °C	823.48 µS/cm	3.57 mg/L	0.83 NTU	145.7 mV	28.50 ft	250.00 ml/min
6/30/2020 1:11 PM	02:50:00	6.22 pH	24.91 °C	832.03 µS/cm	3.58 mg/L	0.78 NTU	146.6 mV	28.50 ft	250.00 ml/min
6/30/2020 1:16 PM	02:55:00	6.22 pH	24.89 °C	845.73 µS/cm	3.60 mg/L	0.95 NTU	146.5 mV	28.50 ft	250.00 ml/min
6/30/2020 1:21 PM	03:00:00	6.22 pH	24.91 °C	835.67 µS/cm	3.53 mg/L	0.55 NTU	138.2 mV	28.40 ft	250.00 ml/min
6/30/2020 1:26 PM	03:05:00	6.22 pH	24.60 °C	845.25 µS/cm	3.55 mg/L	0.59 NTU	137.4 mV	28.40 ft	250.00 ml/min
6/30/2020 1:31 PM	03:10:00	6.21 pH	25.01 °C	845.15 µS/cm	3.65 mg/L	0.72 NTU	136.3 mV	28.40 ft	250.00 ml/min
6/30/2020 1:36 PM	03:15:00	6.21 pH	25.36 °C	852.28 µS/cm	3.51 mg/L	0.82 NTU	135.7 mV	28.40 ft	250.00 ml/min
6/30/2020 1:41 PM	03:20:00	6.21 pH	24.96 °C	861.13 µS/cm	3.54 mg/L	0.59 NTU	135.3 mV	28.30 ft	250.00 ml/min
6/30/2020 1:46 PM	03:25:00	6.21 pH	25.14 °C	844.75 µS/cm	3.58 mg/L	0.64 NTU	143.4 mV	28.30 ft	250.00 ml/min
6/30/2020 1:51 PM	03:30:00	6.20 pH	25.07 °C	835.50 µS/cm	3.55 mg/L	0.51 NTU	135.1 mV	28.30 ft	250.00 ml/min



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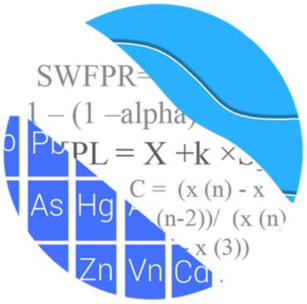
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APPENDIX D

STATISTICAL ANALYSIS REPORTS

GROUNDWATER STATS CONSULTING



February 23, 2021

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant McIntosh Landfill #3
Statistical Analysis – September 2020 Semi- Annual Sample Event

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of the September 2020 semi-annual sample event for Georgia Power Company's Plant McIntosh Landfill #3. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for the CCR program in 2016, and sampling for 16 parameters in accordance with the Georgia EPD's Solid Waste Permit began for some wells in 1999. Semi-annual sampling for select constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations; and all available data are screened in this report.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** GWA-1A, GWA-2B, GWA-3A, GWA-4, GWA-5, and GWA-7A
- **Downgradient wells:** GWC-1, GWC-2, GWC-4A, GWC-5 and GWC-6

At least 8 background samples have been collected at each of the groundwater monitoring wells except for upgradient wells GWA-2B and GWA-7A which have insufficient data for calculation of prediction limits. Additionally, during this sample event, well GWC-3 was inaccessible; therefore, no prediction limits are included for this well in this report. Upgradient wells GWA-2A, GWA-3B, GWA-7 and downgradient wells GWC-3 and GWC-4B were removed from the monitoring program prior to the September 2020 sampling event.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The analysis is prepared according to the recommended statistical methodology prepared in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance.

The following constituents were evaluated in this report:

- **CCR Appendix III -** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Georgia EPD -** barium, beryllium, chromium, cobalt, copper, lead, vanadium, and zinc

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of well/constituent pairs with 100% nondetects follows this letter.

Due to varying detection limits in background data sets, generally due to improved laboratory practices, a substitution of the most recent reporting limit is used for all nondetects when computing prediction limits. Note that for calculation of intrawell prediction limits, substitution of the most recent reporting limit is performed separately for each well/parameter pair. In some cases, the reporting limit provided by the laboratory contained varying limits for a given parameter; therefore, the substitution may differ from well to well. This generally gives the most conservative limit in each case. In the time series plots, however, no substitutions are made. The data are printed and plotted as originally recorded.

Time series plots for reported Appendix III (CCR) and IV (Georgia EPD) parameters are provided for all wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

Data at all wells were evaluated during the background screening in 2019 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 are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below, and were based on the following:

CCR Appendix III Constituents:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan – (chloride, pH, sulfate, TDS)
- Interwell Prediction Limits with 1-of-2 resample plan – (boron, calcium, fluoride)
- # Constituents: 7
- # Downgradient wells: 5

Georgia EPD Constituents:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan (Georgia EPD constituents)
- # Constituents: 7
- # Downgradient wells: 5

Summary of CCR Appendix III Background Screening Conducted in 2019

Outlier and Trend Testing

Time series plots are 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 (as well as Appendix IV) parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

When suspected outliers were evaluated using the Tukey box plot method, several outliers were identified. Those findings were submitted with the screening report, and a summary of flagged values follows this letter (Figure C). Note that for some well/constituent pairs,

the test identified multiple outliers. However, in many of those cases, only the highest value(s) were flagged as outliers as the remaining values were similar to other measurements within the same well or neighboring wells. In other cases, the test did not identify an outlier; however, the highest measurement(s) did not appear to represent the population and were flagged as outliers in the database to establish limits that are conservative from a regulatory perspective.

When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

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.

While trends may be visually apparent, 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 are 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 several statistically significant decreasing trends and two statistically significant increasing trends in upgradient wells for the Appendix III parameters. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets. Trend test results were included with the screening report.

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 identified no variation among upgradient well data for the following Appendix III parameters: boron and fluoride, making these constituents eligible for interwell analyses. Variation was noted for calcium, chloride, pH, sulfate, and TDS. These constituents were further evaluated as described below for the appropriateness of intrawell testing. A summary table of the ANOVA results was included with the screening report.

Appendix III – Intrawell Method Eligibility Screening

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are conservative (i.e. lower) from a regulatory perspective, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Prior to performing intrawell prediction limits, several steps are required to reasonably demonstrate downgradient water quality does not have existing impacts from the practices of the facility.

For all Appendix III parameters recommended for intrawell analyses, exploratory data analysis was used as a general comparison of concentrations in downgradient wells to concentrations reported in upgradient wells. Upper tolerance limits were used in conjunction with confidence intervals to determine whether the estimated averages in downgradient wells are higher than observed levels upgradient of the facility. The upper tolerance limits were constructed to represent the extreme upper range of possible background levels at the site. Two-sided tolerance limits were included for pH and represent both the upper and lower ranges of possible measurements in background wells.

In cases where downgradient average concentrations are higher than observed upgradient concentrations for a given constituent, an independent study and hydrogeological investigation would be required to identify local geochemical conditions and expected groundwater quality for the region to justify an intrawell approach. Such

an assessment is beyond the scope of services provided by Groundwater Stats Consulting. When there is not an obvious explanation for observed concentration differences in downgradient wells relative to reported concentrations in upgradient wells, interwell prediction limits will initially be selected for the statistical method until further evidence shows that concentrations are due to natural variation rather than a result of the facility.

Parametric tolerance limits were constructed with a target of 99% confidence and 95% coverage using pooled upgradient well data for each of the Appendix III parameters recommended for intrawell analyses. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As more data are collected, the background population is better represented, and the confidence and coverage levels increase.

Confidence intervals were constructed on downgradient wells for each of the Appendix III parameters exhibiting spatial variation, using the tolerance limits discussed above, to determine intrawell eligibility. When the entire confidence interval is above a background standard for a given parameter, interwell methods are initially recommended as the statistical method. Note that this screening identifies whether confidence intervals are above a background standard but does not identify the reason for this occurrence. Therefore, only the wells/parameters with confidence intervals which did not exceed background standards are eligible for intrawell prediction limits.

For parameters where intrawell analyses are recommended, no confidence interval exceedances were noted for chloride, pH, sulfate, and TDS. The confidence interval for calcium at well GWC-5 slightly exceeded its respective limit.

Therefore, based on the above screening, interwell methods are initially recommended for boron, calcium, and fluoride while intrawell methods are recommended for chloride, pH, sulfate, and TDS. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background. If further evaluation confirms natural variation in groundwater rather than impacts of the facility, intrawell methods will be considered for parameters currently recommended for interwell methods.

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 will be necessary to

accommodate these types of changes. In the interwell case, newer data will be included during each sample event after careful screening for new outliers in upgradient wells. In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion of data are deselected prior to construction of limits in order to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

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; therefore, no further action is necessary.

- The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. The following approaches are used for handling nondetects (USEPA, 2009):No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Two-Step Statistical Analysis

Intrawell statistical methods, combined with a 1-of-2 resample plan, may be used as a conservative first step for identifying potential facility impacts in downgradient wells.

Intrawell methods use background data for individual wells and may be overly sensitive to natural variation. In particular for nonparametric limits with small background sample sizes, the probability of a false positive is much higher than the desired annual sitewide rate of 10%. Therefore, a large number of exceedances may occur as a result of natural variation rather than facility impacts. A second step can be used to further evaluate those exceedances and reduce the overall number of SSIs that result from natural variation. In instances where intrawell statistical methods identify an apparent SSI, a second step of interwell statistical evaluation may be used to determine whether the measurement exceeds the sitewide background limit based on pooled upgradient well data. This is similar in concept to the procedure used in compliance monitoring programs where an interwell statistical limit is used to determine "background" (USEPA Unified Guidance (2009), Chapter 7, Section 7.5). For the detection monitoring program, if the result does not exceed sitewide (interwell) background, an SSI is not declared.

When the result exceeds the sitewide (interwell) background, the 1-of-2 resample plan allows for collection of an independent resample to confirm or disconfirm the initial finding. A statistically significant increase is not declared unless the resample also exceeds the intrawell prediction limit (United States Environmental Protection Agency (USEPA) Unified Guidance, March 2009, Chapter 19). When the resample confirms the initial exceedance, 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). When any resample falls within the statistical limit, the initial exceedance is considered to be a false positive result, and no further action is necessary. In cases where intrawell and interwell exceedances are noted and no resamples are collected, the initial exceedance will be considered a confirmed statistically significant increase (SSI).

Trend tests, in addition to interwell prediction limits, are recommended for well/constituent pairs found to have an initial intrawell SSI. Trend analysis will provide for detection of long-term changes and potential facility impacts at a given well in cases where the concentrations at that well remain below the sitewide upgradient limits. Thus, the two-step approach has additional capability to detect long-term changes at downgradient wells compared to interwell methods alone. While a trend may be identified by visual inspection, a quantification of the trend and its significance is needed to identify whether concentrations are statistically significantly increasing, decreasing, or remaining stable over time. The absence of a statistically significant increasing trend indicates that an initial intrawell exceedance is short-term and may be the result of natural variation rather than facility impact to groundwater. If a facility impact has occurred, it will likely result in additional exceedances in future sampling events. When a statistically significant increasing trend is noted, additional data may be needed to provide

reasonable evidence that the initial intrawell statistical exceedance is a result of natural variation rather than facility impact.

Summary of Background Screening for Georgia EPD Constituents - Conducted in 2019

Outliers

Time series plots are used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, a few outliers were identified. Those findings were included in the screening report, and a summary of flagged values follows this letter (Figure C). As a general rule, when the most recent values are identified as outliers, values are not flagged in the database at that time (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Due to changing reporting limits for many constituents, when the nondetects are replaced with the most recent reporting limit, previously flagged "J" values (or estimated values) may require flagging as outliers if they are much higher than current reporting limits. Additionally, in some cases historical nondetects require flagging because the reporting limit substitution results in these values being considerably higher than reported values. Of the outliers identified by Tukey's method, several values were flagged in the database, and the remaining values were similar to other measurements within a given well or neighboring wells or were reported nondetects. Several other values were flagged in addition to those identified by Tukey's because the values were higher than all remaining concentrations and would cause the statistical limits to be elevated.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Testing

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits. The results of the trend analysis were provided with the summary report.

Several statistically significant decreasing trends were noted in both upgradient and downgradient wells. No statistically significant increasing trends were noted except for barium in upgradient wells GWA-2A, GWA-3A and GWA-4. Of the trends identified, the majority were low relative to the average concentrations at their respective wells and, therefore, required no adjustments. However, the records for chromium at wells GWA-1A and GWC-2 contained several higher measurements earlier in the record which required deselecting so that resulting statistical limits are lower and capable of detecting future changes at a given well. Barium in well GWC-1 required deselection of the earlier portion of the record, through 2012, which contained higher reported measurements than those observed currently. The recent increasing trend in barium at well GWC-5 (not currently adjusted) will require careful attention over the next few monitoring events. If the higher concentrations persist and cannot be explained by a source other than the facility, then that well/constituent pair should be placed in tracking mode and evaluated by a trend test rather than a prediction limit. A list of adjusted background date ranges for those special cases follows this letter.

Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for all constituents except beryllium. Therefore, because this is a lined landfill with pre-waste data showing that metals occur naturally in low level concentrations, and no records were adjusted due to statistically significant increasing trends in downgradient well data, intrawell methods are recommended as the primary statistical method for all detected Georgia EPD well/constituent pairs. However, as noted above, barium at well GWC-5, though not yet adjusted, will require careful attention and further study.

Statistical Analysis of Appendix III Parameters – September 2020

For chloride, pH, sulfate, and TDS, intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical background data through October 2018 (Figure D). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background.

For boron, calcium, and fluoride, interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all upgradient historical data through September 2020 (Figure E). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. If the resample falls within the statistical limit, the initial exceedance is

considered to be a false positive result; therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance for interwell sampling but may be further evaluated using the 2-step approach for intrawell sampling. Summary tables of the Appendix III prediction limits follow this letter. The following prediction limit exceedances were noted for Appendix III parameters:

Intrawell:

- Chloride: GWA-3A (upgradient), GWC-1 (downgradient)

Interwell:

- None

Interwell prediction limits were then constructed for the 2-step statistical approach discussed earlier, using pooled upgradient well data to evaluate the apparent intrawell prediction limit exceedance (Figure F). The reported measurement of chloride in this well was within the interwell prediction limit of 20 mg/L. Therefore, no statistically significant increase is identified, and no further action is necessary.

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen's Slope/Mann Kendall trend test along with upgradient wells for the same constituents (Figure G). 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. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. No statistically significant trends were noted in downgradient wells. Statistically significant increasing trends were identified for chloride in upgradient wells GWA-3A and GWA-4. Typically, when changes in concentrations are present upgradient of the facility, it is an indication of naturally changing groundwater quality. A summary of the trend test results follows this letter.

Statistical Analysis of Georgia EPD Parameters – September 2020

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed using all available data within each well with detections through October 2018 for the majority of constituents (Figure H). Copper, vanadium, and zinc used data through July 2018 for background during this analysis. As previously discussed, no statistical analyses were included for well/constituent pairs where there are 100% nondetects in the downgradient well. A summary table of the prediction limits and exceedances follows this letter, along with the complete prediction limits results. The following prediction limit exceedances were noted for the State parameters:

Intrawell:

- Barium: GWA-3A (upgradient)
- Zinc: GWC-2, GWC-4A, and GWC-5

In cases where downgradient average concentrations are higher than observed concentrations upgradient for a given constituent where intrawell analyses are used, the current assumption is that this is due to natural spatial variation rather than a result of practices at the landfill. Validation of this assumption requires a separate analysis or investigation that is beyond the scope of this data screening study. However, for this site, the pre-waste data support the assumption of natural variation rather than impacts of the landfill.

Interwell prediction limits were then constructed for the 2-step statistical approach discussed earlier using pooled upgradient well data to evaluate the apparent intrawell prediction limit exceedances for zinc at downgradient wells (Figure I). The reported measurements of zinc in the downgradient wells were within the interwell prediction limit. Therefore, no further action is necessary.

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen's Slope/Mann Kendall trend test along with upgradient wells for the same constituents (Figure J). 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. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. Statistically significant decreasing trends were noted for zinc in upgradient wells GWA-1A, GWA-3A, GWA-4, GWA-5 and downgradient well GWC-2. Typically, when changes in concentrations are present upgradient of the facility, it is an indication of naturally changing groundwater quality. A summary of the trend test results follows this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for McIntosh Landfill #3. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,





Easton Rayner
Groundwater Analyst

Kristina L. Rayner
Groundwater Statistician

Date Ranges

Date: 11/17/2020 1:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Barium (mg/L)

GWC-1 background:1/21/2013-10/9/2018

Chromium (mg/L)

GWA-1A background:11/10/2000-10/8/2018

GWC-2 background:9/13/2000-10/9/2018

100% Non-Detects: n/a

Analysis Run 11/17/2020 1:38 PM View: 100% ND
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Chromium (mg/L)
GWA-7A

Copper (mg/L)
GWC-4A

Fluoride (mg/L)
GWA-7A, GWC-1, GWC-6

Lead (mg/L)
GWA-7A, GWC-1, GWC-4A

Vanadium, Dissolved (mg/L)
GWA-1A, GWC-6

Intrawell Prediction Limit Summary - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	**GWA-3A**	**15.76**	**n/a**	**9/21/2020**	**19**	**Yes**	**8**	**8.963**	**2.481**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Chloride (mg/L)	**GWC-1**	**6.841**	**n/a**	**9/22/2020**	**6.9**	**Yes**	**8**	**4.938**	**0.6948**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**

Intrawell Prediction Limit Summary - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	GWA-1A	8.837	n/a	9/21/2020	8.1	No	8	8.063	0.2825	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	**GWA-3A**	**15.76**	**n/a**	**9/21/2020**	**19**	**Yes**	**8**	**8.963**	**2.481**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Chloride (mg/L)	GWA-4	7.253	n/a	9/21/2020	5.4	No	8	4.788	0.8999	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-5	23.64	n/a	9/22/2020	6.3	No	8	9.788	5.057	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	**GWC-1**	**6.841**	**n/a**	**9/22/2020**	**6.9**	**Yes**	**8**	**4.938**	**0.6948**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Chloride (mg/L)	GWC-2	5.864	n/a	9/22/2020	5.4	No	8	5.45	0.1512	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-4A	19.89	n/a	9/22/2020	11	No	8	14.63	1.923	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-5	13.14	n/a	9/22/2020	8.3	No	8	4.85	3.027	37.5	Kapla...	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-6	8.863	n/a	9/22/2020	7.6	No	7	7.343	0.5028	0	None	No	0.001504	Param Intra 1 of 2
pH (S.U.)	GWA-1A	5.995	4.439	9/21/2020	4.95	No	27	2.278	0.08656	0	None	sqrt(x)	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-3A	6.42	3.59	9/21/2020	4.69	No	29	n/a	n/a	0	n/a	n/a	0.004345	NP Intra (normality) ...
pH (S.U.)	GWA-4	5.958	3.912	9/21/2020	4.6	No	28	4.935	0.521	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-5	5.585	3.442	9/22/2020	4.99	No	28	4.513	0.5456	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-1	5.622	3.839	9/22/2020	4.66	No	27	23.17	4.275	0	None	x^2	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-2	5.97	4.205	9/22/2020	5.04	No	29	5.087	0.4515	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-4A	5.261	4.143	9/22/2020	4.92	No	27	4.702	0.2834	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-5	8.049	3.606	9/22/2020	5.87	No	28	2.368	0.2389	0	None	sqrt(x)	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-6	5.825	4.404	9/22/2020	4.73	No	28	5.114	0.3619	0	None	No	0.000752	Param Intra 1 of 2
Sulfate (mg/L)	GWA-1A	2.7	n/a	9/21/2020	1ND	No	8	n/a	n/a	87.5	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWA-3A	1	n/a	9/21/2020	1ND	No	8	n/a	n/a	100	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWA-4	8.482	n/a	9/21/2020	5	No	8	4.513	1.449	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWA-5	37.31	n/a	9/22/2020	12	No	8	18.88	6.728	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-1	1	n/a	9/22/2020	0.63J	No	8	n/a	n/a	100	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-2	1	n/a	9/22/2020	1ND	No	8	n/a	n/a	100	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-4A	2.25	n/a	9/22/2020	0.76J	No	8	1.096	0.421	12.5	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-5	150.4	n/a	9/22/2020	4.3	No	8	5.799	2.359	0	None	sqrt(x)	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-6	1.435	n/a	9/22/2020	0.59J	No	7	0.92	0.1704	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-1A	133.9	n/a	9/21/2020	31	No	7	52.29	26.99	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-3A	80.43	n/a	9/21/2020	61	No	8	32.75	17.4	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-4	51.76	n/a	9/21/2020	31	No	8	20.81	11.29	12.5	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-5	117.1	n/a	9/22/2020	53	No	8	48.5	25.04	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	69	n/a	9/22/2020	5ND	No	8	24	16.42	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	77.05	n/a	9/22/2020	30	No	8	38.75	13.98	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-4A	68.34	n/a	9/22/2020	36	No	8	26.25	15.36	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-5	620.5	n/a	9/22/2020	440	No	8	204.8	151.7	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-6	94.76	n/a	9/22/2020	30	No	7	66.86	9.227	0	None	No	0.001504	Param Intra 1 of 2

Interwell Prediction Limit Summary - All Results (No Significant)

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 1:58 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1	1.9	n/a	9/22/2020	0.098	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-2	1.9	n/a	9/22/2020	0.083	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-4A	1.9	n/a	9/22/2020	0.053J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-5	1.9	n/a	9/22/2020	0.045J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-6	1.9	n/a	9/22/2020	0.048J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Calcium (mg/L)	GWC-1	20	n/a	9/22/2020	0.21J	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-2	20	n/a	9/22/2020	2.1	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-4A	20	n/a	9/22/2020	0.51	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-5	20	n/a	9/22/2020	8	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-6	20	n/a	9/22/2020	1.9	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Fluoride (mg/L)	GWC-2	0.21	n/a	9/22/2020	0.1ND	No	59	n/a	n/a	64.41	n/a	n/a	0.0005451	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-4A	0.21	n/a	9/22/2020	0.1ND	No	59	n/a	n/a	64.41	n/a	n/a	0.0005451	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-5	0.21	n/a	9/22/2020	0.1	No	59	n/a	n/a	64.41	n/a	n/a	0.0005451	NP Inter (NDs) 1 of 2

Interwell Prediction Limit Summary (Intrawell Exceedances)

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	GWC-1	20	n/a	9/22/2020	6.9	No	65	n/a	n/a	0	n/a	n/a	0.0004556	NP Inter (normality) ...

Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:13 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	**GWA-3A (bg)**	**3.85**	**87**	**44**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**GWA-4 (bg)**	**0.6368**	**43**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:13 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	GWA-1A (bg)	0	4	39	No	13	0	n/a	n/a	0.02	NP
Chloride (mg/L)	GWA-2B (bg)	0.4251	9	13	No	6	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**GWA-3A (bg)**	**3.85**	**87**	**44**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**GWA-4 (bg)**	**0.6368**	**43**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	GWA-5 (bg)	0.189	7	39	No	13	0	n/a	n/a	0.02	NP
Chloride (mg/L)	GWA-7A (bg)	-0.1534	-2	-13	No	6	0	n/a	n/a	0.02	NP
Chloride (mg/L)	GWC-1	0	-1	-39	No	13	0	n/a	n/a	0.02	NP

Intrawell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	**GWA-3A**	**0.05764**	**n/a**	**9/21/2020**	**0.083**	**Yes**	**44**	**0.04428**	**0.007109**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Zinc (mg/L)	**GWC-2**	**0.028**	**n/a**	**9/22/2020**	**0.029**	**Yes**	**40**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.001159**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-4A**	**0.012**	**n/a**	**9/22/2020**	**0.017**	**Yes**	**39**	**n/a**	**n/a**	**48.72**	**n/a**	**n/a**	**0.001226**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-5**	**0.0369**	**n/a**	**9/22/2020**	**0.037**	**Yes**	**41**	**-4.113**	**0.43**	**9.756**	**None**	**ln(x)**	**0.001504**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	GWA-1A	0.2	n/a	9/21/2020	0.023	No	44	n/a	n/a	0	n/a	n/a	0.0009963	NP Intra (normality) 1 of 2
Barium (mg/L)	**GWA-3A**	**0.05764**	**n/a**	**9/21/2020**	**0.083**	**Yes**	**44**	**0.04428**	**0.007109**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Barium (mg/L)	GWA-4	0.05416	n/a	9/21/2020	0.052	No	45	0.03687	0.009212	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWA-5	0.1787	n/a	9/22/2020	0.078	No	44	0.09875	0.04255	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-1	0.05862	n/a	9/22/2020	0.022	No	16	0.1593	0.03852	0	None	sqrt(x)	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-2	0.0871	n/a	9/22/2020	0.061	No	45	0.0647	0.01194	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-4A	0.08446	n/a	9/22/2020	0.031	No	45	0.05131	0.01767	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-5	0.6045	n/a	9/22/2020	0.51	No	44	-1.326	0.4377	0	None	ln(x)	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-6	0.075	n/a	9/22/2020	0.051	No	43	n/a	n/a	0	n/a	n/a	0.001037	NP Intra (normality) 1 of 2
Beryllium (mg/L)	GWA-1A	0.0028	n/a	9/21/2020	0.0002J	No	44	n/a	n/a	86.36	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWA-3A	0.0025	n/a	9/21/2020	0.00054J	No	45	n/a	n/a	80	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWA-4	0.0025	n/a	9/21/2020	0.0025ND	No	45	n/a	n/a	88.89	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWA-5	0.0036	n/a	9/22/2020	0.0025ND	No	45	n/a	n/a	80	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-1	0.0025	n/a	9/22/2020	0.0025ND	No	45	n/a	n/a	95.56	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-2	0.0025	n/a	9/22/2020	0.00025J	No	45	n/a	n/a	86.67	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-4A	0.0025	n/a	9/22/2020	0.0025ND	No	45	n/a	n/a	93.33	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-5	0.0029	n/a	9/22/2020	0.0011J	No	45	n/a	n/a	73.33	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-6	0.0025	n/a	9/22/2020	0.00021J	No	44	n/a	n/a	86.36	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWA-1A	0.02461	n/a	9/21/2020	0.0049	No	39	0.08981	0.0353	12.82	None	sqrt(x)	0.001504	Param Intra 1 of 2
Chromium (mg/L)	GWA-3A	0.0059	n/a	9/21/2020	0.002ND	No	45	n/a	n/a	37.78	n/a	n/a	0.0009557	NP Intra (normality) 1 of 2
Chromium (mg/L)	GWA-4	0.0087	n/a	9/21/2020	0.002ND	No	44	n/a	n/a	81.82	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWA-5	0.0067	n/a	9/22/2020	0.0017J	No	44	n/a	n/a	52.27	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.002	n/a	9/22/2020	0.0017J	No	44	n/a	n/a	97.73	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.004562	n/a	9/22/2020	0.0036	No	41	0.04977	0.009395	24.39	Kapla...	sqrt(x)	0.001504	Param Intra 1 of 2
Chromium (mg/L)	GWC-4A	0.0029	n/a	9/22/2020	0.002ND	No	43	n/a	n/a	95.35	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-5	0.0025	n/a	9/22/2020	0.002ND	No	42	n/a	n/a	90.48	n/a	n/a	0.001077	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-6	0.0025	n/a	9/22/2020	0.002ND	No	41	n/a	n/a	87.8	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-1A	0.0055	n/a	9/21/2020	0.002ND	No	41	n/a	n/a	85.37	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-3A	0.00205	n/a	9/21/2020	0.002ND	No	41	n/a	n/a	97.56	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-4	0.0025	n/a	9/21/2020	0.002ND	No	41	n/a	n/a	97.56	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-5	0.005	n/a	9/22/2020	0.0013J	No	37	n/a	n/a	83.78	n/a	n/a	0.001361	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-1	0.002	n/a	9/22/2020	0.002ND	No	40	n/a	n/a	100	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-2	0.002	n/a	9/22/2020	0.002ND	No	39	n/a	n/a	97.44	n/a	n/a	0.001226	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-5	0.0026	n/a	9/22/2020	0.002ND	No	41	n/a	n/a	95.12	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-6	0.002	n/a	9/22/2020	0.002ND	No	40	n/a	n/a	100	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-1A	0.00125	n/a	9/21/2020	0.001ND	No	38	n/a	n/a	94.74	n/a	n/a	0.001294	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-3A	0.001	n/a	9/21/2020	0.001ND	No	45	n/a	n/a	97.78	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-4	0.0023	n/a	9/21/2020	0.00025J	No	44	n/a	n/a	95.45	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-5	0.0013	n/a	9/22/2020	0.0012	No	44	n/a	n/a	84.09	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.001	n/a	9/22/2020	0.001ND	No	43	n/a	n/a	97.67	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWC-5	0.001	n/a	9/22/2020	0.00013J	No	43	n/a	n/a	97.67	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWC-6	0.0073	n/a	9/22/2020	0.001ND	No	43	n/a	n/a	90.7	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWA-1A	0.055	n/a	9/21/2020	0.001ND	No	41	n/a	n/a	43.9	n/a	n/a	0.001118	NP Intra (normality) 1 of 2
Vanadium (mg/L)	GWA-3A	0.0038	n/a	9/21/2020	0.001ND	No	41	n/a	n/a	95.12	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWA-4	0.0025	n/a	9/21/2020	0.0012	No	40	n/a	n/a	95	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWA-5	0.0082	n/a	9/22/2020	0.0056	No	39	n/a	n/a	82.05	n/a	n/a	0.001226	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.0063	n/a	9/22/2020	0.001ND	No	41	n/a	n/a	97.56	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.0062	n/a	9/22/2020	0.001ND	No	40	n/a	n/a	92.5	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-4A	0.001	n/a	9/22/2020	0.001ND	No	41	n/a	n/a	100	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-5	0.017	n/a	9/22/2020	0.0015	No	40	n/a	n/a	85	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-6	0.0021	n/a	9/22/2020	0.0011	No	40	n/a	n/a	97.5	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Zinc (mg/L)	GWA-1A	0.074	n/a	9/21/2020	0.005ND	No	41	n/a	n/a	31.71	n/a	n/a	0.001118	NP Intra (normality) 1 of 2
Zinc (mg/L)	GWA-3A	0.02	n/a	9/21/2020	0.0055	No	38	n/a	n/a	52.63	n/a	n/a	0.001294	NP Intra (NDs) 1 of 2
Zinc (mg/L)	GWA-4	0.03318	n/a	9/21/2020	0.013	No	41	0.1018	0.04245	19.51	Kapla...	sqrt(x)	0.001504	Param Intra 1 of 2
Zinc (mg/L)	GWA-5	0.068	n/a	9/22/2020	0.039	No	40	n/a	n/a	20	n/a	n/a	0.001159	NP Intra (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.015	n/a	9/22/2020	0.005ND	No	41	n/a	n/a	53.66	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Zinc (mg/L)	**GWC-2**	**0.028**	**n/a**	**9/22/2020**	**0.029**	**Yes**	**40**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.001159**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-4A**	**0.012**	**n/a**	**9/22/2020**	**0.017**	**Yes**	**39**	**n/a**	**n/a**	**48.72**	**n/a**	**n/a**	**0.001226**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-5**	**0.0369**	**n/a**	**9/22/2020**	**0.037**	**Yes**	**41**	**-4.113**	**0.43**	**9.756**	**None**	**ln(x)**	**0.001504**	**Param Intra 1 of 2**
Zinc (mg/L)	GWC-6	0.025	n/a	9/22/2020	0.0053	No	35	n/a	n/a	34.29	n/a	n/a	0.001497	NP Intra (normality) 1 of 2

Interwell Prediction Limits (Intrawell Exceedances)

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWC-2	0.074	n/a	9/22/2020	0.029	No	191	n/a	n/a	28.8	n/a	n/a	0.00005435	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-4A	0.074	n/a	9/22/2020	0.017	No	191	n/a	n/a	28.8	n/a	n/a	0.00005435	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-5	0.074	n/a	9/22/2020	0.037	No	191	n/a	n/a	28.8	n/a	n/a	0.00005435	NP Inter (normality) 1 of 2

Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Zinc (mg/L)	**GWA-1A (bg)**	**-0.0002468**	**-2.5**	**-2.33**	**Yes**	**46**	**36.96**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-3A (bg)**	**-0.00006084**	**-2.545**	**-2.33**	**Yes**	**44**	**47.73**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-4 (bg)**	**-0.00083**	**-3.576**	**-2.33**	**Yes**	**46**	**19.57**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-5 (bg)**	**-0.0007204**	**-4.419**	**-2.33**	**Yes**	**45**	**17.78**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWC-2**	**-0.0005056**	**-3.176**	**-2.33**	**Yes**	**45**	**24.44**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Zinc (mg/L)	**GWA-1A (bg)**	**-0.0002468**	**-2.5**	**-2.33**	**Yes**	**46**	**36.96**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	GWA-2B (bg)	-0.004426	-6	-10	No	5	0	n/a	n/a	0.02	NP
Zinc (mg/L)	**GWA-3A (bg)**	**-0.00006084**	**-2.545**	**-2.33**	**Yes**	**44**	**47.73**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-4 (bg)**	**-0.00083**	**-3.576**	**-2.33**	**Yes**	**46**	**19.57**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-5 (bg)**	**-0.0007204**	**-4.419**	**-2.33**	**Yes**	**45**	**17.78**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	GWA-7A (bg)	-0.001754	-4	-10	No	5	0	n/a	n/a	0.02	NP
Zinc (mg/L)	**GWC-2**	**-0.0005056**	**-3.176**	**-2.33**	**Yes**	**45**	**24.44**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	GWC-4A	0	-0.5418	-2.33	No	44	47.73	n/a	n/a	0.02	NP
Zinc (mg/L)	GWC-5	-0.0004402	-2.172	-2.33	No	46	8.696	n/a	n/a	0.02	NP

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWA-1A Barium (mg/L)	GWA-3A Barium (mg/L)	GWA-5 Barium (mg/L)	GWC-5 Barium (mg/L)	GWC-6 Barium (mg/L)	GWA-1A Beryllium (mg/L)	GWC-6 Beryllium (mg/L)	GWA-1A Calcium (mg/L)	GWC-1 Calcium (mg/L)	GWC-4A Calcium (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										
9/13/2000										
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002			0.33 (o)							
6/28/2003										
12/13/2003										
5/28/2004										
12/10/2004							0.0058 (o)			
7/12/2006										
12/1/2006				0.019 (o)						
6/21/2007										
12/6/2008		0.14 (o)								
12/7/2008					0.12 (o)					
1/17/2014										
9/1/2016	0.86 (o)					0.0084 (o)		26 (o)		
1/23/2017									1.3 (o)	
1/24/2017										
9/21/2017										
1/9/2018										
7/10/2018										2 (o)
3/11/2020									1.6 (o)	

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWA-1A Chromium (mg/L)	GWA-4 Chromium (mg/L)	GWA-5 Chromium (mg/L)	GWC-1 Chromium (mg/L)	GWC-2 Chromium (mg/L)	GWC-4A Chromium (mg/L)	GWC-5 Chromium (mg/L)	GWC-6 Chromium (mg/L)	GWA-5 Copper (mg/L)	GWC-1 Copper (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										
9/13/2000										
11/10/2000										
1/4/2001								0.016 (o)		
4/4/2002										
12/6/2002			0.027 (o)				0.008 (o)		0.0089 (o)	
6/28/2003				0.007 (o)		0.061 (o)	0.021 (o)		0.019 (o)	
12/13/2003							0.011 (o)		0.0067 (o)	
5/28/2004									0.0057 (o)	
12/10/2004					0.74 (o)	0.0059 (o)		0.0046 (o)		
7/12/2006		0.023 (o)								0.0047 (o)
12/1/2006										
6/21/2007										
12/6/2008										
12/7/2008										
1/17/2014										
9/1/2016	0.12 (o)							0.0069 (o)		
1/23/2017										
1/24/2017										
9/21/2017										
1/9/2018										
7/10/2018										
3/11/2020										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWC-2 Copper (mg/L)	GWC-6 Copper (mg/L)	GWA-1A Lead (mg/L)	GWA-4 Lead (mg/L)	GWA-5 Lead (mg/L)	GWC-1 Lead (mg/L)	GWC-2 Lead (mg/L)	GWC-4A Lead (mg/L)	GWC-5 Lead (mg/L)	GWC-6 Lead (mg/L)
10/5/1999			0.007 (o)				0.0054 (o)			
11/12/1999			0.0063 (o)							
12/29/1999			0.016 (o)							
9/13/2000								0.0067 (o)		0.079 (o)
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002					0.011 (o)				0.007 (o)	
6/28/2003										
12/13/2003									0.018 (o)	
5/28/2004			0.015 (o)							
12/10/2004	0.11 (o)	0.0044 (o)	0.01 (o)							
7/12/2006			0.013 (o)							
12/1/2006										
6/21/2007										
12/6/2008										
12/7/2008										
1/17/2014	0.0065 (o)									
9/1/2016			0.082 (o)							
1/23/2017										
1/24/2017										
9/21/2017				0.0076 (o)		0.004 (o)	0.0014 (o)			
1/9/2018										
7/10/2018										
3/11/2020										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWC-5 pH (S.U.)	GWA-1A Total Dissolved Solids (mg/L)	GWA-4 Vanadium (mg/L)	GWA-5 Vanadium (mg/L)	GWC-2 Vanadium (mg/L)	GWC-5 Vanadium (mg/L)	GWA-3A Zinc (mg/L)	GWA-5 Zinc (mg/L)	GWC-2 Zinc (mg/L)	GWC-4A Zinc (mg/L)
10/5/1999					0.015 (o)		0.023 (o)			
11/12/1999										
12/29/1999										
9/13/2000										0.036 (o)
11/10/2000										
1/4/2001										
4/4/2002									0.069 (o)	
12/6/2002				0.03 (o)						
6/28/2003								0.19 (o)		
12/13/2003										
5/28/2004										
12/10/2004										
7/12/2006										
12/1/2006							0.065 (o)			0.098 (o)
6/21/2007				0.07 (o)						
12/6/2008							0.051 (o)			
12/7/2008										
1/17/2014										
9/1/2016		2200 (o)								
1/23/2017										
1/24/2017	8.32 (o)					0.044 (o)				
9/21/2017										
1/9/2018			0.0072 (o)							
7/10/2018										
3/11/2020										

Outlier Summary

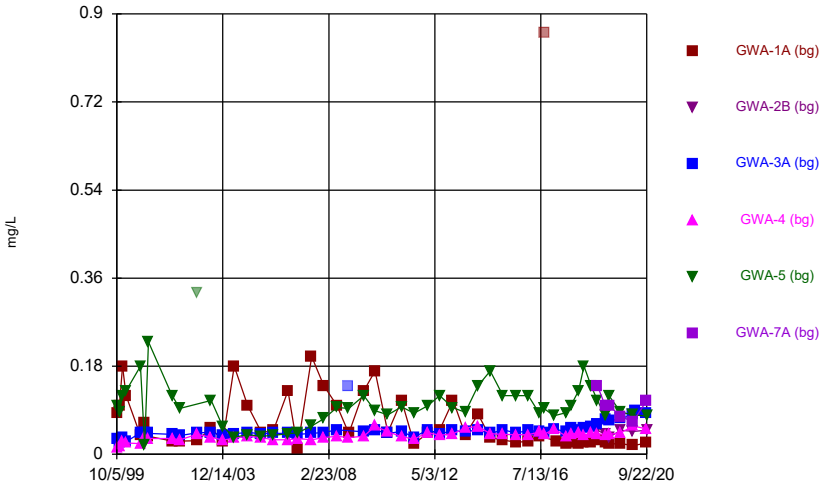
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWC-6 Zinc (mg/L)
10/5/1999	0.063 (o)
11/12/1999	
12/29/1999	
9/13/2000	0.061 (o)
11/10/2000	0.061 (o)
1/4/2001	0.05 (o)
4/4/2002	
12/6/2002	
6/28/2003	
12/13/2003	
5/28/2004	
12/10/2004	
7/12/2006	
12/1/2006	
6/21/2007	
12/6/2008	
12/7/2008	0.044 (o)
1/17/2014	
9/1/2016	
1/23/2017	
1/24/2017	
9/21/2017	
1/9/2018	
7/10/2018	
3/11/2020	

FIGURE A.

Sanitas™ v.9.6.27 . UG

Time Series

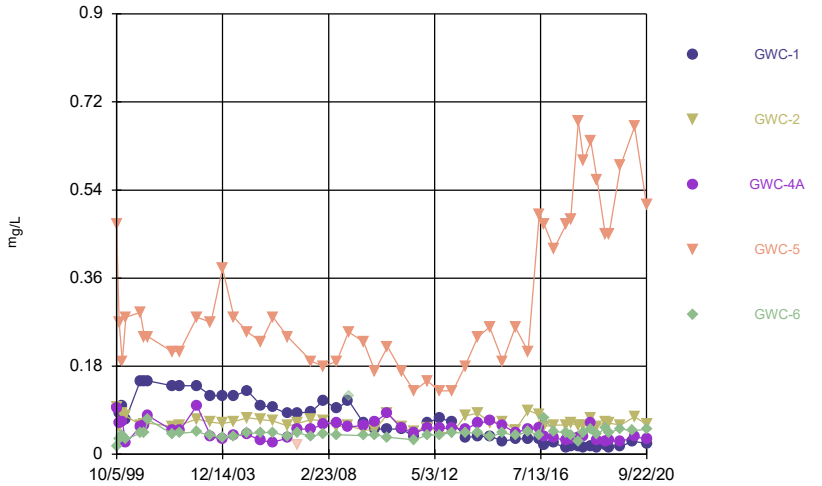


Constituent: Barium Analysis Run 12/2/2020 12:41 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Time Series



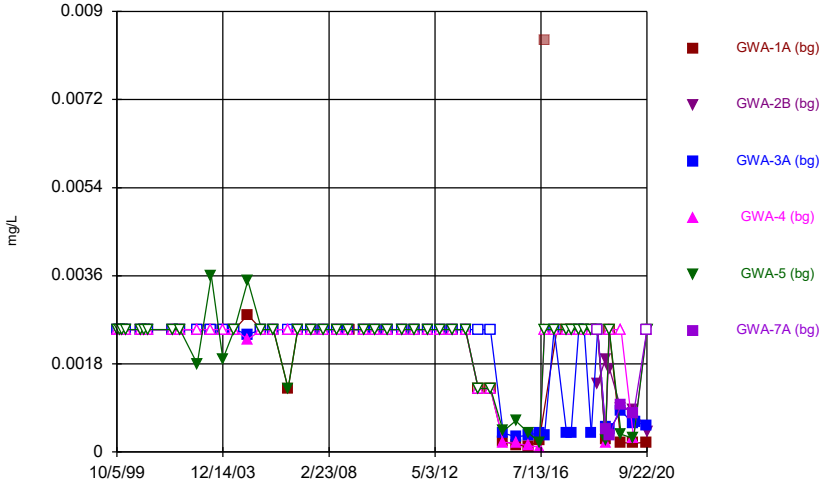
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Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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Time Series



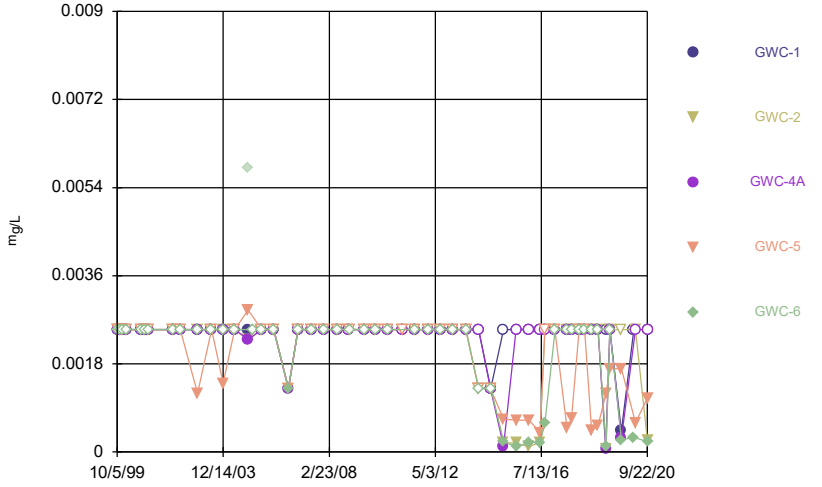
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Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 12/2/2020 12:41 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	0.084		0.031	0.013	0.1	
11/12/1999	0.099		0.023	0.017	0.086	
12/29/1999	0.18		0.033	0.027	0.12	
2/17/2000	0.12		0.026	0.023	0.13	
9/13/2000	0.038		0.044	0.022	0.18	
11/10/2000	0.065		0.044	0.035	0.018	
1/4/2001	0.037		0.043	0.032	0.23	
12/11/2001	0.027		0.041	0.032	0.12	
4/4/2002	0.027		0.038	0.03	0.094	
12/6/2002	0.028		0.044	0.041	0.33 (o)	
6/28/2003	0.054		0.045	0.035	0.11	
12/13/2003	0.027		0.039	0.029	0.057	
5/28/2004	0.18		0.042	0.033	0.035	
12/10/2004	0.1		0.045	0.037	0.04	
6/24/2005	0.045		0.042	0.034	0.037	
12/13/2005	0.048		0.043	0.03	0.039	
7/12/2006	0.13		0.043	0.03	0.042	
12/1/2006	0.012		0.041	0.032	0.044	
6/21/2007	0.2		0.043	0.03	0.058	
12/15/2007	0.14		0.045	0.034	0.073	
6/21/2008				0.037		
6/22/2008	0.1		0.05		0.096	
12/6/2008			0.14 (o)	0.034	0.094	
12/7/2008	0.043					
7/10/2009			0.046			
7/11/2009	0.13			0.037	0.12	
12/22/2009					0.089	
12/23/2009	0.17		0.049	0.058		
6/23/2010			0.043	0.046	0.081	
6/24/2010	0.045					
1/8/2011			0.047	0.036	0.097	
1/9/2011	0.11					
7/10/2011			0.035	0.031	0.084	
7/11/2011	0.022					
1/19/2012			0.05	0.045		
1/20/2012	0.043				0.099	
7/12/2012			0.042	0.039	0.12	
7/13/2012	0.05					
1/21/2013	0.11		0.048	0.042	0.095	
7/20/2013	0.04		0.047	0.054	0.086	
1/17/2014	0.082		0.049	0.057	0.14	
7/12/2014	0.034		0.043	0.042	0.17	
1/15/2015			0.05	0.041		
1/16/2015	0.029				0.12	
7/15/2015	0.025		0.044	0.04	0.12	
1/16/2016	0.026		0.048	0.04	0.12	
6/22/2016	0.0374 (D)		0.0471 (D)	0.0453	0.0839	
8/31/2016			0.043	0.041	0.093	
9/1/2016	0.86 (o)					
1/19/2017			0.052	0.052	0.079	
2/28/2017	0.027					
7/17/2017	0.022					

Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
7/18/2017			0.046	0.037		
7/19/2017					0.085	
9/20/2017	0.023		0.053			
9/21/2017				0.042	0.1	
1/8/2018	0.022					
1/9/2018			0.05	0.043	0.13	
3/27/2018	0.023		0.054	0.039	0.18	
7/10/2018	0.024		0.056	0.043	0.14	
10/8/2018	0.03	0.049		0.042	0.11	0.14
10/9/2018			0.061			
1/30/2019	0.024	0.041	0.071	0.04	0.079	0.1
3/27/2019	0.021				0.12	
3/28/2019		0.035	0.068	0.041		0.1
9/11/2019	0.022					
9/12/2019		0.049	0.073	0.044	0.086	0.077
3/10/2020	0.018	0.047	0.082	0.058	0.081	
3/11/2020						0.067
4/2/2020			0.088			
9/21/2020	0.023		0.083	0.052		0.11
9/22/2020		0.049			0.078	

Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	0.096	0.097	0.095	0.47	0.017
11/12/1999	0.085	0.057	0.063	0.27	0.031
12/29/1999	0.1	0.084	0.066	0.19	0.039
2/17/2000	0.072	0.079	0.023	0.28	0.031
9/13/2000	0.15	0.06	0.056	0.29	0.043
11/10/2000	0.15	0.062	0.059	0.24	0.044
1/4/2001	0.15	0.064	0.079	0.24	0.071
12/11/2001	0.14	0.057	0.049	0.21	0.042
4/4/2002	0.14	0.06	0.048	0.21	0.043
12/6/2002	0.14	0.072	0.1	0.28	0.046
6/28/2003	0.12	0.066	0.036	0.27	0.038
12/13/2003	0.12	0.063	0.031	0.38	0.035
5/28/2004	0.12	0.067	0.038	0.28	0.037
12/10/2004	0.13	0.075	0.041	0.25	0.043
6/24/2005	0.1	0.071	0.028	0.23	0.044
12/13/2005	0.096	0.068	0.025	0.28	0.045
7/12/2006	0.083	0.058	0.033	0.24	0.037
12/1/2006	0.084	0.063	0.051	0.019 (o)	0.044
6/21/2007	0.087	0.071	0.052	0.19	0.037
12/15/2007	0.11	0.068	0.062	0.18	0.042
6/21/2008	0.093		0.065	0.19	
6/22/2008		0.057			0.04
12/6/2008	0.11	0.058	0.056		
12/7/2008				0.25	0.12 (o)
7/11/2009	0.064	0.05	0.059	0.23	0.038
12/23/2009	0.052	0.05	0.067	0.17	0.04
6/23/2010	0.051	0.083	0.084	0.22	
6/24/2010					0.035
1/8/2011	0.052	0.057	0.053	0.17	
7/10/2011	0.036	0.046	0.043	0.13	
7/11/2011					0.03
1/20/2012	0.065	0.055	0.054	0.15	0.039
7/12/2012	0.074	0.045	0.053	0.13	
7/13/2012					0.04
1/21/2013	0.066	0.045	0.053	0.13	0.045
7/20/2013	0.035	0.079	0.052	0.18	0.043
1/17/2014	0.036	0.084	0.063	0.24	0.045
7/11/2014			0.068	0.26	
7/12/2014	0.037	0.065			0.036
1/15/2015		0.067			
1/16/2015	0.027		0.059	0.19	0.044
7/15/2015	0.031	0.049	0.045	0.26	0.038
1/16/2016	0.032			0.21	0.047
1/17/2016		0.09	0.052		
6/22/2016	0.0323	0.0806	0.0528		
6/23/2016				0.491	0.0393
8/31/2016	0.019	0.057	0.037		
9/1/2016				0.47	0.075
1/23/2017	0.023				
1/24/2017		0.06		0.42	
1/25/2017			0.034		
1/27/2017					0.046

Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
7/19/2017	0.013	0.06			
7/20/2017			0.028	0.47	0.045
9/21/2017	0.016	0.063	0.032	0.48	
9/22/2017					0.04
1/9/2018	0.016	0.059	0.033		
1/10/2018				0.68	0.027
3/28/2018	0.014		0.037	0.6	
3/29/2018		0.06			0.044
7/10/2018		0.073	0.065		
7/11/2018	0.016			0.64	0.051
10/9/2018	0.015	0.057	0.029	0.56	0.041
1/30/2019	0.018		0.027		
1/31/2019		0.067		0.45	0.053
3/28/2019	0.014	0.064	0.028	0.45	0.045
9/12/2019	0.016	0.06	0.026	0.59	0.052
3/11/2020	0.027				0.048
3/31/2020		0.077	0.036	0.67	
9/22/2020	0.022	0.061	0.031	0.51	0.051

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	<0.0025		<0.0025	<0.0025	<0.0025	
11/12/1999	<0.0025		<0.0025	<0.0025	<0.0025	
12/29/1999	<0.0025		<0.0025	<0.0025	<0.0025	
2/17/2000	<0.0025		<0.0025	<0.0025	<0.0025	
9/13/2000	<0.0025		<0.0025	<0.0025	<0.0025	
11/10/2000	<0.0025		<0.0025	<0.0025	<0.0025	
1/4/2001	<0.0025		<0.0025	<0.0025	<0.0025	
12/11/2001	<0.0025		<0.0025	<0.0025	<0.0025	
4/4/2002	<0.0025		<0.0025	<0.0025	<0.0025	
12/6/2002	<0.0025		<0.0025	<0.0025	0.0018	
6/28/2003	<0.0025		<0.0025	<0.0025	0.0036	
12/13/2003	<0.0025		<0.0025	<0.0025	0.0019	
5/28/2004	<0.0025		<0.0025	<0.0025	<0.0025	
12/10/2004	0.0028		0.0024	0.0023	0.0035	
6/24/2005	<0.0025		<0.0025	<0.0025	<0.0025	
12/13/2005	<0.0025		<0.0025	<0.0025	<0.0025	
7/12/2006	0.0013		<0.0025	<0.0025	0.0013	
12/1/2006	<0.0025		<0.0025	<0.0025	<0.0025	
6/21/2007	<0.0025		<0.0025	<0.0025	<0.0025	
12/15/2007	<0.0025		<0.0025	<0.0025	<0.0025	
6/21/2008				<0.0025		
6/22/2008	<0.0025		<0.0025		<0.0025	
12/6/2008			<0.0025	<0.0025	<0.0025	
12/7/2008	<0.0025					
7/10/2009			<0.0025			
7/11/2009	<0.0025			<0.0025	<0.0025	
12/22/2009					<0.0025	
12/23/2009	<0.0025		<0.0025	<0.0025		
6/23/2010			<0.0025	<0.0025	<0.0025	
6/24/2010	<0.0025					
1/8/2011			<0.0025	<0.0025	<0.0025	
1/9/2011	<0.0025					
7/10/2011			<0.0025	<0.0025	<0.0025	
7/11/2011	<0.0025					
1/19/2012			<0.0025	<0.0025		
1/20/2012	<0.0025				<0.0025	
7/12/2012			<0.0025	<0.0025	<0.0025	
7/13/2012	<0.0025					
1/21/2013	<0.0025		<0.0025	<0.0025	<0.0025	
7/20/2013	<0.0025		<0.0025	<0.0025	<0.0025	
1/17/2014	<0.0013 (J)		<0.0025	<0.0013 (J)	<0.0013 (J)	
7/12/2014	<0.0013 (J)		<0.0025	<0.0013 (J)	<0.0013 (J)	
1/15/2015			0.00039 (J)	0.0002 (J)		
1/16/2015	0.00022 (J)				0.00043 (J)	
7/15/2015	0.00015 (J)		0.00031 (J)	0.00018 (J)	0.00064 (J)	
1/16/2016	0.00011 (J)		0.00034 (J)	0.00013 (J)	0.00039 (J)	
6/22/2016	0.00025 (JD)		0.0004 (J)	0.0001 (J)	0.0002 (J)	
8/31/2016			0.00035 (J)	<0.0025	<0.0025	
9/1/2016	0.0084 (o)					
1/19/2017			<0.0025	<0.0025	<0.0025	
2/28/2017	<0.0025					
7/17/2017	<0.0025					

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
7/18/2017			0.00038 (J)	<0.0025		
7/19/2017					<0.0025	
9/20/2017	<0.0025		0.00039 (J)			
9/21/2017				<0.0025	<0.0025	
1/8/2018	<0.0025					
1/9/2018			<0.0025	<0.0025	<0.0025	
3/27/2018	<0.0025		<0.0025	<0.0025	<0.0025	
7/10/2018	<0.0025		0.00038 (J)	<0.0025	<0.0025	
10/8/2018	<0.0025	0.0014 (J)		<0.0025	<0.0025	<0.0025
10/9/2018			<0.0025			
1/30/2019	0.00026 (J)	0.0019 (J)	0.00051 (J)	0.00019 (J)	0.00024 (J)	0.00047 (J)
3/27/2019	<0.0025				<0.0025	
3/28/2019		0.0017 (J)	0.00046 (J)	<0.0025		0.00034 (J)
9/11/2019	0.00019 (J)					
9/12/2019		0.00088 (J)	0.00084 (J)	<0.0025	0.00036 (J)	0.00097 (J)
3/10/2020	0.00018 (J)	0.00087 (J)	0.00058 (J)	0.00029 (J)	0.00028 (J)	
3/11/2020						0.00078 (J)
4/2/2020			0.00062 (J)			
9/21/2020	0.0002 (J)		0.00054 (J)	<0.0025		<0.0025
9/22/2020		0.00042 (J)			<0.0025	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/12/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/29/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2/17/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/10/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/4/2001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/11/2001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
4/4/2002	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/6/2002	<0.0025	<0.0025	<0.0025	0.0012	<0.0025
6/28/2003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/13/2003	<0.0025	<0.0025	<0.0025	0.0014	<0.0025
5/28/2004	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/10/2004	0.0025	0.0023	0.0023	0.0029	0.0058 (o)
2/5/2005					<0.0025
6/24/2005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/13/2005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/12/2006	0.0013	0.0013	0.0013	0.0013	0.0013
12/1/2006	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
6/21/2007	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/15/2007	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
6/21/2008	<0.0025		<0.0025	<0.0025	
6/22/2008		<0.0025			<0.0025
12/6/2008	<0.0025	<0.0025	<0.0025		
12/7/2008				<0.0025	<0.0025
7/11/2009	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/23/2009	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
6/23/2010	<0.0025	<0.0025	<0.0025	<0.0025	
6/24/2010					<0.0025
1/8/2011	<0.0025	<0.0025	<0.0025	<0.0025	
7/10/2011	<0.0025	<0.0025	<0.0025	<0.0025	
7/11/2011					<0.0025
1/20/2012	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/12/2012	<0.0025	<0.0025	<0.0025	<0.0025	
7/13/2012					<0.0025
1/21/2013	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/20/2013	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/17/2014	<0.0025	<0.0013 (J)	<0.0025	<0.0013 (J)	<0.0013 (J)
7/11/2014			<0.0013 (J)	<0.0013 (J)	
7/12/2014	<0.0013 (J)	<0.0013 (J)			<0.0013 (J)
1/15/2015		0.00019 (J)			
1/16/2015	<0.0025		0.00012 (J)	0.00067 (J)	0.00021 (J)
7/15/2015	<0.0025	0.00018 (J)	<0.0025	0.00065 (J)	0.00011 (J)
1/16/2016	<0.0025			0.00065 (J)	0.00019 (J)
1/17/2016		0.00011 (J)	<0.0025		
6/22/2016	<0.0025	0.0002 (J)	<0.0025		
6/23/2016				0.0004 (J)	0.0002 (J)
8/31/2016	<0.0025	<0.0025	<0.0025		
9/1/2016				<0.0025	0.0006 (J)
1/23/2017	<0.0025				
1/24/2017		<0.0025		<0.0025	
1/25/2017			<0.0025		

Time Series

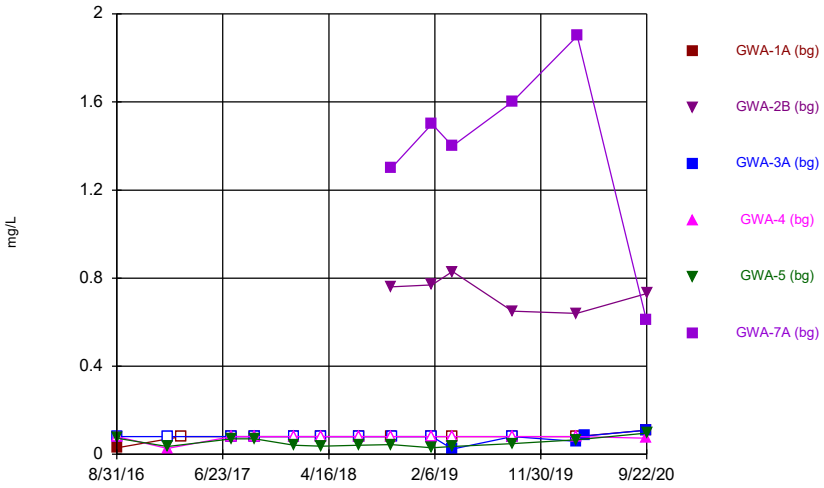
Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
1/27/2017					<0.0025
7/19/2017	<0.0025	<0.0025			
7/20/2017			<0.0025	0.00049 (J)	<0.0025
9/21/2017	<0.0025	<0.0025	<0.0025	0.00068 (J)	
9/22/2017					<0.0025
1/9/2018	<0.0025	<0.0025	<0.0025		
1/10/2018				<0.0025	<0.0025
3/28/2018	<0.0025		<0.0025	<0.0025	
3/29/2018		<0.0025			<0.0025
7/10/2018		<0.0025	<0.0025		
7/11/2018	<0.0025			0.00043 (J)	<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025	0.00054 (J)	<0.0025
1/30/2019	<0.0025		7E-05 (J)		
1/31/2019		6.5E-05 (J)		0.0012 (J)	0.00012 (J)
3/28/2019	<0.0025	<0.0025	<0.0025	0.0017 (J)	<0.0025
9/12/2019	0.00043 (J)	<0.0025	0.00028 (J)	0.0017	0.00025 (J)
3/11/2020	<0.0025				0.0003 (J)
3/31/2020		<0.0025	<0.0025	0.0006 (J)	
9/22/2020	<0.0025	0.00025 (J)	<0.0025	0.0011 (J)	0.00021 (J)

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

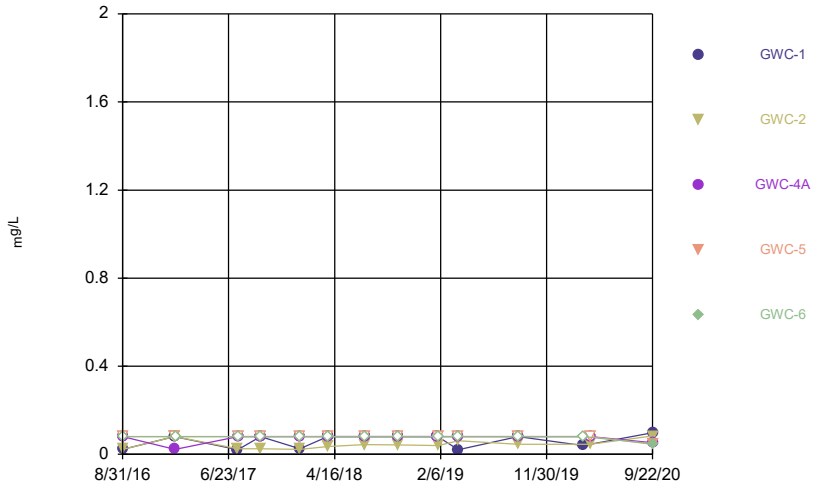
Time Series



Constituent: Boron Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

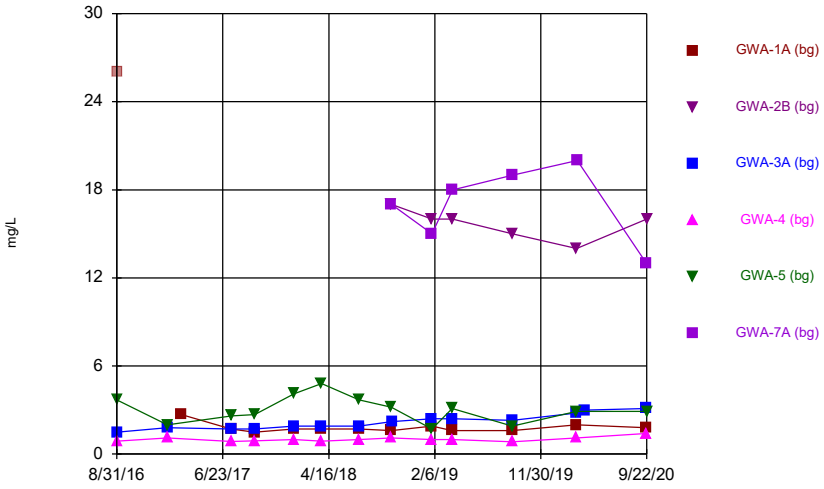
Time Series



Constituent: Boron Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

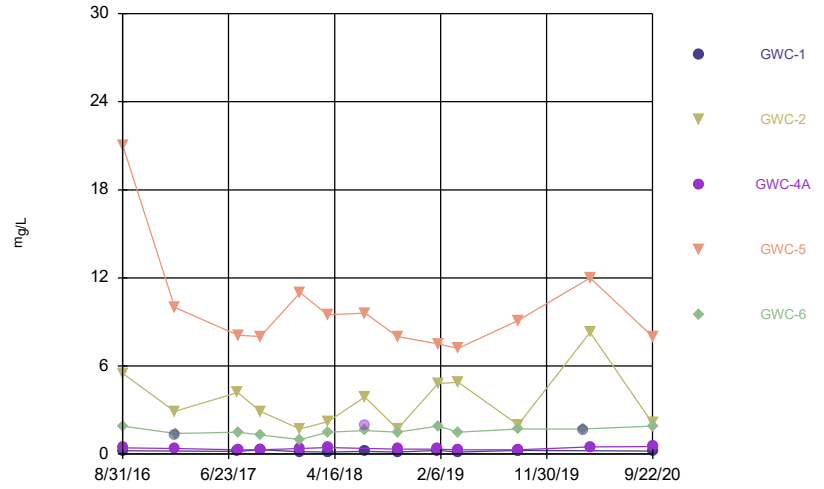
Time Series



Constituent: Calcium Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Calcium Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
8/31/2016			<0.08	<0.08	0.073	
9/1/2016	0.029 (J)					
1/19/2017			<0.08	0.027 (J)	0.036 (J)	
2/28/2017	<0.08					
7/17/2017	<0.08					
7/18/2017			<0.08	<0.08		
7/19/2017					0.07	
9/20/2017	<0.08		<0.08			
9/21/2017				<0.08	0.07	
1/8/2018	<0.08					
1/9/2018			<0.08	<0.08	0.042 (J)	
3/27/2018	<0.08		<0.08	<0.08	0.037 (J)	
7/10/2018	<0.08		<0.08	<0.08	0.042 (J)	
10/8/2018	<0.08	0.76		<0.08	0.044 (J)	1.3
10/9/2018			<0.08			
1/30/2019	<0.08	0.77	<0.08	<0.08	0.03 (J)	1.5
3/27/2019	<0.08				0.036 (J)	
3/28/2019		0.83	0.024 (J)	<0.08		1.4
9/11/2019	<0.08					
9/12/2019		0.65	<0.08	<0.08	0.048 (J)	1.6
3/10/2020	<0.08	0.64	0.059 (J)	<0.08	0.066 (J)	
3/11/2020						1.9
4/2/2020			0.084			
9/21/2020	0.11		0.11	0.073 (J)		0.61
9/22/2020		0.73			0.097	

Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
8/31/2016	0.023 (J)	0.023 (J)	<0.08		
9/1/2016				<0.08	<0.08
1/23/2017	<0.08				
1/24/2017		<0.08		<0.08	
1/25/2017			0.023 (J)		
1/27/2017					<0.08
7/19/2017	0.021 (J)	0.026 (J)			
7/20/2017			<0.08	<0.08	<0.08
9/21/2017	<0.08	0.025 (J)	<0.08	<0.08	
9/22/2017					<0.08
1/9/2018	0.025 (J)	0.023 (J)	<0.08		
1/10/2018				<0.08	<0.08
3/28/2018	<0.08		<0.08	<0.08	
3/29/2018		0.035 (J)			<0.08
7/10/2018		0.044 (J)	<0.08		
7/11/2018	<0.08			<0.08	<0.08
10/9/2018	<0.08	0.043 (J)	<0.08	<0.08	<0.08
1/30/2019	<0.08		<0.08		
1/31/2019		0.04 (J)		<0.08	<0.08
3/28/2019	0.021 (J)	0.062	<0.08	<0.08	<0.08
9/12/2019	<0.08	0.045 (J)	<0.08	<0.08	<0.08
3/11/2020	0.04 (J)				<0.08
3/31/2020		0.046 (J)	<0.08	<0.08	
9/22/2020	0.098	0.083	0.053 (J)	0.045 (J)	0.048 (J)

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
8/31/2016			1.5	0.88	3.7	
9/1/2016	26 (o)					
1/19/2017			1.8	1.1	2	
2/28/2017	2.7					
7/17/2017	1.7					
7/18/2017			1.7	0.86		
7/19/2017					2.6	
9/20/2017	1.5		1.7			
9/21/2017				0.9	2.7	
1/8/2018	1.7					
1/9/2018			1.9	1	4.1	
3/27/2018	1.7		1.9	0.89	4.8	
7/10/2018	1.7		1.9	0.99	3.7	
10/8/2018	1.6	17		1.1	3.2	17
10/9/2018			2.2			
1/30/2019	1.9	16	2.4	1	1.7	15
3/27/2019	1.6				3.1	
3/28/2019		16	2.4	0.98		18
9/11/2019	1.6					
9/12/2019		15	2.3	0.84	1.9	19
3/10/2020	2	14	2.8	1.1	2.9	
3/11/2020						20
4/2/2020			3			
9/21/2020	1.8		3.1	1.4		13
9/22/2020		16			2.9	

Time Series

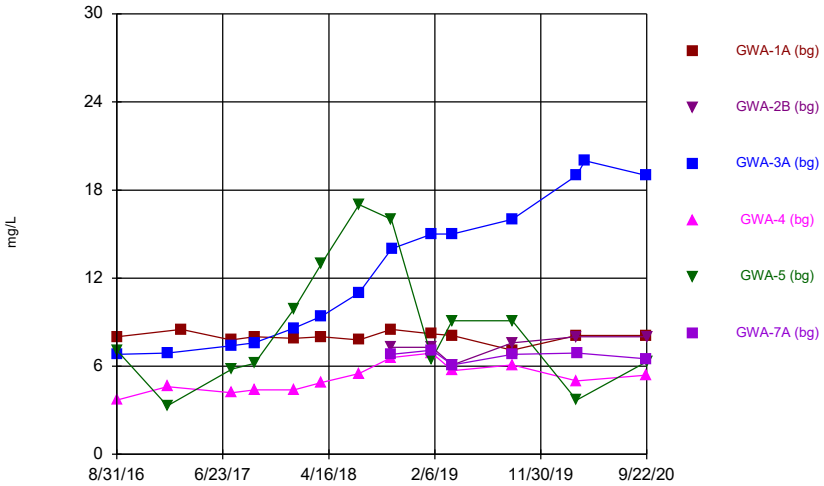
Constituent: Calcium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
8/31/2016	0.22 (J)	5.5	0.42		
9/1/2016				21	1.9
1/23/2017	1.3 (o)				
1/24/2017		2.9		10	
1/25/2017			0.37		
1/27/2017					1.4
7/19/2017	0.19 (J)	4.2			
7/20/2017			0.29	8.1	1.5
9/21/2017	0.3	2.9	0.3	8	
9/22/2017					1.3
1/9/2018	0.16 (J)	1.7	0.38		
1/10/2018				11	1
3/28/2018	0.14 (J)		0.44	9.5	
3/29/2018		2.2			1.5
7/10/2018		3.9	2 (o)		
7/11/2018	0.18 (J)			9.6	1.6
10/9/2018	0.13 (J)	1.7	0.34	8	1.5
1/30/2019	0.24 (J)		0.34		
1/31/2019		4.8		7.5	1.9
3/28/2019	0.15 (J)	4.9	0.3	7.2	1.5
9/12/2019	<0.5 (D)	2	0.3 (J)	9.1	1.7
3/11/2020	1.6 (o)				1.7
3/31/2020		8.3	0.48 (J)	12	
9/22/2020	0.21 (J)	2.1	0.51	8	1.9

Sanitas™ v.9.6.27 . UG

Time Series



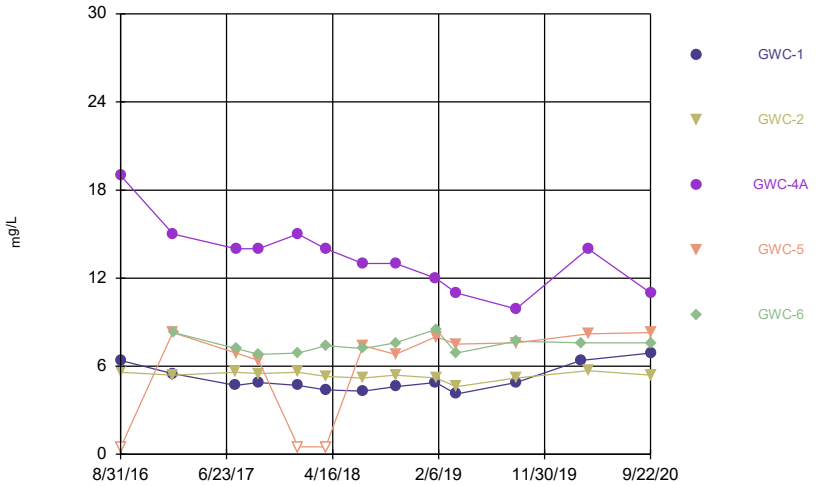
Constituent: Chloride Analysis Run 12/2/2020 12:41 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Time Series



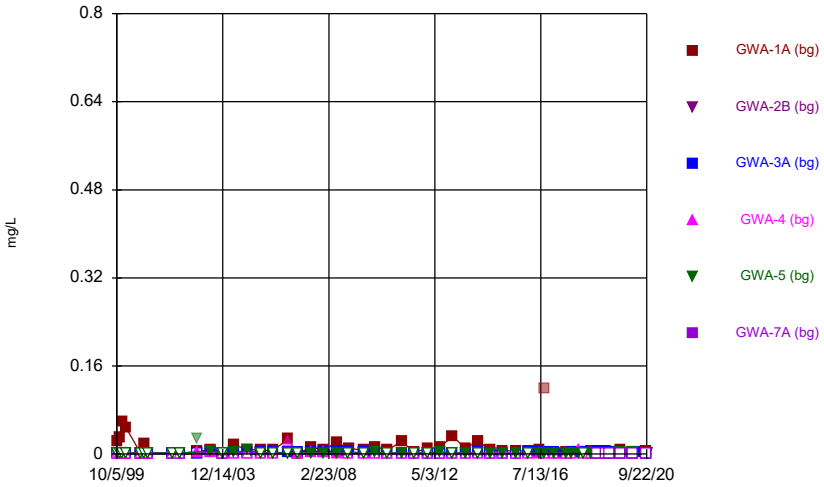
Constituent: Chloride Analysis Run 12/2/2020 12:41 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Time Series



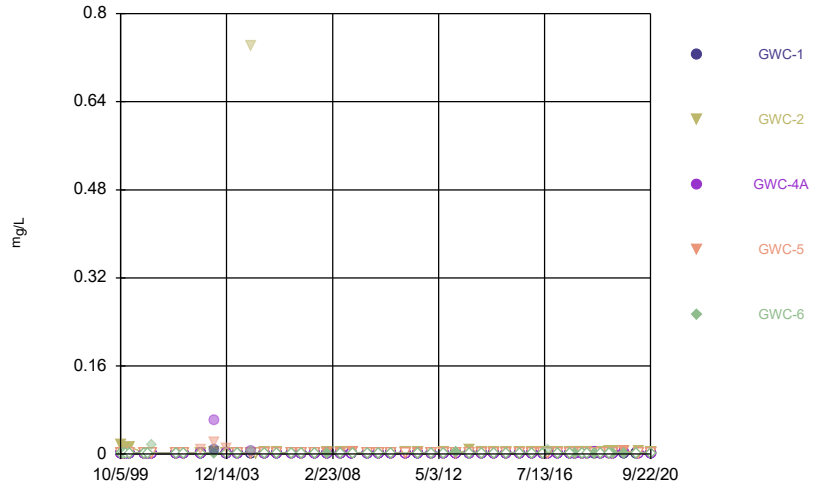
Constituent: Chromium Analysis Run 12/2/2020 12:41 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Time Series



Constituent: Chromium Analysis Run 12/2/2020 12:41 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
8/31/2016			6.8	3.7	7.1	
9/1/2016	8					
1/19/2017			6.9	4.6	3.3	
2/28/2017	8.5					
7/17/2017	7.8					
7/18/2017			7.4	4.2		
7/19/2017					5.8	
9/20/2017	8		7.6			
9/21/2017				4.4	6.2	
1/8/2018	7.9					
1/9/2018			8.6	4.4	9.9	
3/27/2018	8		9.4	4.9	13	
7/10/2018	7.8		11	5.5	17	
10/8/2018	8.5	7.3		6.6	16	6.8
10/9/2018			14			
1/30/2019	8.2	7.3	15	6.9	6.5	7.1
3/27/2019	8.1				9.1	
3/28/2019		6.1	15	5.7		6.1
9/11/2019	7.1					
9/12/2019		7.6	16	6.1	9.1	6.8
3/10/2020	8.1	8	19	5	3.7	
3/11/2020						6.9
4/2/2020			20			
9/21/2020	8.1		19	5.4		6.5
9/22/2020		8			6.3	

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
8/31/2016	6.4	5.6	19		
9/1/2016				<1	
1/23/2017	5.5				
1/24/2017		5.4		8.3	
1/25/2017			15		
1/27/2017					8.3
7/19/2017	4.7	5.6			
7/20/2017			14	6.9	7.2
9/21/2017	4.9	5.5	14	6.4	
9/22/2017					6.8
1/9/2018	4.7	5.6	15		
1/10/2018				<1	6.9
3/28/2018	4.4		14	<1	
3/29/2018		5.3			7.4
7/10/2018		5.2	13		
7/11/2018	4.3			7.4	7.2
10/9/2018	4.6	5.4	13	6.8	7.6
1/30/2019	4.9		12		
1/31/2019		5.2		8	8.5
3/28/2019	4.1	4.6	11	7.5	6.9
9/12/2019	4.9	5.2	9.9	7.6	7.7
3/11/2020	6.4				7.6
3/31/2020		5.7	14	8.2	
9/22/2020	6.9	5.4	11	8.3	7.6

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	0.023		<0.002	<0.002	<0.002	
11/12/1999	0.03		<0.002	<0.002	<0.002	
12/29/1999	0.059		<0.002	<0.002	<0.002	
2/17/2000	0.048		<0.002	<0.002	<0.002	
9/13/2000	<0.002		<0.002	<0.002	<0.002	
11/10/2000	0.018		<0.002	<0.002	<0.002	
1/4/2001	<0.002		<0.002	<0.002	<0.002	
12/11/2001	<0.002		<0.002	<0.002	<0.002	
4/4/2002	<0.002		<0.002	<0.002	<0.002	
12/6/2002	0.0046		<0.002	0.0037	0.027 (o)	
6/28/2003	0.0082		0.0053	0.0039	0.0051	
12/13/2003	<0.002		<0.002	<0.002	<0.002	
5/28/2004	0.016		0.0027	<0.002	0.0031	
12/10/2004	0.0087		0.004	<0.002	0.0067	
6/24/2005	0.0069		0.0031	<0.002	<0.002	
12/13/2005	0.0075		0.0031	<0.002	<0.002	
7/12/2006	0.027		0.0025	0.023 (o)	<0.002	
12/1/2006	<0.002		0.0037	0.0017	<0.002	
6/21/2007	0.012		0.0053	0.0027	0.0021	
12/15/2007	0.0085		0.0044	0.0026	0.0022	
6/21/2008				0.0021		
6/22/2008	0.021		0.0059		0.0019	
12/6/2008			0.0031	<0.002	<0.002	
12/7/2008	0.01					
7/10/2009			0.0029			
7/11/2009	0.0073			<0.002	<0.002	
12/22/2009					0.0032	
12/23/2009	0.013		0.0025	<0.002		
6/23/2010			0.0013	<0.002	<0.002	
6/24/2010	0.0076					
1/8/2011			0.0017	<0.002	0.0019	
1/9/2011	0.023					
7/10/2011			<0.002	<0.002	<0.002	
7/11/2011	0.0042					
1/19/2012			<0.002	<0.002		
1/20/2012	0.009				<0.002	
7/12/2012			<0.002	<0.002	0.0044	
7/13/2012	0.013					
1/21/2013	0.032		0.0014	<0.002	<0.002	
7/20/2013	0.01		0.0021	<0.002	0.0017	
1/17/2014	0.024		0.0023	<0.002	<0.0013 (J)	
7/12/2014	0.0069		<0.0013 (J)	<0.002	0.0014	
1/15/2015			<0.002	<0.002		
1/16/2015	0.0064				0.0011 (J)	
7/15/2015	0.0051		<0.002	<0.002	0.0016	
1/16/2016	0.0066		0.0025	<0.002	<0.002	
6/22/2016	0.00815 (D)		0.00255 (JD)	0.0005 (J)	0.002 (J)	
8/31/2016			0.0042	<0.002	0.002 (J)	
9/1/2016	0.12 (o)					
1/19/2017			0.0039	<0.002	0.002 (J)	
2/28/2017	0.0012 (J)					
7/17/2017	0.003					

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
7/18/2017			0.0018 (J)	<0.002		
7/19/2017					0.0017 (J)	
9/20/2017	0.0025		0.0026			
9/21/2017				<0.002	0.0021 (J)	
1/8/2018	0.0038					
1/9/2018			0.0038	0.0087	0.0019 (J)	
3/27/2018	0.0044		0.0037	<0.002	<0.002	
7/10/2018	0.0045		0.0022 (J)	<0.002	0.0012 (J)	
10/8/2018	0.0054	<0.002		<0.002	0.0015 (J)	<0.002
10/9/2018			0.0047			
1/30/2019	0.0061	0.003	0.005	0.00088 (J)	0.0014 (J)	<0.002
3/27/2019	0.0044				<0.002	
3/28/2019		0.0017 (J)	0.0037	<0.002		<0.002
9/11/2019	0.0076					
9/12/2019		<0.002	<0.002	<0.002	0.0032	<0.002
3/10/2020	0.0041	<0.002	<0.002	<0.002	0.0031	
3/11/2020						<0.002
4/2/2020			0.0031			
9/21/2020	0.0049		<0.002	<0.002		<0.002
9/22/2020		<0.002			0.0017 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.002	0.017	<0.002	<0.002	<0.002
11/12/1999	<0.002	<0.002	<0.002	<0.002	<0.002
12/29/1999	<0.002	0.011	<0.002	<0.002	<0.002
2/17/2000	<0.002	0.013	<0.002	<0.002	<0.002
9/13/2000	<0.002	<0.002	<0.002	<0.002	<0.002
11/10/2000	<0.002	<0.002	<0.002	<0.002	<0.002
1/4/2001	<0.002	<0.002	<0.002	<0.002	0.016 (o)
12/11/2001	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2002	<0.002	<0.002	<0.002	<0.002	<0.002
12/6/2002	<0.002	<0.002	<0.002	0.008 (o)	<0.002
6/28/2003	0.007 (o)	0.0027	0.061 (o)	0.021 (o)	0.0021
12/13/2003	<0.002	<0.002	<0.002	0.011 (o)	<0.002
5/28/2004	<0.002	<0.002	<0.002	<0.002	<0.002
12/10/2004	<0.002	0.74 (o)	0.0059 (o)	<0.002	0.0046 (o)
2/5/2005		<0.002			
6/24/2005	<0.002	0.0023	<0.002	<0.002	<0.002
12/13/2005	<0.002	0.0031	<0.002	<0.002	<0.002
7/12/2006	<0.002	0.0016	<0.002	<0.002	<0.002
12/1/2006	<0.002	0.0022	<0.002	<0.002	<0.002
6/21/2007	<0.002	0.002	<0.002	<0.002	<0.002
12/15/2007	<0.002	0.0029	<0.002	0.002	0.0016
6/21/2008	<0.002		<0.002	0.0017	
6/22/2008		0.0023			<0.002
12/6/2008	<0.002	0.0023	<0.002		
12/7/2008				0.0025	<0.002
7/11/2009	<0.002	0.0015	<0.002	<0.002	<0.002
12/23/2009	<0.002	0.0014	<0.002	<0.002	<0.002
6/23/2010	<0.002	0.0018	<0.002	<0.002	
6/24/2010					<0.002
1/8/2011	<0.002	0.0033	<0.002	<0.002	
7/10/2011	<0.002	0.0028	<0.002	0.0013	
7/11/2011					<0.002
1/20/2012	<0.002	<0.002	<0.002	<0.002	<0.002
7/12/2012	<0.002	0.0025	<0.002	<0.002	
7/13/2012					<0.002
1/21/2013	<0.002	0.0022	<0.002	<0.002	0.0025
7/20/2013	<0.002	0.0075	<0.002	<0.002	<0.002
1/17/2014	<0.002	0.0039	<0.002	<0.002	<0.002
7/11/2014			<0.002	<0.002	
7/12/2014	<0.002	0.0031			<0.002
1/15/2015		0.0026			
1/16/2015	<0.002		<0.002	<0.002	<0.002
7/15/2015	<0.002	0.0032	<0.002	<0.002	<0.002
1/16/2016	<0.002			<0.002	<0.002
1/17/2016		0.0029	<0.002		
6/22/2016	0.0008 (J)	0.0036 (J)	<0.002		
6/23/2016				<0.002	<0.002
8/31/2016	<0.002	0.0027	<0.002		
9/1/2016				<0.002	0.0069 (o)
1/23/2017	<0.002				
1/24/2017		0.0034		<0.002	
1/25/2017			<0.002 (D)		

Time Series

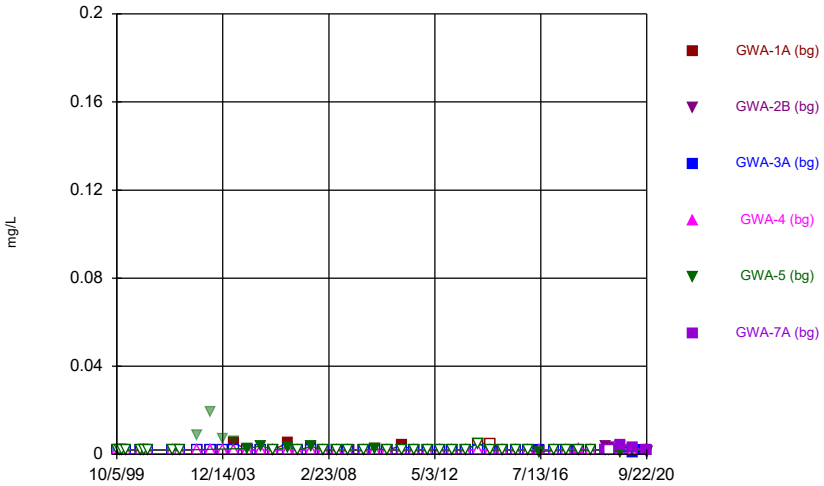
Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
1/27/2017					<0.002 (D)
7/19/2017	<0.002	0.0028			
7/20/2017			<0.002	<0.002	<0.002
9/21/2017	<0.002	0.0035	<0.002	<0.002	
9/22/2017					0.0015 (J)
1/9/2018	<0.002	0.003	<0.002		
1/10/2018				<0.002	<0.002
3/28/2018	<0.002		0.0019 (J)	<0.002	
3/29/2018		0.0032			<0.002
7/10/2018		0.0033	0.0029		
7/11/2018	<0.002			<0.002	0.0011 (J)
10/9/2018	<0.002	0.0039	<0.002	<0.002	<0.002
1/30/2019	0.0024 (J)		<0.002		
1/31/2019		0.0061		<0.002	<0.002
3/28/2019	<0.002	0.0049	<0.002	<0.002	0.0019 (J)
9/12/2019	<0.002	0.0048	0.0028	0.0051	0.0022
3/11/2020	<0.002				<0.002
3/31/2020		0.005	<0.002	<0.002	
9/22/2020	0.0017 (J)	0.0036	<0.002	<0.002	<0.002

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

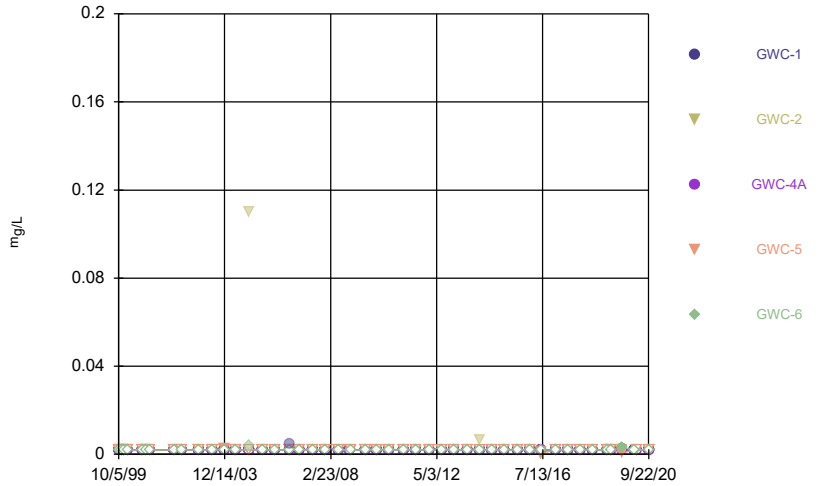
Time Series



Constituent: Copper Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

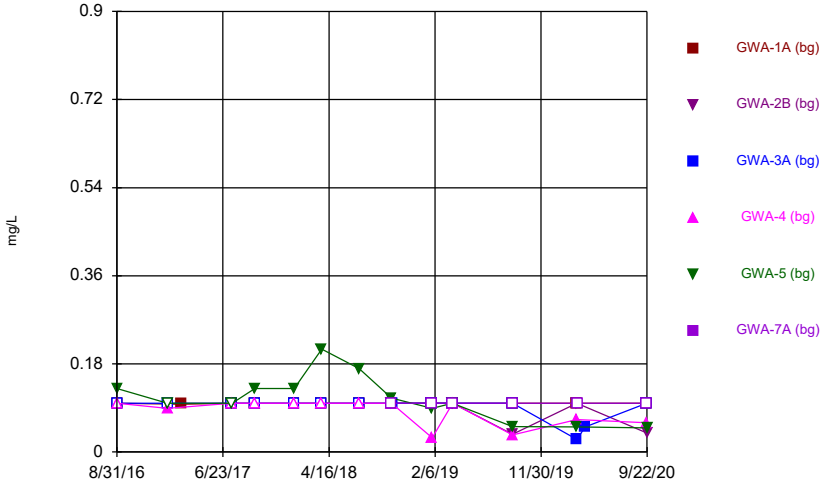
Time Series



Constituent: Copper Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

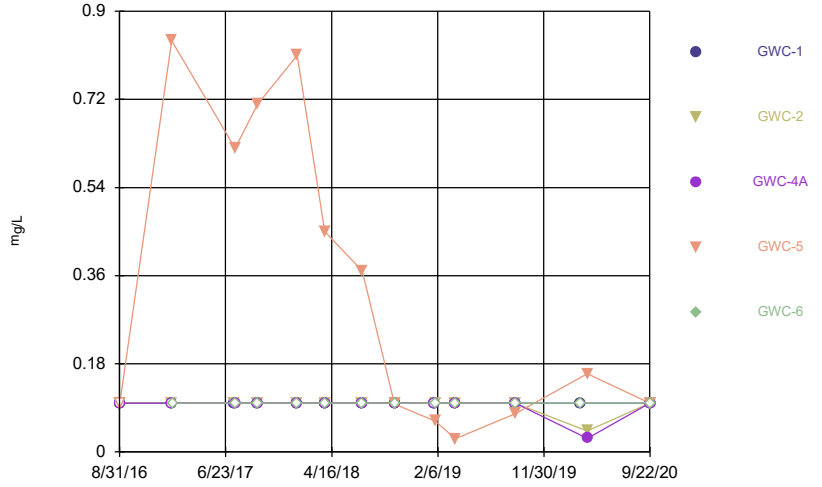
Time Series



Constituent: Fluoride Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	<0.002		<0.002	<0.002	<0.002	
11/12/1999	<0.002		<0.002	<0.002	<0.002	
12/29/1999	<0.002		<0.002	<0.002	<0.002	
2/17/2000	<0.002		<0.002	<0.002	<0.002	
9/13/2000	<0.002		<0.002	<0.002	<0.002	
11/10/2000	<0.002		<0.002	<0.002	<0.002	
1/4/2001	<0.002		<0.002	<0.002	<0.002	
12/11/2001	<0.002		<0.002	<0.002	<0.002	
4/4/2002	<0.002		<0.002	<0.002	<0.002	
12/6/2002	<0.002		<0.002	<0.002	0.0089 (o)	
6/28/2003	<0.002		<0.002	<0.002	0.019 (o)	
12/13/2003	<0.002		<0.002	<0.002	0.0067 (o)	
5/28/2004	0.0052		<0.002	<0.002	0.0057 (o)	
12/10/2004	<0.002		<0.002	<0.002	0.0027	
6/24/2005	<0.002		<0.002	<0.002	0.0038	
12/13/2005	<0.002		<0.002	<0.002	<0.002	
7/12/2006	0.0055		<0.002	<0.002	0.0033	
12/1/2006	<0.002		<0.002	<0.002	<0.002	
6/21/2007	0.0032		<0.002	<0.002	0.0035	
12/15/2007	<0.002		<0.002	<0.002	<0.002	
6/21/2008				<0.002		
6/22/2008	<0.002		<0.002		<0.002	
12/6/2008			<0.002	<0.002	<0.002	
12/7/2008	<0.002					
7/10/2009			<0.002			
7/11/2009	<0.002			<0.002	<0.002	
12/22/2009					0.0025	
12/23/2009	0.0025		<0.002	<0.002		
6/23/2010			<0.002	<0.002	<0.002	
6/24/2010	<0.002					
1/8/2011			<0.002	<0.002	<0.002	
1/9/2011	0.004					
7/10/2011			<0.002	<0.002	<0.002	
7/11/2011	<0.002					
1/19/2012			<0.002	<0.002		
1/20/2012	<0.002				<0.002	
7/12/2012			<0.002	<0.002	<0.002	
7/13/2012	<0.002					
1/21/2013	<0.002		<0.002	<0.002	<0.002	
7/20/2013	<0.002		<0.002	<0.002	<0.002	
1/17/2014	<0.005 (J)		<0.002	<0.002	<0.005 (J)	
7/12/2014	<0.005 (J)		<0.002	<0.002	<0.002	
1/15/2015			<0.002	<0.002		
1/16/2015	<0.002				<0.002	
7/15/2015	<0.002		<0.002	<0.002	<0.002	
1/16/2016	<0.002		<0.002	<0.002	<0.002	
6/22/2016	0.002 (JD)		0.00205 (JD)	<0.002	0.001	
1/19/2017			<0.002	<0.002	<0.002	
2/28/2017	<0.002					
7/17/2017	<0.002					
7/18/2017			<0.002	<0.002		
7/19/2017					<0.002	

Time Series

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
1/8/2018	<0.002					
1/9/2018			<0.002	0.0025	<0.002	
7/10/2018	<0.002		<0.002	<0.002	<0.002	
1/30/2019	<0.002	0.0035	<0.002	<0.002	<0.002	0.0018 (J)
3/27/2019	<0.002				<0.002	
3/28/2019		0.0031	<0.002	<0.002		<0.002
9/11/2019	<0.002					
9/12/2019		0.0038	0.0024	0.0022	0.0011 (J)	0.0041
3/10/2020	<0.002	0.0021	0.00082 (J)	<0.002	0.0019 (J)	
3/11/2020						0.0032
4/2/2020			0.0019 (J)			
9/21/2020	<0.002		<0.002	<0.002		0.0018 (J)
9/22/2020		0.00096 (J)			0.0013 (J)	

Time Series

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.002	<0.002	<0.002	<0.002	<0.002
11/12/1999	<0.002	<0.002	<0.002	<0.002	<0.002
12/29/1999	<0.002	<0.002	<0.002	<0.002	<0.002
2/17/2000	<0.002	<0.002	<0.002	<0.002	<0.002
9/13/2000	<0.002	<0.002	<0.002	<0.002	<0.002
11/10/2000	<0.002	<0.002	<0.002	<0.002	<0.002
1/4/2001	<0.002	<0.002	<0.002	<0.002	<0.002
12/11/2001	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2002	<0.002	<0.002	<0.002	<0.002	<0.002
12/6/2002	<0.002	<0.002	<0.002	<0.002	<0.002
6/28/2003	<0.002	<0.002	<0.002	<0.002	<0.002
12/13/2003	<0.002	<0.002	<0.002	0.0026	<0.002
5/28/2004	<0.002	<0.002	<0.002	<0.002	<0.002
12/10/2004	<0.002	0.11 (o)	<0.002	<0.002	0.0044 (o)
6/24/2005	<0.002	<0.002	<0.002	<0.002	<0.002
12/13/2005	<0.002	<0.002	<0.002	<0.002	<0.002
7/12/2006	0.0047 (o)	<0.002	<0.002	<0.002	<0.002
12/1/2006	<0.002	<0.002	<0.002	<0.002	<0.002
6/21/2007	<0.002	<0.002	<0.002	<0.002	<0.002
12/15/2007	<0.002	<0.002	<0.002	<0.002	<0.002
6/21/2008	<0.002		<0.002	<0.002	
6/22/2008		<0.002			<0.002
12/6/2008	<0.002	<0.002	<0.002		
12/7/2008				<0.002	<0.002
7/11/2009	<0.002	<0.002	<0.002	<0.002	<0.002
12/23/2009	<0.002	<0.002	<0.002	<0.002	<0.002
6/23/2010	<0.002	<0.002	<0.002	<0.002	
6/24/2010					<0.002
1/8/2011	<0.002	<0.002	<0.002	<0.002	
1/9/2011					<0.002
7/10/2011	<0.002	<0.002	<0.002	<0.002	
7/11/2011					<0.002
1/20/2012	<0.002	<0.002	<0.002	<0.002	<0.002
7/12/2012	<0.002	<0.002	<0.002	<0.002	
7/13/2012					<0.002
1/21/2013	<0.002	<0.002	<0.002	<0.002	<0.002
7/20/2013	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2014	<0.002	0.0065 (o)	<0.002	<0.002	<0.002
7/11/2014			<0.002	<0.002	
7/12/2014	<0.002	<0.002			<0.002
1/15/2015		<0.002			
1/16/2015	<0.002		<0.002	<0.002	<0.002
7/15/2015	<0.002	<0.002	<0.002	<0.002	<0.002
1/16/2016	<0.002			<0.002	<0.002
1/17/2016		<0.002	<0.002		
6/22/2016	<0.002	0.0005 (J)	<0.002		
6/23/2016				0.0007 (J)	<0.002
1/23/2017	<0.002				
1/24/2017		<0.002		<0.002	
1/25/2017			<0.002		
1/27/2017					<0.002
7/19/2017	<0.002	<0.002			

Time Series

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
7/20/2017			<0.002	<0.002	<0.002
1/9/2018	<0.002	<0.002	<0.002		
1/10/2018				<0.002	<0.002
7/10/2018		<0.002	<0.002		
7/11/2018	<0.002			<0.002	<0.002
1/30/2019	<0.002		<0.002		
1/31/2019		<0.002		<0.002	<0.002
3/28/2019	<0.002	<0.002	<0.002	<0.002	<0.002
9/12/2019	0.0024	0.002	<0.002	0.00084 (J)	0.003
3/11/2020	<0.002				<0.002
3/31/2020		<0.002	<0.002	<0.002	
9/22/2020	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
8/31/2016			<0.1	<0.1	0.13 (J)	
9/1/2016	<0.1					
1/19/2017			<0.1	0.089 (J)	<0.1	
2/28/2017	0.098 (J)					
7/17/2017	<0.1					
7/18/2017			<0.1	<0.1		
7/19/2017					<0.1	
9/20/2017	<0.1		<0.1			
9/21/2017				<0.1	0.13 (J)	
1/8/2018	<0.1					
1/9/2018			<0.1	<0.1	0.13 (J)	
3/27/2018	<0.1		<0.1	<0.1	0.21	
7/10/2018	<0.1		<0.1	<0.1	0.17 (J)	
10/8/2018	<0.1	<0.1		<0.1	0.11 (J)	<0.1
10/9/2018			<0.1			
1/30/2019	<0.1	<0.1	<0.1	0.029 (J)	0.089 (J)	<0.1
3/27/2019	<0.1				0.1 (J)	
3/28/2019		<0.1	<0.1	<0.1		<0.1
9/11/2019	<0.1					
9/12/2019		0.036 (J)	<0.1	0.035 (J)	0.052 (J)	<0.1
3/10/2020	<0.1	<0.1	0.026 (J)	0.066 (J)	0.051 (J)	
3/11/2020						<0.1
4/2/2020			0.051 (J)			
9/21/2020	<0.1		<0.1	0.06 (J)		<0.1
9/22/2020		0.039 (J)			0.049 (J)	

Time Series

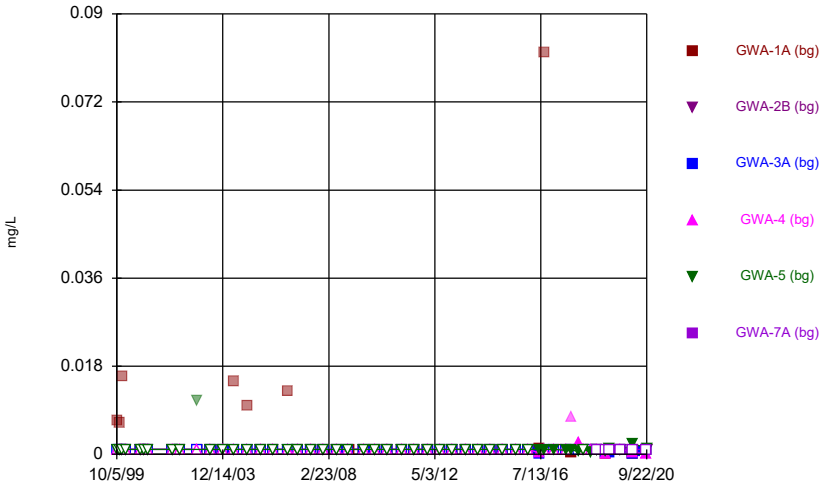
Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
8/31/2016	<0.1	<0.1	<0.1		
9/1/2016				<0.1	
1/23/2017	<0.1				
1/24/2017		<0.1		0.84	
1/25/2017			<0.1		
1/27/2017					<0.1
7/19/2017	<0.1	<0.1			
7/20/2017			<0.1	0.62	<0.1
9/21/2017	<0.1	<0.1	<0.1	0.71	
9/22/2017					<0.1
1/9/2018	<0.1	<0.1	<0.1		
1/10/2018				0.81	<0.1
3/28/2018	<0.1		<0.1	0.45	
3/29/2018		<0.1			<0.1
7/10/2018		<0.1	<0.1		
7/11/2018	<0.1			0.37	<0.1
10/9/2018	<0.1	<0.1	<0.1	0.098 (J)	<0.1
1/30/2019	<0.1		<0.1		
1/31/2019		<0.1		0.063 (J)	<0.1
3/28/2019	<0.1	<0.1	<0.1	0.027 (J)	<0.1
9/12/2019	<0.1	<0.1	<0.1	0.078 (J)	<0.1
3/11/2020	<0.1				<0.1
3/31/2020		0.043 (J)	0.028 (J)	0.16	
9/22/2020	<0.1	<0.1	<0.1	0.1	<0.1

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

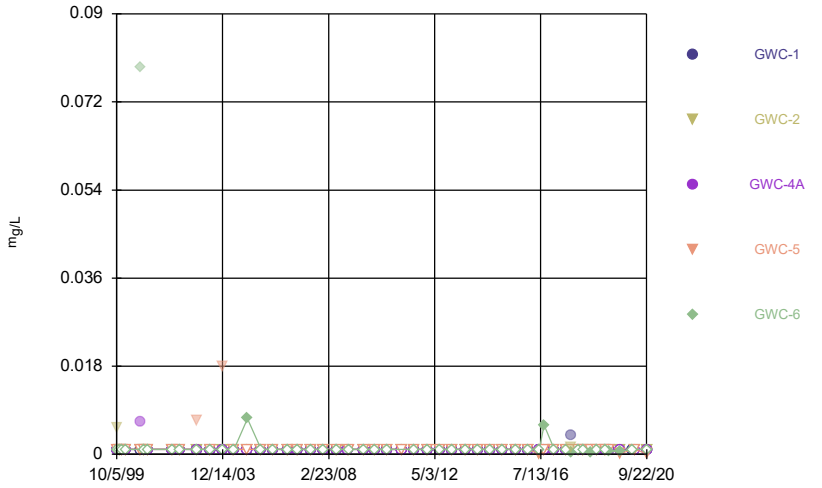
Time Series



Constituent: Lead Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

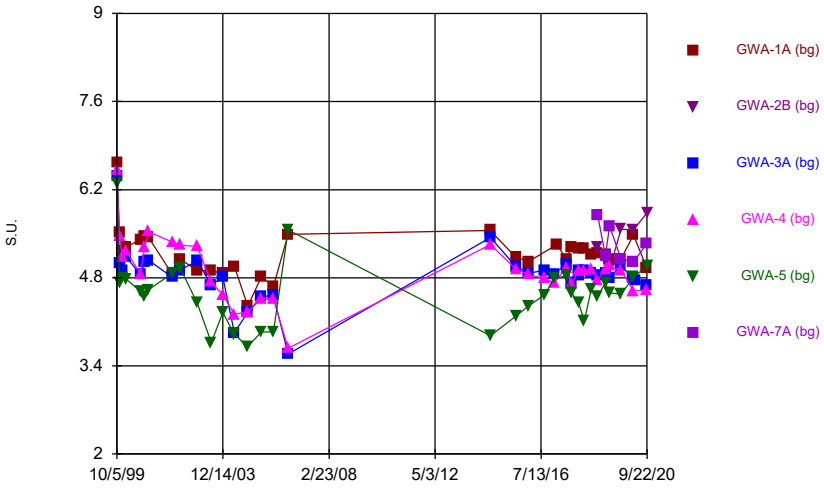
Time Series



Constituent: Lead Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

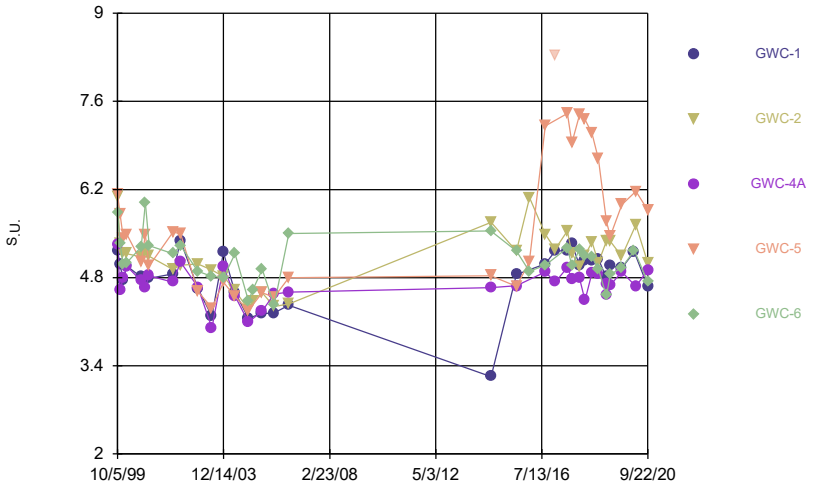
Time Series



Constituent: pH Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Time Series



Constituent: pH Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	0.007 (o)		<0.001	<0.001	<0.001	
11/12/1999	0.0063 (o)		<0.001	<0.001	<0.001	
12/29/1999	0.016 (o)		<0.001	<0.001	<0.001	
2/17/2000	<0.001		<0.001	<0.001	<0.001	
9/13/2000	<0.001		<0.001	<0.001	<0.001	
11/10/2000	<0.001		<0.001	<0.001	<0.001	
1/4/2001	<0.001		<0.001	<0.001	<0.001	
12/11/2001	<0.001		<0.001	<0.001	<0.001	
4/4/2002	<0.001		<0.001	<0.001	<0.001	
12/6/2002	<0.001		<0.001	<0.001	0.011 (o)	
6/28/2003	<0.001		<0.001	<0.001	<0.001	
12/13/2003	<0.001		<0.001	<0.001	<0.001	
5/28/2004	0.015 (o)		<0.001	<0.001	<0.001	
12/10/2004	0.01 (o)		<0.001	<0.001	<0.001	
6/24/2005	<0.001		<0.001	<0.001	<0.001	
12/13/2005	<0.001		<0.001	<0.001	<0.001	
7/12/2006	0.013 (o)		<0.001	<0.001	<0.001	
12/1/2006	<0.001		<0.001	<0.001	<0.001	
6/21/2007	<0.001		<0.001	<0.001	<0.001	
12/15/2007	<0.001		<0.001	<0.001	<0.001	
6/21/2008				<0.001		
6/22/2008	<0.001		<0.001		<0.001	
12/6/2008			<0.001	<0.001	<0.001	
12/7/2008	<0.001					
7/10/2009			<0.001			
7/11/2009	<0.001			<0.001	<0.001	
12/22/2009					<0.001	
12/23/2009	<0.001		<0.001	<0.001		
6/23/2010			<0.001	<0.001	<0.001	
6/24/2010	<0.001					
1/8/2011			<0.001	<0.001	<0.001	
1/9/2011	<0.001					
7/10/2011			<0.001	<0.001	<0.001	
7/11/2011	<0.001					
1/19/2012			<0.001	<0.001		
1/20/2012	<0.001				<0.001	
7/12/2012			<0.001	<0.001	<0.001	
7/13/2012	<0.001					
1/21/2013	<0.001		<0.001	<0.001	<0.001	
7/20/2013	<0.001		<0.001	<0.001	<0.001	
1/17/2014	<0.001		<0.001	<0.001	<0.001	
7/12/2014	<0.001		<0.001	<0.001	<0.001	
1/15/2015			<0.001	<0.001		
1/16/2015	<0.001				<0.001	
7/15/2015	<0.001		<0.001	<0.001	<0.001	
1/16/2016	<0.001		<0.001	<0.001	<0.001	
6/22/2016	0.00125 (JD)		0.00025 (JD)	0.0003 (J)	0.001 (J)	
8/31/2016			<0.001	<0.001	0.00099 (J)	
9/1/2016	0.082 (o)					
1/19/2017			<0.001	<0.001	0.001 (J)	
2/28/2017	<0.001					
7/17/2017	<0.001					

Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
7/18/2017			<0.001	<0.001		
7/19/2017					0.00081 (J)	
9/20/2017	0.00035 (J)		<0.001			
9/21/2017				0.0076 (o)	0.00086 (J)	
1/8/2018	<0.001					
1/9/2018			<0.001	0.0023	0.00059 (J)	
3/27/2018	<0.001		<0.001	<0.001	<0.001	
7/10/2018	<0.001		<0.001	<0.001	0.00045 (J)	
10/8/2018	<0.001	<0.001		<0.001	<0.001	<0.001
10/9/2018			<0.001			
1/30/2019	0.00021 (J)	0.00028 (J)	0.00034 (J)	0.00013 (J)	0.00064 (J)	<0.001
3/27/2019	<0.001				0.0012 (J)	
3/28/2019		<0.001	0.00038 (J)	<0.001		<0.001
9/11/2019	<0.001					
9/12/2019		<0.001	<0.001	<0.001	0.00082 (J)	<0.001
3/10/2020	0.00015 (J)	<0.001	0.00013 (J)	0.00031 (J)	0.0022	
3/11/2020						<0.001
4/2/2020			0.00062 (J)			
9/21/2020	<0.001		<0.001	0.00025 (J)		<0.001
9/22/2020		<0.001			0.0012	

Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.001	0.0054 (o)	<0.001	<0.001	<0.001
11/12/1999	<0.001	<0.001	<0.001	<0.001	<0.001
12/29/1999	<0.001	<0.001	<0.001	<0.001	<0.001
2/17/2000	<0.001	<0.001	<0.001	<0.001	<0.001
9/13/2000	<0.001	<0.001	0.0067 (o)	<0.001	0.079 (o)
11/10/2000	<0.001	<0.001	<0.001	<0.001	<0.001
1/4/2001	<0.001	<0.001	<0.001	<0.001	<0.001
12/11/2001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2002	<0.001	<0.001	<0.001	<0.001	<0.001
12/6/2002	<0.001	<0.001	<0.001	0.007 (o)	<0.001
6/28/2003	<0.001	<0.001	<0.001	<0.001	<0.001
12/13/2003	<0.001	<0.001	<0.001	0.018 (o)	<0.001
5/28/2004	<0.001	<0.001	<0.001	<0.001	<0.001
12/10/2004	<0.001	<0.001	<0.001	<0.001	0.0073
6/24/2005	<0.001	<0.001	<0.001	<0.001	<0.001
12/13/2005	<0.001	<0.001	<0.001	<0.001	<0.001
7/12/2006	<0.001	<0.001	<0.001	<0.001	<0.001
12/1/2006	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2007	<0.001	<0.001	<0.001	<0.001	<0.001
12/15/2007	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2008	<0.001		<0.001	<0.001	
6/22/2008		<0.001			<0.001
12/6/2008	<0.001	<0.001	<0.001		
12/7/2008				<0.001	<0.001
7/11/2009	<0.001	<0.001	<0.001	<0.001	<0.001
12/23/2009	<0.001	<0.001	<0.001	<0.001	<0.001
6/23/2010	<0.001	<0.001	<0.001	<0.001	
6/24/2010					<0.001
1/8/2011	<0.001	<0.001	<0.001	<0.001	
7/10/2011	<0.001	<0.001	<0.001	<0.001	
7/11/2011					<0.001
1/20/2012	<0.001	<0.001	<0.001	<0.001	<0.001
7/12/2012	<0.001	<0.001	<0.001	<0.001	
7/13/2012					<0.001
1/21/2013	<0.001	<0.001	<0.001	<0.001	<0.001
7/20/2013	<0.001	<0.001	<0.001	<0.001	<0.001
1/17/2014	<0.001	<0.001	<0.001	<0.001	<0.001
7/11/2014			<0.001	<0.001	
7/12/2014	<0.001	<0.001			<0.001
1/15/2015		<0.001			
1/16/2015	<0.001		<0.001	<0.001	<0.001
7/15/2015	<0.001	<0.001	<0.001	<0.001	<0.001
1/16/2016	<0.001			<0.001	<0.001
1/17/2016		<0.001	<0.001		
6/22/2016	<0.001	0.0001 (J)	<0.001		
6/23/2016				0.0001 (J)	<0.001
8/31/2016	<0.001	<0.001	<0.001		
9/1/2016				<0.001	0.006
1/23/2017	<0.001				
1/24/2017		<0.001		<0.001	
1/25/2017			<0.001 (D)		
1/27/2017					<0.001 (D)

Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
7/19/2017	<0.001	<0.001			
7/20/2017			<0.001	<0.001	<0.001
9/21/2017	0.004 (o)	0.0014 (o)	<0.001	<0.001	
9/22/2017					0.00042 (J)
1/9/2018	<0.001	<0.001	<0.001		
1/10/2018				<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	
3/29/2018		<0.001			<0.001
7/10/2018		<0.001	<0.001		
7/11/2018	<0.001			<0.001	0.00037 (J)
10/9/2018	<0.001	<0.001	<0.001	<0.001	<0.001
1/30/2019	<0.001		<0.001		
1/31/2019		<0.001		<0.001	<0.001
3/28/2019	<0.001	<0.001	<0.001	<0.001	0.00052 (J)
9/12/2019	<0.001	<0.001	<0.001	0.00024 (J)	0.00065 (J)
3/11/2020	<0.001				<0.001
3/31/2020		<0.001	<0.001	<0.001	
9/22/2020	<0.001	<0.001	<0.001	0.00013 (J)	<0.001

Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	6.63		6.42	6.51	6.3	
11/12/1999	5.51		5.03	5.46	4.72	
12/29/1999	5.23		4.92	5.13	4.8	
2/17/2000	5.29		5.13	5.22	4.78	
9/13/2000	5.41		4.85	4.86	4.58	
11/10/2000	5.47		5.05	5.29	4.5	
1/4/2001	5.44		5.08	5.53	4.61	
12/11/2001	4.86		4.81	5.37	4.87	
4/4/2002	5.1		4.92	5.32	4.96	
12/6/2002	4.917 (D)		5.07 (D)	5.3 (D)	4.4 (D)	
6/28/2003	4.91		4.69	4.73	3.77	
12/13/2003	4.87		4.81	4.53	4.25	
5/28/2004	4.98		3.93	4.22	3.9	
12/10/2004	4.35		4.25	4.26	3.71	
6/24/2005	4.82		4.5	4.47	3.94	
12/13/2005	4.66		4.52	4.47	3.94	
7/12/2006	5.49		3.59	3.68	5.56	
7/11/2014	5.55					
7/12/2014			5.44	5.33	3.88	
7/15/2015	5.13		4.98	4.94	4.19	
1/16/2016	5.06		4.87	4.85	4.35	
8/31/2016			4.92	4.79	4.53	
1/19/2017			4.86	4.72	4.79	
2/28/2017	5.33					
7/17/2017	5.09					
7/18/2017			5.02	4.96		
7/19/2017					4.83	
9/20/2017	5.29		4.72			
9/21/2017				4.7	4.57	
1/8/2018	5.26		4.92			
1/9/2018			4.83	4.91	4.4	
3/27/2018	5.27		4.91	4.92	4.11	
7/10/2018	5.17		4.87	4.94	4.62	
10/8/2018	5.18	5.29	4.84	4.76	4.51	5.79
1/30/2019	5.17	5.08	4.88	4.94	4.72	5.15
3/27/2019	5.09				4.56	
3/28/2019		4.93	4.8	4.99		5.62
9/11/2019	5.1					
9/12/2019		5.57	4.99	4.92	4.54	5.1
3/10/2020	5.48	5.56	4.79	4.59	4.81	
3/11/2020						5.05
4/2/2020			4.75			
9/21/2020	4.95		4.69	4.6		5.35
9/22/2020		5.83			4.99	

Time Series

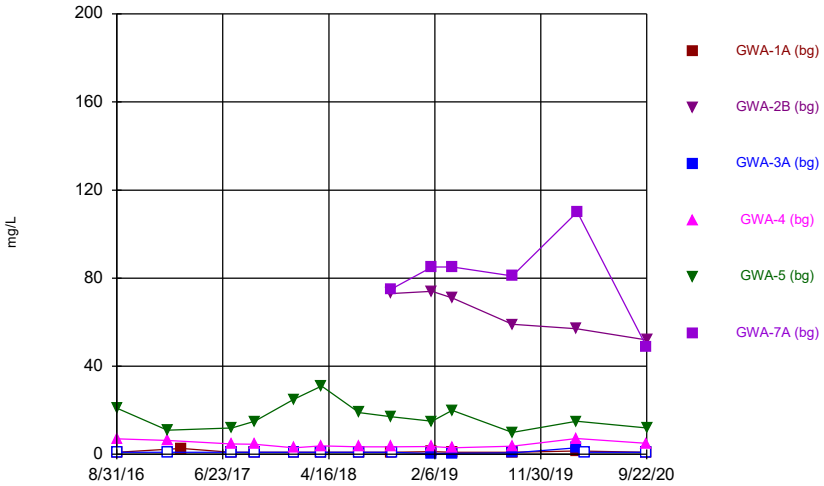
Constituent: pH (S.U.) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	5.23	6.08	5.33	6.13	5.84
11/12/1999	5.02	5.35	4.6	5.81	5.34
12/29/1999	4.75	5.19	4.8	5.43	5.01
2/17/2000	4.99	5.18	4.98	5.49	5.04
9/13/2000	4.81	5.13	4.75	5.05	5.29
11/10/2000	4.79	5.2	4.65	5.48	5.99
1/4/2001	4.79	5.14	4.83	4.99	5.31
12/11/2001	4.86	4.93	4.73	5.52	5.18
4/4/2002	5.39	5	5.05	5.5	5.31
12/6/2002	4.63	5.02	4.65 (D)	4.58 (D)	4.9 (D)
6/28/2003	4.19	4.92	4	4.32	4.82
12/13/2003	5.2	4.82	4.97	4.73	4.8
5/28/2004	4.57	4.6	4.51	4.5	5.18
12/10/2004	4.16	4.29	4.09	4.28	4.43
2/5/2005		4.43			4.6
6/24/2005	4.23	4.56	4.27	4.56	4.93
12/13/2005	4.24	4.34	4.54	4.49	4.36
7/12/2006	4.36	4.38	4.57	4.8	5.5
7/11/2014			4.64	4.83	5.54
7/12/2014	3.23	5.68			
7/15/2015	4.85	5.22	4.67	4.66	5.22
1/16/2016				5.05	4.9
1/17/2016		6.07			
8/31/2016	5.02	5.49	4.89		
9/1/2016				7.21	5
1/23/2017	5.22				
1/24/2017		5.25		8.32 (o)	
1/25/2017			4.73		
7/19/2017	5.23	5.54			5.27
7/20/2017			4.96	7.41	
9/21/2017	5.34	5.19	4.78	6.94	4.99
1/9/2018	5	4.97	4.79	7.39	5.25
3/28/2018	5.08		4.44	7.31	5.14
3/29/2018		5.15			
7/10/2018		5.37	4.88		5.13
7/11/2018	5.07			7.09	
10/9/2018	5.1	5.04	4.85	6.68	4.93
1/29/2019			4.7		
1/30/2019	4.81		4.52		4.52
1/31/2019		5.38		5.69	4.52
3/28/2019	4.99	5.38	4.68	5.46	4.85
9/12/2019	4.95	5.14	4.89	5.96	4.96
3/11/2020	5.21				5.23
3/31/2020		5.64	4.66	6.17	
9/22/2020	4.66	5.04	4.92	5.87	4.73

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

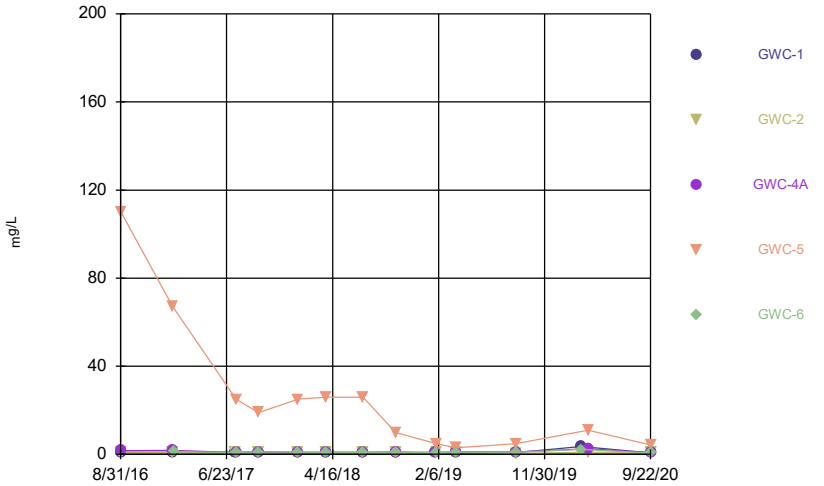
Time Series



Constituent: Sulfate Analysis Run 12/2/2020 12:41 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

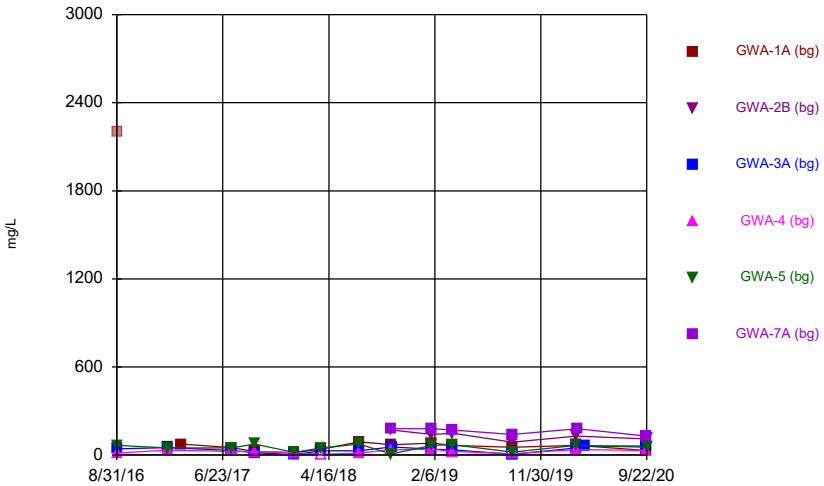
Time Series



Constituent: Sulfate Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

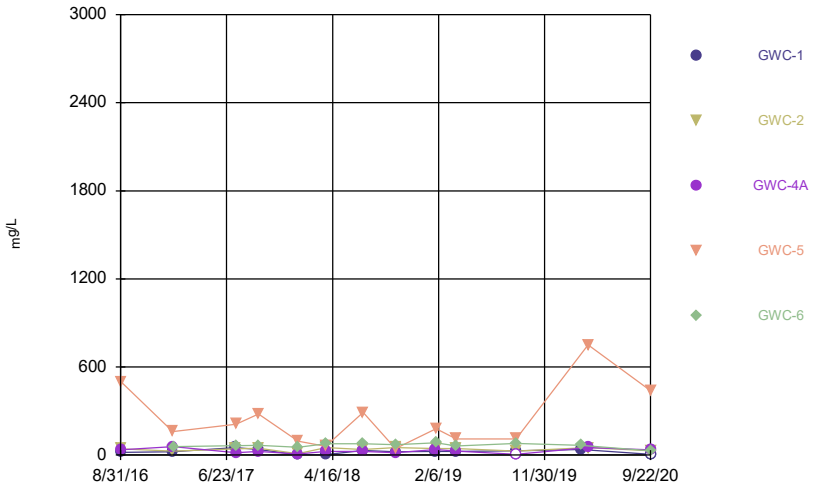
Time Series



Constituent: Total Dissolved Solids Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
8/31/2016			<1	7	21	
9/1/2016	<1					
1/19/2017			<1	6.3	11	
2/28/2017	2.7					
7/17/2017	<1					
7/18/2017			<1	4.7		
7/19/2017					12	
9/20/2017	<1		<1			
9/21/2017				4.5	15	
1/8/2018	<1					
1/9/2018			<1	3	25	
3/27/2018	<1		<1	3.8	31	
7/10/2018	<1		<1	3.4	19	
10/8/2018	<1	73		3.4	17	75
10/9/2018			<1			
1/30/2019	1.2	74	0.41 (J)	3.5	15	85
3/27/2019	<1				20	
3/28/2019		71	0.44 (J)	3		85
9/11/2019	<1					
9/12/2019		59	0.69 (J)	3.7	10	81
3/10/2020	1.5	57	3	7.2	15	
3/11/2020						110
4/2/2020			<1			
9/21/2020	<1		<1	5		49
9/22/2020		52			12	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
8/31/2016	<1	<1	1.7		
9/1/2016				110	
1/23/2017	<1				
1/24/2017		<1		67	
1/25/2017			1.8		
1/27/2017					1.2
7/19/2017	<1	<1			
7/20/2017			0.83 (J)	25	0.84 (J)
9/21/2017	<1	<1	1.1	19	
9/22/2017					1.1
1/9/2018	<1	<1	0.79 (J)		
1/10/2018				25	0.95 (J)
3/28/2018	<1		0.79 (J)	26	
3/29/2018		<1			0.78 (J)
7/10/2018		<1	0.76 (J)		
7/11/2018	<1			26	0.78 (J)
10/9/2018	<1	<1	<1	10	0.79 (J)
1/30/2019	0.58 (J)		0.9 (J)		
1/31/2019		0.57 (J)		4.8	0.86 (J)
3/28/2019	0.67 (J)	<1	1.1	3	0.96 (J)
9/12/2019	0.78 (J)	0.43 (J)	1.1	4.9	1
3/11/2020	3.5				2.2
3/31/2020		1	2.5	11	
9/22/2020	0.63 (J)	<1	0.76 (J)	4.3	0.59 (J)

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
8/31/2016			42 (D)	14 (D)	66 (D)	
9/1/2016	2200 (o)					
1/19/2017			52 (D)	34 (D)	48 (D)	
2/28/2017	74 (D)					
7/17/2017	50					
7/18/2017			32	26		
7/19/2017					48	
9/20/2017	26		16			
9/21/2017				24	76	
1/8/2018	16					
1/9/2018			4 (J)	16	18	
3/27/2018	40		30	<10	48	
7/10/2018	90		30	14	76	
10/8/2018	70	170		36	8	180
10/9/2018			56			
1/30/2019	82	140	41	40	67	180
3/27/2019	66				70	
3/28/2019		150	36	24		170
9/11/2019	53					
9/12/2019		89	<10	10	20	140
3/10/2020	67	130	49	39	67	
3/11/2020						180
4/2/2020			61			
9/21/2020	31		61	31		130
9/22/2020		110			53	

Time Series

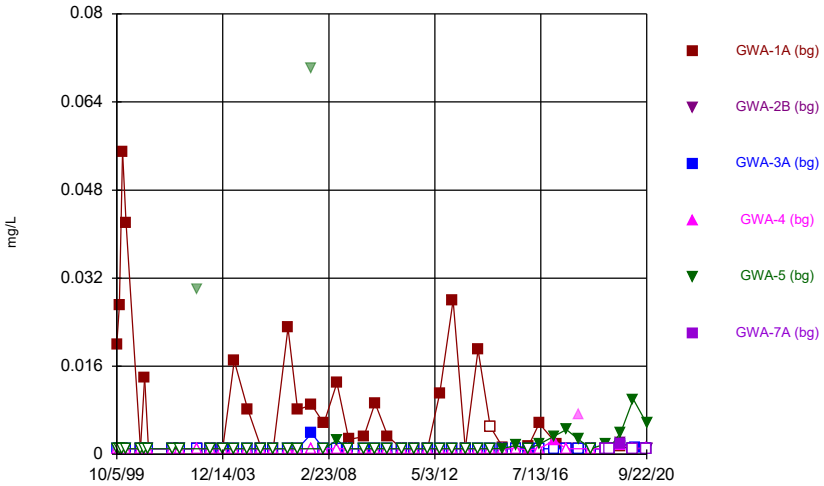
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
8/31/2016	18 (D)	42 (D)	36 (D)		
9/1/2016				500 (D)	
1/23/2017	22 (D)				
1/24/2017		28 (D)		160 (D)	
1/25/2017			58 (D)		
1/27/2017					58 (D)
7/19/2017	52	42			
7/20/2017			16	210	64
9/21/2017	38	46	24	280	
9/22/2017					66
1/9/2018	4 (J)	10	8		
1/10/2018				94	54
3/28/2018	4 (J)		26	60	
3/29/2018		52			78
7/10/2018		38	26		
7/11/2018	32			290	78
10/9/2018	22	52	16	44	70
1/30/2019	24		37		
1/31/2019		45		180	84
3/28/2019	25	45	28	110	62
9/12/2019	29	28	<10	110	80
3/11/2020	37				67
3/31/2020		50	52	750	
9/22/2020	<10	30	36	440	30

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

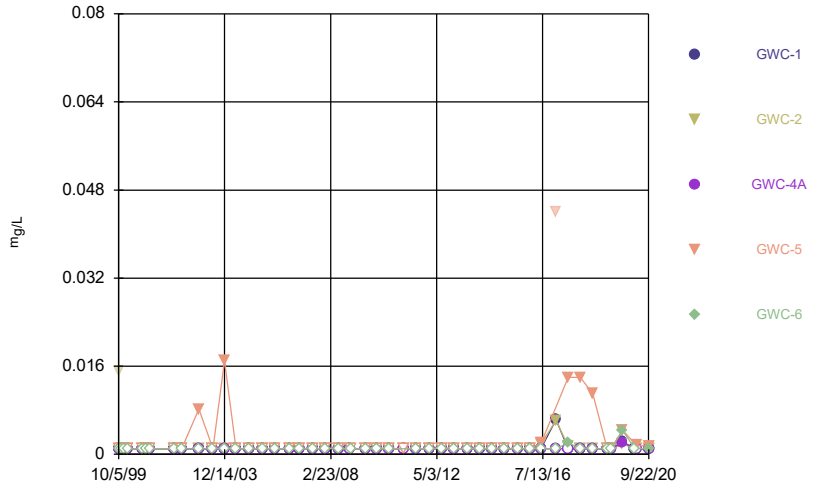
Time Series



Constituent: Vanadium Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

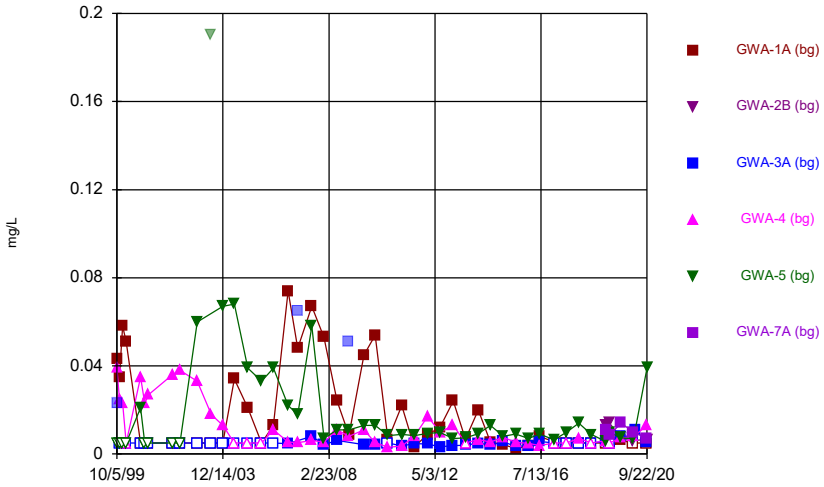
Time Series



Constituent: Vanadium Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

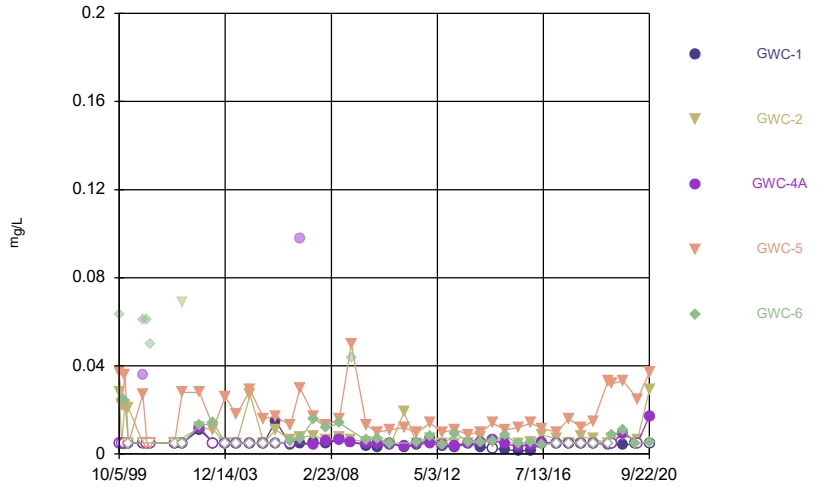
Time Series



Constituent: Zinc Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 12/2/2020 12:42 PM
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	0.02		<0.001	<0.001	<0.001	
11/12/1999	0.027		<0.001	<0.001	<0.001	
12/29/1999	0.055		<0.001	<0.001	<0.001	
2/17/2000	0.042		<0.001	<0.001	<0.001	
9/13/2000	<0.001		<0.001	<0.001	<0.001	
11/10/2000	0.014		<0.001	<0.001	<0.001	
1/4/2001	<0.001		<0.001	<0.001	<0.001	
12/11/2001	<0.001		<0.001	<0.001	<0.001	
4/4/2002	<0.001		<0.001	<0.001	<0.001	
12/6/2002	<0.001		<0.001	<0.001	0.03 (o)	
6/28/2003	<0.001		<0.001	<0.001	<0.001	
12/13/2003	<0.001		<0.001	<0.001	<0.001	
5/28/2004	0.017		<0.001	<0.001	<0.001	
12/10/2004	0.0082		<0.001	<0.001	<0.001	
6/24/2005	<0.001		<0.001	<0.001	<0.001	
12/13/2005	<0.001		<0.001	<0.001	<0.001	
7/12/2006	0.023		<0.001	<0.001	<0.001	
12/1/2006	0.0081		<0.001	<0.001	<0.001	
6/21/2007	0.009		0.0038	<0.001	0.07 (o)	
12/15/2007	0.0056		<0.001	<0.001	<0.001	
6/21/2008				<0.001		
6/22/2008	0.013		<0.001		0.0026	
12/6/2008			<0.001	<0.001	<0.001	
12/7/2008	0.0027					
7/10/2009			<0.001			
7/11/2009	0.0032			<0.001	<0.001	
12/22/2009					<0.001	
12/23/2009	0.0093		<0.001	<0.001		
6/23/2010			<0.001	<0.001	<0.001	
6/24/2010	0.0033					
1/8/2011			<0.001	<0.001	<0.001	
1/9/2011	<0.001					
7/10/2011			<0.001	<0.001	<0.001	
7/11/2011	<0.001					
1/19/2012			<0.001	<0.001		
1/20/2012	<0.001				<0.001	
7/12/2012			<0.001	<0.001	<0.001	
7/13/2012	0.011					
1/21/2013	0.028		<0.001	<0.001	<0.001	
7/20/2013	<0.001		<0.001	<0.001	<0.001	
1/17/2014	0.019		<0.001	<0.001	<0.001	
7/12/2014	<0.005 (J)		<0.001	<0.001	<0.001	
1/15/2015			<0.001	<0.001		
1/16/2015	0.0012 (J)				0.0011 (J)	
7/15/2015	<0.001		<0.001	<0.001	0.0016 (J)	
1/16/2016	0.0015 (J)		0.0011 (J)	0.00082 (J)	<0.001	
6/22/2016	0.0056 (D)		<0.001	<0.001	0.0018 (J)	
1/19/2017			<0.001	0.0025	0.0033	
2/28/2017	0.0019 (J)					
7/17/2017	<0.001					
7/18/2017			<0.001	<0.001		
7/19/2017					0.0045	

Time Series

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
1/8/2018	<0.001					
1/9/2018			<0.001	0.0072 (o)	0.0027	
7/10/2018	<0.001		<0.001	<0.001	<0.001	
1/30/2019	<0.001	<0.001	<0.001	<0.001	0.0019 (J)	<0.001
3/27/2019	<0.001				<0.001	
3/28/2019		<0.001	<0.001	<0.001		<0.001
9/11/2019	0.0014					
9/12/2019		0.0021	0.002	0.0017	0.004	0.002
3/10/2020	<0.001	<0.001	<0.001	<0.001	0.01	
3/11/2020						<0.001
4/2/2020			0.0013			
9/21/2020	<0.001		<0.001	0.0012		<0.001
9/22/2020		<0.001			0.0056	

Time Series

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.001	0.015 (o)	<0.001	<0.001	<0.001
11/12/1999	<0.001	<0.001	<0.001	<0.001	<0.001
12/29/1999	<0.001	<0.001	<0.001	<0.001	<0.001
2/17/2000	<0.001	<0.001	<0.001	<0.001	<0.001
9/13/2000	<0.001	<0.001	<0.001	<0.001	<0.001
11/10/2000	<0.001	<0.001	<0.001	<0.001	<0.001
1/4/2001	<0.001	<0.001	<0.001	<0.001	<0.001
12/11/2001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2002	<0.001	<0.001	<0.001	<0.001	<0.001
12/6/2002	<0.001	<0.001	<0.001	0.0082	<0.001
6/28/2003	<0.001	<0.001	<0.001	<0.001	<0.001
12/13/2003	<0.001	<0.001	<0.001	0.017	<0.001
5/28/2004	<0.001	<0.001	<0.001	<0.001	<0.001
12/10/2004	<0.001	<0.001	<0.001	<0.001	<0.001
6/24/2005	<0.001	<0.001	<0.001	<0.001	<0.001
12/13/2005	<0.001	<0.001	<0.001	<0.001	<0.001
7/12/2006	<0.001	<0.001	<0.001	<0.001	<0.001
12/1/2006	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2007	<0.001	<0.001	<0.001	<0.001	<0.001
12/15/2007	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2008	<0.001		<0.001	<0.001	
6/22/2008		<0.001			<0.001
12/6/2008	<0.001	<0.001	<0.001		
12/7/2008				<0.001	<0.001
7/11/2009	<0.001	<0.001	<0.001	<0.001	<0.001
12/23/2009	<0.001	<0.001	<0.001	<0.001	<0.001
6/23/2010	<0.001	<0.001	<0.001	<0.001	
6/24/2010					<0.001
1/8/2011	<0.001	<0.001	<0.001	<0.001	
7/10/2011	<0.001	<0.001	<0.001	<0.001	
7/11/2011					<0.001
1/20/2012	<0.001	<0.001	<0.001	<0.001	<0.001
7/12/2012	<0.001	<0.001	<0.001	<0.001	
7/13/2012					<0.001
1/21/2013	<0.001	<0.001	<0.001	<0.001	<0.001
7/20/2013	<0.001	<0.001	<0.001	<0.001	<0.001
1/17/2014	<0.001	<0.001	<0.001	<0.001	<0.001
7/11/2014			<0.001	<0.001	
7/12/2014	<0.001	<0.001			<0.001
1/15/2015		<0.001			
1/16/2015	<0.001		<0.001	<0.001	<0.001
7/15/2015	<0.001	<0.001	<0.001	<0.001	<0.001
1/16/2016	<0.001			<0.001	<0.001
1/17/2016		<0.001	<0.001		
6/22/2016	<0.001	0.0019 (J)	<0.001		
6/23/2016				0.0021 (J)	<0.001
1/23/2017	0.0063				
1/24/2017		0.0062		0.044 (o)	
1/25/2017			<0.001		
1/27/2017					<0.001
7/19/2017	<0.001	0.0015 (J)			
7/20/2017			<0.001	0.014	0.0021 (J)

Time Series

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
1/9/2018	<0.001	<0.001	<0.001		
1/10/2018				0.014	<0.001
7/10/2018		<0.001	<0.001		
7/11/2018	<0.001			0.011 (J)	<0.001
1/30/2019	<0.001		<0.001		
1/31/2019		<0.001		<0.001	<0.001
3/28/2019	<0.001	<0.001	<0.001	<0.001	<0.001
9/12/2019	0.0023	0.0018	0.0021	0.0044	0.0043
3/11/2020	<0.001				<0.001
3/31/2020		<0.001	<0.001	0.0016	
9/22/2020	<0.001	<0.001	<0.001	0.0015	0.0011

Time Series

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	0.043		0.023 (o)	0.039	<0.005	
11/12/1999	0.035		<0.005	0.025	<0.005	
12/29/1999	0.058		<0.005	0.023	<0.005	
2/17/2000	0.051		<0.005	<0.005	<0.005	
9/13/2000	<0.005		<0.005	0.035	0.021	
11/10/2000	<0.005		<0.005	0.023	<0.005	
1/4/2001	<0.005		<0.005	0.027	<0.005	
12/11/2001	<0.005		<0.005	0.036	<0.005	
4/4/2002	<0.005		<0.005	0.038	<0.005	
12/6/2002	<0.005		<0.005	0.033	0.06	
6/28/2003	<0.005		<0.005	0.018	0.19 (o)	
12/13/2003	<0.005		<0.005	0.013	0.067	
5/28/2004	0.034		<0.005	<0.005	0.068	
12/10/2004	0.021		<0.005	<0.005	0.039	
6/24/2005	<0.005		<0.005	<0.005	0.033	
12/13/2005	0.013		<0.005	0.011	0.039	
7/12/2006	0.074		0.0047	0.0055	0.022	
12/1/2006	0.048		0.065 (o)	0.0052	0.018	
6/21/2007	0.067		0.008	0.0062	0.058	
12/15/2007	0.053		0.0043	0.0055	0.0072	
6/21/2008				0.011		
6/22/2008	0.024		0.0062		0.011	
12/6/2008			0.051 (o)	0.008	0.011	
12/7/2008	0.0087					
7/10/2009			0.0043			
7/11/2009	0.045			0.011	0.013	
12/22/2009					0.013	
12/23/2009	0.054		0.0039	0.0051		
6/23/2010			<0.005	0.0031	0.0084	
6/24/2010	0.0065					
1/8/2011			0.0037	0.0035	0.0089	
1/9/2011	0.022					
7/10/2011			0.0047	0.0081	0.0084	
7/11/2011	0.0032					
1/19/2012			0.0045	0.017		
1/20/2012	0.0089				0.0094	
7/12/2012			0.0033	0.01	0.0098	
7/13/2012	0.012					
1/21/2013	0.024		0.0038	0.013	0.007	
7/20/2013	0.0068		0.004	<0.005	0.0074	
1/17/2014	0.02		0.005	0.0066	0.0092	
7/12/2014	0.0055		0.004	0.0054	0.013	
1/15/2015			0.0056	0.0076		
1/16/2015	0.0043				0.0081	
7/15/2015	0.0026		0.0034	0.0053	0.009	
1/16/2016	0.0035		0.0038	0.0048	0.007	
6/22/2016	0.00805 (JD)		0.00575 (JD)	0.0038 (J)	0.0091 (J)	
1/19/2017			<0.005	<0.005	0.0065 (J)	
2/28/2017	<0.005					
7/17/2017	<0.005					
7/18/2017			<0.005	<0.005		
7/19/2017					0.0099 (J)	

Time Series

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)
1/8/2018	<0.005					
1/9/2018			<0.005	0.0072 (J)	0.014 (J)	
7/10/2018	<0.005		<0.005	<0.005	0.0089 (J)	
1/30/2019	<0.005	0.013 (J)	0.0058 (J)	0.006 (J)	0.0057 (J)	0.011 (J)
3/27/2019	<0.005				0.01 (J)	
3/28/2019		0.014 (J)	<0.005	<0.005		0.0086 (J)
9/11/2019	0.0062					
9/12/2019		0.0075	0.0081	0.0073	0.0074	0.014
3/10/2020	<0.005	0.0061	0.0079	0.0079	0.0071	
3/11/2020						0.0099
4/2/2020			0.011			
9/21/2020	<0.005		0.0055	0.013		0.007
9/22/2020		0.0066			0.039	

Time Series

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:43 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.005	0.028	<0.005	0.037	0.063 (o)
11/12/1999	<0.005	<0.005	<0.005	0.022	0.025
12/29/1999	<0.005	0.022	<0.005	0.036	0.024
2/17/2000	<0.005	0.021	<0.005	<0.005	<0.005
9/13/2000	<0.005	<0.005	0.036 (o)	0.027	0.061 (o)
11/10/2000	<0.005	<0.005	<0.005	<0.005	0.061 (o)
1/4/2001	<0.005	<0.005	<0.005	<0.005	0.05 (o)
12/11/2001	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2002	<0.005	0.069 (o)	<0.005	0.028	<0.005
12/6/2002	0.011	0.012	0.012	0.028	0.013
6/28/2003	<0.005	0.011	<0.005	0.012	0.014
12/13/2003	<0.005	<0.005	<0.005	0.026	<0.005
5/28/2004	<0.005	<0.005	<0.005	0.018	<0.005
12/10/2004	<0.005	0.027	<0.005	0.029	<0.005
6/24/2005	<0.005	<0.005	<0.005	0.016	<0.005
12/13/2005	0.015	0.011	<0.005	0.017	<0.005
7/12/2006	0.0042	0.0064	<0.005	0.013	0.0057
12/1/2006	0.0047	0.0077	0.098 (o)	0.03	0.0068
6/21/2007	0.0052	0.0082	0.0043	0.017	0.016
12/15/2007	0.0046	0.0063	0.0057	0.013	0.012
6/21/2008	0.0067		0.0064	0.016	
6/22/2008		0.0074			0.014
12/6/2008	0.0054	0.0066	0.0052		
12/7/2008				0.05	0.044 (o)
7/11/2009	0.0038	0.0054	0.0049	0.013	0.0062
12/23/2009	0.0029	0.0046	0.005	0.01	0.007
6/23/2010	<0.005	0.0041	0.0044	0.011	
6/24/2010					0.0049
1/8/2011	0.0032	0.019	0.0036	0.012	
7/10/2011	0.004	0.005	0.0046	0.0096	
7/11/2011					0.0052
1/20/2012	0.0067	0.007	0.0045	0.014	0.0081
7/12/2012	0.0036	0.0045	0.0041	0.01	
7/13/2012					0.004
1/21/2013	0.0031	0.0045	0.0038	0.011	0.0093
7/20/2013	<0.005	<0.005	0.0047	0.0089	0.0054
1/17/2014	0.0031	0.0075	0.0051	0.0098	0.0054
7/11/2014			0.0066	0.014	
7/12/2014	<0.0025 (J)	0.0051			0.0057
1/15/2015		0.0054			
1/16/2015	0.002 (J)		0.0046	0.011	0.0084
7/15/2015	0.0015 (J)	0.0049	0.0036	0.012	0.0046
1/16/2016	0.0015 (J)			0.014	0.0051
1/17/2016		0.0051	0.004		
6/22/2016	<0.005	0.0087 (J)	0.0053 (J)		
6/23/2016				0.0116	0.0041 (J)
1/23/2017	<0.005				
1/24/2017		0.0071 (J)		0.01 (J)	
1/25/2017			<0.005		
1/27/2017					<0.005
7/19/2017	<0.005	<0.005			
7/20/2017			<0.005	0.016 (J)	<0.005

Time Series

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:43 PM

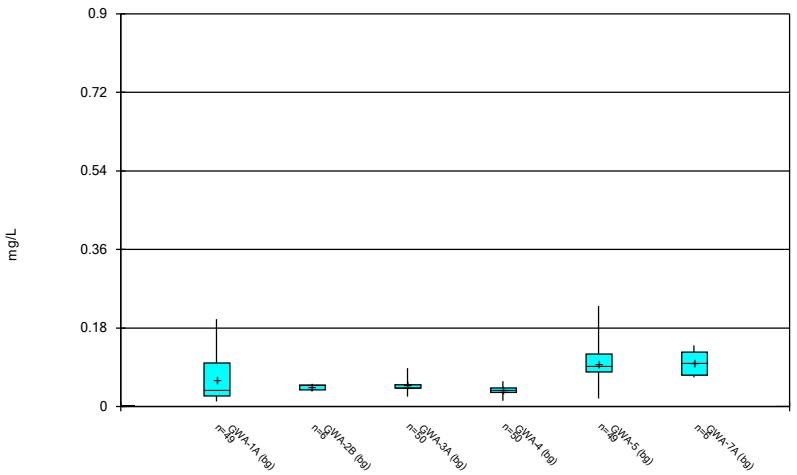
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-2	GWC-4A	GWC-5	GWC-6
1/9/2018	<0.005	0.0079 (J)	<0.005		
1/10/2018				0.012 (J)	<0.005
7/10/2018		0.0067 (J)	<0.005		
7/11/2018	<0.005			0.015 (J)	<0.005
1/30/2019	<0.005		0.0042 (J)		
1/31/2019		<0.005		0.033	<0.005
3/28/2019	<0.005	0.0069 (J)	<0.005	0.032	0.0084 (J)
9/12/2019	0.0039 (J)	0.0089	0.0093	0.033	0.011
3/11/2020	<0.005				0.0047 (J)
3/31/2020		0.0065	<0.005	0.025	
9/22/2020	<0.005	0.029	0.017	0.037	0.0053

FIGURE B.

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

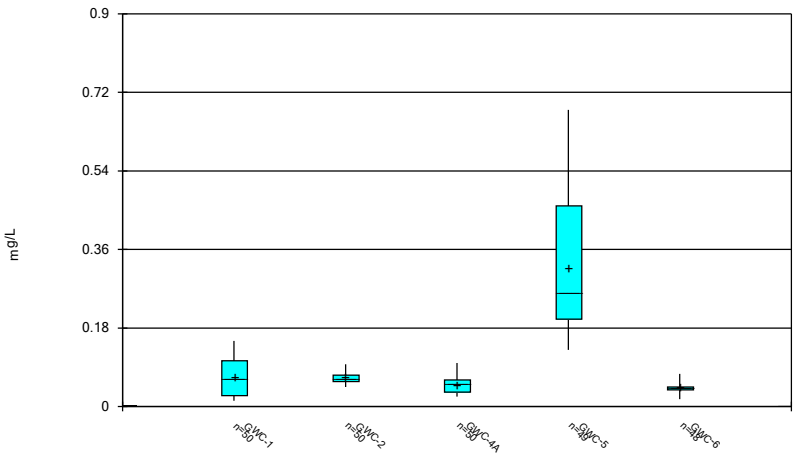


Constituent: Barium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

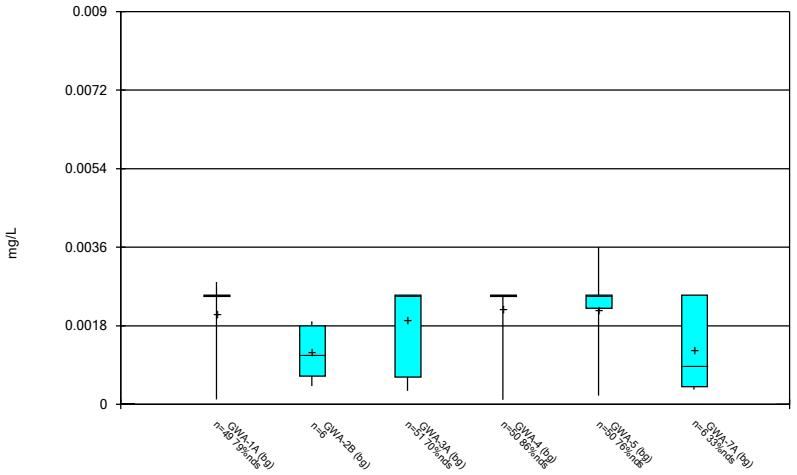


Constituent: Barium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

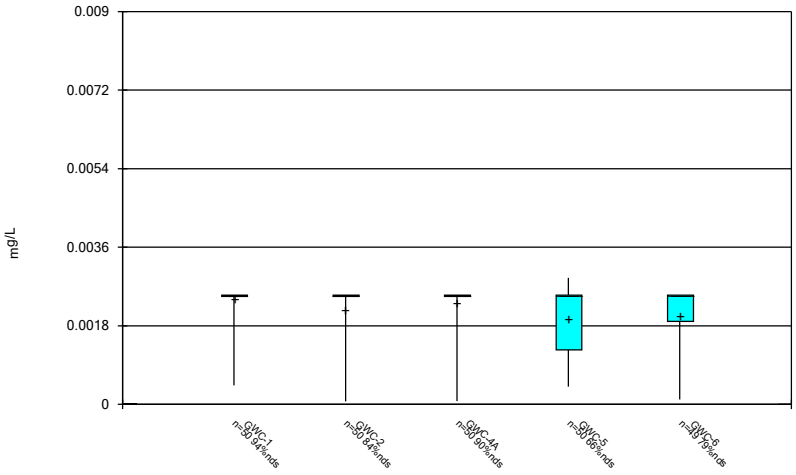


Constituent: Beryllium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

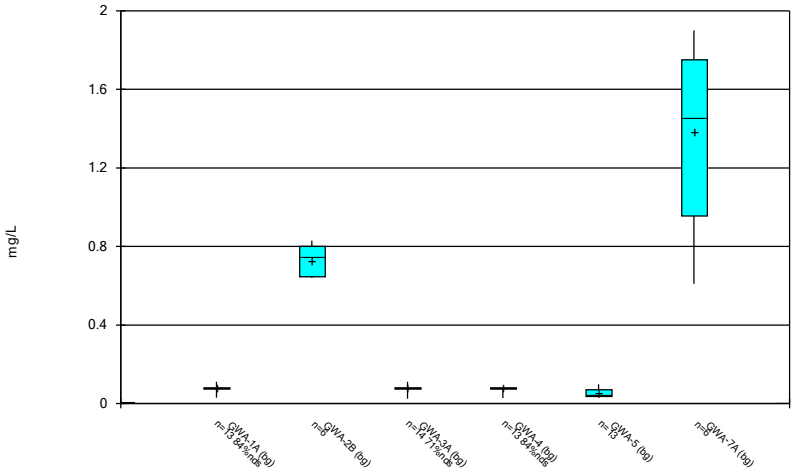


Constituent: Beryllium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

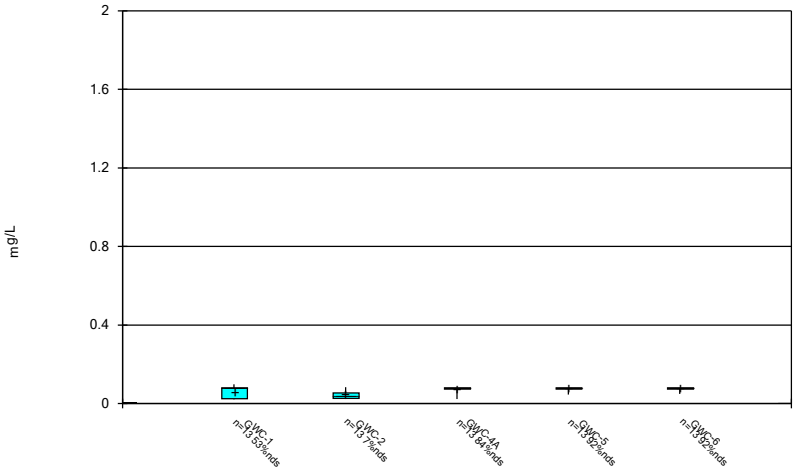


Constituent: Boron Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

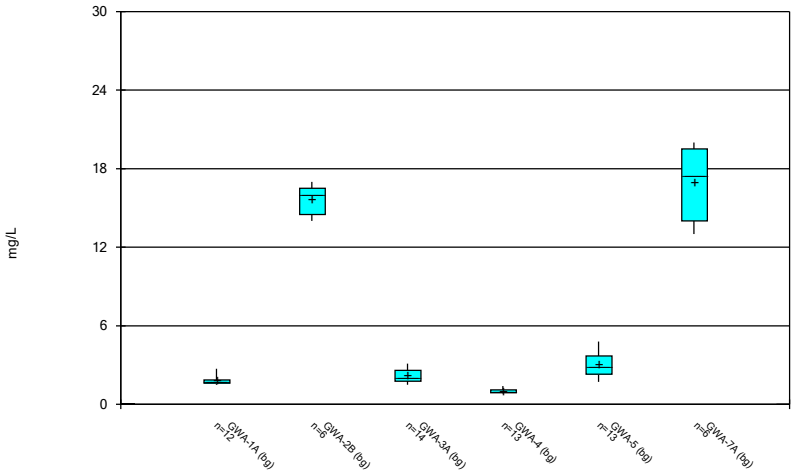


Constituent: Boron Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

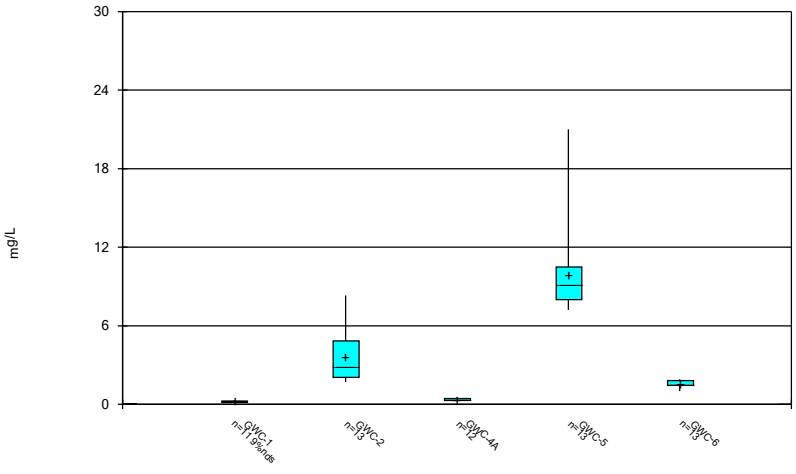


Constituent: Calcium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

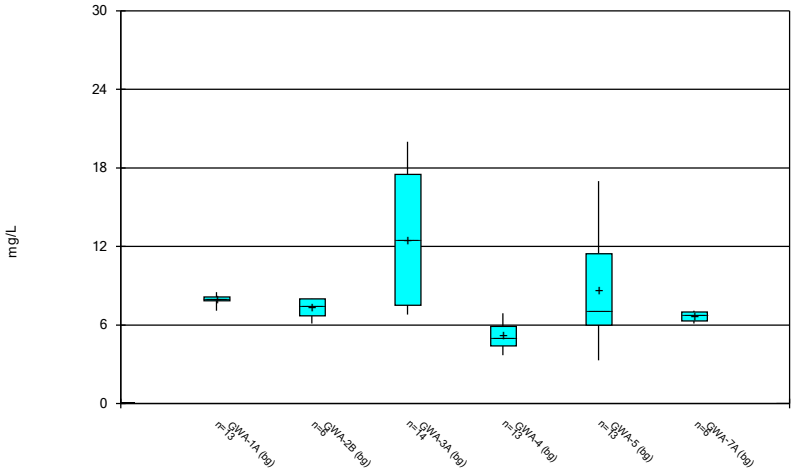


Constituent: Calcium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

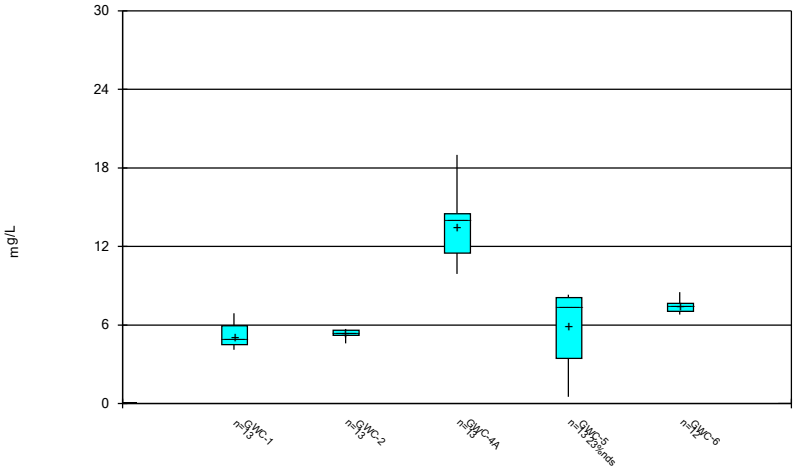


Constituent: Chloride Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

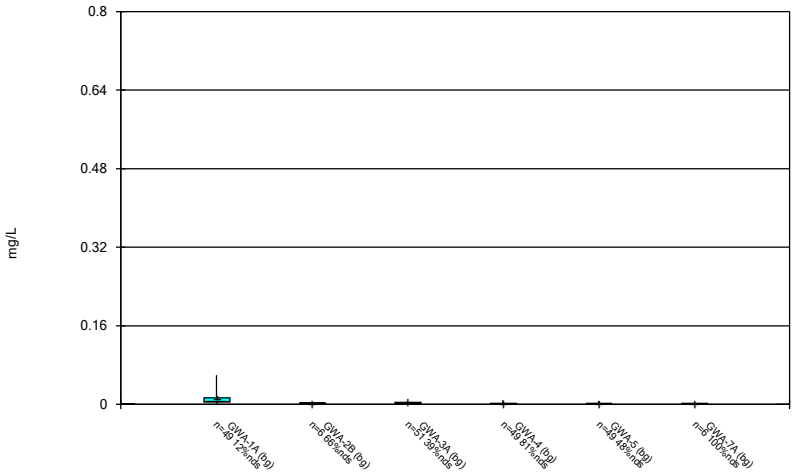


Constituent: Chloride Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

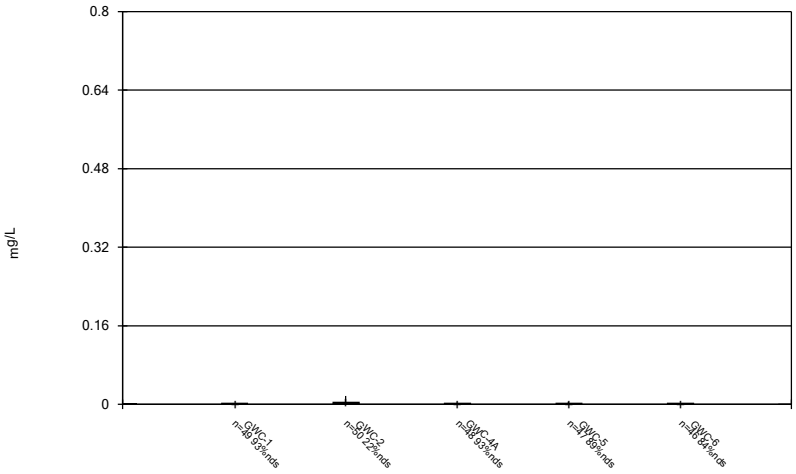


Constituent: Chromium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

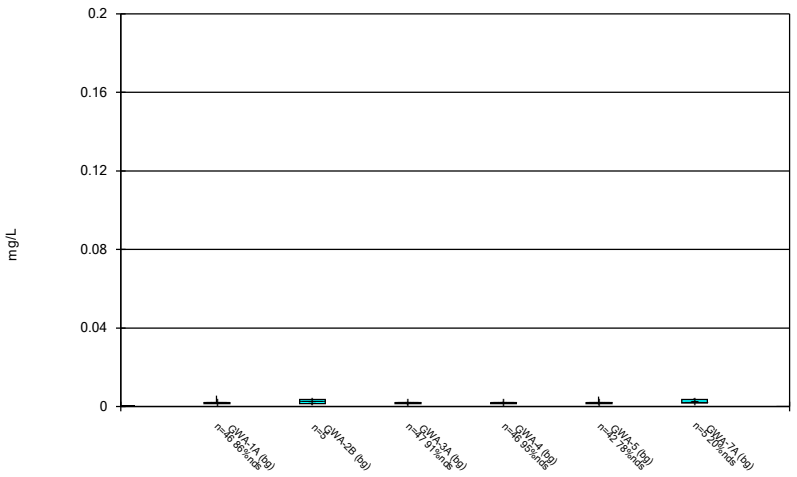


Constituent: Chromium Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

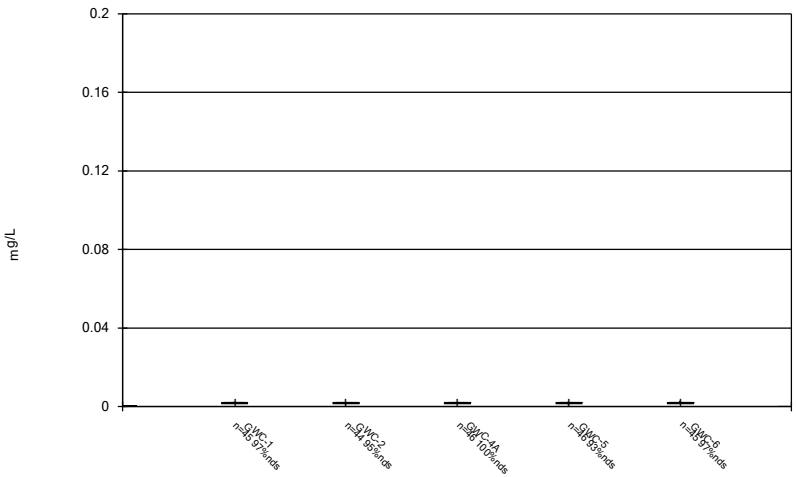


Constituent: Copper Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

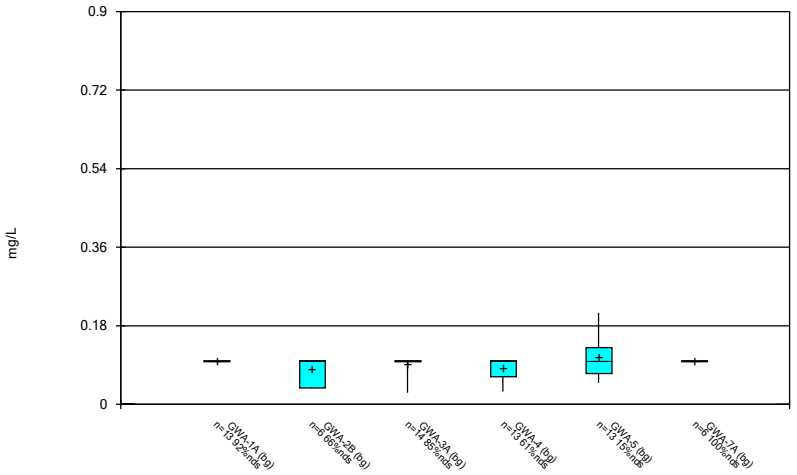


Constituent: Copper Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

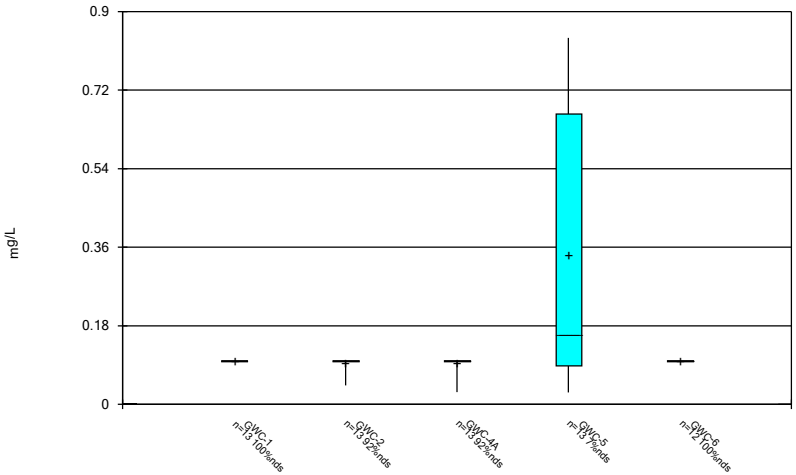


Constituent: Fluoride Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

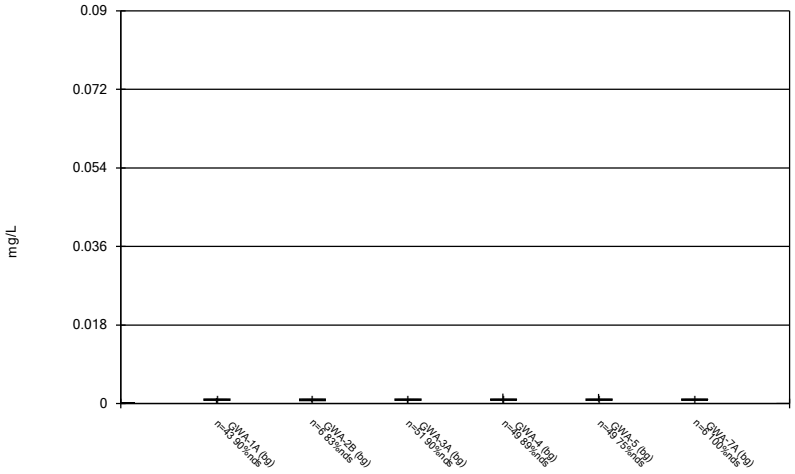


Constituent: Fluoride Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

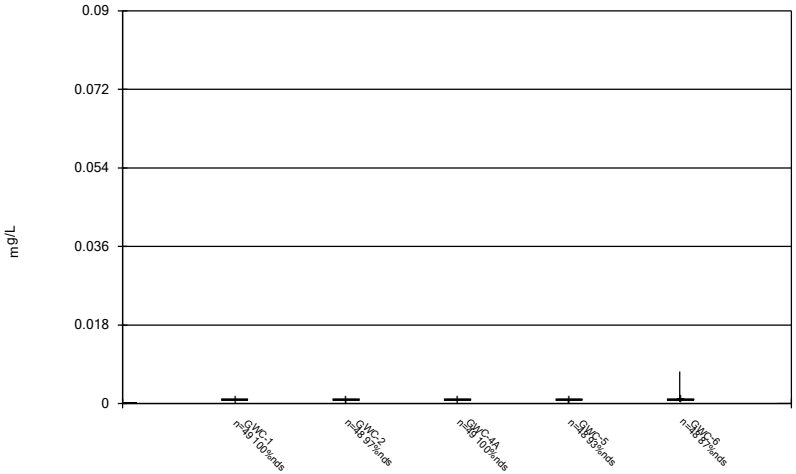


Constituent: Lead Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

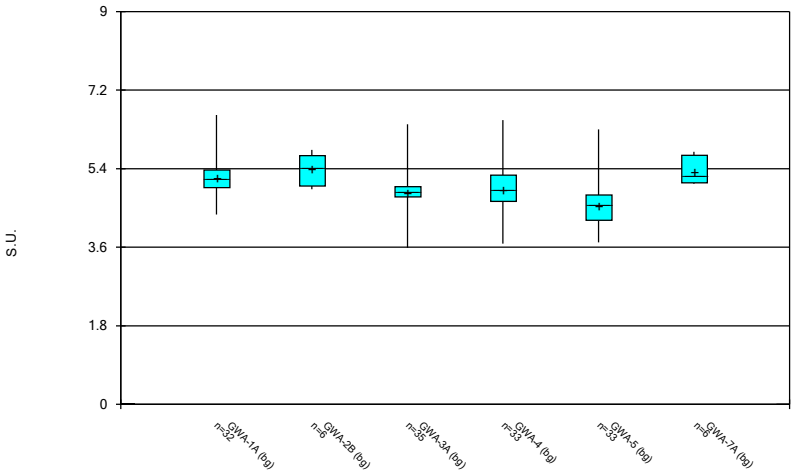


Constituent: Lead Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

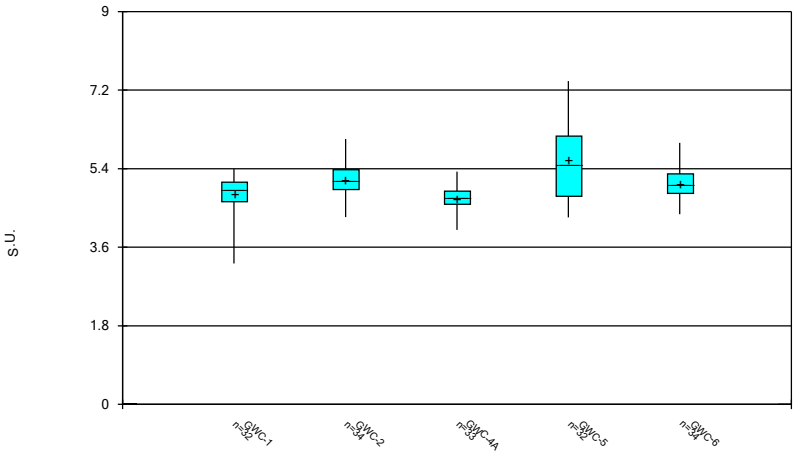


Constituent: pH Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

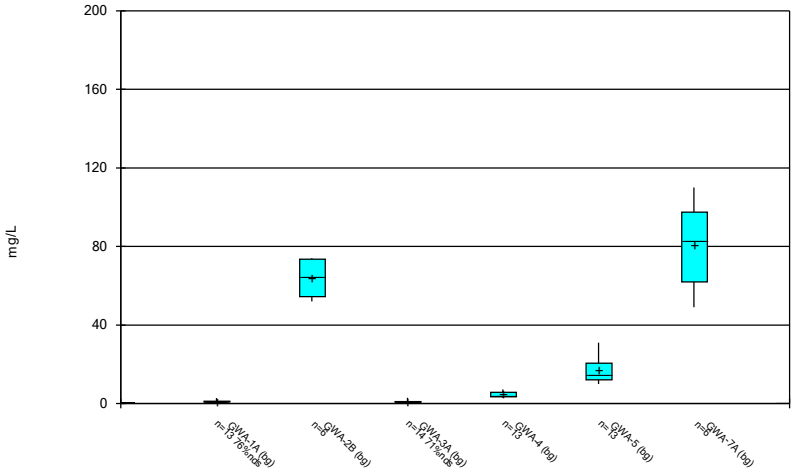


Constituent: pH Analysis Run 12/2/2020 12:46 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

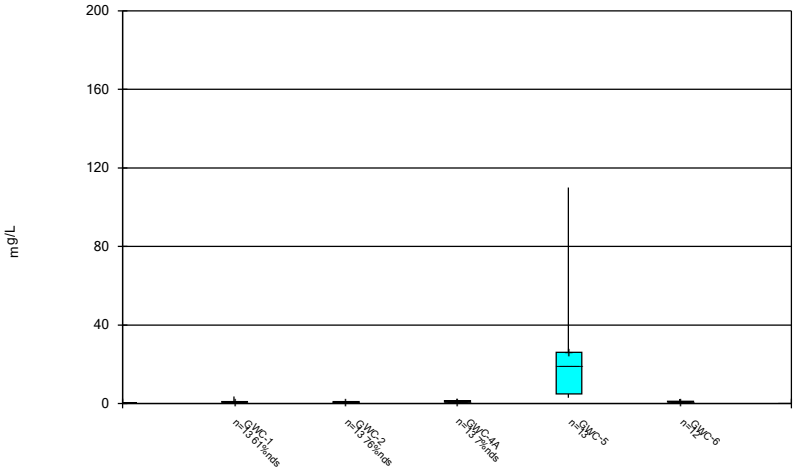


Constituent: Sulfate Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

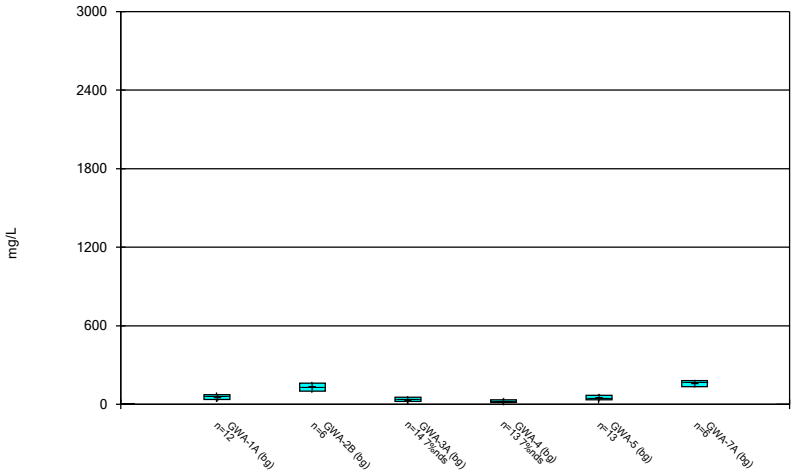


Constituent: Sulfate Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

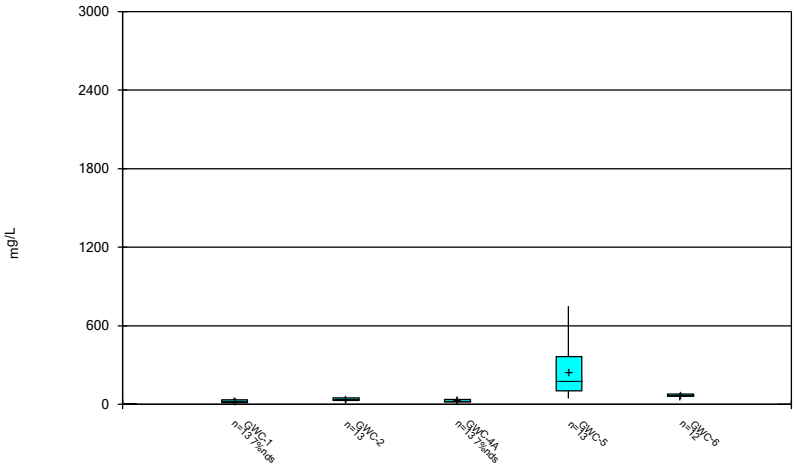


Constituent: Total Dissolved Solids Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

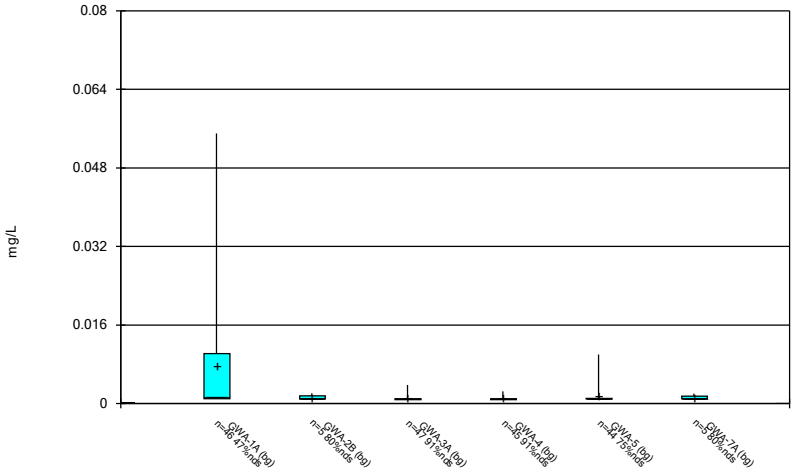


Constituent: Total Dissolved Solids Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

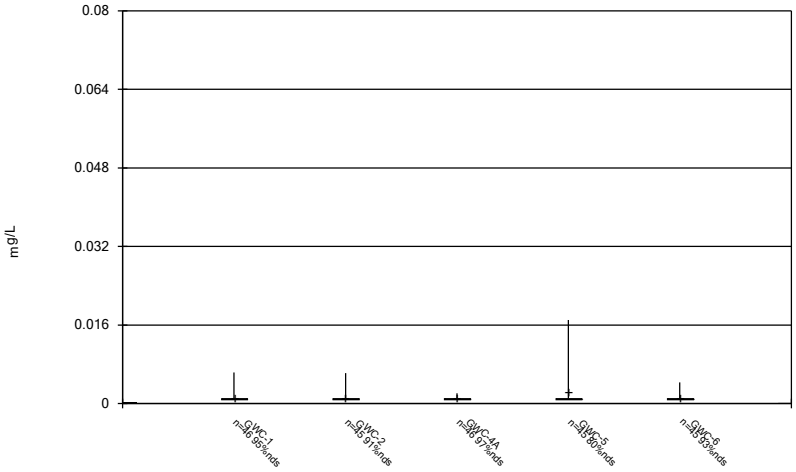


Constituent: Vanadium Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

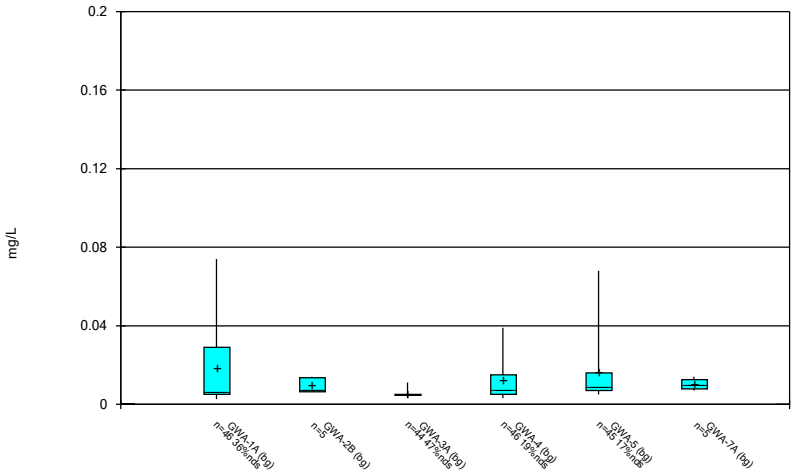


Constituent: Vanadium Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot

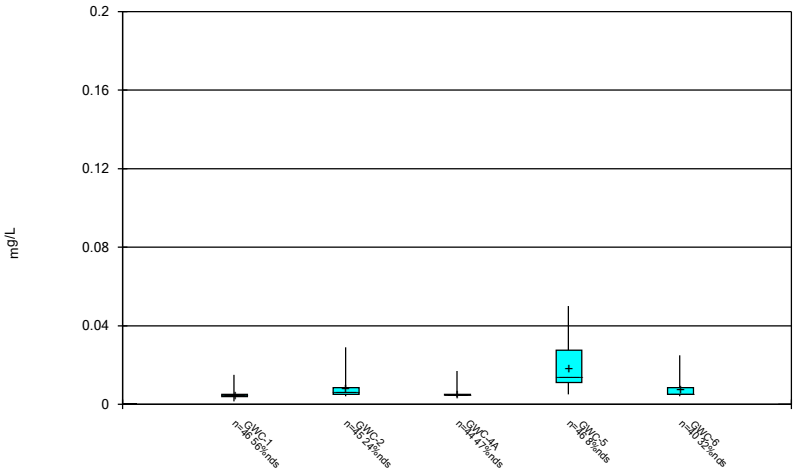


Constituent: Zinc Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Box & Whiskers Plot



Constituent: Zinc Analysis Run 12/2/2020 12:47 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

FIGURE C.

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWA-1A Barium (mg/L)	GWA-3A Barium (mg/L)	GWA-5 Barium (mg/L)	GWC-5 Barium (mg/L)	GWC-6 Barium (mg/L)	GWA-1A Beryllium (mg/L)	GWC-6 Beryllium (mg/L)	GWA-1A Calcium (mg/L)	GWC-1 Calcium (mg/L)	GWC-4A Calcium (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										
9/13/2000										
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002			0.33 (o)							
6/28/2003										
12/13/2003										
5/28/2004										
12/10/2004							0.0058 (o)			
7/12/2006										
12/1/2006				0.019 (o)						
6/21/2007										
12/6/2008		0.14 (o)								
12/7/2008					0.12 (o)					
1/17/2014										
9/1/2016	0.86 (o)					0.0084 (o)		26 (o)		
1/23/2017									1.3 (o)	
1/24/2017										
9/21/2017										
1/9/2018										
7/10/2018										2 (o)
3/11/2020									1.6 (o)	

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWA-1A Chromium (mg/L)	GWA-4 Chromium (mg/L)	GWA-5 Chromium (mg/L)	GWC-1 Chromium (mg/L)	GWC-2 Chromium (mg/L)	GWC-4A Chromium (mg/L)	GWC-5 Chromium (mg/L)	GWC-6 Chromium (mg/L)	GWA-5 Copper (mg/L)	GWC-1 Copper (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										
9/13/2000										
11/10/2000										
1/4/2001								0.016 (o)		
4/4/2002										
12/6/2002			0.027 (o)				0.008 (o)		0.0089 (o)	
6/28/2003				0.007 (o)		0.061 (o)	0.021 (o)		0.019 (o)	
12/13/2003							0.011 (o)		0.0067 (o)	
5/28/2004									0.0057 (o)	
12/10/2004					0.74 (o)	0.0059 (o)		0.0046 (o)		
7/12/2006		0.023 (o)								0.0047 (o)
12/1/2006										
6/21/2007										
12/6/2008										
12/7/2008										
1/17/2014										
9/1/2016	0.12 (o)							0.0069 (o)		
1/23/2017										
1/24/2017										
9/21/2017										
1/9/2018										
7/10/2018										
3/11/2020										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWC-2 Copper (mg/L)	GWC-6 Copper (mg/L)	GWA-1A Lead (mg/L)	GWA-4 Lead (mg/L)	GWA-5 Lead (mg/L)	GWC-1 Lead (mg/L)	GWC-2 Lead (mg/L)	GWC-4A Lead (mg/L)	GWC-5 Lead (mg/L)	GWC-6 Lead (mg/L)
10/5/1999			0.007 (o)				0.0054 (o)			
11/12/1999			0.0063 (o)							
12/29/1999			0.016 (o)							
9/13/2000								0.0067 (o)		0.079 (o)
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002					0.011 (o)				0.007 (o)	
6/28/2003										
12/13/2003									0.018 (o)	
5/28/2004			0.015 (o)							
12/10/2004	0.11 (o)	0.0044 (o)	0.01 (o)							
7/12/2006			0.013 (o)							
12/1/2006										
6/21/2007										
12/6/2008										
12/7/2008										
1/17/2014	0.0065 (o)									
9/1/2016			0.082 (o)							
1/23/2017										
1/24/2017										
9/21/2017				0.0076 (o)		0.004 (o)	0.0014 (o)			
1/9/2018										
7/10/2018										
3/11/2020										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWC-5 pH (S.U.)	GWA-1A Total Dissolved Solids (mg/L)	GWA-4 Vanadium (mg/L)	GWA-5 Vanadium (mg/L)	GWC-2 Vanadium (mg/L)	GWC-5 Vanadium (mg/L)	GWA-3A Zinc (mg/L)	GWA-5 Zinc (mg/L)	GWC-2 Zinc (mg/L)	GWC-4A Zinc (mg/L)
10/5/1999					0.015 (o)		0.023 (o)			
11/12/1999										
12/29/1999										
9/13/2000										0.036 (o)
11/10/2000										
1/4/2001										
4/4/2002									0.069 (o)	
12/6/2002				0.03 (o)						
6/28/2003								0.19 (o)		
12/13/2003										
5/28/2004										
12/10/2004										
7/12/2006										
12/1/2006							0.065 (o)			0.098 (o)
6/21/2007				0.07 (o)						
12/6/2008							0.051 (o)			
12/7/2008										
1/17/2014										
9/1/2016		2200 (o)								
1/23/2017										
1/24/2017	8.32 (o)					0.044 (o)				
9/21/2017										
1/9/2018			0.0072 (o)							
7/10/2018										
3/11/2020										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:49 PM

	GWC-6 Zinc (mg/L)
10/5/1999	0.063 (o)
11/12/1999	
12/29/1999	
9/13/2000	0.061 (o)
11/10/2000	0.061 (o)
1/4/2001	0.05 (o)
4/4/2002	
12/6/2002	
6/28/2003	
12/13/2003	
5/28/2004	
12/10/2004	
7/12/2006	
12/1/2006	
6/21/2007	
12/6/2008	
12/7/2008	0.044 (o)
1/17/2014	
9/1/2016	
1/23/2017	
1/24/2017	
9/21/2017	
1/9/2018	
7/10/2018	
3/11/2020	

FIGURE D.

Intrawell Prediction Limit Summary - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	**GWA-3A**	**15.76**	**n/a**	**9/21/2020**	**19**	**Yes**	**8**	**8.963**	**2.481**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Chloride (mg/L)	**GWC-1**	**6.841**	**n/a**	**9/22/2020**	**6.9**	**Yes**	**8**	**4.938**	**0.6948**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**

Intrawell Prediction Limit Summary - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:06 PM

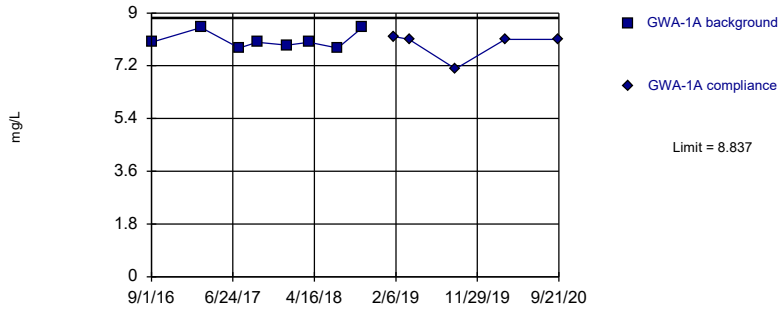
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	GWA-1A	8.837	n/a	9/21/2020	8.1	No	8	8.063	0.2825	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	**GWA-3A**	**15.76**	**n/a**	**9/21/2020**	**19**	**Yes**	**8**	**8.963**	**2.481**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Chloride (mg/L)	GWA-4	7.253	n/a	9/21/2020	5.4	No	8	4.788	0.8999	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-5	23.64	n/a	9/22/2020	6.3	No	8	9.788	5.057	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	**GWC-1**	**6.841**	**n/a**	**9/22/2020**	**6.9**	**Yes**	**8**	**4.938**	**0.6948**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Chloride (mg/L)	GWC-2	5.864	n/a	9/22/2020	5.4	No	8	5.45	0.1512	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-4A	19.89	n/a	9/22/2020	11	No	8	14.63	1.923	0	None	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-5	13.14	n/a	9/22/2020	8.3	No	8	4.85	3.027	37.5	Kapla...	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-6	8.863	n/a	9/22/2020	7.6	No	7	7.343	0.5028	0	None	No	0.001504	Param Intra 1 of 2
pH (S.U.)	GWA-1A	5.995	4.439	9/21/2020	4.95	No	27	2.278	0.08656	0	None	sqrt(x)	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-3A	6.42	3.59	9/21/2020	4.69	No	29	n/a	n/a	0	n/a	n/a	0.004345	NP Intra (normality) ...
pH (S.U.)	GWA-4	5.958	3.912	9/21/2020	4.6	No	28	4.935	0.521	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-5	5.585	3.442	9/22/2020	4.99	No	28	4.513	0.5456	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-1	5.622	3.839	9/22/2020	4.66	No	27	23.17	4.275	0	None	x^2	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-2	5.97	4.205	9/22/2020	5.04	No	29	5.087	0.4515	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-4A	5.261	4.143	9/22/2020	4.92	No	27	4.702	0.2834	0	None	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-5	8.049	3.606	9/22/2020	5.87	No	28	2.368	0.2389	0	None	sqrt(x)	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-6	5.825	4.404	9/22/2020	4.73	No	28	5.114	0.3619	0	None	No	0.000752	Param Intra 1 of 2
Sulfate (mg/L)	GWA-1A	2.7	n/a	9/21/2020	1ND	No	8	n/a	n/a	87.5	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWA-3A	1	n/a	9/21/2020	1ND	No	8	n/a	n/a	100	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWA-4	8.482	n/a	9/21/2020	5	No	8	4.513	1.449	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWA-5	37.31	n/a	9/22/2020	12	No	8	18.88	6.728	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-1	1	n/a	9/22/2020	0.63J	No	8	n/a	n/a	100	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-2	1	n/a	9/22/2020	1ND	No	8	n/a	n/a	100	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-4A	2.25	n/a	9/22/2020	0.76J	No	8	1.096	0.421	12.5	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-5	150.4	n/a	9/22/2020	4.3	No	8	5.799	2.359	0	None	sqrt(x)	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-6	1.435	n/a	9/22/2020	0.59J	No	7	0.92	0.1704	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-1A	133.9	n/a	9/21/2020	31	No	7	52.29	26.99	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-3A	80.43	n/a	9/21/2020	61	No	8	32.75	17.4	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-4	51.76	n/a	9/21/2020	31	No	8	20.81	11.29	12.5	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-5	117.1	n/a	9/22/2020	53	No	8	48.5	25.04	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	69	n/a	9/22/2020	5ND	No	8	24	16.42	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	77.05	n/a	9/22/2020	30	No	8	38.75	13.98	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-4A	68.34	n/a	9/22/2020	36	No	8	26.25	15.36	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-5	620.5	n/a	9/22/2020	440	No	8	204.8	151.7	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-6	94.76	n/a	9/22/2020	30	No	7	66.86	9.227	0	None	No	0.001504	Param Intra 1 of 2

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.063, Std. Dev.=0.2825, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7856, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

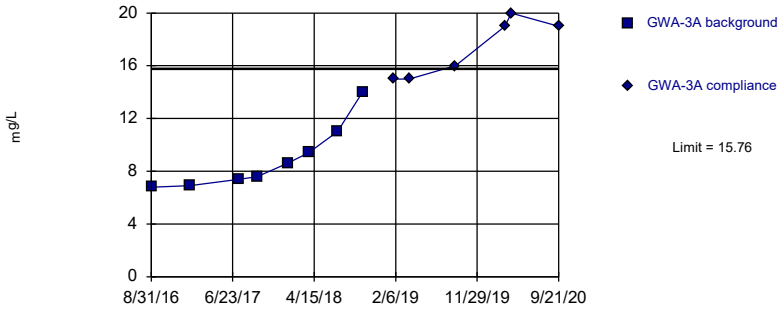
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.963, Std. Dev.=2.481, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8523, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

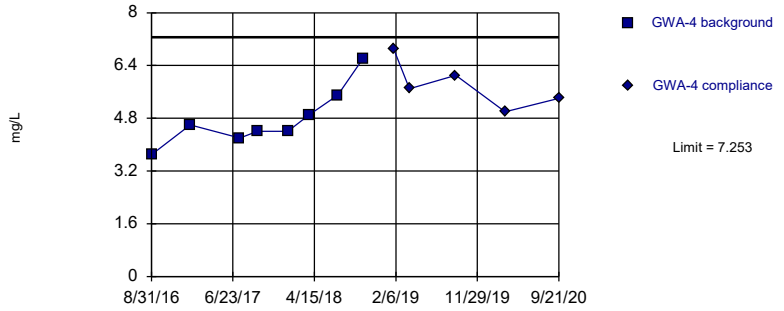
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.788, Std. Dev.=0.8999, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9048, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

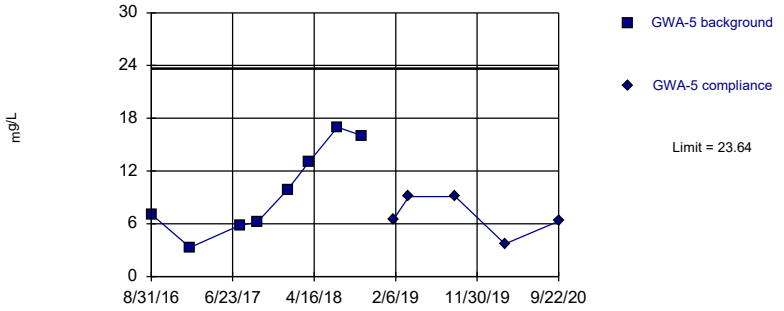
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.788, Std. Dev.=5.057, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9239, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
9/1/2016	8	
2/28/2017	8.5	
7/17/2017	7.8	
9/20/2017	8	
1/8/2018	7.9	
3/27/2018	8	
7/10/2018	7.8	
10/8/2018	8.5	
1/30/2019		8.2
3/27/2019		8.1
9/11/2019		7.1
3/10/2020		8.1
9/21/2020		8.1

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
8/31/2016	6.8	
1/19/2017	6.9	
7/18/2017	7.4	
9/20/2017	7.6	
1/9/2018	8.6	
3/27/2018	9.4	
7/10/2018	11	
10/9/2018	14	
1/30/2019		15
3/28/2019		15
9/12/2019		16
3/10/2020		19
4/2/2020		20
9/21/2020		19

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
8/31/2016	3.7	
1/19/2017	4.6	
7/18/2017	4.2	
9/21/2017	4.4	
1/9/2018	4.4	
3/27/2018	4.9	
7/10/2018	5.5	
10/8/2018	6.6	
1/30/2019		6.9
3/28/2019		5.7
9/12/2019		6.1
3/10/2020		5
9/21/2020		5.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

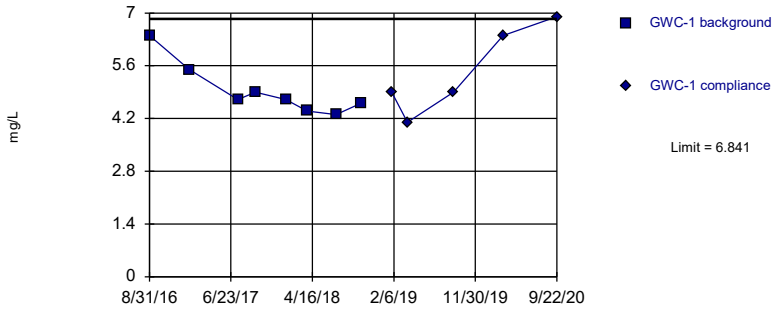
	GWA-5	GWA-5
8/31/2016	7.1	
1/19/2017	3.3	
7/19/2017	5.8	
9/21/2017	6.2	
1/9/2018	9.9	
3/27/2018	13	
7/10/2018	17	
10/8/2018	16	
1/30/2019		6.5
3/27/2019		9.1
9/12/2019		9.1
3/10/2020		3.7
9/22/2020		6.3

Sanitas™ v.9.6.27 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.938, Std. Dev.=0.6948, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8267, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

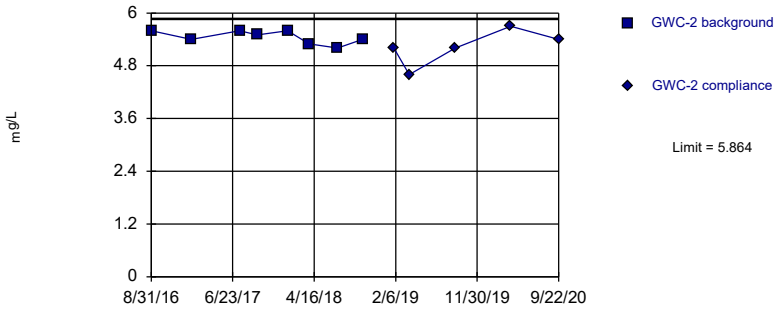
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.45, Std. Dev.=0.1512, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8905, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

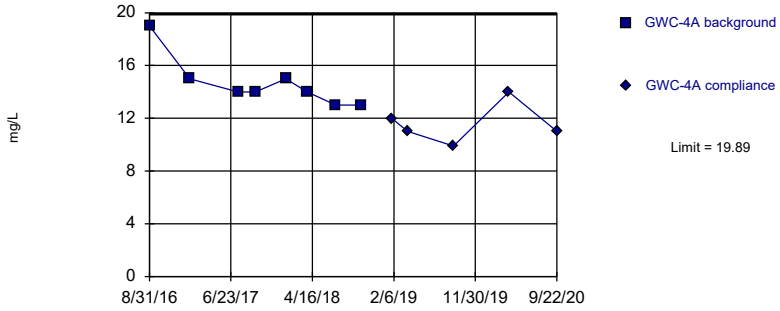
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=14.63, Std. Dev.=1.923, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7613, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

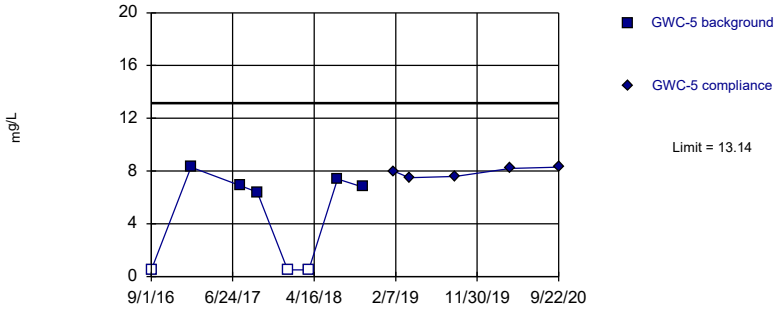
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=4.85, Std. Dev.=3.027, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7581, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
8/31/2016	6.4	
1/23/2017	5.5	
7/19/2017	4.7	
9/21/2017	4.9	
1/9/2018	4.7	
3/28/2018	4.4	
7/11/2018	4.3	
10/9/2018	4.6	
1/30/2019		4.9
3/28/2019		4.1
9/12/2019		4.9
3/11/2020		6.4
9/22/2020		6.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
8/31/2016	5.6	
1/24/2017	5.4	
7/19/2017	5.6	
9/21/2017	5.5	
1/9/2018	5.6	
3/29/2018	5.3	
7/10/2018	5.2	
10/9/2018	5.4	
1/31/2019		5.2
3/28/2019		4.6
9/12/2019		5.2
3/31/2020		5.7
9/22/2020		5.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
8/31/2016	19	
1/25/2017	15	
7/20/2017	14	
9/21/2017	14	
1/9/2018	15	
3/28/2018	14	
7/10/2018	13	
10/9/2018	13	
1/30/2019		12
3/28/2019		11
9/12/2019		9.9
3/31/2020		14
9/22/2020		11

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

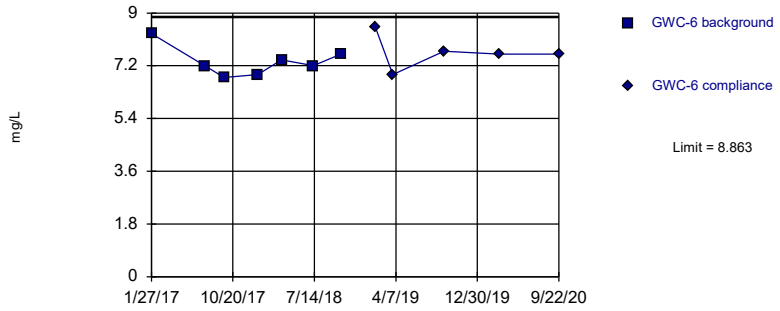
	GWC-5	GWC-5
9/1/2016	<1	
1/24/2017	8.3	
7/20/2017	6.9	
9/21/2017	6.4	
1/10/2018	<1	
3/28/2018	<1	
7/11/2018	7.4	
10/9/2018	6.8	
1/31/2019		8
3/28/2019		7.5
9/12/2019		7.6
3/31/2020		8.2
9/22/2020		8.3

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.343, Std. Dev.=0.5028, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.73. Kappa = 3.024 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 11/17/2020 1:59 PM View: Federal AIII

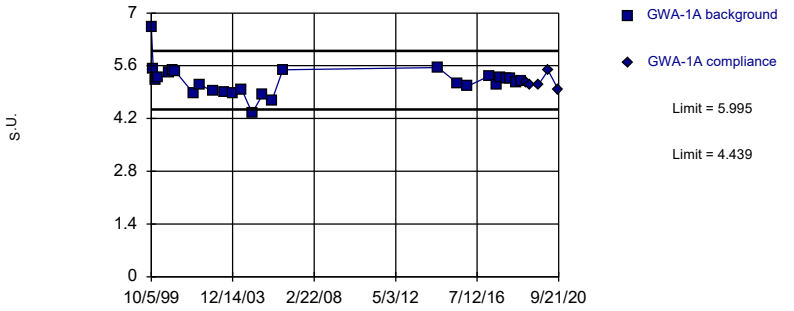
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.278, Std. Dev.=0.08656, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8991, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

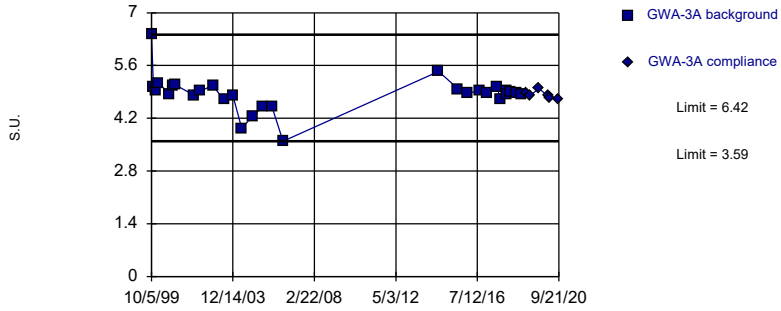
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell 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. Limits are highest and lowest of 29 background values. Well-constituent pair annual alpha = 0.00868. Individual comparison alpha = 0.004345 (1 of 2).

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

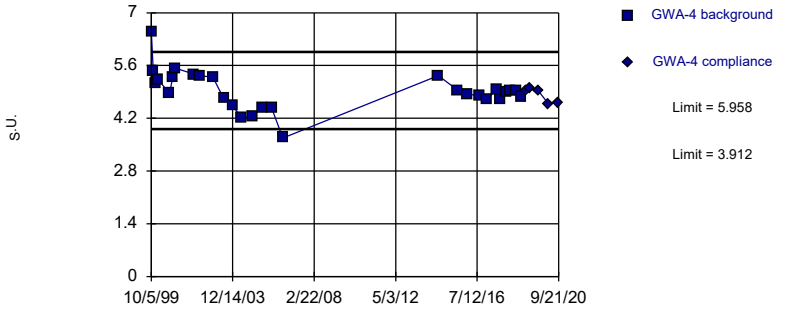
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.935, Std. Dev.=0.521, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
1/27/2017	8.3	
7/20/2017	7.2	
9/22/2017	6.8	
1/10/2018	6.9	
3/29/2018	7.4	
7/11/2018	7.2	
10/9/2018	7.6	
1/31/2019		8.5
3/28/2019		6.9
9/12/2019		7.7
3/11/2020		7.6
9/22/2020		7.6

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	6.63	
11/12/1999	5.51	
12/29/1999	5.23	
2/17/2000	5.29	
9/13/2000	5.41	
11/10/2000	5.47	
1/4/2001	5.44	
12/11/2001	4.86	
4/4/2002	5.1	
12/6/2002	4.917 (D)	
6/28/2003	4.91	
12/13/2003	4.87	
5/28/2004	4.98	
12/10/2004	4.35	
6/24/2005	4.82	
12/13/2005	4.66	
7/12/2006	5.49	
7/11/2014	5.55	
7/15/2015	5.13	
1/16/2016	5.06	
2/28/2017	5.33	
7/17/2017	5.09	
9/20/2017	5.29	
1/8/2018	5.26	
3/27/2018	5.27	
7/10/2018	5.17	
10/8/2018	5.18	
1/30/2019		5.17
3/27/2019		5.09
9/11/2019		5.1
3/10/2020		5.48
9/21/2020		4.95

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	6.42	
11/12/1999	5.03	
12/29/1999	4.92	
2/17/2000	5.13	
9/13/2000	4.85	
11/10/2000	5.05	
1/4/2001	5.08	
12/11/2001	4.81	
4/4/2002	4.92	
12/6/2002	5.07 (D)	
6/28/2003	4.69	
12/13/2003	4.81	
5/28/2004	3.93	
12/10/2004	4.25	
6/24/2005	4.5	
12/13/2005	4.52	
7/12/2006	3.59	
7/12/2014	5.44	
7/15/2015	4.98	
1/16/2016	4.87	
8/31/2016	4.92	
1/19/2017	4.86	
7/18/2017	5.02	
9/20/2017	4.72	
1/8/2018	4.92	
1/9/2018	4.83	
3/27/2018	4.91	
7/10/2018	4.87	
10/8/2018	4.84	
1/30/2019		4.88
3/28/2019		4.8
9/12/2019		4.99
3/10/2020		4.79
4/2/2020		4.75
9/21/2020		4.69

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

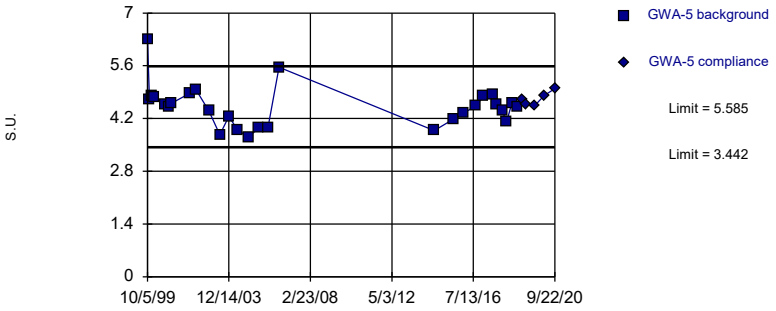
	GWA-4	GWA-4
10/5/1999	6.51	
11/12/1999	5.46	
12/29/1999	5.13	
2/17/2000	5.22	
9/13/2000	4.86	
11/10/2000	5.29	
1/4/2001	5.53	
12/11/2001	5.37	
4/4/2002	5.32	
12/6/2002	5.3 (D)	
6/28/2003	4.73	
12/13/2003	4.53	
5/28/2004	4.22	
12/10/2004	4.26	
6/24/2005	4.47	
12/13/2005	4.47	
7/12/2006	3.68	
7/12/2014	5.33	
7/15/2015	4.94	
1/16/2016	4.85	
8/31/2016	4.79	
1/19/2017	4.72	
7/18/2017	4.96	
9/21/2017	4.7	
1/9/2018	4.91	
3/27/2018	4.92	
7/10/2018	4.94	
10/8/2018	4.76	
1/30/2019		4.94
3/28/2019		4.99
9/12/2019		4.92
3/10/2020		4.59
9/21/2020		4.6

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.513, Std. Dev.=0.5456, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

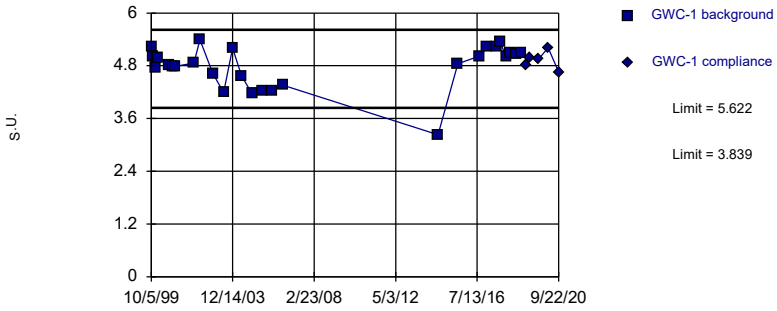
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=23.17, Std. Dev.=4.275, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9154, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

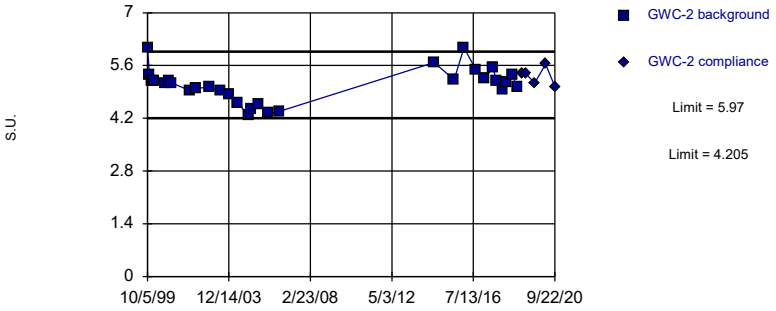
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.087, Std. Dev.=0.4515, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9507, critical = 0.898. Kappa = 1.955 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

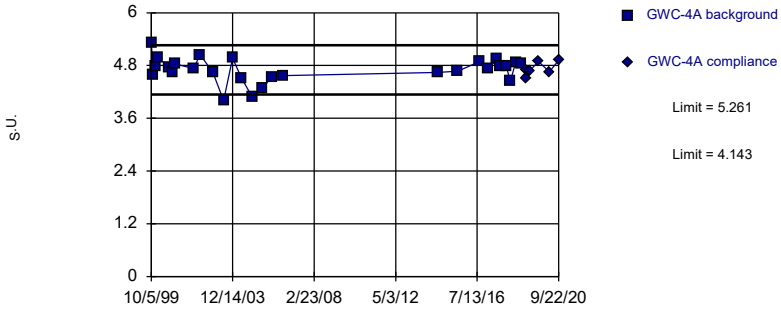
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.702, Std. Dev.=0.2834, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9555, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	6.3	
11/12/1999	4.72	
12/29/1999	4.8	
2/17/2000	4.78	
9/13/2000	4.58	
11/10/2000	4.5	
1/4/2001	4.61	
12/11/2001	4.87	
4/4/2002	4.96	
12/6/2002	4.4 (D)	
6/28/2003	3.77	
12/13/2003	4.25	
5/28/2004	3.9	
12/10/2004	3.71	
6/24/2005	3.94	
12/13/2005	3.94	
7/12/2006	5.56	
7/12/2014	3.88	
7/15/2015	4.19	
1/16/2016	4.35	
8/31/2016	4.53	
1/19/2017	4.79	
7/19/2017	4.83	
9/21/2017	4.57	
1/9/2018	4.4	
3/27/2018	4.11	
7/10/2018	4.62	
10/8/2018	4.51	
1/30/2019		4.72
3/27/2019		4.56
9/12/2019		4.54
3/10/2020		4.81
9/22/2020		4.99

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	5.23	
11/12/1999	5.02	
12/29/1999	4.75	
2/17/2000	4.99	
9/13/2000	4.81	
11/10/2000	4.79	
1/4/2001	4.79	
12/11/2001	4.86	
4/4/2002	5.39	
12/6/2002	4.63	
6/28/2003	4.19	
12/13/2003	5.2	
5/28/2004	4.57	
12/10/2004	4.16	
6/24/2005	4.23	
12/13/2005	4.24	
7/12/2006	4.36	
7/12/2014	3.23	
7/15/2015	4.85	
8/31/2016	5.02	
1/23/2017	5.22	
7/19/2017	5.23	
9/21/2017	5.34	
1/9/2018	5	
3/28/2018	5.08	
7/11/2018	5.07	
10/9/2018	5.1	
1/30/2019		4.81
3/28/2019		4.99
9/12/2019		4.95
3/11/2020		5.21
9/22/2020		4.66

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	6.08	
11/12/1999	5.35	
12/29/1999	5.19	
2/17/2000	5.18	
9/13/2000	5.13	
11/10/2000	5.2	
1/4/2001	5.14	
12/11/2001	4.93	
4/4/2002	5	
12/6/2002	5.02	
6/28/2003	4.92	
12/13/2003	4.82	
5/28/2004	4.6	
12/10/2004	4.29	
2/5/2005	4.43	
6/24/2005	4.56	
12/13/2005	4.34	
7/12/2006	4.38	
7/12/2014	5.68	
7/15/2015	5.22	
1/17/2016	6.07	
8/31/2016	5.49	
1/24/2017	5.25	
7/19/2017	5.54	
9/21/2017	5.19	
1/9/2018	4.97	
3/29/2018	5.15	
7/10/2018	5.37	
10/9/2018	5.04	
1/31/2019		5.38
3/28/2019		5.38
9/12/2019		5.14
3/31/2020		5.64
9/22/2020		5.04

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

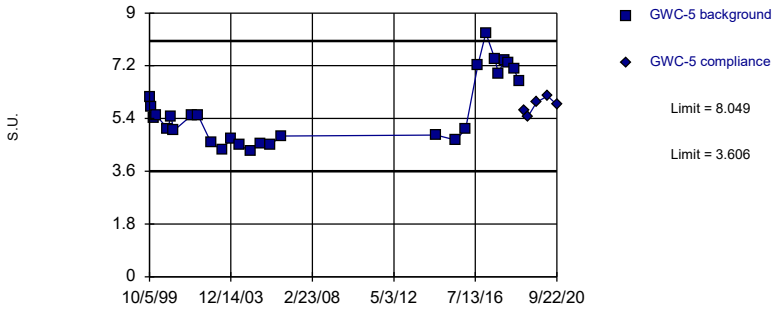
	GWC-4A	GWC-4A
10/5/1999	5.33	
11/12/1999	4.6	
12/29/1999	4.8	
2/17/2000	4.98	
9/13/2000	4.75	
11/10/2000	4.65	
1/4/2001	4.83	
12/11/2001	4.73	
4/4/2002	5.05	
12/6/2002	4.65 (D)	
6/28/2003	4	
12/13/2003	4.97	
5/28/2004	4.51	
12/10/2004	4.09	
6/24/2005	4.27	
12/13/2005	4.54	
7/12/2006	4.57	
7/11/2014	4.64	
7/15/2015	4.67	
8/31/2016	4.89	
1/25/2017	4.73	
7/20/2017	4.96	
9/21/2017	4.78	
1/9/2018	4.79	
3/28/2018	4.44	
7/10/2018	4.88	
10/9/2018	4.85	
1/29/2019		4.7
1/30/2019		4.52
3/28/2019		4.68
9/12/2019		4.89
3/31/2020		4.66
9/22/2020		4.92

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.368, Std. Dev.=0.2389, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8999, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

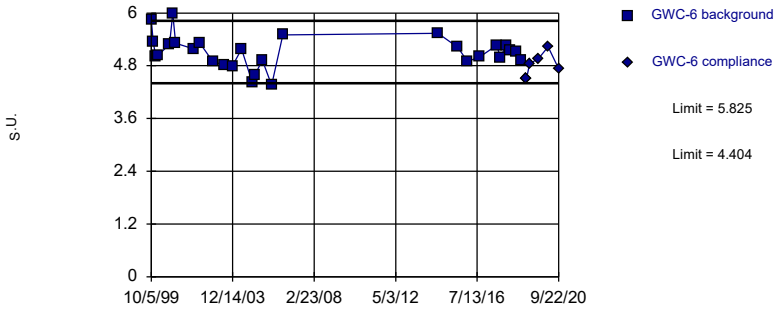
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.114, Std. Dev.=0.3619, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9688, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: pH Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

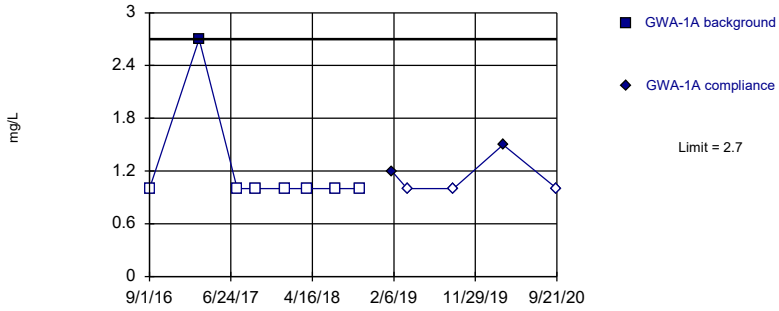
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 11/17/2020 1:59 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

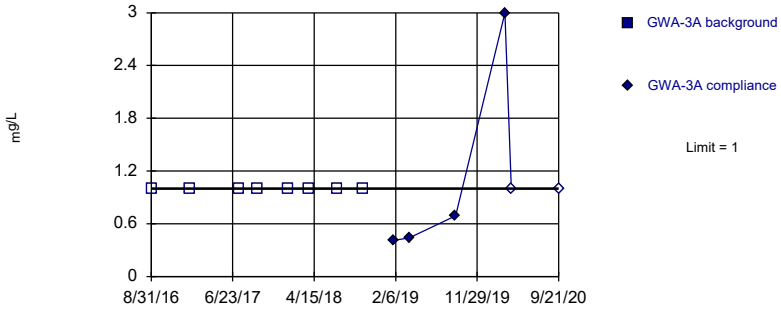
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	6.13	
11/12/1999	5.81	
12/29/1999	5.43	
2/17/2000	5.49	
9/13/2000	5.05	
11/10/2000	5.48	
1/4/2001	4.99	
12/11/2001	5.52	
4/4/2002	5.5	
12/6/2002	4.58 (D)	
6/28/2003	4.32	
12/13/2003	4.73	
5/28/2004	4.5	
12/10/2004	4.28	
6/24/2005	4.56	
12/13/2005	4.49	
7/12/2006	4.8	
7/11/2014	4.83	
7/15/2015	4.66	
1/16/2016	5.05	
9/1/2016	7.21	
1/24/2017	8.32	
7/20/2017	7.41	
9/21/2017	6.94	
1/9/2018	7.39	
3/28/2018	7.31	
7/11/2018	7.09	
10/9/2018	6.68	
1/31/2019		5.69
3/28/2019		5.46
9/12/2019		5.96
3/31/2020		6.17
9/22/2020		5.87

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	5.84	
11/12/1999	5.34	
12/29/1999	5.01	
2/17/2000	5.04	
9/13/2000	5.29	
11/10/2000	5.99	
1/4/2001	5.31	
12/11/2001	5.18	
4/4/2002	5.31	
12/6/2002	4.9 (D)	
6/28/2003	4.82	
12/13/2003	4.8	
5/28/2004	5.18	
12/10/2004	4.43	
2/5/2005	4.6	
6/24/2005	4.93	
12/13/2005	4.36	
7/12/2006	5.5	
7/11/2014	5.54	
7/15/2015	5.22	
1/16/2016	4.9	
9/1/2016	5	
7/19/2017	5.27	
9/21/2017	4.99	
1/9/2018	5.25	
3/28/2018	5.14	
7/10/2018	5.13	
10/9/2018	4.93	
1/30/2019		4.52
1/31/2019		4.52
3/28/2019		4.85
9/12/2019		4.96
3/11/2020		5.23
9/22/2020		4.73

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
9/1/2016	<1	
2/28/2017	2.7	
7/17/2017	<1	
9/20/2017	<1	
1/8/2018	<1	
3/27/2018	<1	
7/10/2018	<1	
10/8/2018	<1	
1/30/2019		1.2
3/27/2019		<1
9/11/2019		<1
3/10/2020		1.5
9/21/2020		<1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

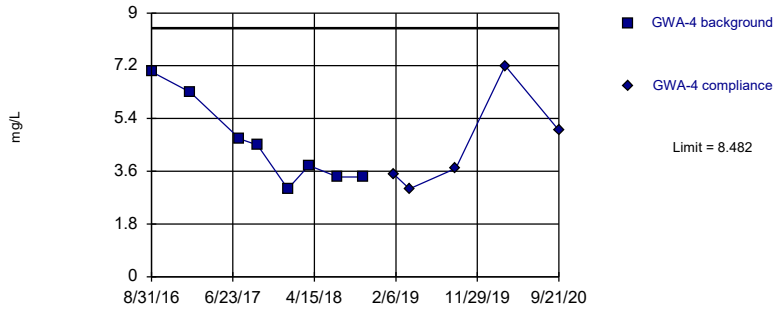
	GWA-3A	GWA-3A
8/31/2016	<1	
1/19/2017	<1	
7/18/2017	<1	
9/20/2017	<1	
1/9/2018	<1	
3/27/2018	<1	
7/10/2018	<1	
10/9/2018	<1	
1/30/2019		0.41 (J)
3/28/2019		0.44 (J)
9/12/2019		0.69 (J)
3/10/2020		3
4/2/2020		<1
9/21/2020		<1

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.513, Std. Dev.=1.449, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8844, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII

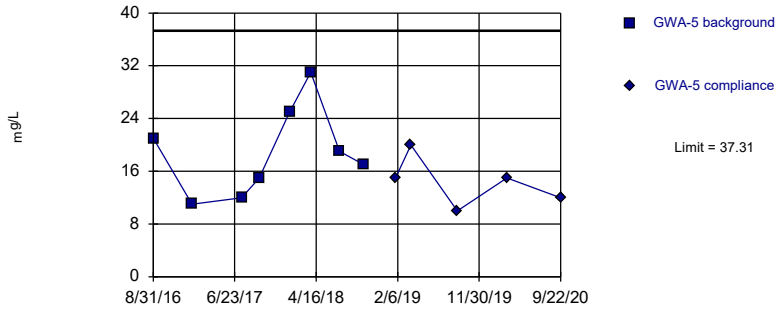
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=18.88, Std. Dev.=6.728, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9527, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

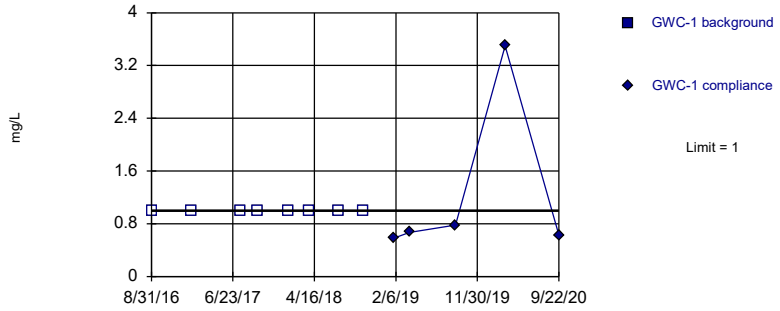
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

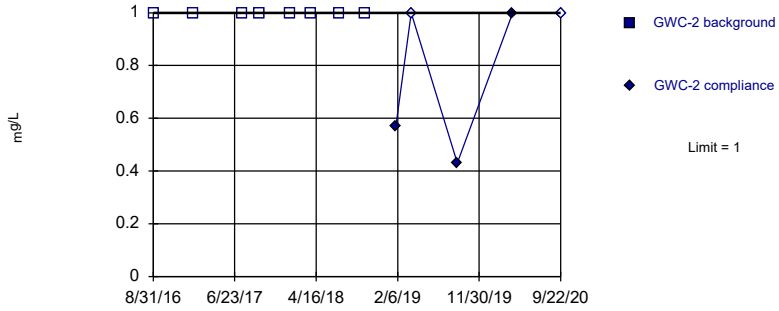
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
8/31/2016	7	
1/19/2017	6.3	
7/18/2017	4.7	
9/21/2017	4.5	
1/9/2018	3	
3/27/2018	3.8	
7/10/2018	3.4	
10/8/2018	3.4	
1/30/2019		3.5
3/28/2019		3
9/12/2019		3.7
3/10/2020		7.2
9/21/2020		5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
8/31/2016	21	
1/19/2017	11	
7/19/2017	12	
9/21/2017	15	
1/9/2018	25	
3/27/2018	31	
7/10/2018	19	
10/8/2018	17	
1/30/2019		15
3/27/2019		20
9/12/2019		10
3/10/2020		15
9/22/2020		12

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
8/31/2016	<1	
1/23/2017	<1	
7/19/2017	<1	
9/21/2017	<1	
1/9/2018	<1	
3/28/2018	<1	
7/11/2018	<1	
10/9/2018	<1	
1/30/2019		0.58 (J)
3/28/2019		0.67 (J)
9/12/2019		0.78 (J)
3/11/2020		3.5
9/22/2020		0.63 (J)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

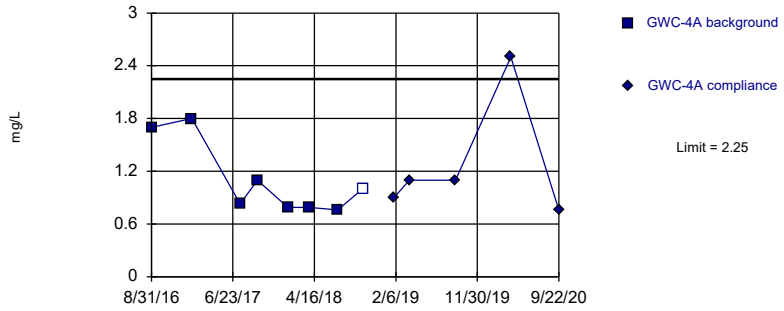
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
8/31/2016	<1	
1/24/2017	<1	
7/19/2017	<1	
9/21/2017	<1	
1/9/2018	<1	
3/29/2018	<1	
7/10/2018	<1	
10/9/2018	<1	
1/31/2019		0.57 (J)
3/28/2019		<1
9/12/2019		0.43 (J)
3/31/2020		1
9/22/2020		<1

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



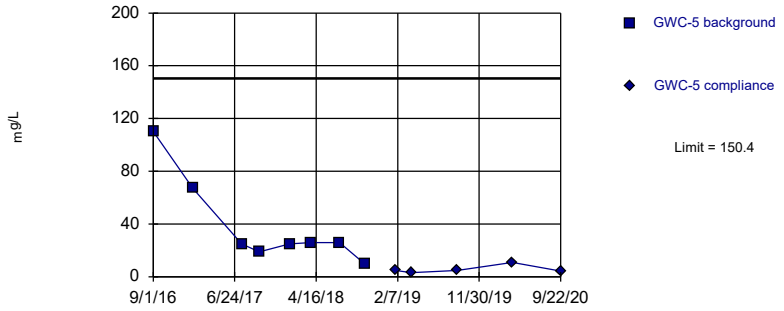
Background Data Summary: Mean=1.096, Std. Dev.=0.421, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7756, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Within Limit

Prediction Limit

Intrawell Parametric



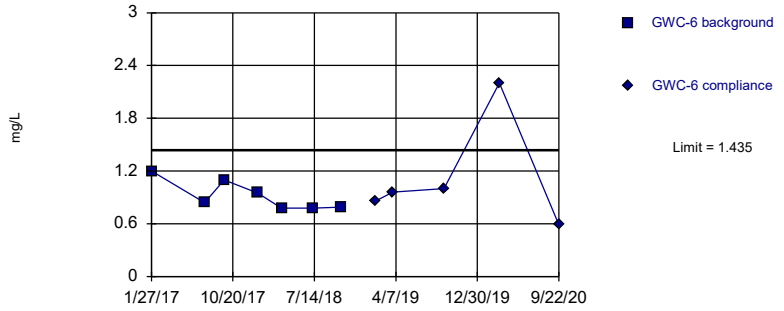
Background Data Summary (based on square root transformation): Mean=5.799, Std. Dev.=2.359, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8242, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Within Limit

Prediction Limit

Intrawell Parametric



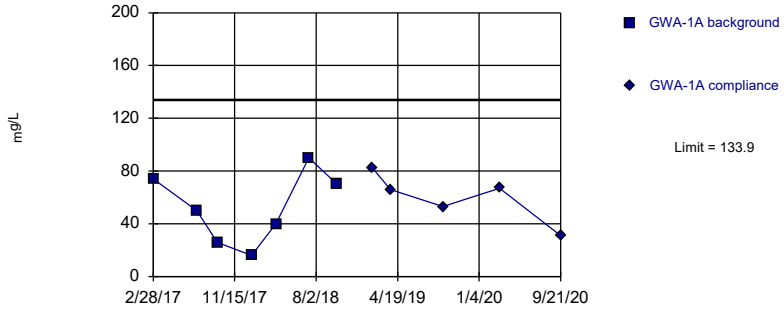
Background Data Summary: Mean=0.92, Std. Dev.=0.1704, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8341, critical = 0.73. Kappa = 3.024 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=52.29, Std. Dev.=26.99, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9628, critical = 0.73. Kappa = 3.024 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
8/31/2016	1.7	
1/25/2017	1.8	
7/20/2017	0.83 (J)	
9/21/2017	1.1	
1/9/2018	0.79 (J)	
3/28/2018	0.79 (J)	
7/10/2018	0.76 (J)	
10/9/2018	<1	
1/30/2019		0.9 (J)
3/28/2019		1.1
9/12/2019		1.1
3/31/2020		2.5
9/22/2020		0.76 (J)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
9/1/2016	110	
1/24/2017	67	
7/20/2017	25	
9/21/2017	19	
1/10/2018	25	
3/28/2018	26	
7/11/2018	26	
10/9/2018	10	
1/31/2019		4.8
3/28/2019		3
9/12/2019		4.9
3/31/2020		11
9/22/2020		4.3

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
1/27/2017	1.2	
7/20/2017	0.84 (J)	
9/22/2017	1.1	
1/10/2018	0.95 (J)	
3/29/2018	0.78 (J)	
7/11/2018	0.78 (J)	
10/9/2018	0.79 (J)	
1/31/2019		0.86 (J)
3/28/2019		0.96 (J)
9/12/2019		1
3/11/2020		2.2
9/22/2020		0.59 (J)

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

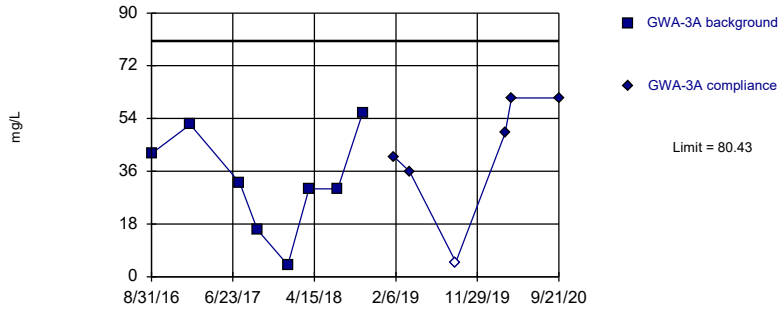
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
9/1/2016	2200 (o)	
2/28/2017	74 (D)	
7/17/2017	50	
9/20/2017	26	
1/8/2018	16	
3/27/2018	40	
7/10/2018	90	
10/8/2018	70	
1/30/2019		82
3/27/2019		66
9/11/2019		53
3/10/2020		67
9/21/2020		31

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



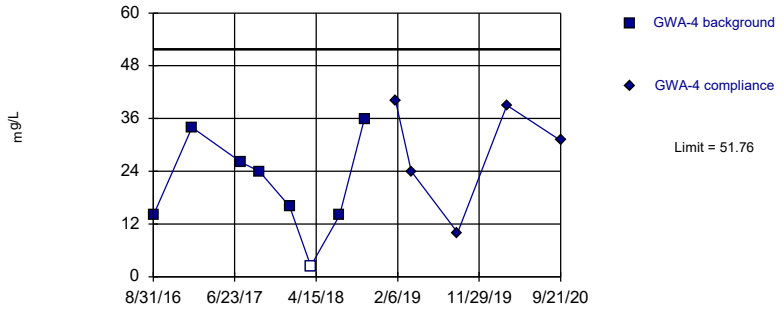
Background Data Summary: Mean=32.75, Std. Dev.=17.4, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9582, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



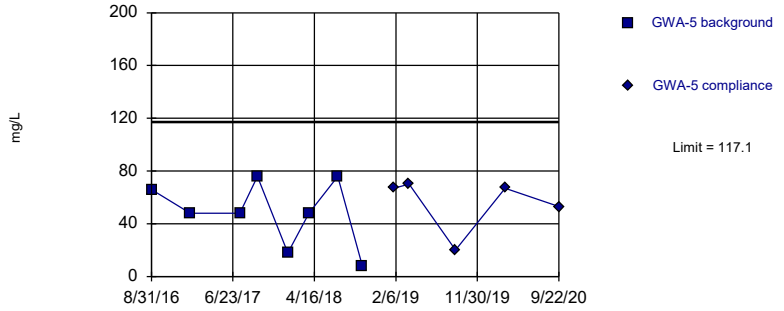
Background Data Summary: Mean=20.81, Std. Dev.=11.29, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9511, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Within Limit

Prediction Limit

Intrawell Parametric



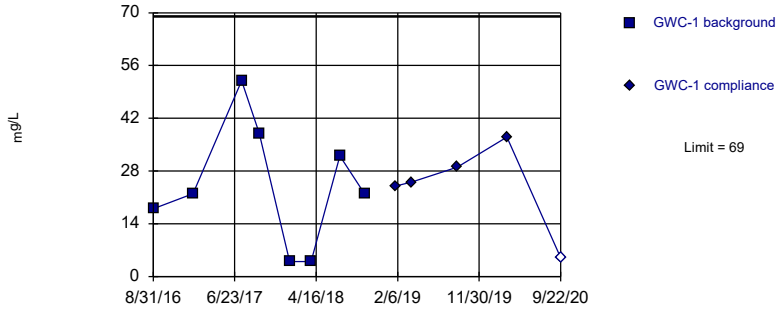
Background Data Summary: Mean=48.5, Std. Dev.=25.04, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8939, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24, Std. Dev.=16.42, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9454, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
8/31/2016	42 (D)	
1/19/2017	52 (D)	
7/18/2017	32	
9/20/2017	16	
1/9/2018	4 (J)	
3/27/2018	30	
7/10/2018	30	
10/9/2018	56	
1/30/2019		41
3/28/2019		36
9/12/2019		<10
3/10/2020		49
4/2/2020		61
9/21/2020		61

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
8/31/2016	14 (D)	
1/19/2017	34 (D)	
7/18/2017	26	
9/21/2017	24	
1/9/2018	16	
3/27/2018	<5	
7/10/2018	14	
10/8/2018	36	
1/30/2019		40
3/28/2019		24
9/12/2019		10
3/10/2020		39
9/21/2020		31

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
8/31/2016	66 (D)	
1/19/2017	48 (D)	
7/19/2017	48	
9/21/2017	76	
1/9/2018	18	
3/27/2018	48	
7/10/2018	76	
10/8/2018	8	
1/30/2019		67
3/27/2019		70
9/12/2019		20
3/10/2020		67
9/22/2020		53

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

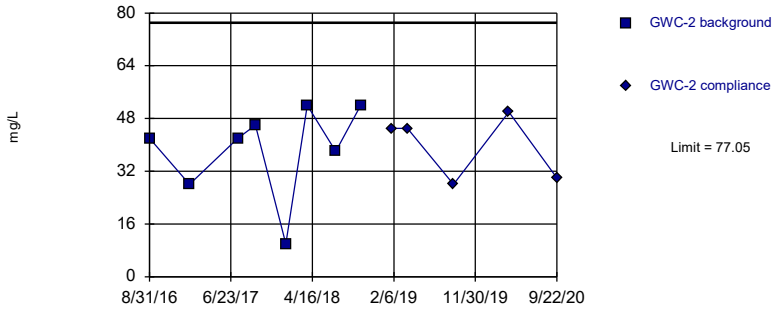
	GWC-1	GWC-1
8/31/2016	18 (D)	
1/23/2017	22 (D)	
7/19/2017	52	
9/21/2017	38	
1/9/2018	4 (J)	
3/28/2018	4 (J)	
7/11/2018	32	
10/9/2018	22	
1/30/2019		24
3/28/2019		25
9/12/2019		29
3/11/2020		37
9/22/2020		<10

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=38.75, Std. Dev.=13.98, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8657, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

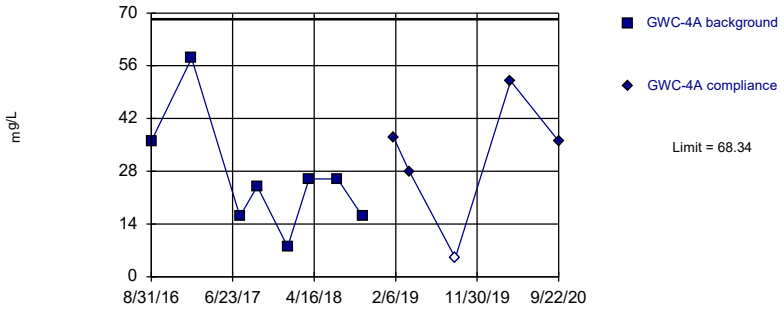
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=26.25, Std. Dev.=15.36, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8949, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII

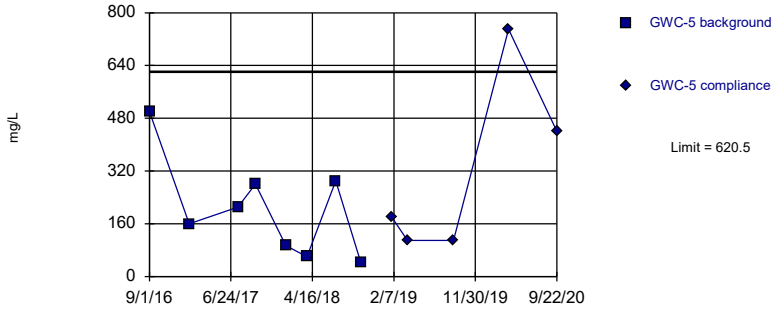
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=204.8, Std. Dev.=151.7, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9146, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII

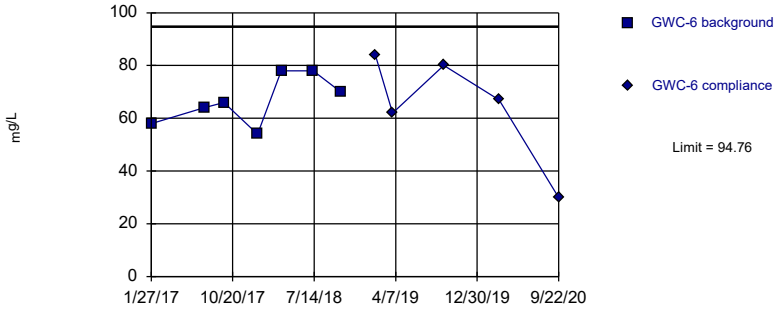
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=66.86, Std. Dev.=9.227, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9356, critical = 0.73. Kappa = 3.024 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 11/17/2020 2:00 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
8/31/2016	42 (D)	
1/24/2017	28 (D)	
7/19/2017	42	
9/21/2017	46	
1/9/2018	10	
3/29/2018	52	
7/10/2018	38	
10/9/2018	52	
1/31/2019		45
3/28/2019		45
9/12/2019		28
3/31/2020		50
9/22/2020		30

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
8/31/2016	36 (D)	
1/25/2017	58 (D)	
7/20/2017	16	
9/21/2017	24	
1/9/2018	8	
3/28/2018	26	
7/10/2018	26	
10/9/2018	16	
1/30/2019		37
3/28/2019		28
9/12/2019		<10
3/31/2020		52
9/22/2020		36

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
9/1/2016	500 (D)	
1/24/2017	160 (D)	
7/20/2017	210	
9/21/2017	280	
1/10/2018	94	
3/28/2018	60	
7/11/2018	290	
10/9/2018	44	
1/31/2019		180
3/28/2019		110
9/12/2019		110
3/31/2020		750
9/22/2020		440

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2020 2:06 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
1/27/2017	58 (D)	
7/20/2017	64	
9/22/2017	66	
1/10/2018	54	
3/29/2018	78	
7/11/2018	78	
10/9/2018	70	
1/31/2019		84
3/28/2019		62
9/12/2019		80
3/11/2020		67
9/22/2020		30

FIGURE E.

Interwell Prediction Limit Summary - All Results (No Significant)

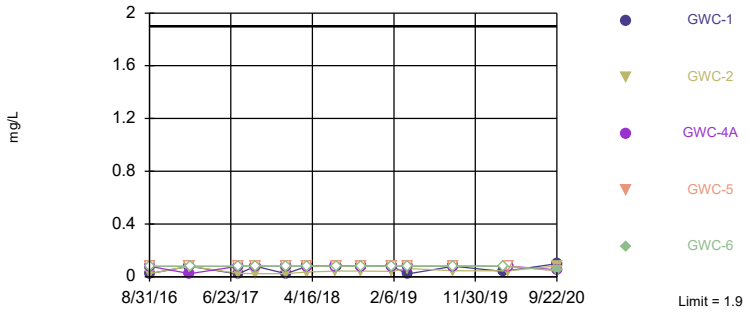
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 1:58 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1	1.9	n/a	9/22/2020	0.098	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-2	1.9	n/a	9/22/2020	0.083	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-4A	1.9	n/a	9/22/2020	0.053J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-5	1.9	n/a	9/22/2020	0.045J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Boron (mg/L)	GWC-6	1.9	n/a	9/22/2020	0.048J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004556	NP Inter (normality) ...
Calcium (mg/L)	GWC-1	20	n/a	9/22/2020	0.21J	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-2	20	n/a	9/22/2020	2.1	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-4A	20	n/a	9/22/2020	0.51	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-5	20	n/a	9/22/2020	8	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Calcium (mg/L)	GWC-6	20	n/a	9/22/2020	1.9	No	64	n/a	n/a	0	n/a	n/a	0.0004691	NP Inter (normality) ...
Fluoride (mg/L)	GWC-2	0.21	n/a	9/22/2020	0.1ND	No	59	n/a	n/a	64.41	n/a	n/a	0.0005451	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-4A	0.21	n/a	9/22/2020	0.1ND	No	59	n/a	n/a	64.41	n/a	n/a	0.0005451	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-5	0.21	n/a	9/22/2020	0.1	No	59	n/a	n/a	64.41	n/a	n/a	0.0005451	NP Inter (NDs) 1 of 2

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



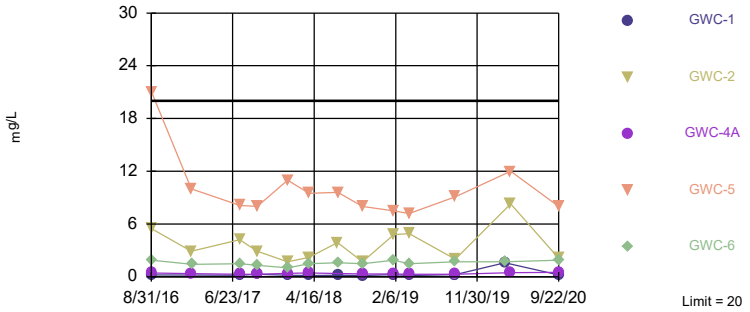
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. 49.23% NDs. Annual per-constituent alpha = 0.004547. Individual comparison alpha = 0.0004556 (1 of 2). Comparing 5 points to limit.

Constituent: Boron Analysis Run 11/17/2020 1:58 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



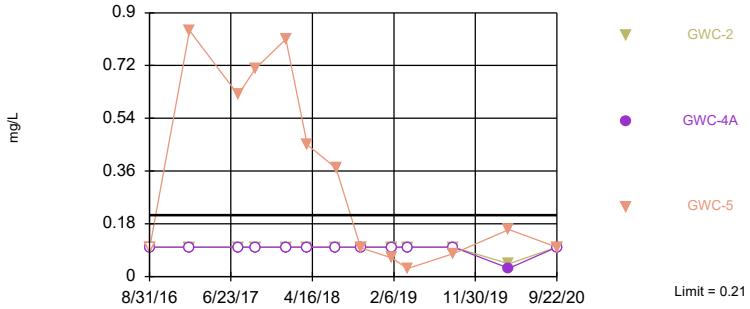
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 64 background values. Annual per-constituent alpha = 0.004681. Individual comparison alpha = 0.0004691 (1 of 2). Comparing 5 points to limit.

Constituent: Calcium Analysis Run 11/17/2020 1:58 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 59 background values. 64.41% NDs. Annual per-constituent alpha = 0.005437. Individual comparison alpha = 0.0005451 (1 of 2). Comparing 3 points to limit. Assumes 2 future values.

Constituent: Fluoride Analysis Run 11/17/2020 1:58 PM View: Federal AIII
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/17/2020 1:58 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-2	GWC-1	GWA-5 (bg)	GWA-4 (bg)	GWA-3A (bg)	GWA-1A (bg)	GWC-5	GWC-6
8/31/2016	<0.08	0.023 (J)	0.023 (J)	0.073	<0.08	<0.08			
9/1/2016							0.029 (J)	<0.08	<0.08
1/19/2017				0.036 (J)	0.027 (J)	<0.08			
1/23/2017			<0.08						
1/24/2017		<0.08						<0.08	
1/25/2017	0.023 (J)								
1/27/2017									<0.08
2/28/2017							<0.08		
7/17/2017							<0.08		
7/18/2017					<0.08	<0.08			
7/19/2017		0.026 (J)	0.021 (J)	0.07					
7/20/2017	<0.08							<0.08	<0.08
9/20/2017						<0.08	<0.08		
9/21/2017	<0.08	0.025 (J)	<0.08	0.07	<0.08			<0.08	
9/22/2017									<0.08
1/8/2018							<0.08		
1/9/2018	<0.08	0.023 (J)	0.025 (J)	0.042 (J)	<0.08	<0.08			
1/10/2018								<0.08	<0.08
3/27/2018				0.037 (J)	<0.08	<0.08	<0.08		
3/28/2018	<0.08		<0.08					<0.08	
3/29/2018		0.035 (J)							<0.08
7/10/2018	<0.08	0.044 (J)		0.042 (J)	<0.08	<0.08	<0.08		
7/11/2018			<0.08					<0.08	<0.08
10/8/2018				0.044 (J)	<0.08		<0.08		
10/9/2018	<0.08	0.043 (J)	<0.08			<0.08		<0.08	<0.08
1/30/2019	<0.08		<0.08	0.03 (J)	<0.08	<0.08	<0.08		
1/31/2019		0.04 (J)						<0.08	<0.08
3/27/2019				0.036 (J)			<0.08		
3/28/2019	<0.08	0.062	0.021 (J)		<0.08	0.024 (J)		<0.08	<0.08
9/11/2019							<0.08		
9/12/2019	<0.08	0.045 (J)	<0.08	0.048 (J)	<0.08	<0.08		<0.08	<0.08
3/10/2020				0.066 (J)	<0.08	0.059 (J)	<0.08		
3/11/2020			0.04 (J)						<0.08
3/31/2020	<0.08	0.046 (J)						<0.08	
4/2/2020						0.084			
9/21/2020					0.073 (J)	0.11	0.11		
9/22/2020	0.053 (J)	0.083	0.098	0.097				0.045 (J)	0.048 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/17/2020 1:58 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	1.3	0.76
10/9/2018		
1/30/2019	1.5	0.77
1/31/2019		
3/27/2019		
3/28/2019	1.4	0.83
9/11/2019		
9/12/2019	1.6	0.65
3/10/2020		0.64
3/11/2020	1.9	
3/31/2020		
4/2/2020		
9/21/2020	0.61	
9/22/2020		0.73

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/17/2020 1:58 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-2	GWC-1	GWA-5 (bg)	GWA-4 (bg)	GWA-3A (bg)	GWC-5	GWC-6	GWA-1A (bg)
8/31/2016	0.42	5.5	0.22 (J)	3.7	0.88	1.5			
9/1/2016							21	1.9	26 (o)
1/19/2017				2	1.1	1.8			
1/23/2017			1.3 (o)						
1/24/2017		2.9					10		
1/25/2017	0.37								
1/27/2017								1.4	
2/28/2017									2.7
7/17/2017									1.7
7/18/2017					0.86	1.7			
7/19/2017		4.2	0.19 (J)	2.6					
7/20/2017	0.29						8.1	1.5	
9/20/2017						1.7			1.5
9/21/2017	0.3	2.9	0.3	2.7	0.9		8		
9/22/2017								1.3	
1/8/2018									1.7
1/9/2018	0.38	1.7	0.16 (J)	4.1	1	1.9			
1/10/2018							11	1	
3/27/2018				4.8	0.89	1.9			1.7
3/28/2018	0.44		0.14 (J)				9.5		
3/29/2018		2.2						1.5	
7/10/2018	2 (o)	3.9		3.7	0.99	1.9			1.7
7/11/2018			0.18 (J)				9.6	1.6	
10/8/2018				3.2	1.1				1.6
10/9/2018	0.34	1.7	0.13 (J)			2.2	8	1.5	
1/30/2019	0.34		0.24 (J)	1.7	1	2.4			1.9
1/31/2019		4.8					7.5	1.9	
3/27/2019				3.1					1.6
3/28/2019	0.3	4.9	0.15 (J)		0.98	2.4	7.2	1.5	
9/11/2019									1.6
9/12/2019	0.3 (J)	2	<0.5 (D)	1.9	0.84	2.3	9.1	1.7	
3/10/2020				2.9	1.1	2.8			2
3/11/2020			1.6					1.7	
3/31/2020	0.48 (J)	8.3					12		
4/2/2020						3			
9/21/2020					1.4	3.1			1.8
9/22/2020	0.51	2.1	0.21 (J)	2.9			8	1.9	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/17/2020 1:58 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	17	17
10/9/2018		
1/30/2019	15	16
1/31/2019		
3/27/2019		
3/28/2019	18	16
9/11/2019		
9/12/2019	19	15
3/10/2020		14
3/11/2020	20	
3/31/2020		
4/2/2020		
9/21/2020	13	
9/22/2020		16

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/17/2020 1:58 PM View: Federal AIII

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWC-2	GWC-4A	GWA-1A (bg)	GWC-5	GWA-2B (bg)
8/31/2016	<0.1	<0.1	0.13 (J)	<0.1	<0.1			
9/1/2016						<0.1	<0.1	
1/19/2017	<0.1	0.089 (J)	<0.1					
1/24/2017				<0.1			0.84	
1/25/2017					<0.1			
2/28/2017						0.098 (J)		
7/17/2017						<0.1		
7/18/2017	<0.1	<0.1						
7/19/2017			<0.1	<0.1				
7/20/2017					<0.1		0.62	
9/20/2017	<0.1					<0.1		
9/21/2017		<0.1	0.13 (J)	<0.1	<0.1		0.71	
1/8/2018						<0.1		
1/9/2018	<0.1	<0.1	0.13 (J)	<0.1	<0.1			
1/10/2018							0.81	
3/27/2018	<0.1	<0.1	0.21			<0.1		
3/28/2018					<0.1		0.45	
3/29/2018				<0.1				
7/10/2018	<0.1	<0.1	0.17 (J)	<0.1	<0.1	<0.1		
7/11/2018							0.37	
10/8/2018		<0.1	0.11 (J)			<0.1		<0.1
10/9/2018	<0.1			<0.1	<0.1		0.098 (J)	
1/30/2019	<0.1	0.029 (J)	0.089 (J)		<0.1	<0.1		<0.1
1/31/2019				<0.1			0.063 (J)	
3/27/2019			0.1 (J)			<0.1		
3/28/2019	<0.1	<0.1		<0.1	<0.1		0.027 (J)	<0.1
9/11/2019						<0.1		
9/12/2019	<0.1	0.035 (J)	0.052 (J)	<0.1	<0.1		0.078 (J)	0.036 (J)
3/10/2020	0.026 (J)	0.066 (J)	0.051 (J)			<0.1		<0.1
3/31/2020				0.043 (J)	0.028 (J)		0.16	
4/2/2020	0.051 (J)							
9/21/2020	<0.1	0.06 (J)				<0.1		
9/22/2020			0.049 (J)	<0.1	<0.1		0.1	0.039 (J)

FIGURE F.

Interwell Prediction Limit Summary (Intrawell Exceedances)

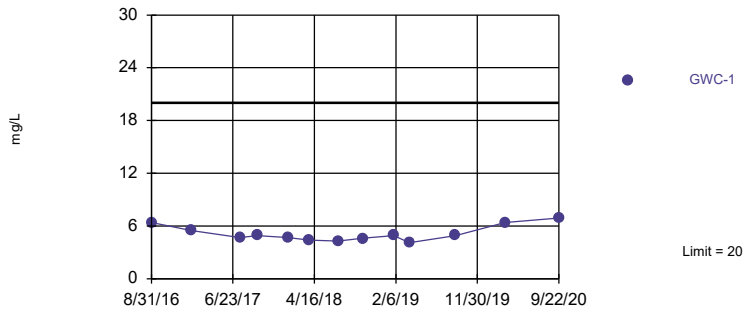
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	GWC-1	20	n/a	9/22/2020	6.9	No	65	n/a	n/a	0	n/a	n/a	0.0004556	NP Inter (normality) ...

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. Annual per-constituent alpha = 0.004547. Individual comparison alpha = 0.0004556 (1 of 2). Assumes 4 future values.

Constituent: Chloride Analysis Run 11/17/2020 2:44 PM View: AIII Exceedances

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2020 2:44 PM View: AIII Exceedances

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4 (bg)	GWA-3A (bg)	GWA-5 (bg)	GWC-1	GWA-1A (bg)	GWA-7A (bg)	GWA-2B (bg)
8/31/2016	3.7	6.8	7.1	6.4			
9/1/2016					8		
1/19/2017	4.6	6.9	3.3				
1/23/2017				5.5			
2/28/2017					8.5		
7/17/2017					7.8		
7/18/2017	4.2	7.4					
7/19/2017			5.8	4.7			
9/20/2017		7.6			8		
9/21/2017	4.4		6.2	4.9			
1/8/2018					7.9		
1/9/2018	4.4	8.6	9.9	4.7			
3/27/2018	4.9	9.4	13		8		
3/28/2018				4.4			
7/10/2018	5.5	11	17		7.8		
7/11/2018				4.3			
10/8/2018	6.6		16		8.5	6.8	7.3
10/9/2018		14		4.6			
1/30/2019	6.9	15	6.5	4.9	8.2	7.1	7.3
3/27/2019			9.1		8.1		
3/28/2019	5.7	15		4.1		6.1	6.1
9/11/2019					7.1		
9/12/2019	6.1	16	9.1	4.9		6.8	7.6
3/10/2020	5	19	3.7		8.1		8
3/11/2020				6.4		6.9	
4/2/2020		20					
9/21/2020	5.4	19			8.1	6.5	
9/22/2020			6.3	6.9			8

FIGURE G.

Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:13 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	**GWA-3A (bg)**	**3.85**	**87**	**44**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**GWA-4 (bg)**	**0.6368**	**43**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test - All Results

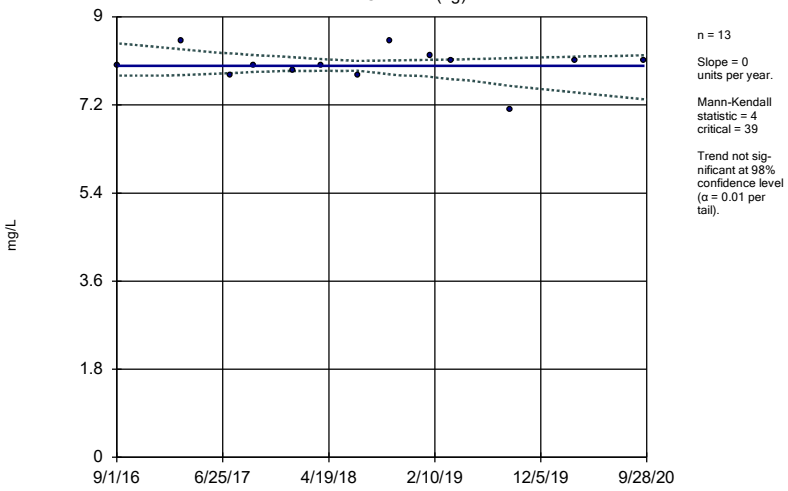
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 11/17/2020, 2:13 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	GWA-1A (bg)	0	4	39	No	13	0	n/a	n/a	0.02	NP
Chloride (mg/L)	GWA-2B (bg)	0.4251	9	13	No	6	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**GWA-3A (bg)**	**3.85**	**87**	**44**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**GWA-4 (bg)**	**0.6368**	**43**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	GWA-5 (bg)	0.189	7	39	No	13	0	n/a	n/a	0.02	NP
Chloride (mg/L)	GWA-7A (bg)	-0.1534	-2	-13	No	6	0	n/a	n/a	0.02	NP
Chloride (mg/L)	GWC-1	0	-1	-39	No	13	0	n/a	n/a	0.02	NP

Sanitas™ v.9.6.27 . UG

Sen's Slope and 95% Confidence Band

GWA-1A (bg)



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = 4 critical = 39

Trend not significant at 98% confidence level (α = 0.01 per tail).

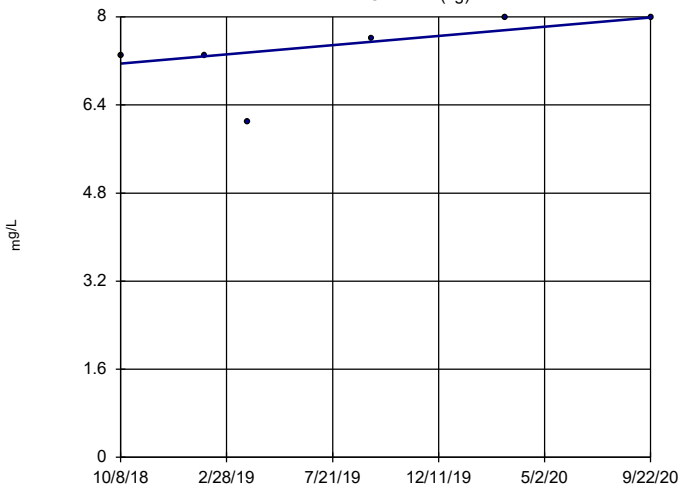
Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

GWA-2B (bg)



n = 6

Slope = 0.4251 units per year.

Mann-Kendall statistic = 9 critical = 13

Trend not significant at 98% confidence level (α = 0.01 per tail).

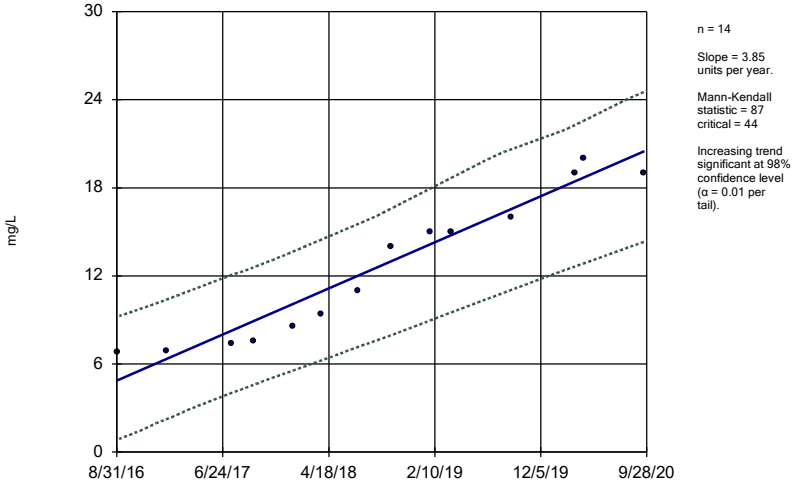
Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope and 95% Confidence Band

GWA-3A (bg)



n = 14

Slope = 3.85 units per year.

Mann-Kendall statistic = 87 critical = 44

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

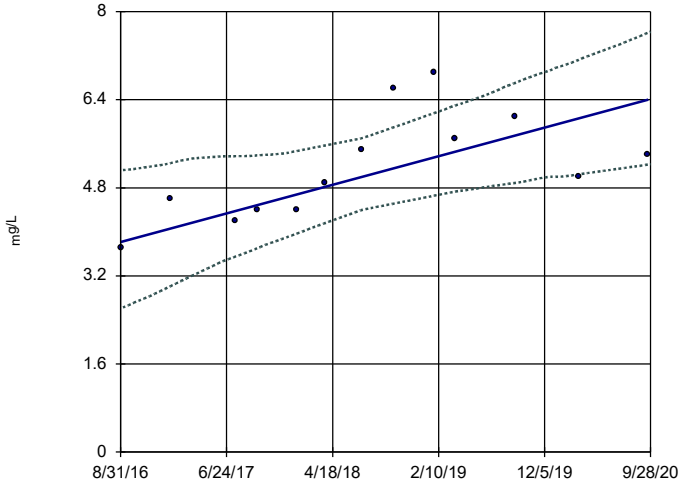
Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope and 95% Confidence Band

GWA-4 (bg)



n = 13

Slope = 0.6368 units per year.

Mann-Kendall statistic = 43 critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

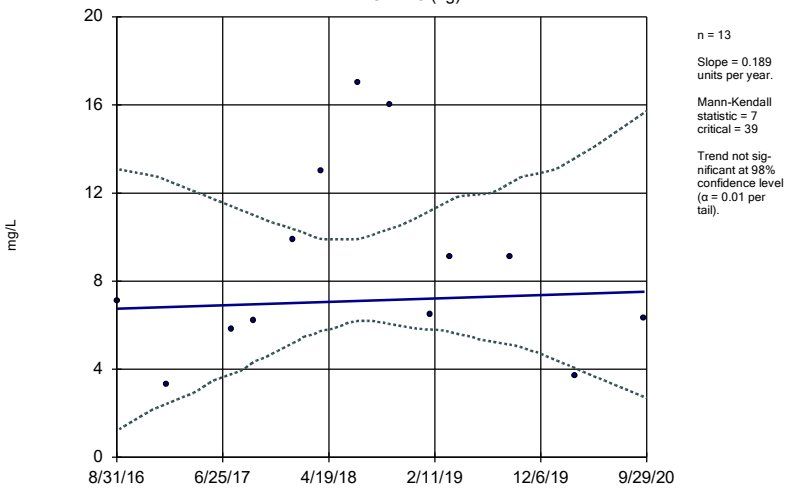
Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope and 95% Confidence Band

GWA-5 (bg)



n = 13

Slope = 0.189 units per year.

Mann-Kendall statistic = 7 critical = 39

Trend not significant at 98% confidence level (α = 0.01 per tail).

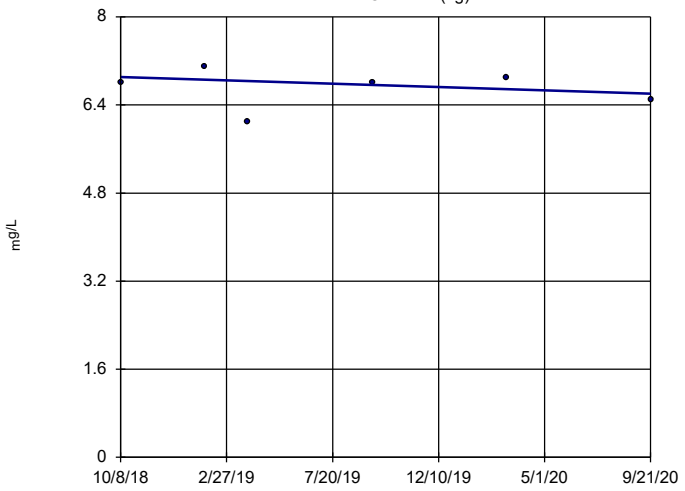
Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

GWA-7A (bg)



n = 6

Slope = -0.1534 units per year.

Mann-Kendall statistic = -2 critical = -13

Trend not significant at 98% confidence level (α = 0.01 per tail).

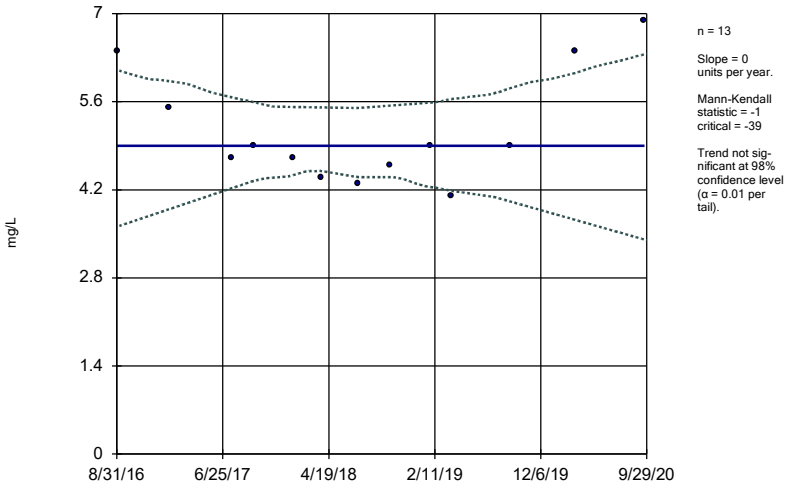
Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope and 95% Confidence Band

GWC-1



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = -1 critical = -39

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/17/2020 2:12 PM View: AIII Trend Test

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

FIGURE H.

Intrawell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	**GWA-3A**	**0.05764**	**n/a**	**9/21/2020**	**0.083**	**Yes**	**44**	**0.04428**	**0.007109**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Zinc (mg/L)	**GWC-2**	**0.028**	**n/a**	**9/22/2020**	**0.029**	**Yes**	**40**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.001159**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-4A**	**0.012**	**n/a**	**9/22/2020**	**0.017**	**Yes**	**39**	**n/a**	**n/a**	**48.72**	**n/a**	**n/a**	**0.001226**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-5**	**0.0369**	**n/a**	**9/22/2020**	**0.037**	**Yes**	**41**	**-4.113**	**0.43**	**9.756**	**None**	**ln(x)**	**0.001504**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:31 PM

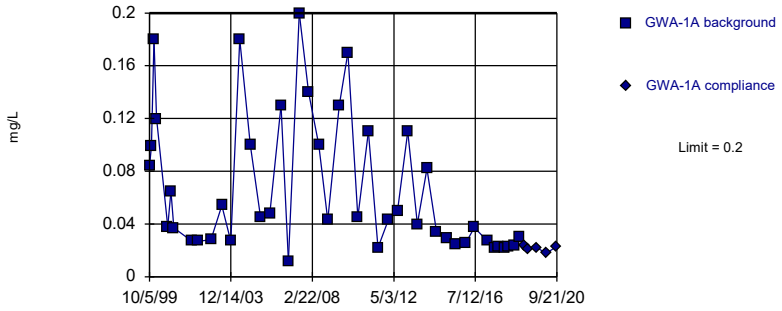
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	GWA-1A	0.2	n/a	9/21/2020	0.023	No	44	n/a	n/a	0	n/a	n/a	0.0009963	NP Intra (normality) 1 of 2
Barium (mg/L)	**GWA-3A**	**0.05764**	**n/a**	**9/21/2020**	**0.083**	**Yes**	**44**	**0.04428**	**0.007109**	**0**	**None**	**No**	**0.001504**	**Param Intra 1 of 2**
Barium (mg/L)	GWA-4	0.05416	n/a	9/21/2020	0.052	No	45	0.03687	0.009212	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWA-5	0.1787	n/a	9/22/2020	0.078	No	44	0.09875	0.04255	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-1	0.05862	n/a	9/22/2020	0.022	No	16	0.1593	0.03852	0	None	sqrt(x)	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-2	0.0871	n/a	9/22/2020	0.061	No	45	0.0647	0.01194	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-4A	0.08446	n/a	9/22/2020	0.031	No	45	0.05131	0.01767	0	None	No	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-5	0.6045	n/a	9/22/2020	0.51	No	44	-1.326	0.4377	0	None	ln(x)	0.001504	Param Intra 1 of 2
Barium (mg/L)	GWC-6	0.075	n/a	9/22/2020	0.051	No	43	n/a	n/a	0	n/a	n/a	0.001037	NP Intra (normality) 1 of 2
Beryllium (mg/L)	GWA-1A	0.0028	n/a	9/21/2020	0.0002J	No	44	n/a	n/a	86.36	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWA-3A	0.0025	n/a	9/21/2020	0.00054J	No	45	n/a	n/a	80	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWA-4	0.0025	n/a	9/21/2020	0.0025ND	No	45	n/a	n/a	88.89	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWA-5	0.0036	n/a	9/22/2020	0.0025ND	No	45	n/a	n/a	80	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-1	0.0025	n/a	9/22/2020	0.0025ND	No	45	n/a	n/a	95.56	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-2	0.0025	n/a	9/22/2020	0.00025J	No	45	n/a	n/a	86.67	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-4A	0.0025	n/a	9/22/2020	0.0025ND	No	45	n/a	n/a	93.33	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-5	0.0029	n/a	9/22/2020	0.0011J	No	45	n/a	n/a	73.33	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Beryllium (mg/L)	GWC-6	0.0025	n/a	9/22/2020	0.00021J	No	44	n/a	n/a	86.36	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWA-1A	0.02461	n/a	9/21/2020	0.0049	No	39	0.08981	0.0353	12.82	None	sqrt(x)	0.001504	Param Intra 1 of 2
Chromium (mg/L)	GWA-3A	0.0059	n/a	9/21/2020	0.002ND	No	45	n/a	n/a	37.78	n/a	n/a	0.0009557	NP Intra (normality) 1 of 2
Chromium (mg/L)	GWA-4	0.0087	n/a	9/21/2020	0.002ND	No	44	n/a	n/a	81.82	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWA-5	0.0067	n/a	9/22/2020	0.0017J	No	44	n/a	n/a	52.27	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.002	n/a	9/22/2020	0.0017J	No	44	n/a	n/a	97.73	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.004562	n/a	9/22/2020	0.0036	No	41	0.04977	0.009395	24.39	Kapla...	sqrt(x)	0.001504	Param Intra 1 of 2
Chromium (mg/L)	GWC-4A	0.0029	n/a	9/22/2020	0.002ND	No	43	n/a	n/a	95.35	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-5	0.0025	n/a	9/22/2020	0.002ND	No	42	n/a	n/a	90.48	n/a	n/a	0.001077	NP Intra (NDs) 1 of 2
Chromium (mg/L)	GWC-6	0.0025	n/a	9/22/2020	0.002ND	No	41	n/a	n/a	87.8	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-1A	0.0055	n/a	9/21/2020	0.002ND	No	41	n/a	n/a	85.37	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-3A	0.00205	n/a	9/21/2020	0.002ND	No	41	n/a	n/a	97.56	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-4	0.0025	n/a	9/21/2020	0.002ND	No	41	n/a	n/a	97.56	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWA-5	0.005	n/a	9/22/2020	0.0013J	No	37	n/a	n/a	83.78	n/a	n/a	0.001361	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-1	0.002	n/a	9/22/2020	0.002ND	No	40	n/a	n/a	100	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-2	0.002	n/a	9/22/2020	0.002ND	No	39	n/a	n/a	97.44	n/a	n/a	0.001226	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-5	0.0026	n/a	9/22/2020	0.002ND	No	41	n/a	n/a	95.12	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Copper (mg/L)	GWC-6	0.002	n/a	9/22/2020	0.002ND	No	40	n/a	n/a	100	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-1A	0.00125	n/a	9/21/2020	0.001ND	No	38	n/a	n/a	94.74	n/a	n/a	0.001294	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-3A	0.001	n/a	9/21/2020	0.001ND	No	45	n/a	n/a	97.78	n/a	n/a	0.0009557	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-4	0.0023	n/a	9/21/2020	0.00025J	No	44	n/a	n/a	95.45	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWA-5	0.0013	n/a	9/22/2020	0.0012	No	44	n/a	n/a	84.09	n/a	n/a	0.0009963	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.001	n/a	9/22/2020	0.001ND	No	43	n/a	n/a	97.67	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWC-5	0.001	n/a	9/22/2020	0.00013J	No	43	n/a	n/a	97.67	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Lead (mg/L)	GWC-6	0.0073	n/a	9/22/2020	0.001ND	No	43	n/a	n/a	90.7	n/a	n/a	0.001037	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWA-1A	0.055	n/a	9/21/2020	0.001ND	No	41	n/a	n/a	43.9	n/a	n/a	0.001118	NP Intra (normality) 1 of 2
Vanadium (mg/L)	GWA-3A	0.0038	n/a	9/21/2020	0.001ND	No	41	n/a	n/a	95.12	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWA-4	0.0025	n/a	9/21/2020	0.0012	No	40	n/a	n/a	95	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWA-5	0.0082	n/a	9/22/2020	0.0056	No	39	n/a	n/a	82.05	n/a	n/a	0.001226	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.0063	n/a	9/22/2020	0.001ND	No	41	n/a	n/a	97.56	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.0062	n/a	9/22/2020	0.001ND	No	40	n/a	n/a	92.5	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-4A	0.001	n/a	9/22/2020	0.001ND	No	41	n/a	n/a	100	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-5	0.017	n/a	9/22/2020	0.0015	No	40	n/a	n/a	85	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	GWC-6	0.0021	n/a	9/22/2020	0.0011	No	40	n/a	n/a	97.5	n/a	n/a	0.001159	NP Intra (NDs) 1 of 2
Zinc (mg/L)	GWA-1A	0.074	n/a	9/21/2020	0.005ND	No	41	n/a	n/a	31.71	n/a	n/a	0.001118	NP Intra (normality) 1 of 2
Zinc (mg/L)	GWA-3A	0.02	n/a	9/21/2020	0.0055	No	38	n/a	n/a	52.63	n/a	n/a	0.001294	NP Intra (NDs) 1 of 2
Zinc (mg/L)	GWA-4	0.03318	n/a	9/21/2020	0.013	No	41	0.1018	0.04245	19.51	Kapla...	sqrt(x)	0.001504	Param Intra 1 of 2
Zinc (mg/L)	GWA-5	0.068	n/a	9/22/2020	0.039	No	40	n/a	n/a	20	n/a	n/a	0.001159	NP Intra (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.015	n/a	9/22/2020	0.005ND	No	41	n/a	n/a	53.66	n/a	n/a	0.001118	NP Intra (NDs) 1 of 2
Zinc (mg/L)	**GWC-2**	**0.028**	**n/a**	**9/22/2020**	**0.029**	**Yes**	**40**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.001159**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-4A**	**0.012**	**n/a**	**9/22/2020**	**0.017**	**Yes**	**39**	**n/a**	**n/a**	**48.72**	**n/a**	**n/a**	**0.001226**	**NP Intra (normality) 1 of 2**
Zinc (mg/L)	**GWC-5**	**0.0369**	**n/a**	**9/22/2020**	**0.037**	**Yes**	**41**	**-4.113**	**0.43**	**9.756**	**None**	**ln(x)**	**0.001504**	**Param Intra 1 of 2**
Zinc (mg/L)	GWC-6	0.025	n/a	9/22/2020	0.0053	No	35	n/a	n/a	34.29	n/a	n/a	0.001497	NP Intra (normality) 1 of 2

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

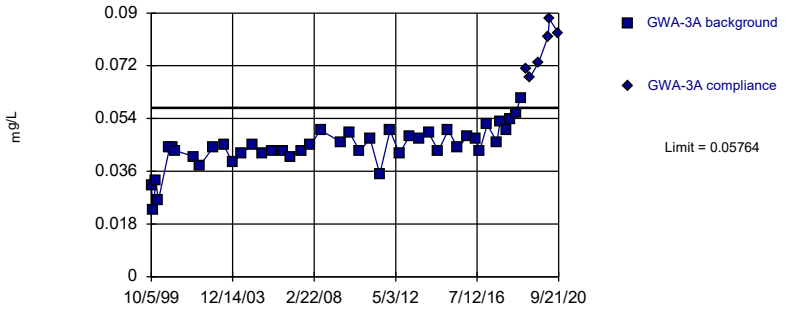
Constituent: Barium Analysis Run 12/2/2020 12:28 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.04428, Std. Dev.=0.007109, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9398, critical = 0.924. Kappa = 1.88 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

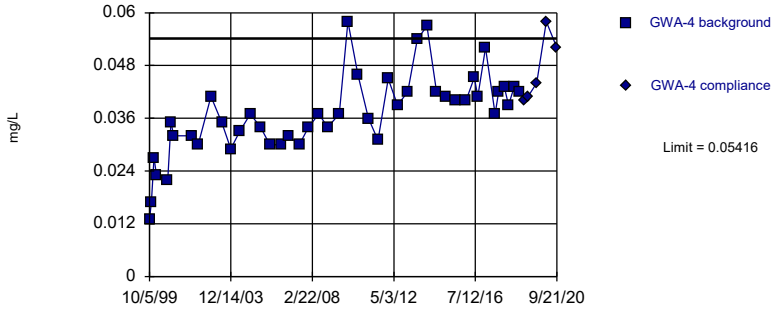
Constituent: Barium Analysis Run 12/2/2020 12:28 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03687, Std. Dev.=0.009212, n=45. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9726, critical = 0.926. Kappa = 1.876 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

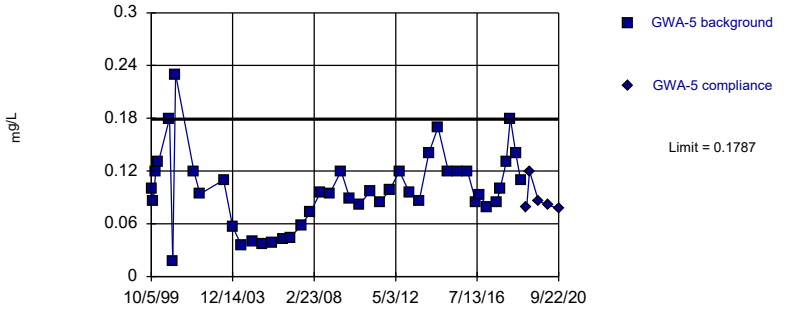
Constituent: Barium Analysis Run 12/2/2020 12:28 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.09875, Std. Dev.=0.04255, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9542, critical = 0.924. Kappa = 1.88 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Barium Analysis Run 12/2/2020 12:28 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	0.084	
11/12/1999	0.099	
12/29/1999	0.18	
2/17/2000	0.12	
9/13/2000	0.038	
11/10/2000	0.065	
1/4/2001	0.037	
12/11/2001	0.027	
4/4/2002	0.027	
12/6/2002	0.028	
6/28/2003	0.054	
12/13/2003	0.027	
5/28/2004	0.18	
12/10/2004	0.1	
6/24/2005	0.045	
12/13/2005	0.048	
7/12/2006	0.13	
12/1/2006	0.012	
6/21/2007	0.2	
12/15/2007	0.14	
6/22/2008	0.1	
12/7/2008	0.043	
7/11/2009	0.13	
12/23/2009	0.17	
6/24/2010	0.045	
1/9/2011	0.11	
7/11/2011	0.022	
1/20/2012	0.043	
7/13/2012	0.05	
1/21/2013	0.11	
7/20/2013	0.04	
1/17/2014	0.082	
7/12/2014	0.034	
1/16/2015	0.029	
7/15/2015	0.025	
1/16/2016	0.026	
6/22/2016	0.0374 (D)	
9/1/2016	0.86 (o)	
2/28/2017	0.027	
7/17/2017	0.022	
9/20/2017	0.023	
1/8/2018	0.022	
3/27/2018	0.023	
7/10/2018	0.024	
10/8/2018	0.03	
1/30/2019		0.024
3/27/2019		0.021
9/11/2019		0.022
3/10/2020		0.018
9/21/2020		0.023

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	0.031	
11/12/1999	0.023	
12/29/1999	0.033	
2/17/2000	0.026	
9/13/2000	0.044	
11/10/2000	0.044	
1/4/2001	0.043	
12/11/2001	0.041	
4/4/2002	0.038	
12/6/2002	0.044	
6/28/2003	0.045	
12/13/2003	0.039	
5/28/2004	0.042	
12/10/2004	0.045	
6/24/2005	0.042	
12/13/2005	0.043	
7/12/2006	0.043	
12/1/2006	0.041	
6/21/2007	0.043	
12/15/2007	0.045	
6/22/2008	0.05	
12/6/2008	0.14 (o)	
7/10/2009	0.046	
12/23/2009	0.049	
6/23/2010	0.043	
1/8/2011	0.047	
7/10/2011	0.035	
1/19/2012	0.05	
7/12/2012	0.042	
1/21/2013	0.048	
7/20/2013	0.047	
1/17/2014	0.049	
7/12/2014	0.043	
1/15/2015	0.05	
7/15/2015	0.044	
1/16/2016	0.048	
6/22/2016	0.0471 (D)	
8/31/2016	0.043	
1/19/2017	0.052	
7/18/2017	0.046	
9/20/2017	0.053	
1/9/2018	0.05	
3/27/2018	0.054	
7/10/2018	0.056	
10/9/2018	0.061	
1/30/2019		0.071
3/28/2019		0.068
9/12/2019		0.073
3/10/2020		0.082
4/2/2020		0.088
9/21/2020		0.083

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	0.013	
11/12/1999	0.017	
12/29/1999	0.027	
2/17/2000	0.023	
9/13/2000	0.022	
11/10/2000	0.035	
1/4/2001	0.032	
12/11/2001	0.032	
4/4/2002	0.03	
12/6/2002	0.041	
6/28/2003	0.035	
12/13/2003	0.029	
5/28/2004	0.033	
12/10/2004	0.037	
6/24/2005	0.034	
12/13/2005	0.03	
7/12/2006	0.03	
12/1/2006	0.032	
6/21/2007	0.03	
12/15/2007	0.034	
6/21/2008	0.037	
12/6/2008	0.034	
7/11/2009	0.037	
12/23/2009	0.058	
6/23/2010	0.046	
1/8/2011	0.036	
7/10/2011	0.031	
1/19/2012	0.045	
7/12/2012	0.039	
1/21/2013	0.042	
7/20/2013	0.054	
1/17/2014	0.057	
7/12/2014	0.042	
1/15/2015	0.041	
7/15/2015	0.04	
1/16/2016	0.04	
6/22/2016	0.0453	
8/31/2016	0.041	
1/19/2017	0.052	
7/18/2017	0.037	
9/21/2017	0.042	
1/9/2018	0.043	
3/27/2018	0.039	
7/10/2018	0.043	
10/8/2018	0.042	
1/30/2019		0.04
3/28/2019		0.041
9/12/2019		0.044
3/10/2020		0.058
9/21/2020		0.052

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

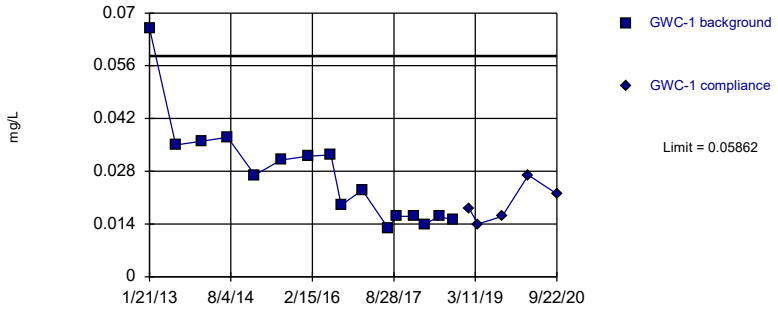
	GWA-5	GWA-5
10/5/1999	0.1	
11/12/1999	0.086	
12/29/1999	0.12	
2/17/2000	0.13	
9/13/2000	0.18	
11/10/2000	0.018	
1/4/2001	0.23	
12/11/2001	0.12	
4/4/2002	0.094	
12/6/2002	0.33 (o)	
6/28/2003	0.11	
12/13/2003	0.057	
5/28/2004	0.035	
12/10/2004	0.04	
6/24/2005	0.037	
12/13/2005	0.039	
7/12/2006	0.042	
12/1/2006	0.044	
6/21/2007	0.058	
12/15/2007	0.073	
6/22/2008	0.096	
12/6/2008	0.094	
7/11/2009	0.12	
12/22/2009	0.089	
6/23/2010	0.081	
1/8/2011	0.097	
7/10/2011	0.084	
1/20/2012	0.099	
7/12/2012	0.12	
1/21/2013	0.095	
7/20/2013	0.086	
1/17/2014	0.14	
7/12/2014	0.17	
1/16/2015	0.12	
7/15/2015	0.12	
1/16/2016	0.12	
6/22/2016	0.0839	
8/31/2016	0.093	
1/19/2017	0.079	
7/19/2017	0.085	
9/21/2017	0.1	
1/9/2018	0.13	
3/27/2018	0.18	
7/10/2018	0.14	
10/8/2018	0.11	
1/30/2019		0.079
3/27/2019		0.12
9/12/2019		0.086
3/10/2020		0.081
9/22/2020		0.078

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.1593, Std. Dev.=0.03852, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8905, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Barium Analysis Run 12/2/2020 12:29 PM View: EPD

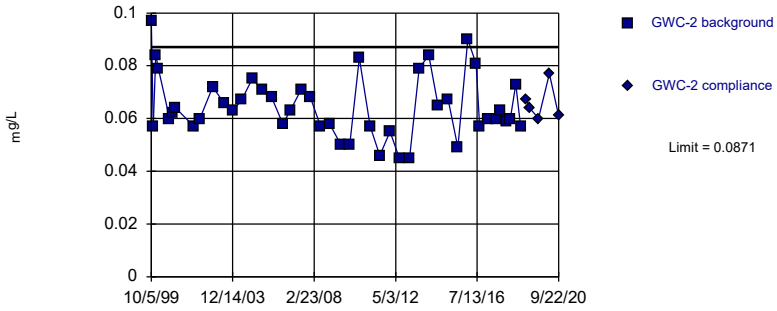
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.0647, Std. Dev.=0.01194, n=45. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.952, critical = 0.926. Kappa = 1.876 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Barium Analysis Run 12/2/2020 12:29 PM View: EPD

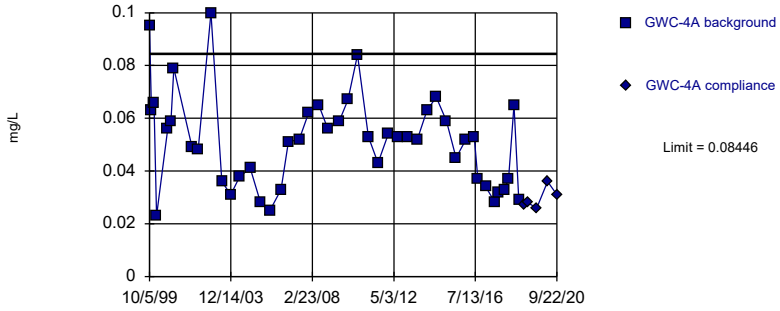
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05131, Std. Dev.=0.01767, n=45. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9466, critical = 0.926. Kappa = 1.876 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Barium Analysis Run 12/2/2020 12:29 PM View: EPD

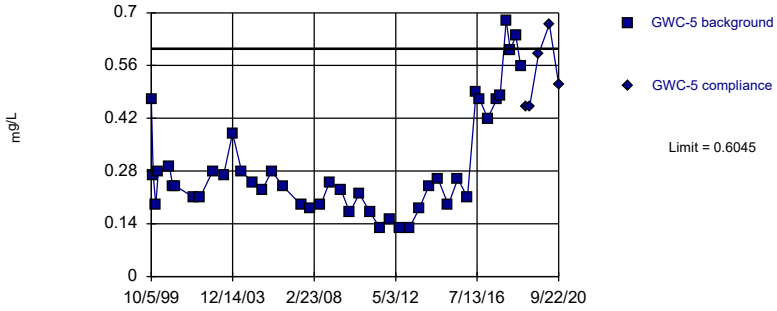
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.326, Std. Dev.=0.4377, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9296, critical = 0.924. Kappa = 1.88 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Barium Analysis Run 12/2/2020 12:29 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	0.096	
11/12/1999	0.085	
12/29/1999	0.1	
2/17/2000	0.072	
9/13/2000	0.15	
11/10/2000	0.15	
1/4/2001	0.15	
12/11/2001	0.14	
4/4/2002	0.14	
12/6/2002	0.14	
6/28/2003	0.12	
12/13/2003	0.12	
5/28/2004	0.12	
12/10/2004	0.13	
6/24/2005	0.1	
12/13/2005	0.096	
7/12/2006	0.083	
12/1/2006	0.084	
6/21/2007	0.087	
12/15/2007	0.11	
6/21/2008	0.093	
12/6/2008	0.11	
7/11/2009	0.064	
12/23/2009	0.052	
6/23/2010	0.051	
1/8/2011	0.052	
7/10/2011	0.036	
1/20/2012	0.065	
7/12/2012	0.074	
1/21/2013	0.066	
7/20/2013	0.035	
1/17/2014	0.036	
7/12/2014	0.037	
1/16/2015	0.027	
7/15/2015	0.031	
1/16/2016	0.032	
6/22/2016	0.0323	
8/31/2016	0.019	
1/23/2017	0.023	
7/19/2017	0.013	
9/21/2017	0.016	
1/9/2018	0.016	
3/28/2018	0.014	
7/11/2018	0.016	
10/9/2018	0.015	
1/30/2019		0.018
3/28/2019		0.014
9/12/2019		0.016
3/11/2020		0.027
9/22/2020		0.022

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	0.097	
11/12/1999	0.057	
12/29/1999	0.084	
2/17/2000	0.079	
9/13/2000	0.06	
11/10/2000	0.062	
1/4/2001	0.064	
12/11/2001	0.057	
4/4/2002	0.06	
12/6/2002	0.072	
6/28/2003	0.066	
12/13/2003	0.063	
5/28/2004	0.067	
12/10/2004	0.075	
6/24/2005	0.071	
12/13/2005	0.068	
7/12/2006	0.058	
12/1/2006	0.063	
6/21/2007	0.071	
12/15/2007	0.068	
6/22/2008	0.057	
12/6/2008	0.058	
7/11/2009	0.05	
12/23/2009	0.05	
6/23/2010	0.083	
1/8/2011	0.057	
7/10/2011	0.046	
1/20/2012	0.055	
7/12/2012	0.045	
1/21/2013	0.045	
7/20/2013	0.079	
1/17/2014	0.084	
7/12/2014	0.065	
1/15/2015	0.067	
7/15/2015	0.049	
1/17/2016	0.09	
6/22/2016	0.0806	
8/31/2016	0.057	
1/24/2017	0.06	
7/19/2017	0.06	
9/21/2017	0.063	
1/9/2018	0.059	
3/29/2018	0.06	
7/10/2018	0.073	
10/9/2018	0.057	
1/31/2019		0.067
3/28/2019		0.064
9/12/2019		0.06
3/31/2020		0.077
9/22/2020		0.061

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
10/5/1999	0.095	
11/12/1999	0.063	
12/29/1999	0.066	
2/17/2000	0.023	
9/13/2000	0.056	
11/10/2000	0.059	
1/4/2001	0.079	
12/11/2001	0.049	
4/4/2002	0.048	
12/6/2002	0.1	
6/28/2003	0.036	
12/13/2003	0.031	
5/28/2004	0.038	
12/10/2004	0.041	
6/24/2005	0.028	
12/13/2005	0.025	
7/12/2006	0.033	
12/1/2006	0.051	
6/21/2007	0.052	
12/15/2007	0.062	
6/21/2008	0.065	
12/6/2008	0.056	
7/11/2009	0.059	
12/23/2009	0.067	
6/23/2010	0.084	
1/8/2011	0.053	
7/10/2011	0.043	
1/20/2012	0.054	
7/12/2012	0.053	
1/21/2013	0.053	
7/20/2013	0.052	
1/17/2014	0.063	
7/11/2014	0.068	
1/16/2015	0.059	
7/15/2015	0.045	
1/17/2016	0.052	
6/22/2016	0.0528	
8/31/2016	0.037	
1/25/2017	0.034	
7/20/2017	0.028	
9/21/2017	0.032	
1/9/2018	0.033	
3/28/2018	0.037	
7/10/2018	0.065	
10/9/2018	0.029	
1/30/2019		0.027
3/28/2019		0.028
9/12/2019		0.026
3/31/2020		0.036
9/22/2020		0.031

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

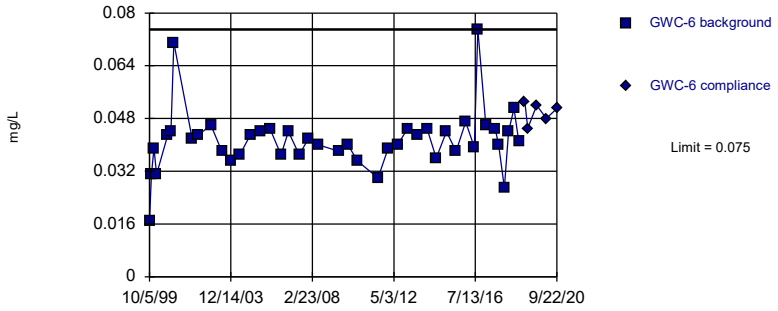
	GWC-5	GWC-5
10/5/1999	0.47	
11/12/1999	0.27	
12/29/1999	0.19	
2/17/2000	0.28	
9/13/2000	0.29	
11/10/2000	0.24	
1/4/2001	0.24	
12/11/2001	0.21	
4/4/2002	0.21	
12/6/2002	0.28	
6/28/2003	0.27	
12/13/2003	0.38	
5/28/2004	0.28	
12/10/2004	0.25	
6/24/2005	0.23	
12/13/2005	0.28	
7/12/2006	0.24	
12/1/2006	0.019 (o)	
6/21/2007	0.19	
12/15/2007	0.18	
6/21/2008	0.19	
12/7/2008	0.25	
7/11/2009	0.23	
12/23/2009	0.17	
6/23/2010	0.22	
1/8/2011	0.17	
7/10/2011	0.13	
1/20/2012	0.15	
7/12/2012	0.13	
1/21/2013	0.13	
7/20/2013	0.18	
1/17/2014	0.24	
7/11/2014	0.26	
1/16/2015	0.19	
7/15/2015	0.26	
1/16/2016	0.21	
6/23/2016	0.491	
9/1/2016	0.47	
1/24/2017	0.42	
7/20/2017	0.47	
9/21/2017	0.48	
1/10/2018	0.68	
3/28/2018	0.6	
7/11/2018	0.64	
10/9/2018	0.56	
1/31/2019		0.45
3/28/2019		0.45
9/12/2019		0.59
3/31/2020		0.67
9/22/2020		0.51

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell 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 43 background values. Well-constituent pair annual alpha = 0.002073. Individual comparison alpha = 0.001037 (1 of 2).

Constituent: Barium Analysis Run 12/2/2020 12:29 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

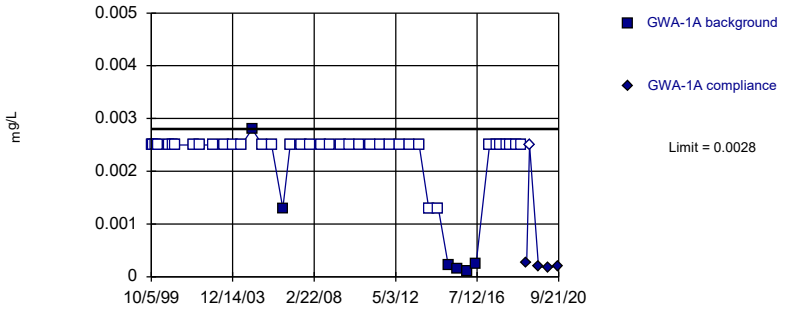
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 86.36% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

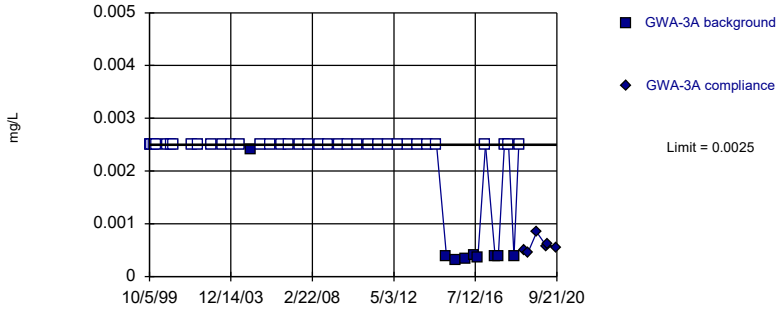
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 80% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

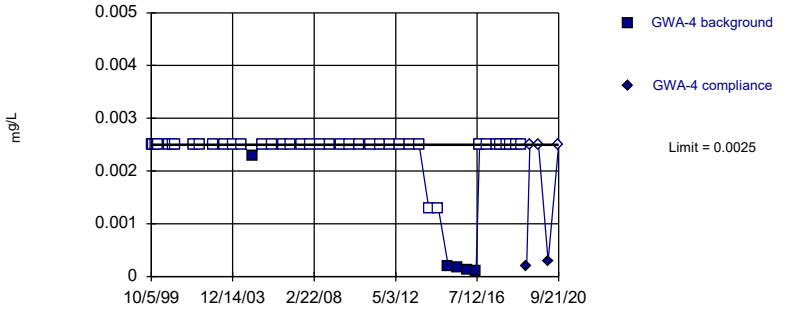
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	0.017	
11/12/1999	0.031	
12/29/1999	0.039	
2/17/2000	0.031	
9/13/2000	0.043	
11/10/2000	0.044	
1/4/2001	0.071	
12/11/2001	0.042	
4/4/2002	0.043	
12/6/2002	0.046	
6/28/2003	0.038	
12/13/2003	0.035	
5/28/2004	0.037	
12/10/2004	0.043	
6/24/2005	0.044	
12/13/2005	0.045	
7/12/2006	0.037	
12/1/2006	0.044	
6/21/2007	0.037	
12/15/2007	0.042	
6/22/2008	0.04	
12/7/2008	0.12 (o)	
7/11/2009	0.038	
12/23/2009	0.04	
6/24/2010	0.035	
7/11/2011	0.03	
1/20/2012	0.039	
7/13/2012	0.04	
1/21/2013	0.045	
7/20/2013	0.043	
1/17/2014	0.045	
7/12/2014	0.036	
1/16/2015	0.044	
7/15/2015	0.038	
1/16/2016	0.047	
6/23/2016	0.0393	
9/1/2016	0.075	
1/27/2017	0.046	
7/20/2017	0.045	
9/22/2017	0.04	
1/10/2018	0.027	
3/29/2018	0.044	
7/11/2018	0.051	
10/9/2018	0.041	
1/31/2019		0.053
3/28/2019		0.045
9/12/2019		0.052
3/11/2020		0.048
9/22/2020		0.051

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0028	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/22/2008	<0.0025	
12/7/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/24/2010	<0.0025	
1/9/2011	<0.0025	
7/11/2011	<0.0025	
1/20/2012	<0.0025	
7/13/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0013 (J)	
7/12/2014	<0.0013 (J)	
1/16/2015	0.00022 (J)	
7/15/2015	0.00015 (J)	
1/16/2016	0.00011 (J)	
6/22/2016	0.00025 (JD)	
9/1/2016	0.0084 (o)	
2/28/2017	<0.0025	
7/17/2017	<0.0025	
9/20/2017	<0.0025	
1/8/2018	<0.0025	
3/27/2018	<0.0025	
7/10/2018	<0.0025	
10/8/2018	<0.0025	
1/30/2019		0.00026 (J)
3/27/2019		<0.0025
9/11/2019		0.00019 (J)
3/10/2020		0.00018 (J)
9/21/2020		0.0002 (J)

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0024	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	<0.0025	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/22/2008	<0.0025	
12/6/2008	<0.0025	
7/10/2009	<0.0025	
12/23/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/19/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0025	
7/12/2014	<0.0025	
1/15/2015	0.00039 (J)	
7/15/2015	0.00031 (J)	
1/16/2016	0.00034 (J)	
6/22/2016	0.0004 (J)	
8/31/2016	0.00035 (J)	
1/19/2017	<0.0025	
7/18/2017	0.00038 (J)	
9/20/2017	0.00039 (J)	
1/9/2018	<0.0025	
3/27/2018	<0.0025	
7/10/2018	0.00038 (J)	
10/9/2018	<0.0025	
1/30/2019		0.00051 (J)
3/28/2019		0.00046 (J)
9/12/2019		0.00084 (J)
3/10/2020		0.00058 (J)
4/2/2020		0.00062 (J)
9/21/2020		0.00054 (J)

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

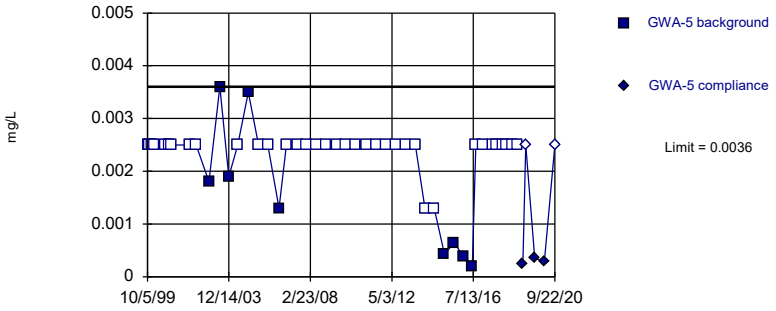
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0023	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	<0.0025	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/21/2008	<0.0025	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/19/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0013 (J)	
7/12/2014	<0.0013 (J)	
1/15/2015	0.0002 (J)	
7/15/2015	0.00018 (J)	
1/16/2016	0.00013 (J)	
6/22/2016	0.0001 (J)	
8/31/2016	<0.0025	
1/19/2017	<0.0025	
7/18/2017	<0.0025	
9/21/2017	<0.0025	
1/9/2018	<0.0025	
3/27/2018	<0.0025	
7/10/2018	<0.0025	
10/8/2018	<0.0025	
1/30/2019		0.00019 (J)
3/28/2019		<0.0025
9/12/2019		<0.0025
3/10/2020		0.00029 (J)
9/21/2020		<0.0025

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



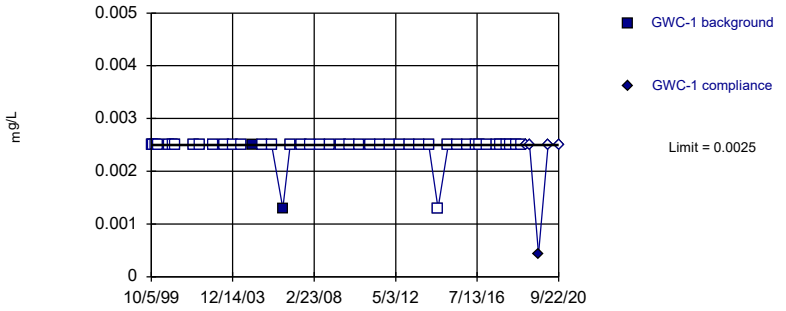
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 80% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



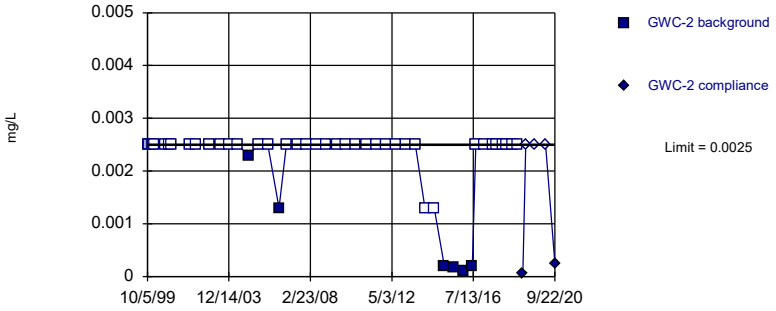
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 95.56% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



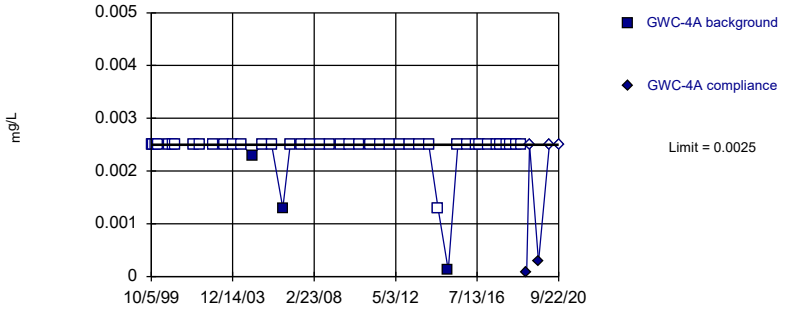
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 86.67% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	0.0018	
6/28/2003	0.0036	
12/13/2003	0.0019	
5/28/2004	<0.0025	
12/10/2004	0.0035	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/22/2008	<0.0025	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/22/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0013 (J)	
7/12/2014	<0.0013 (J)	
1/16/2015	0.00043 (J)	
7/15/2015	0.00064 (J)	
1/16/2016	0.00039 (J)	
6/22/2016	0.0002 (J)	
8/31/2016	<0.0025	
1/19/2017	<0.0025	
7/19/2017	<0.0025	
9/21/2017	<0.0025	
1/9/2018	<0.0025	
3/27/2018	<0.0025	
7/10/2018	<0.0025	
10/8/2018	<0.0025	
1/30/2019		0.00024 (J)
3/27/2019		<0.0025
9/12/2019		0.00036 (J)
3/10/2020		0.00028 (J)
9/22/2020		<0.0025

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0025	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/21/2008	<0.0025	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0025	
7/12/2014	<0.0013 (J)	
1/16/2015	<0.0025	
7/15/2015	<0.0025	
1/16/2016	<0.0025	
6/22/2016	<0.0025	
8/31/2016	<0.0025	
1/23/2017	<0.0025	
7/19/2017	<0.0025	
9/21/2017	<0.0025	
1/9/2018	<0.0025	
3/28/2018	<0.0025	
7/11/2018	<0.0025	
10/9/2018	<0.0025	
1/30/2019		<0.0025
3/28/2019		<0.0025
9/12/2019		0.00043 (J)
3/11/2020		<0.0025
9/22/2020		<0.0025

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0023	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/22/2008	<0.0025	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0013 (J)	
7/12/2014	<0.0013 (J)	
1/15/2015	0.00019 (J)	
7/15/2015	0.00018 (J)	
1/17/2016	0.00011 (J)	
6/22/2016	0.0002 (J)	
8/31/2016	<0.0025	
1/24/2017	<0.0025	
7/19/2017	<0.0025	
9/21/2017	<0.0025	
1/9/2018	<0.0025	
3/29/2018	<0.0025	
7/10/2018	<0.0025	
10/9/2018	<0.0025	
1/31/2019		6.5E-05 (J)
3/28/2019		<0.0025
9/12/2019		<0.0025
3/31/2020		<0.0025
9/22/2020		0.00025 (J)

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

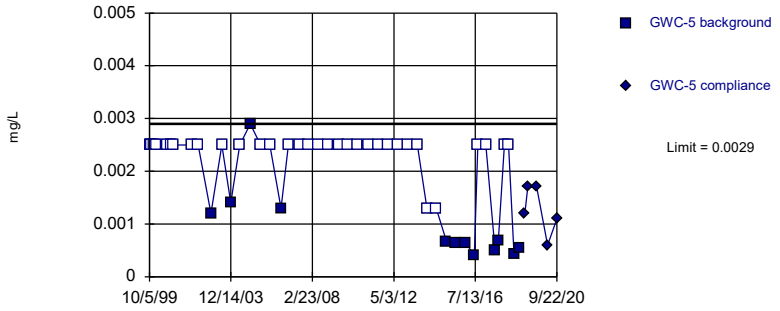
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0023	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/21/2008	<0.0025	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0025	
7/11/2014	<0.0013 (J)	
1/16/2015	0.00012 (J)	
7/15/2015	<0.0025	
1/17/2016	<0.0025	
6/22/2016	<0.0025	
8/31/2016	<0.0025	
1/25/2017	<0.0025	
7/20/2017	<0.0025	
9/21/2017	<0.0025	
1/9/2018	<0.0025	
3/28/2018	<0.0025	
7/10/2018	<0.0025	
10/9/2018	<0.0025	
1/30/2019		7E-05 (J)
3/28/2019		<0.0025
9/12/2019		0.00028 (J)
3/31/2020		<0.0025
9/22/2020		<0.0025

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



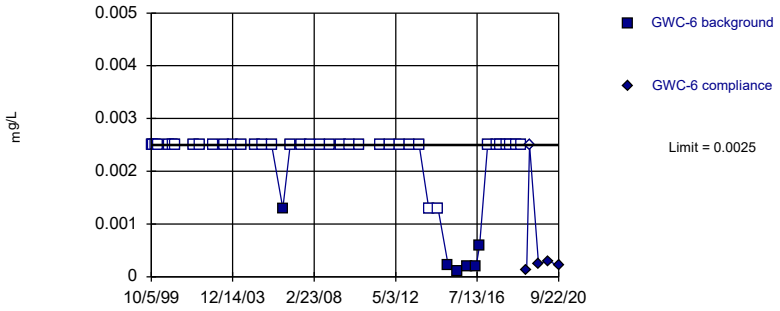
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 73.33% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



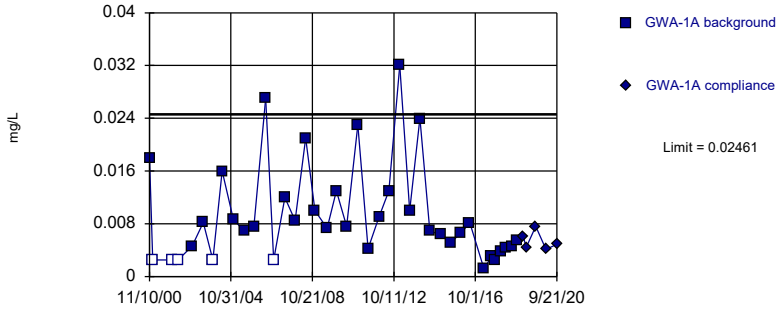
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 86.36% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Beryllium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



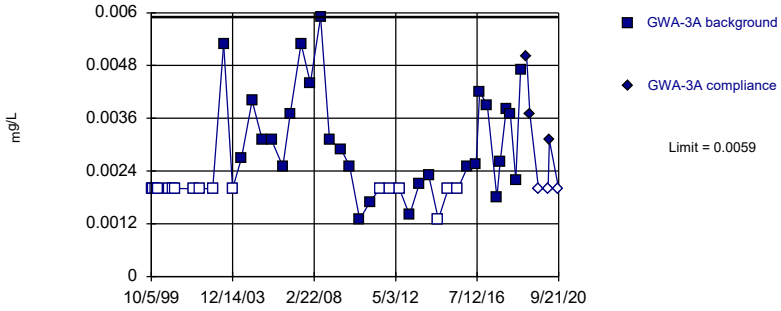
Background Data Summary (based on square root transformation): Mean=0.08981, Std. Dev.=0.0353, n=39, 12.82% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.928, critical = 0.917. Kappa = 1.9 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell 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 45 background values. 37.78% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	0.0012	
6/28/2003	<0.0025	
12/13/2003	0.0014	
5/28/2004	<0.0025	
12/10/2004	0.0029	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/21/2008	<0.0025	
12/7/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0013 (J)	
7/11/2014	<0.0013 (J)	
1/16/2015	0.00067 (J)	
7/15/2015	0.00065 (J)	
1/16/2016	0.00065 (J)	
6/23/2016	0.0004 (J)	
9/1/2016	<0.0025	
1/24/2017	<0.0025	
7/20/2017	0.00049 (J)	
9/21/2017	0.00068 (J)	
1/10/2018	<0.0025	
3/28/2018	<0.0025	
7/11/2018	0.00043 (J)	
10/9/2018	0.00054 (J)	
1/31/2019		0.0012 (J)
3/28/2019		0.0017 (J)
9/12/2019		0.0017
3/31/2020		0.0006 (J)
9/22/2020		0.0011 (J)

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	<0.0025	
6/28/2003	<0.0025	
12/13/2003	<0.0025	
5/28/2004	<0.0025	
12/10/2004	0.0058 (o)	
2/5/2005	<0.0025	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	0.0013	
12/1/2006	<0.0025	
6/21/2007	<0.0025	
12/15/2007	<0.0025	
6/22/2008	<0.0025	
12/7/2008	<0.0025	
7/11/2009	<0.0025	
12/23/2009	<0.0025	
6/24/2010	<0.0025	
7/11/2011	<0.0025	
1/20/2012	<0.0025	
7/13/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.0013 (J)	
7/12/2014	<0.0013 (J)	
1/16/2015	0.00021 (J)	
7/15/2015	0.00011 (J)	
1/16/2016	0.00019 (J)	
6/23/2016	0.0002 (J)	
9/1/2016	0.0006 (J)	
1/27/2017	<0.0025	
7/20/2017	<0.0025	
9/22/2017	<0.0025	
1/10/2018	<0.0025	
3/29/2018	<0.0025	
7/11/2018	<0.0025	
10/9/2018	<0.0025	
1/31/2019		0.00012 (J)
3/28/2019		<0.0025
9/12/2019		0.00025 (J)
3/11/2020		0.0003 (J)
9/22/2020		0.00021 (J)

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	0.023	
11/12/1999	0.03	
12/29/1999	0.059	
2/17/2000	0.048	
9/13/2000	<0.0025	
11/10/2000	0.018	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	0.0046	
6/28/2003	0.0082	
12/13/2003	<0.0025	
5/28/2004	0.016	
12/10/2004	0.0087	
6/24/2005	0.0069	
12/13/2005	0.0075	
7/12/2006	0.027	
12/1/2006	<0.0025	
6/21/2007	0.012	
12/15/2007	0.0085	
6/22/2008	0.021	
12/7/2008	0.01	
7/11/2009	0.0073	
12/23/2009	0.013	
6/24/2010	0.0076	
1/9/2011	0.023	
7/11/2011	0.0042	
1/20/2012	0.009	
7/13/2012	0.013	
1/21/2013	0.032	
7/20/2013	0.01	
1/17/2014	0.024	
7/12/2014	0.0069	
1/16/2015	0.0064	
7/15/2015	0.0051	
1/16/2016	0.0066	
6/22/2016	0.00815 (D)	
9/1/2016	0.12 (o)	
2/28/2017	0.0012 (J)	
7/17/2017	0.003	
9/20/2017	0.0025	
1/8/2018	0.0038	
3/27/2018	0.0044	
7/10/2018	0.0045	
10/8/2018	0.0054	
1/30/2019		0.0061
3/27/2019		0.0044
9/11/2019		0.0076
3/10/2020		0.0041
9/21/2020		0.0049

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

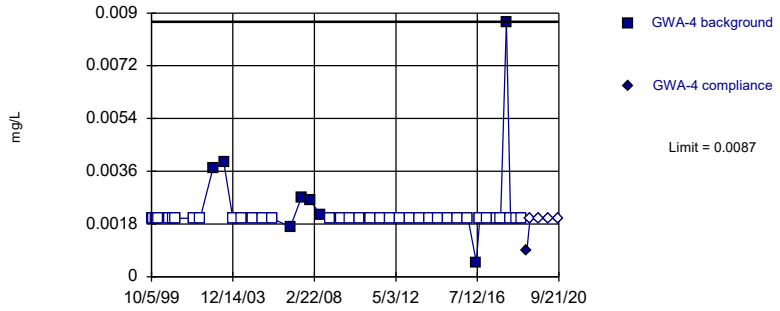
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	0.0053	
12/13/2003	<0.002	
5/28/2004	0.0027	
12/10/2004	0.004	
6/24/2005	0.0031	
12/13/2005	0.0031	
7/12/2006	0.0025	
12/1/2006	0.0037	
6/21/2007	0.0053	
12/15/2007	0.0044	
6/22/2008	0.0059	
12/6/2008	0.0031	
7/10/2009	0.0029	
12/23/2009	0.0025	
6/23/2010	0.0013	
1/8/2011	0.0017	
7/10/2011	<0.002	
1/19/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	0.0014	
7/20/2013	0.0021	
1/17/2014	0.0023	
7/12/2014	<0.0013 (J)	
1/15/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	0.0025	
6/22/2016	0.00255 (JD)	
8/31/2016	0.0042	
1/19/2017	0.0039	
7/18/2017	0.0018 (J)	
9/20/2017	0.0026	
1/9/2018	0.0038	
3/27/2018	0.0037	
7/10/2018	0.0022 (J)	
10/9/2018	0.0047	
1/30/2019		0.005
3/28/2019		0.0037
9/12/2019		<0.002
3/10/2020		<0.002
4/2/2020		0.0031
9/21/2020		<0.002

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



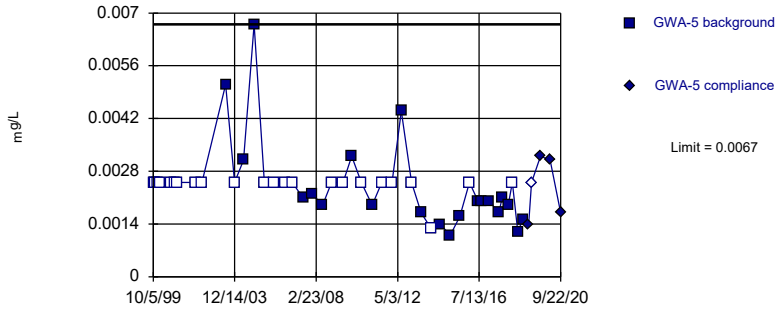
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



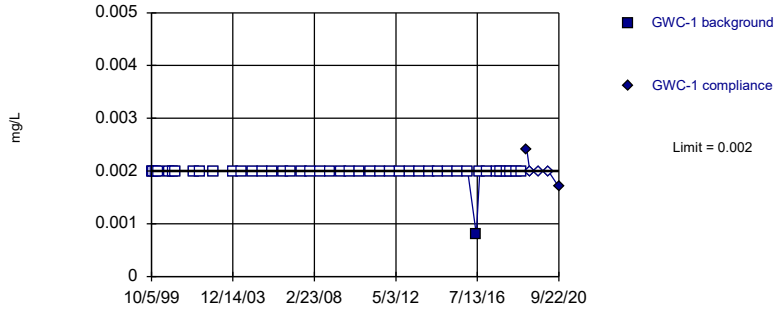
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 52.27% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



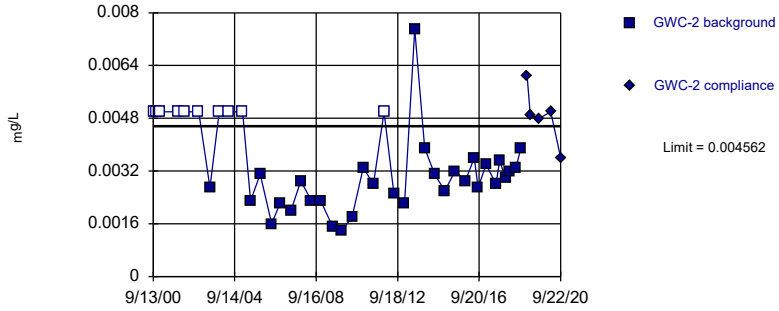
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 97.73% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.04977, Std. Dev.=0.009395, n=41, 24.39% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.92. Kappa = 1.892 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	0.0037	
6/28/2003	0.0039	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	0.023 (o)	
12/1/2006	0.0017	
6/21/2007	0.0027	
12/15/2007	0.0026	
6/21/2008	0.0021	
12/6/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/19/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/15/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/22/2016	0.0005 (J)	
8/31/2016	<0.002	
1/19/2017	<0.002	
7/18/2017	<0.002	
9/21/2017	<0.002	
1/9/2018	0.0087	
3/27/2018	<0.002	
7/10/2018	<0.002	
10/8/2018	<0.002	
1/30/2019		0.00088 (J)
3/28/2019		<0.002
9/12/2019		<0.002
3/10/2020		<0.002
9/21/2020		<0.002

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	0.027 (o)	
6/28/2003	0.0051	
12/13/2003	<0.0025	
5/28/2004	0.0031	
12/10/2004	0.0067	
6/24/2005	<0.0025	
12/13/2005	<0.0025	
7/12/2006	<0.0025	
12/1/2006	<0.0025	
6/21/2007	0.0021	
12/15/2007	0.0022	
6/22/2008	0.0019	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/22/2009	0.0032	
6/23/2010	<0.0025	
1/8/2011	0.0019	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	0.0044	
1/21/2013	<0.0025	
7/20/2013	0.0017	
1/17/2014	<0.0013 (J)	
7/12/2014	0.0014	
1/16/2015	0.0011 (J)	
7/15/2015	0.0016	
1/16/2016	<0.0025	
6/22/2016	0.002 (J)	
8/31/2016	0.002 (J)	
1/19/2017	0.002 (J)	
7/19/2017	0.0017 (J)	
9/21/2017	0.0021 (J)	
1/9/2018	0.0019 (J)	
3/27/2018	<0.0025	
7/10/2018	0.0012 (J)	
10/8/2018	0.0015 (J)	
1/30/2019		0.0014 (J)
3/27/2019		<0.0025
9/12/2019		0.0032
3/10/2020		0.0031
9/22/2020		0.0017 (J)

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	0.007 (o)	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/21/2008	<0.002	
12/6/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/20/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/22/2016	0.0008 (J)	
8/31/2016	<0.002	
1/23/2017	<0.002	
7/19/2017	<0.002	
9/21/2017	<0.002	
1/9/2018	<0.002	
3/28/2018	<0.002	
7/11/2018	<0.002	
10/9/2018	<0.002	
1/30/2019		0.0024 (J)
3/28/2019		<0.002
9/12/2019		<0.002
3/11/2020		<0.002
9/22/2020		0.0017 (J)

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

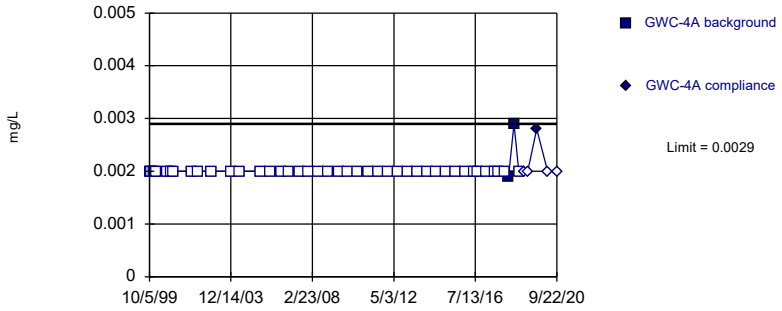
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	0.017	
11/12/1999	<0.005	
12/29/1999	0.011	
2/17/2000	0.013	
9/13/2000	<0.005	
11/10/2000	<0.005	
1/4/2001	<0.005	
12/11/2001	<0.005	
4/4/2002	<0.005	
12/6/2002	<0.005	
6/28/2003	0.0027	
12/13/2003	<0.005	
5/28/2004	<0.005	
12/10/2004	0.74 (o)	
2/5/2005	<0.005	
6/24/2005	0.0023	
12/13/2005	0.0031	
7/12/2006	0.0016	
12/1/2006	0.0022	
6/21/2007	0.002	
12/15/2007	0.0029	
6/22/2008	0.0023	
12/6/2008	0.0023	
7/11/2009	0.0015	
12/23/2009	0.0014	
6/23/2010	0.0018	
1/8/2011	0.0033	
7/10/2011	0.0028	
1/20/2012	<0.005	
7/12/2012	0.0025	
1/21/2013	0.0022	
7/20/2013	0.0075	
1/17/2014	0.0039	
7/12/2014	0.0031	
1/15/2015	0.0026	
7/15/2015	0.0032	
1/17/2016	0.0029	
6/22/2016	0.0036 (J)	
8/31/2016	0.0027	
1/24/2017	0.0034	
7/19/2017	0.0028	
9/21/2017	0.0035	
1/9/2018	0.003	
3/29/2018	0.0032	
7/10/2018	0.0033	
10/9/2018	0.0039	
1/31/2019		0.0061
3/28/2019		0.0049
9/12/2019		0.0048
3/31/2020		0.005
9/22/2020		0.0036

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



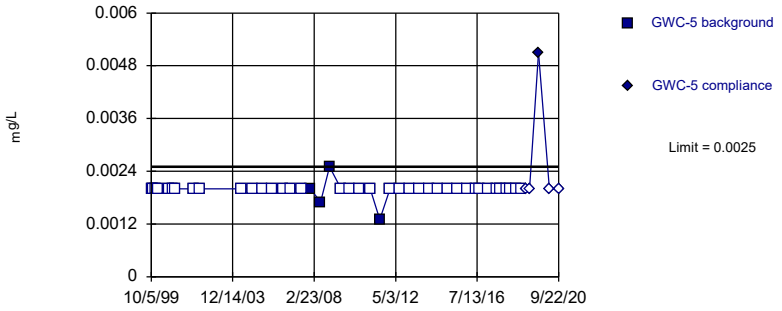
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 95.35% NDs. Well-constituent pair annual alpha = 0.002073. Individual comparison alpha = 0.001037 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



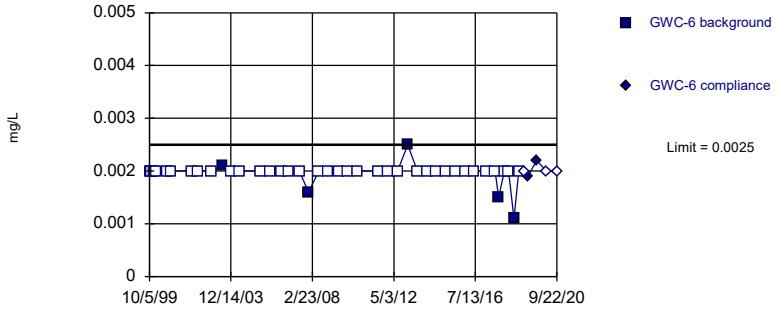
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 42 background values. 90.48% NDs. Well-constituent pair annual alpha = 0.002154. Individual comparison alpha = 0.001077 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



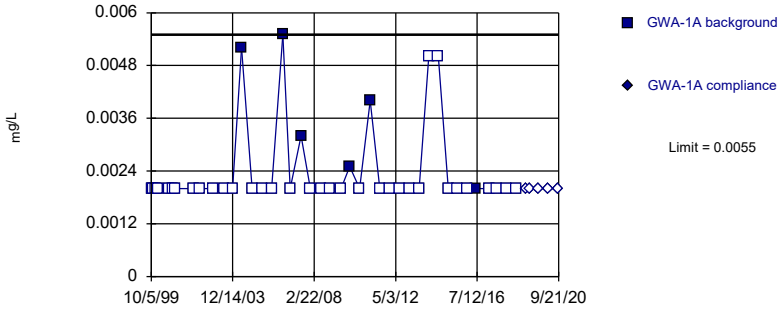
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 87.8% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Chromium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 85.37% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	0.061 (o)	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	0.0059 (o)	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/21/2008	<0.002	
12/6/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/20/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/11/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/17/2016	<0.002	
6/22/2016	<0.002	
8/31/2016	<0.002	
1/25/2017	<0.002 (D)	
7/20/2017	<0.002	
9/21/2017	<0.002	
1/9/2018	<0.002	
3/28/2018	0.0019 (J)	
7/10/2018	0.0029	
10/9/2018	<0.002	
1/30/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.0028
3/31/2020		<0.002
9/22/2020		<0.002

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	0.008 (o)	
6/28/2003	0.021 (o)	
12/13/2003	0.011 (o)	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	0.002	
6/21/2008	0.0017	
12/7/2008	0.0025	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	0.0013	
1/20/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/11/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/23/2016	<0.002	
9/1/2016	<0.002	
1/24/2017	<0.002	
7/20/2017	<0.002	
9/21/2017	<0.002	
1/10/2018	<0.002	
3/28/2018	<0.002	
7/11/2018	<0.002	
10/9/2018	<0.002	
1/31/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.0051
3/31/2020		<0.002
9/22/2020		<0.002

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	0.016 (o)	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	0.0021	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	0.0046 (o)	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	0.0016	
6/22/2008	<0.002	
12/7/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/24/2010	<0.002	
7/11/2011	<0.002	
1/20/2012	<0.002	
7/13/2012	<0.002	
1/21/2013	0.0025	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/23/2016	<0.002	
9/1/2016	0.0069 (o)	
1/27/2017	<0.002 (D)	
7/20/2017	<0.002	
9/22/2017	0.0015 (J)	
1/10/2018	<0.002	
3/29/2018	<0.002	
7/11/2018	0.0011 (J)	
10/9/2018	<0.002	
1/31/2019		<0.002
3/28/2019		0.0019 (J)
9/12/2019		0.0022
3/11/2020		<0.002
9/22/2020		<0.002

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

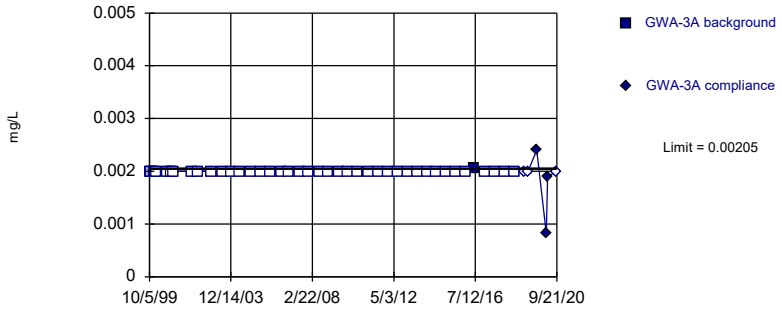
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	<0.002	
5/28/2004	0.0052	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	0.0055	
12/1/2006	<0.002	
6/21/2007	0.0032	
12/15/2007	<0.002	
6/22/2008	<0.002	
12/7/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	0.0025	
6/24/2010	<0.002	
1/9/2011	0.004	
7/11/2011	<0.002	
1/20/2012	<0.002	
7/13/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.005 (J)	
7/12/2014	<0.005 (J)	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/22/2016	0.002 (JD)	
2/28/2017	<0.002	
7/17/2017	<0.002	
1/8/2018	<0.002	
7/10/2018	<0.002	
1/30/2019		<0.002
3/27/2019		<0.002
9/11/2019		<0.002
3/10/2020		<0.002
9/21/2020		<0.002

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



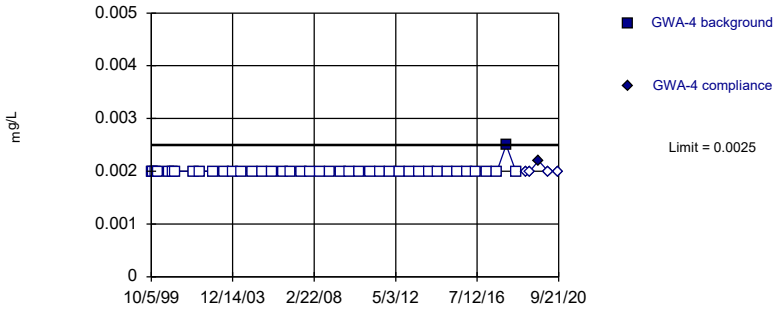
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 97.56% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



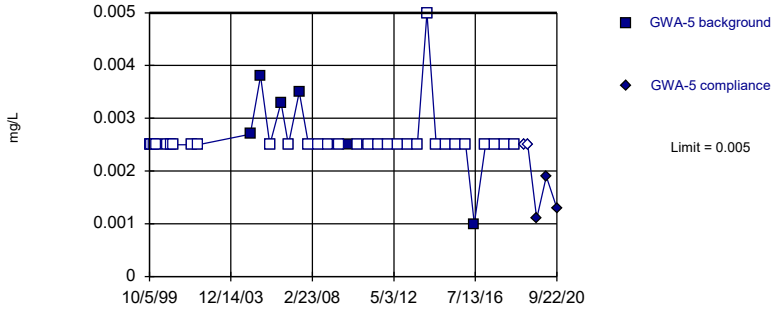
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 97.56% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



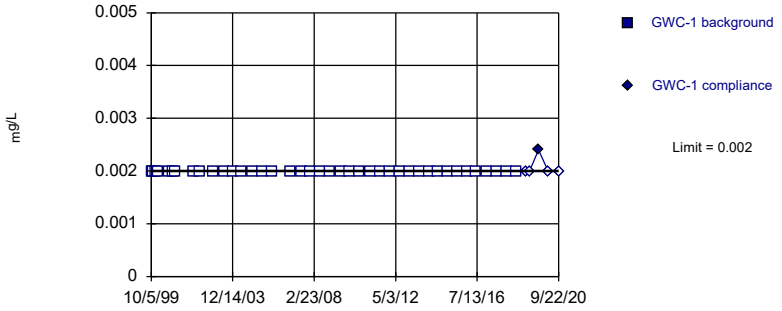
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 37 background values. 83.78% NDs. Well-constituent pair annual alpha = 0.002721. Individual comparison alpha = 0.001361 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 40) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/22/2008	<0.002	
12/6/2008	<0.002	
7/10/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/19/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/15/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/22/2016	0.00205 (JD)	
1/19/2017	<0.002	
7/18/2017	<0.002	
1/9/2018	<0.002	
7/10/2018	<0.002	
1/30/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.0024
3/10/2020		0.00082 (J)
4/2/2020		0.0019 (J)
9/21/2020		<0.002

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/21/2008	<0.002	
12/6/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/19/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/15/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/22/2016	<0.002	
1/19/2017	<0.002	
7/18/2017	<0.002	
1/9/2018	0.0025	
7/10/2018	<0.002	
1/30/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.0022
3/10/2020		<0.002
9/21/2020		<0.002

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	<0.0025	
11/12/1999	<0.0025	
12/29/1999	<0.0025	
2/17/2000	<0.0025	
9/13/2000	<0.0025	
11/10/2000	<0.0025	
1/4/2001	<0.0025	
12/11/2001	<0.0025	
4/4/2002	<0.0025	
12/6/2002	0.0089 (o)	
6/28/2003	0.019 (o)	
12/13/2003	0.0067 (o)	
5/28/2004	0.0057 (o)	
12/10/2004	0.0027	
6/24/2005	0.0038	
12/13/2005	<0.0025	
7/12/2006	0.0033	
12/1/2006	<0.0025	
6/21/2007	0.0035	
12/15/2007	<0.0025	
6/22/2008	<0.0025	
12/6/2008	<0.0025	
7/11/2009	<0.0025	
12/22/2009	0.0025	
6/23/2010	<0.0025	
1/8/2011	<0.0025	
7/10/2011	<0.0025	
1/20/2012	<0.0025	
7/12/2012	<0.0025	
1/21/2013	<0.0025	
7/20/2013	<0.0025	
1/17/2014	<0.005 (J)	
7/12/2014	<0.0025	
1/16/2015	<0.0025	
7/15/2015	<0.0025	
1/16/2016	<0.0025	
6/22/2016	0.001	
1/19/2017	<0.0025	
7/19/2017	<0.0025	
1/9/2018	<0.0025	
7/10/2018	<0.0025	
1/30/2019		<0.0025
3/27/2019		<0.0025
9/12/2019		0.0011 (J)
3/10/2020		0.0019 (J)
9/22/2020		0.0013 (J)

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

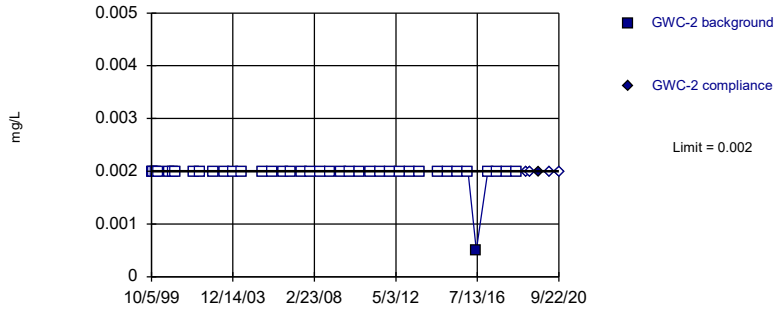
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	0.0047 (o)	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/21/2008	<0.002	
12/6/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/20/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/22/2016	<0.002	
1/23/2017	<0.002	
7/19/2017	<0.002	
1/9/2018	<0.002	
7/11/2018	<0.002	
1/30/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.0024
3/11/2020		<0.002
9/22/2020		<0.002

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



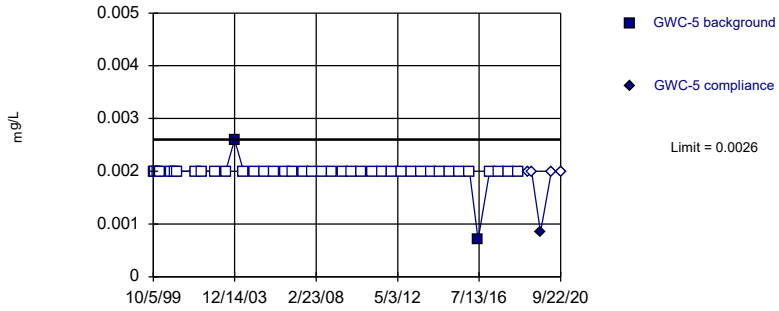
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 39 background values. 97.44% NDs. Well-constituent pair annual alpha = 0.002451. Individual comparison alpha = 0.001226 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



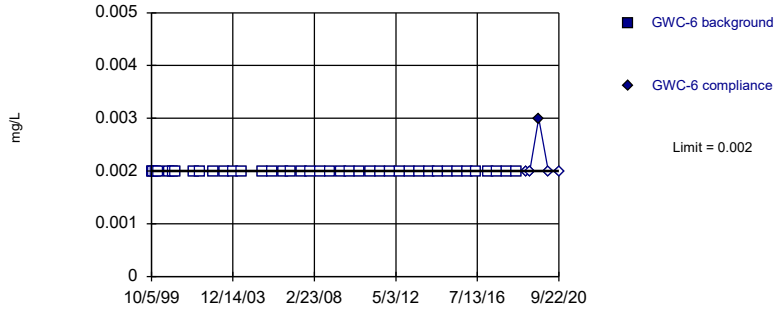
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 95.12% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



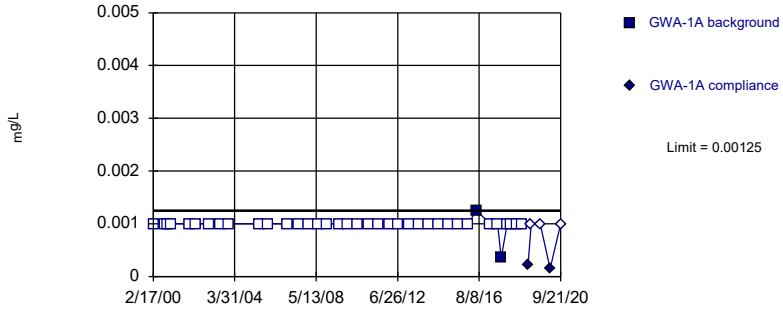
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 40) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Copper Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 38 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.002586. Individual comparison alpha = 0.001294 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	0.11 (o)	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/22/2008	<0.002	
12/6/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/20/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	0.0065 (o)	
7/12/2014	<0.002	
1/15/2015	<0.002	
7/15/2015	<0.002	
1/17/2016	<0.002	
6/22/2016	0.0005 (J)	
1/24/2017	<0.002	
7/19/2017	<0.002	
1/9/2018	<0.002	
7/10/2018	<0.002	
1/31/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.002
3/31/2020		<0.002
9/22/2020		<0.002

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	0.0026	
5/28/2004	<0.002	
12/10/2004	<0.002	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/21/2008	<0.002	
12/7/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/23/2010	<0.002	
1/8/2011	<0.002	
7/10/2011	<0.002	
1/20/2012	<0.002	
7/12/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/11/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/23/2016	0.0007 (J)	
1/24/2017	<0.002	
7/20/2017	<0.002	
1/10/2018	<0.002	
7/11/2018	<0.002	
1/31/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.00084 (J)
3/31/2020		<0.002
9/22/2020		<0.002

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	<0.002	
11/12/1999	<0.002	
12/29/1999	<0.002	
2/17/2000	<0.002	
9/13/2000	<0.002	
11/10/2000	<0.002	
1/4/2001	<0.002	
12/11/2001	<0.002	
4/4/2002	<0.002	
12/6/2002	<0.002	
6/28/2003	<0.002	
12/13/2003	<0.002	
5/28/2004	<0.002	
12/10/2004	0.0044 (o)	
6/24/2005	<0.002	
12/13/2005	<0.002	
7/12/2006	<0.002	
12/1/2006	<0.002	
6/21/2007	<0.002	
12/15/2007	<0.002	
6/22/2008	<0.002	
12/7/2008	<0.002	
7/11/2009	<0.002	
12/23/2009	<0.002	
6/24/2010	<0.002	
1/9/2011	<0.002	
7/11/2011	<0.002	
1/20/2012	<0.002	
7/13/2012	<0.002	
1/21/2013	<0.002	
7/20/2013	<0.002	
1/17/2014	<0.002	
7/12/2014	<0.002	
1/16/2015	<0.002	
7/15/2015	<0.002	
1/16/2016	<0.002	
6/23/2016	<0.002	
1/27/2017	<0.002	
7/20/2017	<0.002	
1/10/2018	<0.002	
7/11/2018	<0.002	
1/31/2019		<0.002
3/28/2019		<0.002
9/12/2019		0.003
3/11/2020		<0.002
9/22/2020		<0.002

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

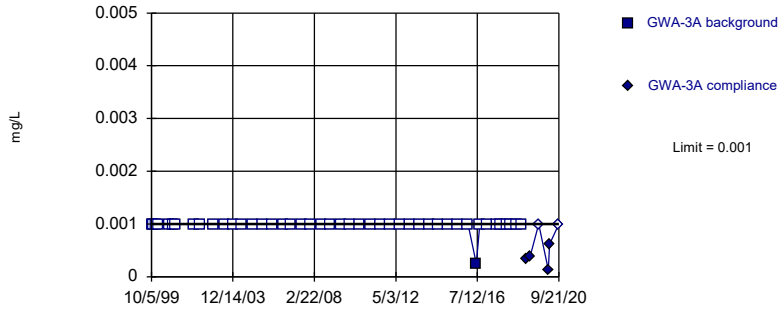
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	0.007 (o)	
11/12/1999	0.0063 (o)	
12/29/1999	0.016 (o)	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	0.015 (o)	
12/10/2004	0.01 (o)	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	0.013 (o)	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/7/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/24/2010	<0.001	
1/9/2011	<0.001	
7/11/2011	<0.001	
1/20/2012	<0.001	
7/13/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/16/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/22/2016	0.00125 (JD)	
9/1/2016	0.082 (o)	
2/28/2017	<0.001	
7/17/2017	<0.001	
9/20/2017	0.00035 (J)	
1/8/2018	<0.001	
3/27/2018	<0.001	
7/10/2018	<0.001	
10/8/2018	<0.001	
1/30/2019		0.00021 (J)
3/27/2019		<0.001
9/11/2019		<0.001
3/10/2020		0.00015 (J)
9/21/2020		<0.001

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



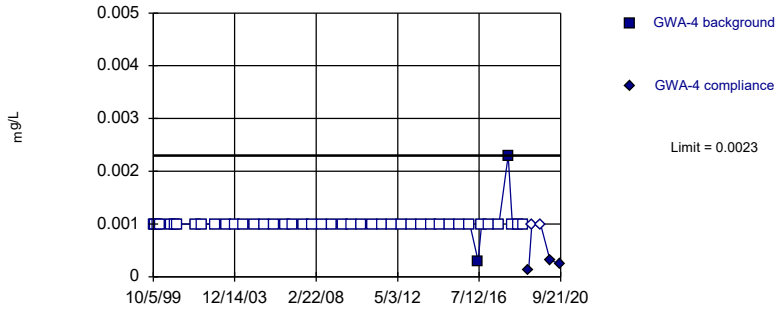
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 97.78% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



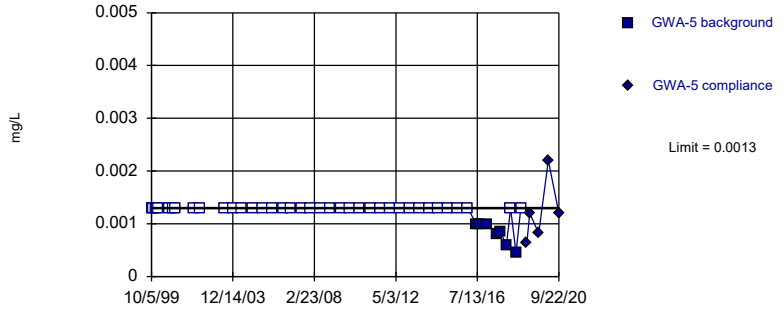
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 95.45% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



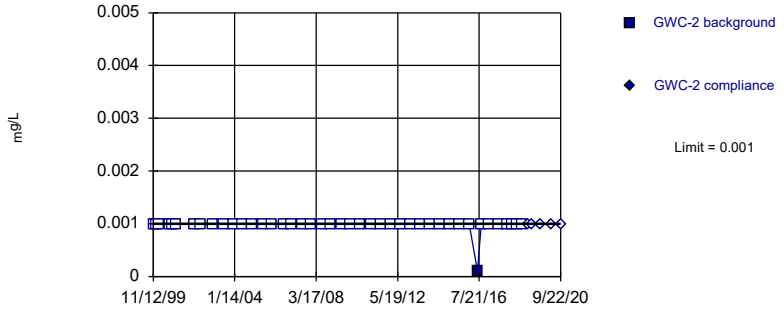
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 84.09% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 97.67% NDs. Well-constituent pair annual alpha = 0.002073. Individual comparison alpha = 0.001037 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/6/2008	<0.001	
7/10/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/19/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/15/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/22/2016	0.00025 (JD)	
8/31/2016	<0.001	
1/19/2017	<0.001	
7/18/2017	<0.001	
9/20/2017	<0.001	
1/9/2018	<0.001	
3/27/2018	<0.001	
7/10/2018	<0.001	
10/9/2018	<0.001	
1/30/2019		0.00034 (J)
3/28/2019		0.00038 (J)
9/12/2019		<0.001
3/10/2020		0.00013 (J)
4/2/2020		0.00062 (J)
9/21/2020		<0.001

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/21/2008	<0.001	
12/6/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/19/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/15/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/22/2016	0.0003 (J)	
8/31/2016	<0.001	
1/19/2017	<0.001	
7/18/2017	<0.001	
9/21/2017	0.0076 (o)	
1/9/2018	0.0023	
3/27/2018	<0.001	
7/10/2018	<0.001	
10/8/2018	<0.001	
1/30/2019		0.00013 (J)
3/28/2019		<0.001
9/12/2019		<0.001
3/10/2020		0.00031 (J)
9/21/2020		0.00025 (J)

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	<0.0013	
11/12/1999	<0.0013	
12/29/1999	<0.0013	
2/17/2000	<0.0013	
9/13/2000	<0.0013	
11/10/2000	<0.0013	
1/4/2001	<0.0013	
12/11/2001	<0.0013	
4/4/2002	<0.0013	
12/6/2002	0.011 (o)	
6/28/2003	<0.0013	
12/13/2003	<0.0013	
5/28/2004	<0.0013	
12/10/2004	<0.0013	
6/24/2005	<0.0013	
12/13/2005	<0.0013	
7/12/2006	<0.0013	
12/1/2006	<0.0013	
6/21/2007	<0.0013	
12/15/2007	<0.0013	
6/22/2008	<0.0013	
12/6/2008	<0.0013	
7/11/2009	<0.0013	
12/22/2009	<0.0013	
6/23/2010	<0.0013	
1/8/2011	<0.0013	
7/10/2011	<0.0013	
1/20/2012	<0.0013	
7/12/2012	<0.0013	
1/21/2013	<0.0013	
7/20/2013	<0.0013	
1/17/2014	<0.0013	
7/12/2014	<0.0013	
1/16/2015	<0.0013	
7/15/2015	<0.0013	
1/16/2016	<0.0013	
6/22/2016	0.001 (J)	
8/31/2016	0.00099 (J)	
1/19/2017	0.001 (J)	
7/19/2017	0.00081 (J)	
9/21/2017	0.00086 (J)	
1/9/2018	0.00059 (J)	
3/27/2018	<0.0013	
7/10/2018	0.00045 (J)	
10/8/2018	<0.0013	
1/30/2019		0.00064 (J)
3/27/2019		0.0012 (J)
9/12/2019		0.00082 (J)
3/10/2020		0.0022
9/22/2020		0.0012

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

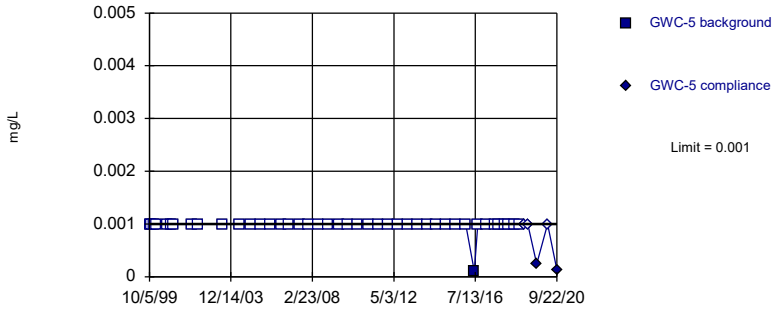
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	0.0054 (o)	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/6/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/20/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/15/2015	<0.001	
7/15/2015	<0.001	
1/17/2016	<0.001	
6/22/2016	0.0001 (J)	
8/31/2016	<0.001	
1/24/2017	<0.001	
7/19/2017	<0.001	
9/21/2017	0.0014 (o)	
1/9/2018	<0.001	
3/29/2018	<0.001	
7/10/2018	<0.001	
10/9/2018	<0.001	
1/31/2019		<0.001
3/28/2019		<0.001
9/12/2019		<0.001
3/31/2020		<0.001
9/22/2020		<0.001

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



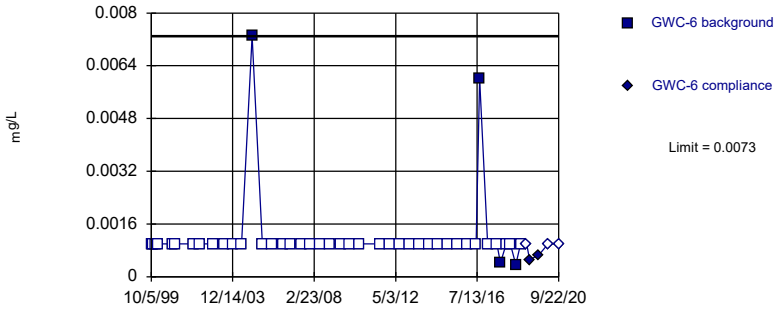
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 97.67% NDs. Well-constituent pair annual alpha = 0.002073. Individual comparison alpha = 0.001037 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



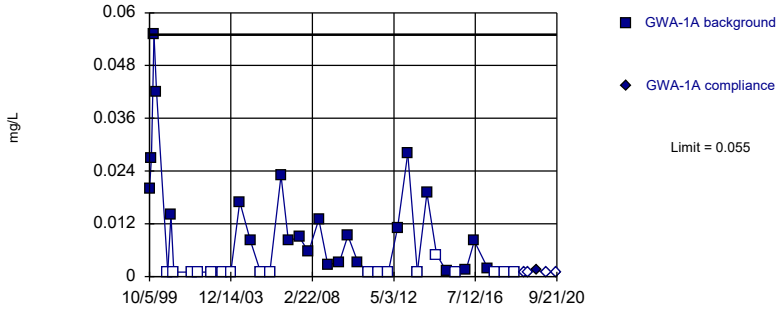
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 90.7% NDs. Well-constituent pair annual alpha = 0.002073. Individual comparison alpha = 0.001037 (1 of 2).

Constituent: Lead Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



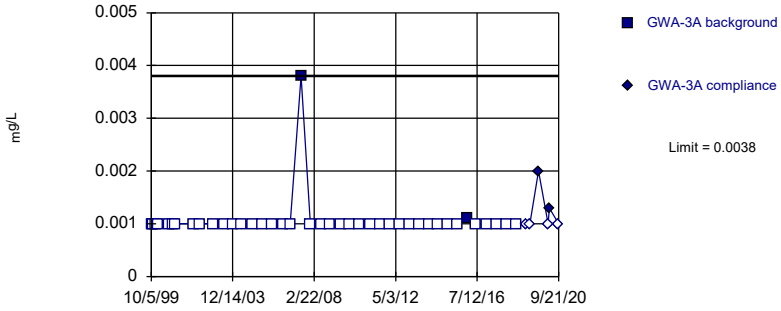
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 41 background values. 43.9% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 95.12% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	0.007 (o)	
6/28/2003	<0.001	
12/13/2003	0.018 (o)	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/21/2008	<0.001	
12/7/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/20/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/11/2014	<0.001	
1/16/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/23/2016	0.0001 (J)	
9/1/2016	<0.001	
1/24/2017	<0.001	
7/20/2017	<0.001	
9/21/2017	<0.001	
1/10/2018	<0.001	
3/28/2018	<0.001	
7/11/2018	<0.001	
10/9/2018	<0.001	
1/31/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.00024 (J)
3/31/2020		<0.001
9/22/2020		0.00013 (J)

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	0.079 (o)	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	0.0073	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/7/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/24/2010	<0.001	
7/11/2011	<0.001	
1/20/2012	<0.001	
7/13/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/16/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/23/2016	<0.001	
9/1/2016	0.006	
1/27/2017	<0.001 (D)	
7/20/2017	<0.001	
9/22/2017	0.00042 (J)	
1/10/2018	<0.001	
3/29/2018	<0.001	
7/11/2018	0.00037 (J)	
10/9/2018	<0.001	
1/31/2019		<0.001
3/28/2019		0.00052 (J)
9/12/2019		0.00065 (J)
3/11/2020		<0.001
9/22/2020		<0.001

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	0.02	
11/12/1999	0.027	
12/29/1999	0.055	
2/17/2000	0.042	
9/13/2000	<0.001	
11/10/2000	0.014	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	0.017	
12/10/2004	0.0082	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	0.023	
12/1/2006	0.0081	
6/21/2007	0.009	
12/15/2007	0.0056	
6/22/2008	0.013	
12/7/2008	0.0027	
7/11/2009	0.0032	
12/23/2009	0.0093	
6/24/2010	0.0033	
1/9/2011	<0.001	
7/11/2011	<0.001	
1/20/2012	<0.001	
7/13/2012	0.011	
1/21/2013	0.028	
7/20/2013	<0.001	
1/17/2014	0.019	
7/12/2014	<0.005 (J)	
1/16/2015	0.0012 (J)	
7/15/2015	<0.001	
1/16/2016	0.0015 (J)	
6/22/2016	0.0081 (D)	
2/28/2017	0.0019 (J)	
7/17/2017	<0.001	
1/8/2018	<0.001	
7/10/2018	<0.001	
1/30/2019		<0.001
3/27/2019		<0.001
9/11/2019		0.0014
3/10/2020		<0.001
9/21/2020		<0.001

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

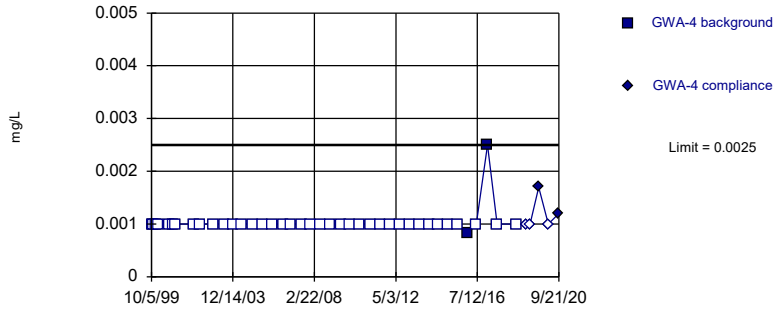
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	0.0038	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/6/2008	<0.001	
7/10/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/19/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/15/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	0.0011 (J)	
6/22/2016	<0.001	
1/19/2017	<0.001	
7/18/2017	<0.001	
1/9/2018	<0.001	
7/10/2018	<0.001	
1/30/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.002
3/10/2020		<0.001
4/2/2020		0.0013
9/21/2020		<0.001

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



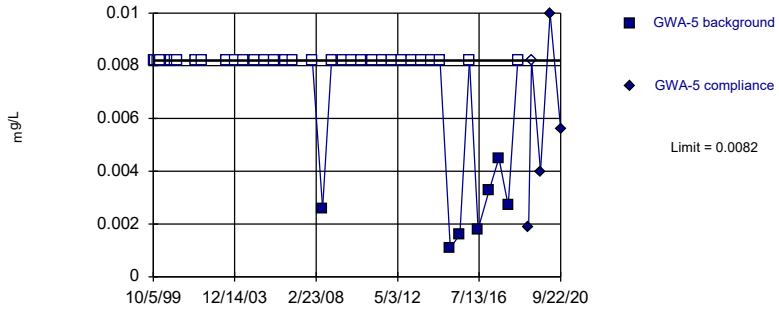
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 40 background values. 95% NDs. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



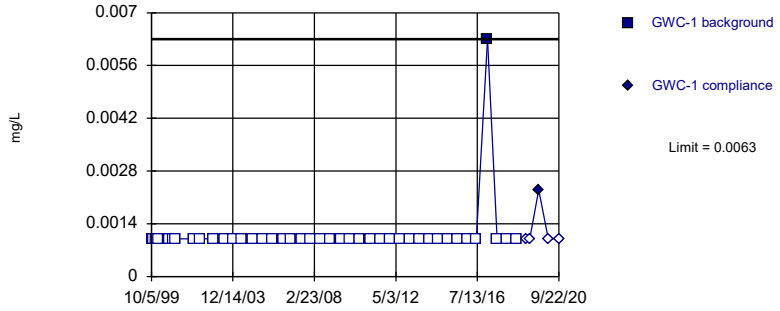
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 39 background values. 82.05% NDs. Well-constituent pair annual alpha = 0.002451. Individual comparison alpha = 0.001226 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:29 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



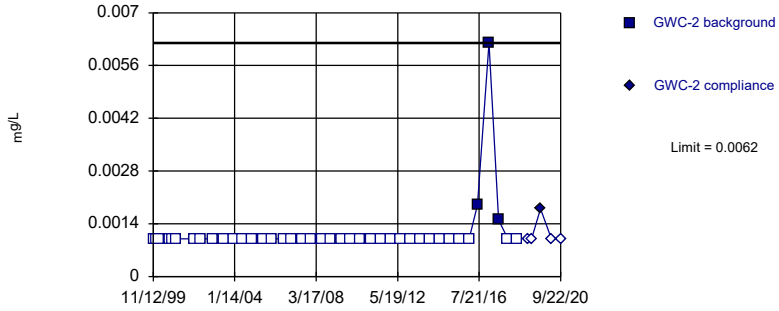
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 97.56% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 40 background values. 92.5% NDs. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/21/2008	<0.001	
12/6/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/19/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/15/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	0.00082 (J)	
6/22/2016	<0.001	
1/19/2017	0.0025	
7/18/2017	<0.001	
1/9/2018	0.0072 (o)	
7/10/2018	<0.001	
1/30/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.0017
3/10/2020		<0.001
9/21/2020		0.0012

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	<0.0082	
11/12/1999	<0.0082	
12/29/1999	<0.0082	
2/17/2000	<0.0082	
9/13/2000	<0.0082	
11/10/2000	<0.0082	
1/4/2001	<0.0082	
12/11/2001	<0.0082	
4/4/2002	<0.0082	
12/6/2002	0.03 (o)	
6/28/2003	<0.0082	
12/13/2003	<0.0082	
5/28/2004	<0.0082	
12/10/2004	<0.0082	
6/24/2005	<0.0082	
12/13/2005	<0.0082	
7/12/2006	<0.0082	
12/1/2006	<0.0082	
6/21/2007	0.07 (o)	
12/15/2007	<0.0082	
6/22/2008	0.0026	
12/6/2008	<0.0082	
7/11/2009	<0.0082	
12/22/2009	<0.0082	
6/23/2010	<0.0082	
1/8/2011	<0.0082	
7/10/2011	<0.0082	
1/20/2012	<0.0082	
7/12/2012	<0.0082	
1/21/2013	<0.0082	
7/20/2013	<0.0082	
1/17/2014	<0.0082	
7/12/2014	<0.0082	
1/16/2015	0.0011 (J)	
7/15/2015	0.0016 (J)	
1/16/2016	<0.0082	
6/22/2016	0.0018 (J)	
1/19/2017	0.0033	
7/19/2017	0.0045	
1/9/2018	0.0027	
7/10/2018	<0.0082	
1/30/2019		0.0019 (J)
3/27/2019		<0.0082
9/12/2019		0.004
3/10/2020		0.01
9/22/2020		0.0056

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/21/2008	<0.001	
12/6/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/20/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/16/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/22/2016	<0.001	
1/23/2017	0.0063	
7/19/2017	<0.001	
1/9/2018	<0.001	
7/11/2018	<0.001	
1/30/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.0023
3/11/2020		<0.001
9/22/2020		<0.001

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

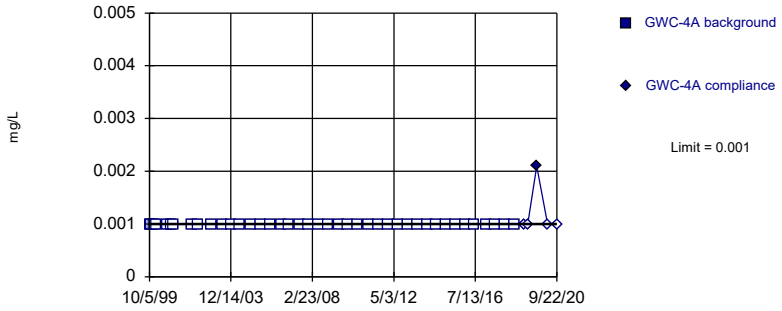
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	0.015 (o)	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/6/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/20/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/15/2015	<0.001	
7/15/2015	<0.001	
1/17/2016	<0.001	
6/22/2016	0.0019 (J)	
1/24/2017	0.0062	
7/19/2017	0.0015 (J)	
1/9/2018	<0.001	
7/10/2018	<0.001	
1/31/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.0018
3/31/2020		<0.001
9/22/2020		<0.001

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



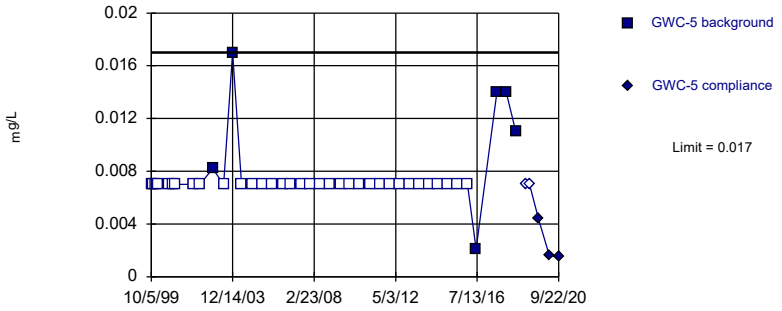
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 41) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



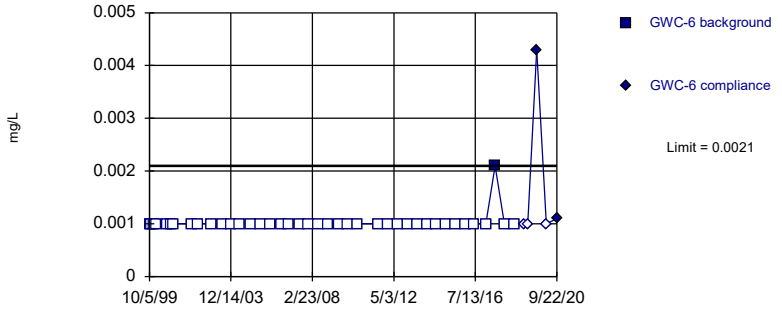
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 40 background values. 85% NDs. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



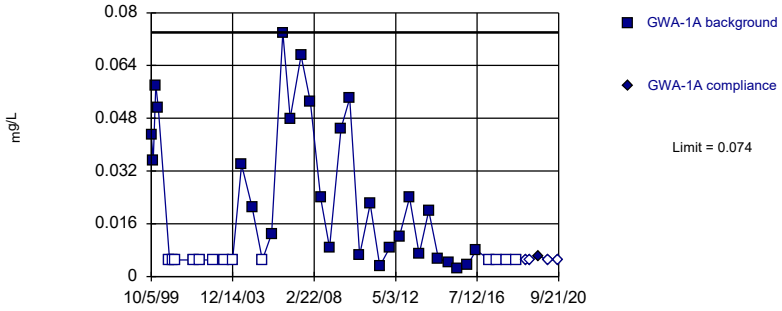
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 40 background values. 97.5% NDs. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Vanadium Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell 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. 31.71% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/21/2008	<0.001	
12/6/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/23/2010	<0.001	
1/8/2011	<0.001	
7/10/2011	<0.001	
1/20/2012	<0.001	
7/12/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/11/2014	<0.001	
1/16/2015	<0.001	
7/15/2015	<0.001	
1/17/2016	<0.001	
6/22/2016	<0.001	
1/25/2017	<0.001	
7/20/2017	<0.001	
1/9/2018	<0.001	
7/10/2018	<0.001	
1/30/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.0021
3/31/2020		<0.001
9/22/2020		<0.001

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	<0.007	
11/12/1999	<0.007	
12/29/1999	<0.007	
2/17/2000	<0.007	
9/13/2000	<0.007	
11/10/2000	<0.007	
1/4/2001	<0.007	
12/11/2001	<0.007	
4/4/2002	<0.007	
12/6/2002	0.0082	
6/28/2003	<0.007	
12/13/2003	0.017	
5/28/2004	<0.007	
12/10/2004	<0.007	
6/24/2005	<0.007	
12/13/2005	<0.007	
7/12/2006	<0.007	
12/1/2006	<0.007	
6/21/2007	<0.007	
12/15/2007	<0.007	
6/21/2008	<0.007	
12/7/2008	<0.007	
7/11/2009	<0.007	
12/23/2009	<0.007	
6/23/2010	<0.007	
1/8/2011	<0.007	
7/10/2011	<0.007	
1/20/2012	<0.007	
7/12/2012	<0.007	
1/21/2013	<0.007	
7/20/2013	<0.007	
1/17/2014	<0.007	
7/11/2014	<0.007	
1/16/2015	<0.007	
7/15/2015	<0.007	
1/16/2016	<0.007	
6/23/2016	0.0021 (J)	
1/24/2017	0.044 (o)	
7/20/2017	0.014	
1/10/2018	0.014	
7/11/2018	0.011 (J)	
1/31/2019		<0.007
3/28/2019		<0.007
9/12/2019		0.0044
3/31/2020		0.0016
9/22/2020		0.0015

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	<0.001	
11/12/1999	<0.001	
12/29/1999	<0.001	
2/17/2000	<0.001	
9/13/2000	<0.001	
11/10/2000	<0.001	
1/4/2001	<0.001	
12/11/2001	<0.001	
4/4/2002	<0.001	
12/6/2002	<0.001	
6/28/2003	<0.001	
12/13/2003	<0.001	
5/28/2004	<0.001	
12/10/2004	<0.001	
6/24/2005	<0.001	
12/13/2005	<0.001	
7/12/2006	<0.001	
12/1/2006	<0.001	
6/21/2007	<0.001	
12/15/2007	<0.001	
6/22/2008	<0.001	
12/7/2008	<0.001	
7/11/2009	<0.001	
12/23/2009	<0.001	
6/24/2010	<0.001	
7/11/2011	<0.001	
1/20/2012	<0.001	
7/13/2012	<0.001	
1/21/2013	<0.001	
7/20/2013	<0.001	
1/17/2014	<0.001	
7/12/2014	<0.001	
1/16/2015	<0.001	
7/15/2015	<0.001	
1/16/2016	<0.001	
6/23/2016	<0.001	
1/27/2017	<0.001	
7/20/2017	0.0021 (J)	
1/10/2018	<0.001	
7/11/2018	<0.001	
1/31/2019		<0.001
3/28/2019		<0.001
9/12/2019		0.0043
3/11/2020		<0.001
9/22/2020		0.0011

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

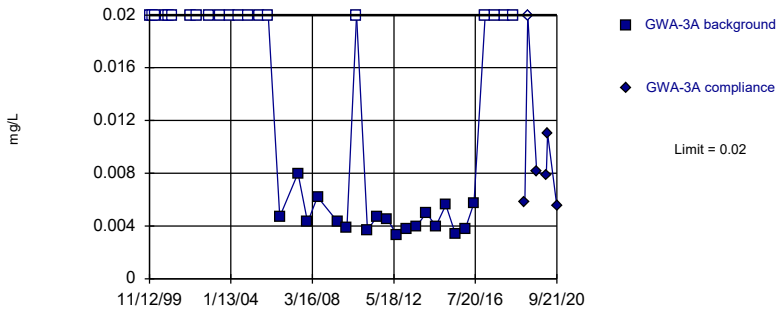
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A	GWA-1A
10/5/1999	0.043	
11/12/1999	0.035	
12/29/1999	0.058	
2/17/2000	0.051	
9/13/2000	<0.005	
11/10/2000	<0.005	
1/4/2001	<0.005	
12/11/2001	<0.005	
4/4/2002	<0.005	
12/6/2002	<0.005	
6/28/2003	<0.005	
12/13/2003	<0.005	
5/28/2004	0.034	
12/10/2004	0.021	
6/24/2005	<0.005	
12/13/2005	0.013	
7/12/2006	0.074	
12/1/2006	0.048	
6/21/2007	0.067	
12/15/2007	0.053	
6/22/2008	0.024	
12/7/2008	0.0087	
7/11/2009	0.045	
12/23/2009	0.054	
6/24/2010	0.0065	
1/9/2011	0.022	
7/11/2011	0.0032	
1/20/2012	0.0089	
7/13/2012	0.012	
1/21/2013	0.024	
7/20/2013	0.0068	
1/17/2014	0.02	
7/12/2014	0.0055	
1/16/2015	0.0043	
7/15/2015	0.0026	
1/16/2016	0.0035	
6/22/2016	0.00805 (JD)	
2/28/2017	<0.005	
7/17/2017	<0.005	
1/8/2018	<0.005	
7/10/2018	<0.005	
1/30/2019		<0.005
3/27/2019		<0.005
9/11/2019		0.0062
3/10/2020		<0.005
9/21/2020		<0.005

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



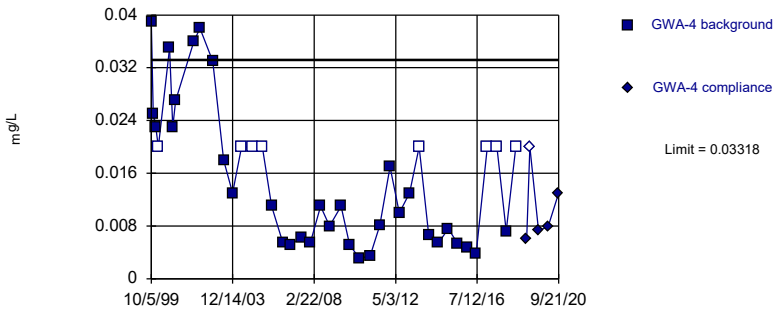
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 38 background values. 52.63% NDs. Well-constituent pair annual alpha = 0.002586. Individual comparison alpha = 0.001294 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



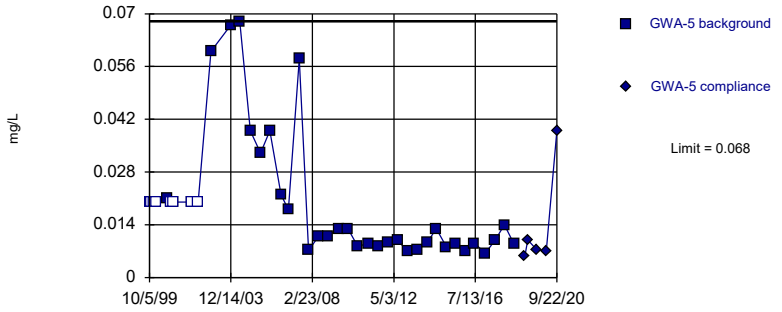
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.1018, Std. Dev.=0.04245, n=41, 19.51% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9227, critical = 0.92. Kappa = 1.892 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



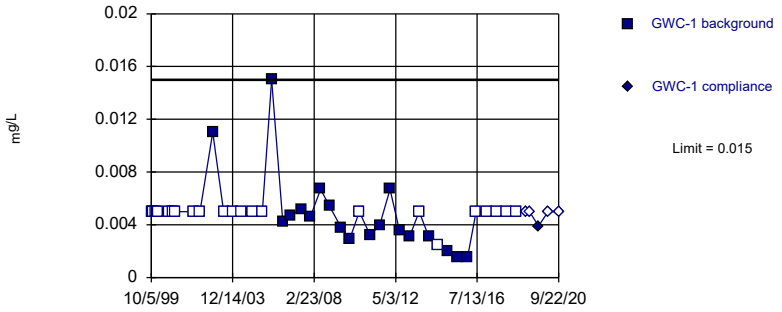
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 40 background values. 20% NDs. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 53.66% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A	GWA-3A
10/5/1999	0.023 (o)	
11/12/1999	<0.02	
12/29/1999	<0.02	
2/17/2000	<0.02	
9/13/2000	<0.02	
11/10/2000	<0.02	
1/4/2001	<0.02	
12/11/2001	<0.02	
4/4/2002	<0.02	
12/6/2002	<0.02	
6/28/2003	<0.02	
12/13/2003	<0.02	
5/28/2004	<0.02	
12/10/2004	<0.02	
6/24/2005	<0.02	
12/13/2005	<0.02	
7/12/2006	0.0047	
12/1/2006	0.065 (o)	
6/21/2007	0.008	
12/15/2007	0.0043	
6/22/2008	0.0062	
12/6/2008	0.051 (o)	
7/10/2009	0.0043	
12/23/2009	0.0039	
6/23/2010	<0.02	
1/8/2011	0.0037	
7/10/2011	0.0047	
1/19/2012	0.0045	
7/12/2012	0.0033	
1/21/2013	0.0038	
7/20/2013	0.004	
1/17/2014	0.005	
7/12/2014	0.004	
1/15/2015	0.0056	
7/15/2015	0.0034	
1/16/2016	0.0038	
6/22/2016	0.00575 (JD)	
1/19/2017	<0.02	
7/18/2017	<0.02	
1/9/2018	<0.02	
7/10/2018	<0.02	
1/30/2019		0.0058 (J)
3/28/2019		<0.02
9/12/2019		0.0081
3/10/2020		0.0079
4/2/2020		0.011
9/21/2020		0.0055

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4	GWA-4
10/5/1999	0.039	
11/12/1999	0.025	
12/29/1999	0.023	
2/17/2000	<0.02	
9/13/2000	0.035	
11/10/2000	0.023	
1/4/2001	0.027	
12/11/2001	0.036	
4/4/2002	0.038	
12/6/2002	0.033	
6/28/2003	0.018	
12/13/2003	0.013	
5/28/2004	<0.02	
12/10/2004	<0.02	
6/24/2005	<0.02	
12/13/2005	0.011	
7/12/2006	0.0055	
12/1/2006	0.0052	
6/21/2007	0.0062	
12/15/2007	0.0055	
6/21/2008	0.011	
12/6/2008	0.008	
7/11/2009	0.011	
12/23/2009	0.0051	
6/23/2010	0.0031	
1/8/2011	0.0035	
7/10/2011	0.0081	
1/19/2012	0.017	
7/12/2012	0.01	
1/21/2013	0.013	
7/20/2013	<0.02	
1/17/2014	0.0066	
7/12/2014	0.0054	
1/15/2015	0.0076	
7/15/2015	0.0053	
1/16/2016	0.0048	
6/22/2016	0.0038 (J)	
1/19/2017	<0.02	
7/18/2017	<0.02	
1/9/2018	0.0072 (J)	
7/10/2018	<0.02	
1/30/2019		0.006 (J)
3/28/2019		<0.02
9/12/2019		0.0073
3/10/2020		0.0079
9/21/2020		0.013

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-5	GWA-5
10/5/1999	<0.02	
11/12/1999	<0.02	
12/29/1999	<0.02	
2/17/2000	<0.02	
9/13/2000	0.021	
11/10/2000	<0.02	
1/4/2001	<0.02	
12/11/2001	<0.02	
4/4/2002	<0.02	
12/6/2002	0.06	
6/28/2003	0.19 (o)	
12/13/2003	0.067	
5/28/2004	0.068	
12/10/2004	0.039	
6/24/2005	0.033	
12/13/2005	0.039	
7/12/2006	0.022	
12/1/2006	0.018	
6/21/2007	0.058	
12/15/2007	0.0072	
6/22/2008	0.011	
12/6/2008	0.011	
7/11/2009	0.013	
12/22/2009	0.013	
6/23/2010	0.0084	
1/8/2011	0.0089	
7/10/2011	0.0084	
1/20/2012	0.0094	
7/12/2012	0.0098	
1/21/2013	0.007	
7/20/2013	0.0074	
1/17/2014	0.0092	
7/12/2014	0.013	
1/16/2015	0.0081	
7/15/2015	0.009	
1/16/2016	0.007	
6/22/2016	0.0091 (J)	
1/19/2017	0.0065 (J)	
7/19/2017	0.0099 (J)	
1/9/2018	0.014 (J)	
7/10/2018	0.0089 (J)	
1/30/2019		0.0057 (J)
3/27/2019		0.01 (J)
9/12/2019		0.0074
3/10/2020		0.0071
9/22/2020		0.039

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

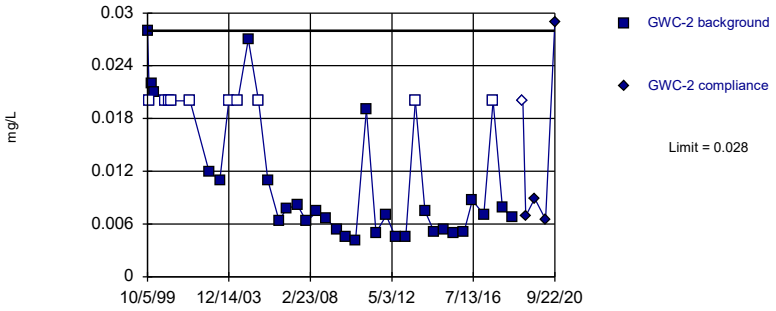
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWC-1
10/5/1999	<0.005	
11/12/1999	<0.005	
12/29/1999	<0.005	
2/17/2000	<0.005	
9/13/2000	<0.005	
11/10/2000	<0.005	
1/4/2001	<0.005	
12/11/2001	<0.005	
4/4/2002	<0.005	
12/6/2002	0.011	
6/28/2003	<0.005	
12/13/2003	<0.005	
5/28/2004	<0.005	
12/10/2004	<0.005	
6/24/2005	<0.005	
12/13/2005	0.015	
7/12/2006	0.0042	
12/1/2006	0.0047	
6/21/2007	0.0052	
12/15/2007	0.0046	
6/21/2008	0.0067	
12/6/2008	0.0054	
7/11/2009	0.0038	
12/23/2009	0.0029	
6/23/2010	<0.005	
1/8/2011	0.0032	
7/10/2011	0.004	
1/20/2012	0.0067	
7/12/2012	0.0036	
1/21/2013	0.0031	
7/20/2013	<0.005	
1/17/2014	0.0031	
7/12/2014	<0.0025 (J)	
1/16/2015	0.002 (J)	
7/15/2015	0.0015 (J)	
1/16/2016	0.0015 (J)	
6/22/2016	<0.005	
1/23/2017	<0.005	
7/19/2017	<0.005	
1/9/2018	<0.005	
7/11/2018	<0.005	
1/30/2019		<0.005
3/28/2019		<0.005
9/12/2019		0.0039 (J)
3/11/2020		<0.005
9/22/2020		<0.005

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



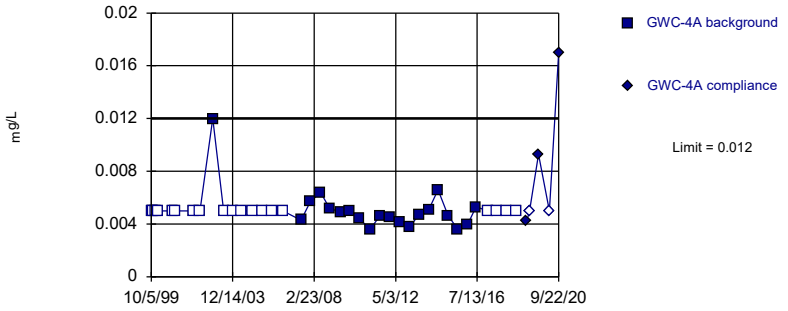
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 40 background values. 25% NDs. Well-constituent pair annual alpha = 0.002316. Individual comparison alpha = 0.001159 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



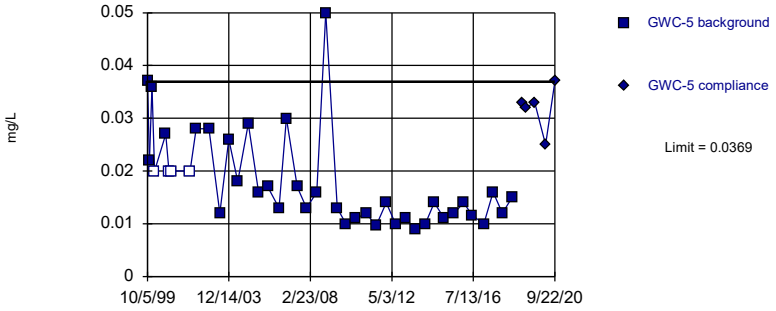
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 39 background values. 48.72% NDs. Well-constituent pair annual alpha = 0.002451. Individual comparison alpha = 0.001226 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Parametric



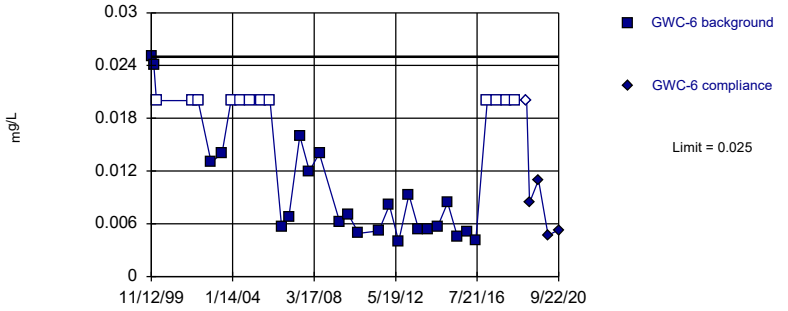
Background Data Summary (based on natural log transformation): Mean=-4.113, Std. Dev.=0.43, n=41, 9.756% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9313, critical = 0.92. Kappa = 1.892 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell 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 35 background values. 34.29% NDs. Well-constituent pair annual alpha = 0.002991. Individual comparison alpha = 0.001497 (1 of 2).

Constituent: Zinc Analysis Run 12/2/2020 12:30 PM View: EPD
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-2
10/5/1999	0.028	
11/12/1999	<0.02	
12/29/1999	0.022	
2/17/2000	0.021	
9/13/2000	<0.02	
11/10/2000	<0.02	
1/4/2001	<0.02	
12/11/2001	<0.02	
4/4/2002	0.069 (o)	
12/6/2002	0.012	
6/28/2003	0.011	
12/13/2003	<0.02	
5/28/2004	<0.02	
12/10/2004	0.027	
6/24/2005	<0.02	
12/13/2005	0.011	
7/12/2006	0.0064	
12/1/2006	0.0077	
6/21/2007	0.0082	
12/15/2007	0.0063	
6/22/2008	0.0074	
12/6/2008	0.0066	
7/11/2009	0.0054	
12/23/2009	0.0046	
6/23/2010	0.0041	
1/8/2011	0.019	
7/10/2011	0.005	
1/20/2012	0.007	
7/12/2012	0.0045	
1/21/2013	0.0045	
7/20/2013	<0.02	
1/17/2014	0.0075	
7/12/2014	0.0051	
1/15/2015	0.0054	
7/15/2015	0.0049	
1/17/2016	0.0051	
6/22/2016	0.0087 (J)	
1/24/2017	0.0071 (J)	
7/19/2017	<0.02	
1/9/2018	0.0079 (J)	
7/10/2018	0.0067 (J)	
1/31/2019		<0.02
3/28/2019		0.0069 (J)
9/12/2019		0.0089
3/31/2020		0.0065
9/22/2020		0.029

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-4A	GWC-4A
10/5/1999	<0.005	
11/12/1999	<0.005	
12/29/1999	<0.005	
2/17/2000	<0.005	
9/13/2000	0.036 (o)	
11/10/2000	<0.005	
1/4/2001	<0.005	
12/11/2001	<0.005	
4/4/2002	<0.005	
12/6/2002	0.012	
6/28/2003	<0.005	
12/13/2003	<0.005	
5/28/2004	<0.005	
12/10/2004	<0.005	
6/24/2005	<0.005	
12/13/2005	<0.005	
7/12/2006	<0.005	
12/1/2006	0.098 (o)	
6/21/2007	0.0043	
12/15/2007	0.0057	
6/21/2008	0.0064	
12/6/2008	0.0052	
7/11/2009	0.0049	
12/23/2009	0.005	
6/23/2010	0.0044	
1/8/2011	0.0036	
7/10/2011	0.0046	
1/20/2012	0.0045	
7/12/2012	0.0041	
1/21/2013	0.0038	
7/20/2013	0.0047	
1/17/2014	0.0051	
7/11/2014	0.0066	
1/16/2015	0.0046	
7/15/2015	0.0036	
1/17/2016	0.004	
6/22/2016	0.0053 (J)	
1/25/2017	<0.005	
7/20/2017	<0.005	
1/9/2018	<0.005	
7/10/2018	<0.005	
1/30/2019		0.0042 (J)
3/28/2019		<0.005
9/12/2019		0.0093
3/31/2020		<0.005
9/22/2020		0.017

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-5	GWC-5
10/5/1999	0.037	
11/12/1999	0.022	
12/29/1999	0.036	
2/17/2000	<0.02	
9/13/2000	0.027	
11/10/2000	<0.02	
1/4/2001	<0.02	
12/11/2001	<0.02	
4/4/2002	0.028	
12/6/2002	0.028	
6/28/2003	0.012	
12/13/2003	0.026	
5/28/2004	0.018	
12/10/2004	0.029	
6/24/2005	0.016	
12/13/2005	0.017	
7/12/2006	0.013	
12/1/2006	0.03	
6/21/2007	0.017	
12/15/2007	0.013	
6/21/2008	0.016	
12/7/2008	0.05	
7/11/2009	0.013	
12/23/2009	0.01	
6/23/2010	0.011	
1/8/2011	0.012	
7/10/2011	0.0096	
1/20/2012	0.014	
7/12/2012	0.01	
1/21/2013	0.011	
7/20/2013	0.0089	
1/17/2014	0.0098	
7/11/2014	0.014	
1/16/2015	0.011	
7/15/2015	0.012	
1/16/2016	0.014	
6/23/2016	0.0116	
1/24/2017	0.01 (J)	
7/20/2017	0.016 (J)	
1/10/2018	0.012 (J)	
7/11/2018	0.015 (J)	
1/31/2019		0.033
3/28/2019		0.032
9/12/2019		0.033
3/31/2020		0.025
9/22/2020		0.037

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:31 PM View: EPD

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-6	GWC-6
10/5/1999	0.063 (o)	
11/12/1999	0.025	
12/29/1999	0.024	
2/17/2000	<0.02	
9/13/2000	0.061 (o)	
11/10/2000	0.061 (o)	
1/4/2001	0.05 (o)	
12/11/2001	<0.02	
4/4/2002	<0.02	
12/6/2002	0.013	
6/28/2003	0.014	
12/13/2003	<0.02	
5/28/2004	<0.02	
12/10/2004	<0.02	
6/24/2005	<0.02	
12/13/2005	<0.02	
7/12/2006	0.0057	
12/1/2006	0.0068	
6/21/2007	0.016	
12/15/2007	0.012	
6/22/2008	0.014	
12/7/2008	0.044 (o)	
7/11/2009	0.0062	
12/23/2009	0.007	
6/24/2010	0.0049	
7/11/2011	0.0052	
1/20/2012	0.0081	
7/13/2012	0.004	
1/21/2013	0.0093	
7/20/2013	0.0054	
1/17/2014	0.0054	
7/12/2014	0.0057	
1/16/2015	0.0084	
7/15/2015	0.0046	
1/16/2016	0.0051	
6/23/2016	0.0041 (J)	
1/27/2017	<0.02	
7/20/2017	<0.02	
1/10/2018	<0.02	
7/11/2018	<0.02	
1/31/2019		<0.02
3/28/2019		0.0084 (J)
9/12/2019		0.011
3/11/2020		0.0047 (J)
9/22/2020		0.0053

FIGURE I.

Interwell Prediction Limits (Intrawell Exceedances)

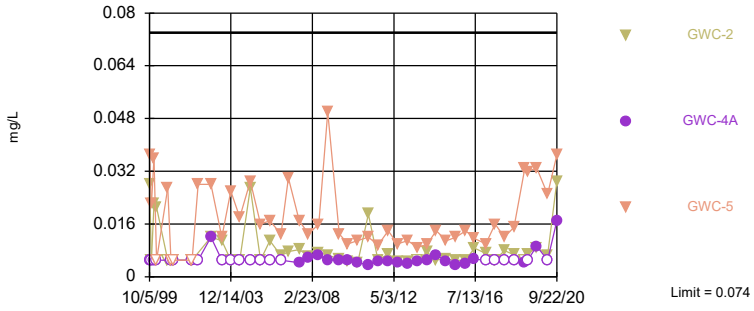
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWC-2	0.074	n/a	9/22/2020	0.029	No	191	n/a	n/a	28.8	n/a	n/a	0.00005435	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-4A	0.074	n/a	9/22/2020	0.017	No	191	n/a	n/a	28.8	n/a	n/a	0.00005435	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-5	0.074	n/a	9/22/2020	0.037	No	191	n/a	n/a	28.8	n/a	n/a	0.00005435	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 191 background values. 28.8% NDs. Annual per-constituent alpha = 0.0005433. Individual comparison alpha = 0.00005435 (1 of 2). Comparing 3 points to limit. Assumes 2 future values.

Constituent: Zinc Analysis Run 12/2/2020 12:39 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:40 PM View: EPD Exceedances

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-2	GWC-4A	GWC-5	GWA-5 (bg)	GWA-3A (bg)	GWA-2B (bg)	GWA-7A (bg)
10/5/1999	0.043	0.039	0.028	<0.005	0.037	<0.005	0.023 (o)		
11/12/1999	0.035	0.025	<0.005	<0.005	0.022	<0.005	<0.005		
12/29/1999	0.058	0.023	0.022	<0.005	0.036	<0.005	<0.005		
2/17/2000	0.051	<0.005	0.021	<0.005	<0.005	<0.005	<0.005		
9/13/2000	<0.005	0.035	<0.005	0.036 (o)	0.027	0.021	<0.005		
11/10/2000	<0.005	0.023	<0.005	<0.005	<0.005	<0.005	<0.005		
1/4/2001	<0.005	0.027	<0.005	<0.005	<0.005	<0.005	<0.005		
12/11/2001	<0.005	0.036	<0.005	<0.005	<0.005	<0.005	<0.005		
4/4/2002	<0.005	0.038	0.069 (o)	<0.005	0.028	<0.005	<0.005		
12/6/2002	<0.005	0.033	0.012	0.012	0.028	0.06	<0.005		
6/28/2003	<0.005	0.018	0.011	<0.005	0.012	0.19 (o)	<0.005		
12/13/2003	<0.005	0.013	<0.005	<0.005	0.026	0.067	<0.005		
5/28/2004	0.034	<0.005	<0.005	<0.005	0.018	0.068	<0.005		
12/10/2004	0.021	<0.005	0.027	<0.005	0.029	0.039	<0.005		
6/24/2005	<0.005	<0.005	<0.005	<0.005	0.016	0.033	<0.005		
12/13/2005	0.013	0.011	0.011	<0.005	0.017	0.039	<0.005		
7/12/2006	0.074	0.0055	0.0064	<0.005	0.013	0.022	0.0047		
12/1/2006	0.048	0.0052	0.0077	0.098 (o)	0.03	0.018	0.065 (o)		
6/21/2007	0.067	0.0062	0.0082	0.0043	0.017	0.058	0.008		
12/15/2007	0.053	0.0055	0.0063	0.0057	0.013	0.0072	0.0043		
6/21/2008		0.011		0.0064	0.016				
6/22/2008	0.024		0.0074			0.011	0.0062		
12/6/2008		0.008	0.0066	0.0052		0.011	0.051 (o)		
12/7/2008	0.0087				0.05				
7/10/2009							0.0043		
7/11/2009	0.045	0.011	0.0054	0.0049	0.013	0.013			
12/22/2009						0.013			
12/23/2009	0.054	0.0051	0.0046	0.005	0.01		0.0039		
6/23/2010		0.0031	0.0041	0.0044	0.011	0.0084	<0.005		
6/24/2010	0.0065								
1/8/2011		0.0035	0.019	0.0036	0.012	0.0089	0.0037		
1/9/2011	0.022								
7/10/2011		0.0081	0.005	0.0046	0.0096	0.0084	0.0047		
7/11/2011	0.0032								
1/19/2012		0.017					0.0045		
1/20/2012	0.0089		0.007	0.0045	0.014	0.0094			
7/12/2012		0.01	0.0045	0.0041	0.01	0.0098	0.0033		
7/13/2012	0.012								
1/21/2013	0.024	0.013	0.0045	0.0038	0.011	0.007	0.0038		
7/20/2013	0.0068	<0.005	<0.005	0.0047	0.0089	0.0074	0.004		
1/17/2014	0.02	0.0066	0.0075	0.0051	0.0098	0.0092	0.005		
7/11/2014				0.0066	0.014				
7/12/2014	0.0055	0.0054	0.0051			0.013	0.004		
1/15/2015		0.0076	0.0054				0.0056		
1/16/2015	0.0043			0.0046	0.011	0.0081			
7/15/2015	0.0026	0.0053	0.0049	0.0036	0.012	0.009	0.0034		
1/16/2016	0.0035	0.0048			0.014	0.007	0.0038		
1/17/2016			0.0051	0.004					
6/22/2016	0.00805 (JD)	0.0038 (J)	0.0087 (J)	0.0053 (J)		0.0091 (J)	0.00575 (JD)		
6/23/2016					0.0116				
1/19/2017		<0.005				0.0065 (J)	<0.005		
1/24/2017			0.0071 (J)		0.01 (J)				

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 12:40 PM View: EPD Exceedances

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-2	GWC-4A	GWC-5	GWA-5 (bg)	GWA-3A (bg)	GWA-2B (bg)	GWA-7A (bg)
1/25/2017				<0.005					
2/28/2017	<0.005								
7/17/2017	<0.005								
7/18/2017		<0.005					<0.005		
7/19/2017			<0.005			0.0099 (J)			
7/20/2017				<0.005	0.016 (J)				
1/8/2018	<0.005								
1/9/2018		0.0072 (J)	0.0079 (J)	<0.005		0.014 (J)	<0.005		
1/10/2018					0.012 (J)				
7/10/2018	<0.005	<0.005	0.0067 (J)	<0.005		0.0089 (J)	<0.005		
7/11/2018					0.015 (J)				
1/30/2019	<0.005	0.006 (J)		0.0042 (J)		0.0057 (J)	0.0058 (J)	0.013 (J)	0.011 (J)
1/31/2019			<0.005		0.033				
3/27/2019	<0.005					0.01 (J)			
3/28/2019		<0.005	0.0069 (J)	<0.005	0.032		<0.005	0.014 (J)	0.0086 (J)
9/11/2019	0.0062								
9/12/2019		0.0073	0.0089	0.0093	0.033	0.0074	0.0081	0.0075	0.014
3/10/2020	<0.005	0.0079				0.0071	0.0079	0.0061	
3/11/2020									0.0099
3/31/2020			0.0065	<0.005	0.025				
4/2/2020							0.011		
9/21/2020	<0.005	0.013					0.0055		0.007
9/22/2020			0.029	0.017	0.037	0.039		0.0066	

FIGURE J.

Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Zinc (mg/L)	**GWA-1A (bg)**	**-0.0002468**	**-2.5**	**-2.33**	**Yes**	**46**	**36.96**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-3A (bg)**	**-0.00006084**	**-2.545**	**-2.33**	**Yes**	**44**	**47.73**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-4 (bg)**	**-0.00083**	**-3.576**	**-2.33**	**Yes**	**46**	**19.57**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-5 (bg)**	**-0.0007204**	**-4.419**	**-2.33**	**Yes**	**45**	**17.78**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWC-2**	**-0.0005056**	**-3.176**	**-2.33**	**Yes**	**45**	**24.44**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test - All Results

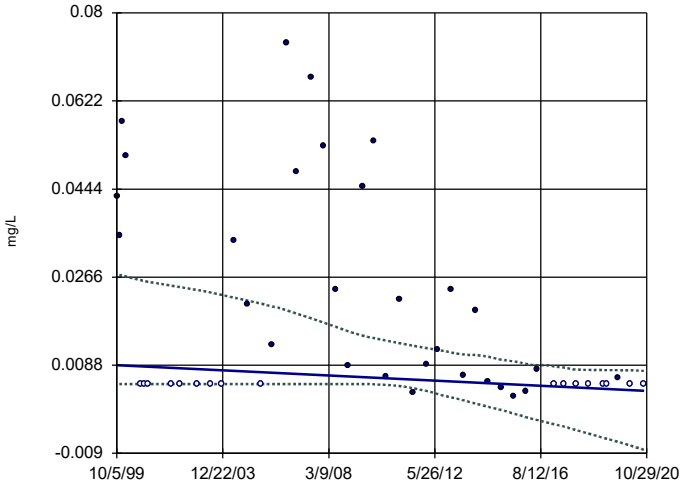
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Zinc (mg/L)	**GWA-1A (bg)**	**-0.0002468**	**-2.5**	**-2.33**	**Yes**	**46**	**36.96**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	GWA-2B (bg)	-0.004426	-6	-10	No	5	0	n/a	n/a	0.02	NP
Zinc (mg/L)	**GWA-3A (bg)**	**-0.00006084**	**-2.545**	**-2.33**	**Yes**	**44**	**47.73**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-4 (bg)**	**-0.00083**	**-3.576**	**-2.33**	**Yes**	**46**	**19.57**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	**GWA-5 (bg)**	**-0.0007204**	**-4.419**	**-2.33**	**Yes**	**45**	**17.78**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	GWA-7A (bg)	-0.001754	-4	-10	No	5	0	n/a	n/a	0.02	NP
Zinc (mg/L)	**GWC-2**	**-0.0005056**	**-3.176**	**-2.33**	**Yes**	**45**	**24.44**	**n/a**	**n/a**	**0.02**	**NP**
Zinc (mg/L)	GWC-4A	0	-0.5418	-2.33	No	44	47.73	n/a	n/a	0.02	NP
Zinc (mg/L)	GWC-5	-0.0004402	-2.172	-2.33	No	46	8.696	n/a	n/a	0.02	NP

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWA-1A (bg)



n = 46

Slope = -0.0002468 units per year.

Mann-Kendall normal approx. = -2.5
critical = -2.33

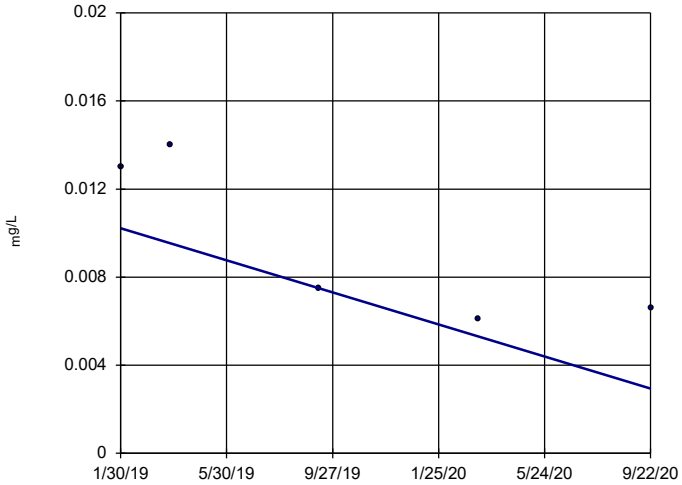
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

GWA-2B (bg)



n = 5

Slope = -0.004426 units per year.

Mann-Kendall statistic = -6
critical = -10

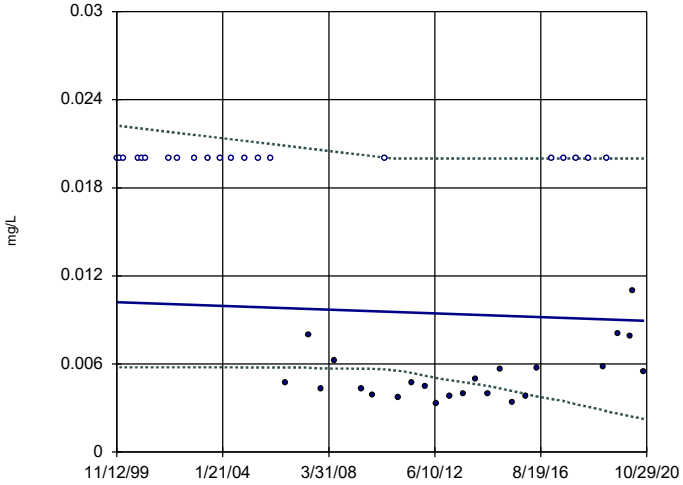
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWA-3A (bg)



n = 44

Slope = -0.00006084 units per year.

Mann-Kendall normal approx. = -2.545
critical = -2.33

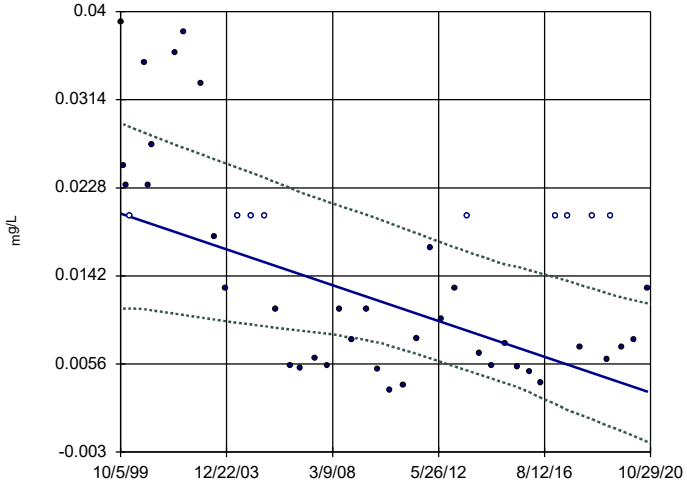
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWA-4 (bg)



n = 46

Slope = -0.00083 units per year.

Mann-Kendall normal approx. = -3.576
critical = -2.33

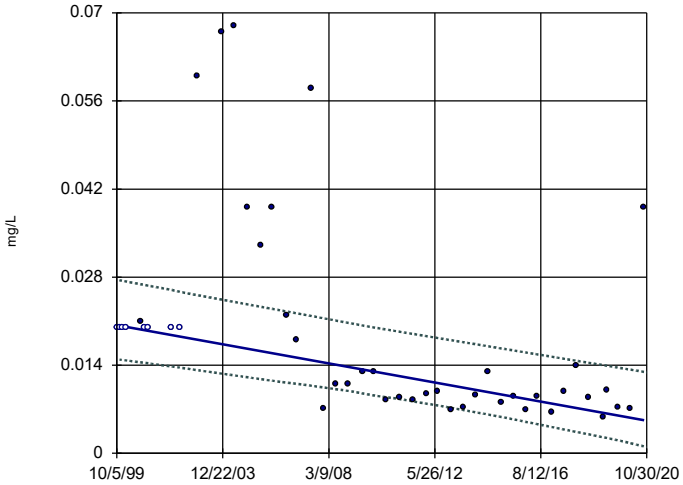
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWA-5 (bg)



n = 45

Slope = -0.0007204 units per year.

Mann-Kendall normal approx. = -4.419
critical = -2.33

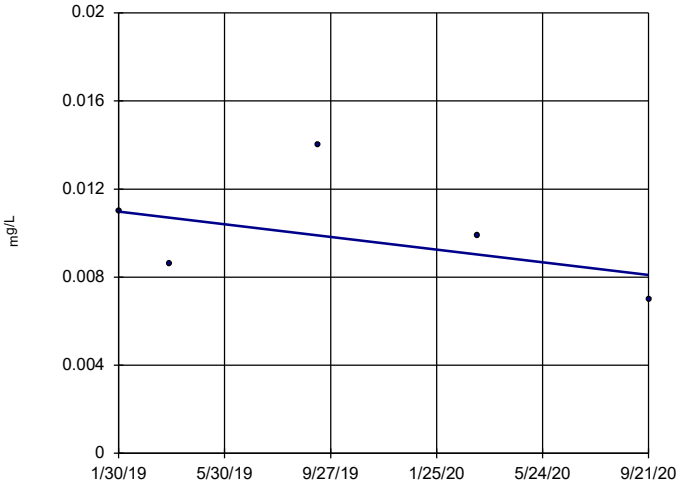
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

GWA-7A (bg)



n = 5

Slope = -0.001754 units per year.

Mann-Kendall statistic = -4
critical = -10

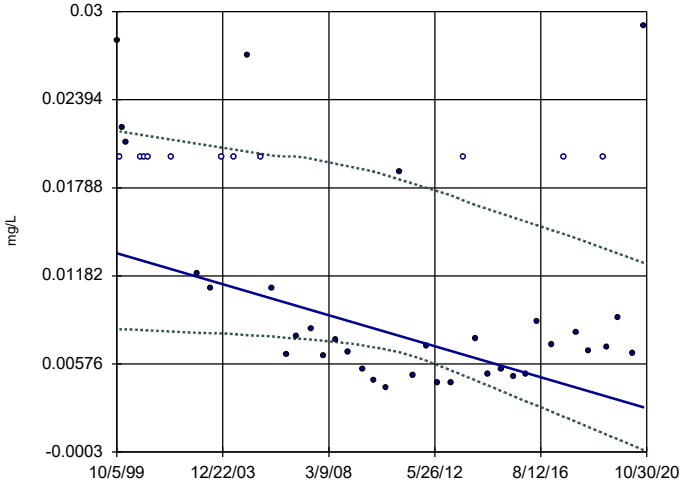
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWC-2



n = 45

Slope = -0.0005056 units per year.

Mann-Kendall normal approx. = -3.176
critical = -2.33

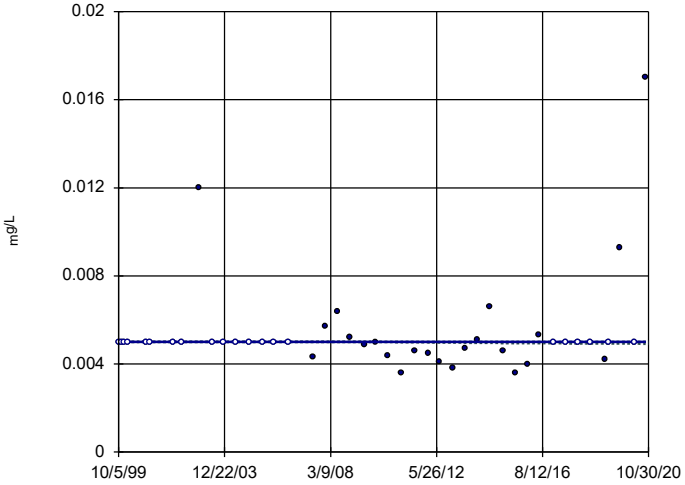
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWC-4A



n = 44

Slope = 0 units per year.

Mann-Kendall normal approx. = -0.5418
critical = -2.33

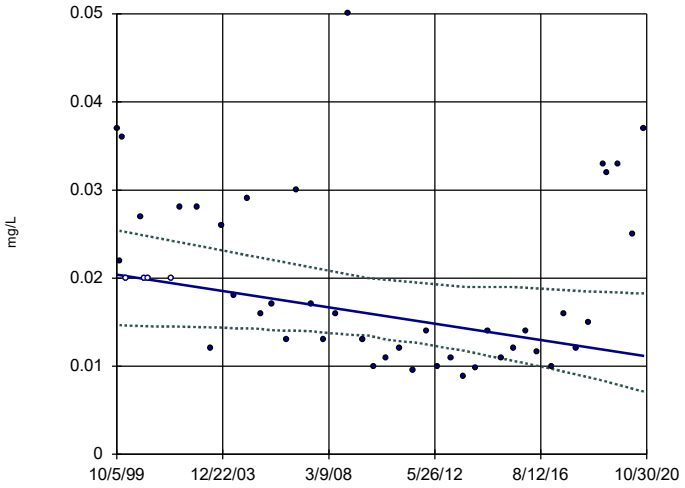
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GWC-5



n = 46

Slope = -0.0004402 units per year.

Mann-Kendall normal approx. = -2.172
critical = -2.33

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Analysis Run 12/2/2020 12:37 PM View: EPD Exceedances
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

GROUNDWATER STATS CONSULTING

July 27, 2021

Southern Company Services
Attn: Ms. Lauren Coker
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant McIntosh Landfill #3
Statistical Analysis – March 2021 Semi- Annual Sample Event

Dear Ms. Coker,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of the March 2021 semi-annual sample event for Georgia Power Company's Plant McIntosh Landfill #3. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for the CCR program in 2016, and sampling for the state constituents in accordance with the Georgia EPD's Solid Waste Permit began for some wells in 1999. Semi-annual sampling for select constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations; and all available data from upgradient wells are screened in this report.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** GWA-1A, GWA-1B, GWA-2B, GWA-3A, GWA-4, GWA-5, and GWA-7A
- **Downgradient wells:** GWC-1, GWC-1A, GWC-2, GWC-4A, GWC-5, GWC-5A, GWC-6, and GWC-6A

At least 8 background samples have been collected at each of the groundwater monitoring wells except for upgradient wells GWA-2B and GWA-7A which have had 7 sample events. Additionally, new upgradient well GWA-1B and new downgradient wells GWC-1A, GWC-5A, and GWC-6A have had one sample event. Once upgradient well GWA-1B has a minimum of two samples, data from this well will be incorporated into the interwell statistical analyses. Statistical analyses will be included on downgradient wells GWC-1A, GWC-5A, and GWC-6A when a minimum of 8 background samples have been collected.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting. The analysis is prepared according to the recommended interwell statistical methodology as presented in the USEPA Unified Guidance. The original screening was conducted in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance. During the initial screening both intrawell and interwell statistical methods were recommended. However, further studies conducted by Southern Company Services of waste placement with respect to when groundwater monitoring began supports interwell methods for all constituents as the primary statistical method.

The following constituents were evaluated in this report:

- **CCR Appendix III -** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Georgia EPD Appendix I -** barium, beryllium, chromium, cobalt, copper, lead, vanadium, and zinc

The CCR Appendix III reports are also referred to as Federal reports and the Georgia EPD Appendix I reports are also referred to as State reports. Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of downgradient Appendix I well/constituent pairs with 100% non-detects follows this letter.

Due to varying detection limits in background data sets as a result of changing or improved laboratory practices, a substitution of the most recent reporting limit is used for all non-detects.

Time series plots for reported CCR Appendix III and Georgia EPD Appendix I constituents are provided for all wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box

plots provide visual representation of variation within individual wells and between all wells.

Data at all wells were evaluated during the initial background screening in 2019 for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for constituents based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. During this analysis, however, power curves are provided to demonstrate that the interwell methods for all constituents comply with the USEPA Unified Guidance recommendations as discussed below. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves were based on the following statistical methods:

CCR Appendix III Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan
- # Constituents: 7
- # Downgradient wells: 5

Georgia EPD Appendix I Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan
- # Constituents: 8
- # Downgradient wells: 5

Prediction Limits

Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Note that for some constituents the interwell prediction limit is considerably higher than reported observations in downgradient wells, which is reflective of natural variability in groundwater quality upgradient of the facility.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and

performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the interwell case, newer data will be included during each sample event after careful screening for new outliers in upgradient wells. In some cases, the earlier portion of data are deselected prior to construction of limits in order to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

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; therefore, no further action is necessary.

Summary of Background Screening – All Constituents

Outlier and Trends

The original background screening for the CCR federal program and Georgia EPD state program was conducted in 2019 and the results were submitted at that time. Several

values were identified and flagged as outliers in both upgradient and downgradient wells for all constituents. During this analysis, only pooled upgradient well data were re-evaluated for outliers prior to construction of interwell prediction limits. Values flagged in downgradient wells from previous analyses remain flagged but have no impact on calculations of interwell prediction limits.

Time series plots are 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 upgradient wells for all constituents were formally tested using Tukey's box plot method and, when confirmed, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

When suspected outliers were evaluated using the Tukey box plot method, several outliers were identified. As a general rule, when the most recent values are identified as outliers, values are not flagged in the database at this time (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected.

A summary of all previously flagged values that resulted from the background screening in 2019 as well as those flagged in this analysis in pooled upgradient well data follows this letter (Figure C). Note that for some well/constituent pairs, the test identified multiple outliers. However, in many of those cases, only the highest value(s) were flagged as outliers as the remaining values were similar to other measurements within the same well or neighboring wells. In other cases, the test did not identify an outlier; however, the highest measurement(s) did not appear to represent the population and were flagged as outliers in the database to establish limits that are conservative from a regulatory perspective.

When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

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.

Time series plots were also used to identify trending patterns in pooled upgradient well data. None were observed except for increasing low-level concentrations of chloride in upgradient well GWA-3A. However, because the more recent observations are similar to those historically reported in upgradient well GWA-5, no adjustments were required at this time.

In the future, if statistically significant increasing or decreasing trends are identified in the pooled upgradient well data, 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. A list of the adjusted background date ranges will be provided if this step is required in future analyses.

Statistical Analysis of Appendix III Parameters – March 2021

For all Appendix III parameters, interwell prediction limits combined with a 1-of-2 resample plan, were constructed using all upgradient historical data through March 2021 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Summary tables of the Appendix III prediction limits follow this letter. No exceedances were noted for Appendix III parameters.

When data from downgradient well/constituent pairs are found to exceed their respective prediction limit, however, data will be further evaluated using the Sen's Slope/Mann Kendall trend test along with upgradient wells for the same constituents. Upgradient wells will be 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. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. Typically, when changes in concentrations are present upgradient of the facility, it is an indication of naturally changing groundwater quality.

Statistical Analysis of Georgia EPD Appendix I Parameters – March 2021

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all available data from upgradient wells through March 2021 (Figure E). As previously discussed, no statistical analyses were included for well/constituent pairs where there are 100% non-detects in the downgradient well. A summary table of the prediction limits and exceedances follows this letter, along with the complete prediction limits results. The following prediction limit exceedances were noted for the Appendix I parameters:

- Barium: GWC-5
- Cobalt: GWC-5

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen's Slope/Mann Kendall trend test along with upgradient wells for the same constituents (Figure F). 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. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. The following statistically significant trends were identified:

Increasing:

- Barium: GWA-3A (upgradient), GWA-4 (upgradient) and GWC-5
- Cobalt: GWC-5

Decreasing:

- Barium: GWA-1A (upgradient)
- Cobalt: GWA-1A, GWA-3A, GWA-4, and GWA-5 (all upgradient)

Note that the statistically significant decreasing trend for cobalt in upgradient well GWA-1A indicates a zero slope which represents only the median slope of all possible pairwise slopes within this record. As mentioned earlier, typically, when changes in concentrations are present upgradient of the facility, it is an indication of naturally changing groundwater quality. A summary of the trend test results follows this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for McIntosh Landfill #3. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,





Easton Rayner
Groundwater Analyst

Kristina L. Rayner
Groundwater Statistician

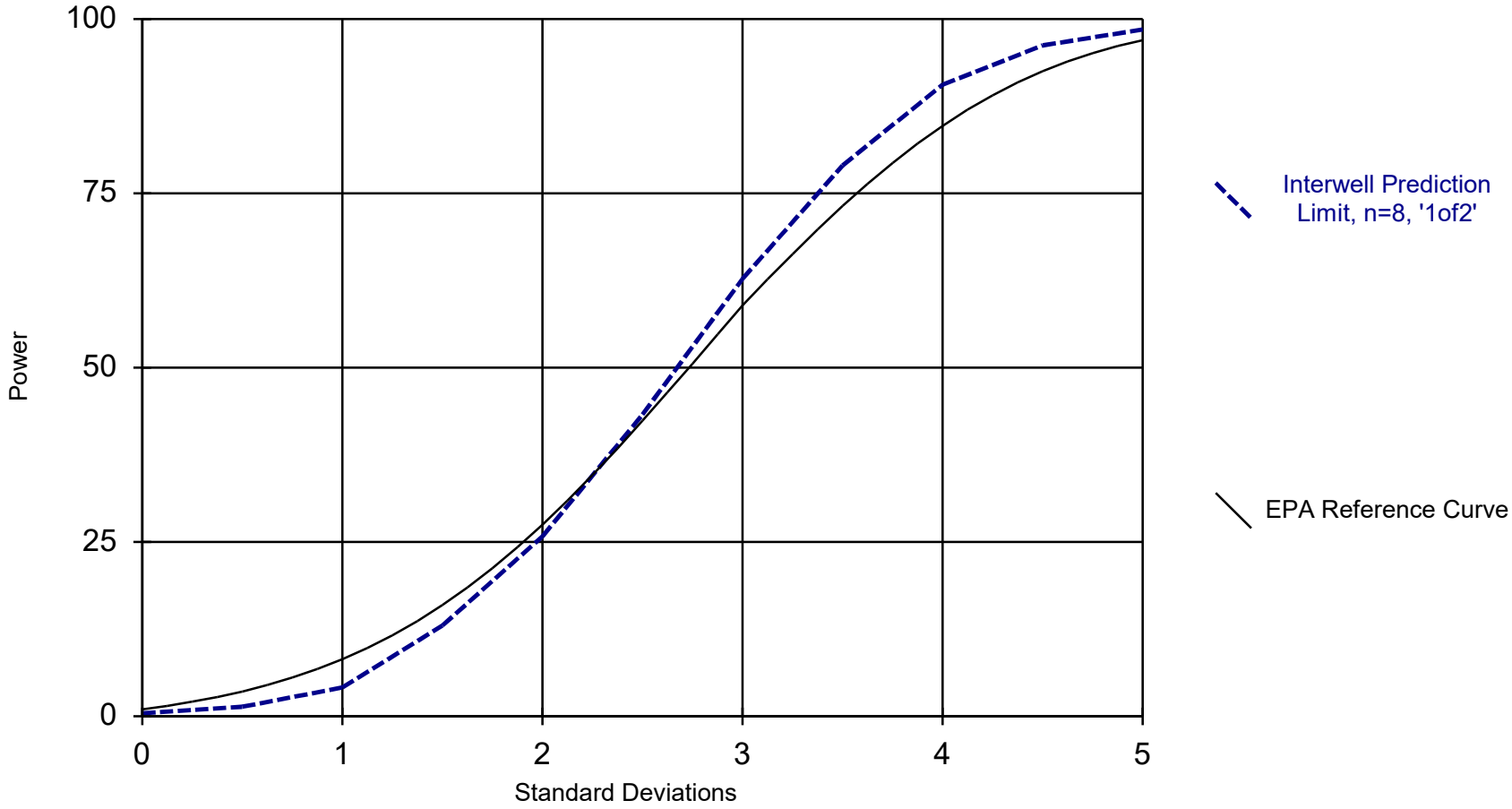
100% Non-Detects

Analysis Run 5/16/2021 10:56 AM View: 100% NDs
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Copper (mg/L)
GWC-4A

Lead (mg/L)
GWC-1, GWC-4A

Power Curve - Federal

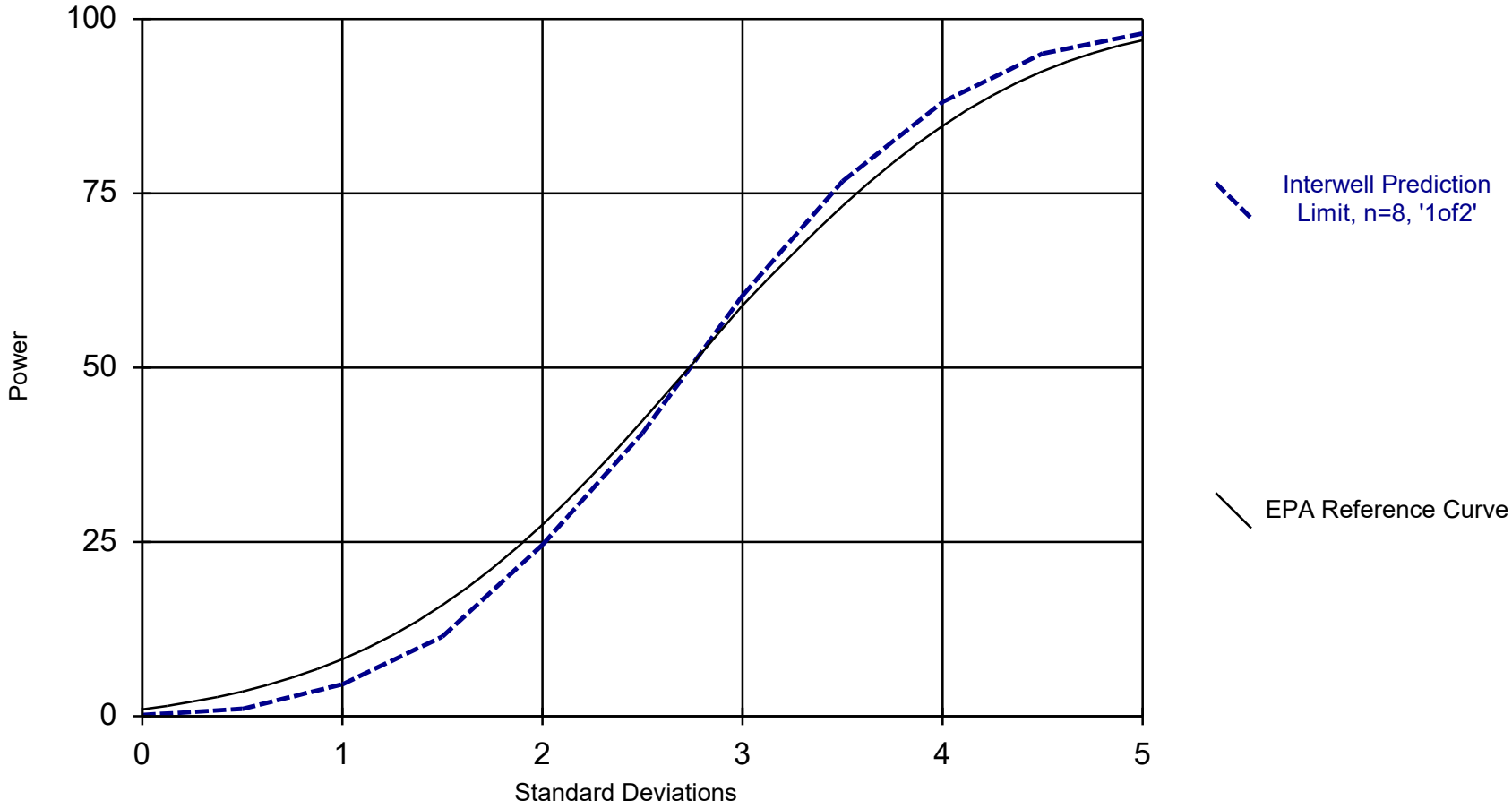


Kappa = 2.666, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/15/2021 11:49 AM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Power Curve - State



Kappa = 2.744, based on 5 compliance wells and 8 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/15/2021 11:48 AM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Federal Interwell Prediction Limits - All Results (No Significant)

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	1.9	n/a	3/23/2021	0.07J	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-4A	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-5	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-6	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	20	n/a	3/24/2021	0.25J	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2	20	n/a	3/23/2021	9.2	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-4A	20	n/a	3/24/2021	0.46J	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-5	20	n/a	3/24/2021	8.2	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-6	20	n/a	3/24/2021	1.7	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	22	n/a	3/24/2021	8.8	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2	22	n/a	3/23/2021	5.2	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-4A	22	n/a	3/24/2021	10	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-5	22	n/a	3/24/2021	8.1	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-6	22	n/a	3/24/2021	7.8	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-1	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-2	0.21	n/a	3/23/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-4A	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-5	0.21	n/a	3/24/2021	0.038J	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-6	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
pH (S.U.)	GWC-1	6.63	3.59	3/24/2021	4.86	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-2	6.63	3.59	3/23/2021	5.61	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-4A	6.63	3.59	3/24/2021	4.59	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-5	6.63	3.59	3/24/2021	5.04	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-6	6.63	3.59	3/24/2021	5.11	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1	110	n/a	3/24/2021	0.77J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2	110	n/a	3/23/2021	0.8J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-4A	110	n/a	3/24/2021	1ND	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-5	110	n/a	3/24/2021	1ND	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-6	110	n/a	3/24/2021	0.76J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	164.9	n/a	3/24/2021	32	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	164.9	n/a	3/23/2021	56	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-4A	164.9	n/a	3/24/2021	27	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-5	164.9	n/a	3/24/2021	130	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-6	164.9	n/a	3/24/2021	36	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2

State Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:59 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	**GWC-5**	**0.33**	**n/a**	**3/24/2021**	**0.5**	**Yes**	**217**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0000492**	**NP Inter (normality) 1 of 2**
Cobalt (mg/L)	**GWC-5**	**0.0072**	**n/a**	**3/24/2021**	**0.012**	**Yes**	**216**	**n/a**	**n/a**	**56.48**	**n/a**	**n/a**	**0.0000492**	**NP Inter (NDs) 1 of 2**

State Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:59 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	GWC-1	0.33	n/a	3/24/2021	0.023	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.33	n/a	3/23/2021	0.083	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-4A	0.33	n/a	3/24/2021	0.031	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Barium (mg/L)	**GWC-5**	**0.33**	**n/a**	**3/24/2021**	**0.5**	**Yes**	**217**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0000492**	**NP Inter (normality) 1 of 2**
Barium (mg/L)	GWC-6	0.33	n/a	3/24/2021	0.044	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Beryllium (mg/L)	GWC-1	0.0036	n/a	3/24/2021	0.0025ND	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-2	0.0036	n/a	3/23/2021	0.00018J	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-4A	0.0036	n/a	3/24/2021	0.0025ND	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-5	0.0036	n/a	3/24/2021	0.0029	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-6	0.0036	n/a	3/24/2021	0.00019J	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-2	0.032	n/a	3/23/2021	0.0048	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-4A	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-5	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-6	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Cobalt (mg/L)	GWC-1	0.0072	n/a	3/24/2021	0.0002J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	GWC-2	0.0072	n/a	3/23/2021	0.00069J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	GWC-4A	0.0072	n/a	3/24/2021	0.00037J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	**GWC-5**	**0.0072**	**n/a**	**3/24/2021**	**0.012**	**Yes**	**216**	**n/a**	**n/a**	**56.48**	**n/a**	**n/a**	**0.0000492**	**NP Inter (NDs) 1 of 2**
Cobalt (mg/L)	GWC-6	0.0072	n/a	3/24/2021	0.00046J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-1	0.0055	n/a	3/24/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-2	0.0055	n/a	3/23/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-5	0.0055	n/a	3/24/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-6	0.0055	n/a	3/24/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.016	n/a	3/23/2021	0.001ND	No	217	n/a	n/a	82.49	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-5	0.016	n/a	3/24/2021	0.00034J	No	217	n/a	n/a	82.49	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-6	0.016	n/a	3/24/2021	0.001ND	No	217	n/a	n/a	82.49	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.055	n/a	3/23/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-4A	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-5	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-6	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Zinc (mg/L)	GWC-1	0.074	n/a	3/24/2021	0.005ND	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.074	n/a	3/23/2021	0.0085	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-4A	0.074	n/a	3/24/2021	0.01	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-5	0.074	n/a	3/24/2021	0.034	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-6	0.074	n/a	3/24/2021	0.0043J	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2

Trend Test Summary - State Prediction Limit Exceedances - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 11:20 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Barium (mg/L)	**GWA-1A (bg)**	**-0.002275**	**-4.514**	**-2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWA-3A (bg)**	**0.001167**	**6.747**	**2.58**	**Yes**	**52**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWA-4 (bg)**	**0.0009487**	**5.988**	**2.58**	**Yes**	**51**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWC-5**	**0.01148**	**2.58**	**2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-1A (bg)**	**0**	**-3.243**	**-2.58**	**Yes**	**49**	**71.43**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-3A (bg)**	**-2.5e-11**	**-4.492**	**-2.58**	**Yes**	**52**	**63.46**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-4 (bg)**	**-0.0000812**	**-5.612**	**-2.58**	**Yes**	**51**	**66.67**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-5 (bg)**	**-0.00008909**	**-5.265**	**-2.58**	**Yes**	**50**	**38**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWC-5**	**0.0002442**	**3.887**	**2.58**	**Yes**	**51**	**23.53**	**n/a**	**n/a**	**0.01**	**NP**

Trend Test Summary - State Prediction Limit Exceedances - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 11:20 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Barium (mg/L)	**GWA-1A (bg)**	**-0.002275**	**-4.514**	**-2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	GWA-2B (bg)	0	0	18	No	7	0	n/a	n/a	0.01	NP
Barium (mg/L)	**GWA-3A (bg)**	**0.001167**	**6.747**	**2.58**	**Yes**	**52**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWA-4 (bg)**	**0.0009487**	**5.988**	**2.58**	**Yes**	**51**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	GWA-5 (bg)	0.000465	0.6291	2.58	No	50	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-7A (bg)	-0.02614	-12	-18	No	7	0	n/a	n/a	0.01	NP
Barium (mg/L)	**GWC-5**	**0.01148**	**2.58**	**2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-1A (bg)**	**0**	**-3.243**	**-2.58**	**Yes**	**49**	**71.43**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	GWA-2B (bg)	-0.001477	-15	-18	No	7	14.29	n/a	n/a	0.01	NP
Cobalt (mg/L)	**GWA-3A (bg)**	**-2.5e-11**	**-4.492**	**-2.58**	**Yes**	**52**	**63.46**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-4 (bg)**	**-0.0000812**	**-5.612**	**-2.58**	**Yes**	**51**	**66.67**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-5 (bg)**	**-0.00008909**	**-5.265**	**-2.58**	**Yes**	**50**	**38**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	GWA-7A (bg)	-0.001017	-11	-18	No	7	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	**GWC-5**	**0.0002442**	**3.887**	**2.58**	**Yes**	**51**	**23.53**	**n/a**	**n/a**	**0.01**	**NP**

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWA-1A Barium (mg/L)	GWA-5 Barium (mg/L)	GWC-5 Barium (mg/L)	GWC-6 Barium (mg/L)	GWA-1A Beryllium (mg/L)	GWC-6 Beryllium (mg/L)	GWA-1A Calcium (mg/L)	GWC-1 Calcium (mg/L)	GWC-4A Calcium (mg/L)	GWA-1A Chromium (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										0.059 (o)
2/17/2000										0.048 (o)
9/13/2000										
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002										
6/28/2003										
12/13/2003										
5/28/2004										
12/10/2004						0.0058 (o)				
7/12/2006										
12/1/2006			0.019 (o)							
6/21/2007										
6/21/2008										
12/7/2008				0.12 (o)						
1/17/2014										
9/1/2016	0.86 (o)				0.0084 (o)		26 (o)			0.12 (o)
1/23/2017								1.3 (o)		
1/24/2017										
9/21/2017										
7/10/2018		0.14 (o)							2 (o)	

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWC-1 Chromium (mg/L)	GWC-2 Chromium (mg/L)	GWC-4A Chromium (mg/L)	GWC-5 Chromium (mg/L)	GWC-6 Chromium (mg/L)	GWA-1A Cobalt (mg/L)	GWA-5 Cobalt (mg/L)	GWC-1 Cobalt (mg/L)	GWA-5 Copper (mg/L)	GWC-1 Copper (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										
2/17/2000										
9/13/2000										
11/10/2000										
1/4/2001					0.016 (o)					
4/4/2002										
12/6/2002				0.008 (o)					0.0089 (o)	
6/28/2003	0.007 (o)		0.061 (o)	0.021 (o)			0.018 (o)		0.019 (o)	
12/13/2003				0.011 (o)					0.0067 (o)	
5/28/2004									0.0057 (o)	
12/10/2004		0.74 (o)	0.0059 (o)		0.0046 (o)					
7/12/2006										0.0047 (o)
12/1/2006						0.012 (o)				
6/21/2007										
6/21/2008								0.0048 (o)		
12/7/2008										
1/17/2014										
9/1/2016					0.0069 (o)	0.023 (o)				
1/23/2017										
1/24/2017										
9/21/2017										
7/10/2018										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWC-2 Copper (mg/L)	GWC-6 Copper (mg/L)	GWA-1A Lead (mg/L)	GWC-1 Lead (mg/L)	GWC-2 Lead (mg/L)	GWC-4A Lead (mg/L)	GWC-5 Lead (mg/L)	GWC-6 Lead (mg/L)	GWA-1A Total Dissolved Solids (mg/L)	GWA-5 Vanadium (mg/L)
10/5/1999					0.0054 (o)					
11/12/1999			0.0063 (o)							
12/29/1999										
2/17/2000										
9/13/2000						0.0067 (o)		0.079 (o)		
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002							0.007 (o)			
6/28/2003										
12/13/2003							0.018 (o)			
5/28/2004										
12/10/2004	0.11 (o)	0.0044 (o)								
7/12/2006										
12/1/2006										
6/21/2007										0.07 (o)
6/21/2008										
12/7/2008										
1/17/2014	0.0065 (o)									
9/1/2016			0.082 (o)						2200 (o)	
1/23/2017										
1/24/2017										
9/21/2017				0.004 (o)	0.0014 (o)					
7/10/2018										

Outlier Summary

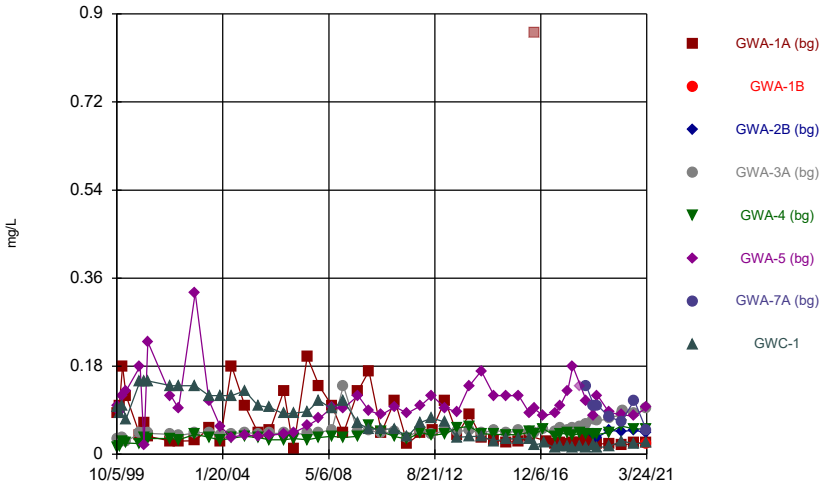
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWC-2 Vanadium (mg/L)	GWC-5 Vanadium (mg/L)	GWA-5 Zinc (mg/L)	GWC-2 Zinc (mg/L)	GWC-4A Zinc (mg/L)	GWC-6 Zinc (mg/L)
10/5/1999	0.015 (o)					0.063 (o)
11/12/1999						
12/29/1999						
2/17/2000						
9/13/2000					0.036 (o)	0.061 (o)
11/10/2000						0.061 (o)
1/4/2001						0.05 (o)
4/4/2002				0.069 (o)		
12/6/2002						
6/28/2003			0.19 (o)			
12/13/2003						
5/28/2004						
12/10/2004						
7/12/2006						
12/1/2006					0.098 (o)	
6/21/2007						
6/21/2008						
12/7/2008						0.044 (o)
1/17/2014						
9/1/2016						
1/23/2017						
1/24/2017		0.044 (o)				
9/21/2017						
7/10/2018						

FIGURE A.

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

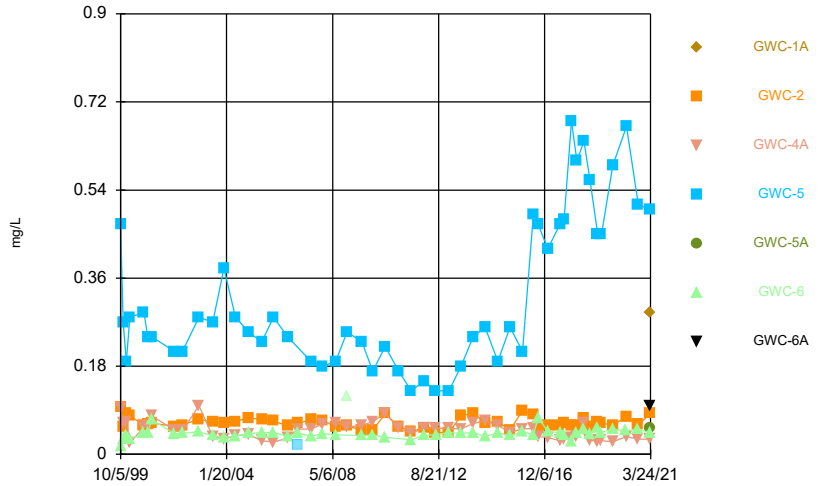


Constituent: Barium Analysis Run 5/17/2021 1:26 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

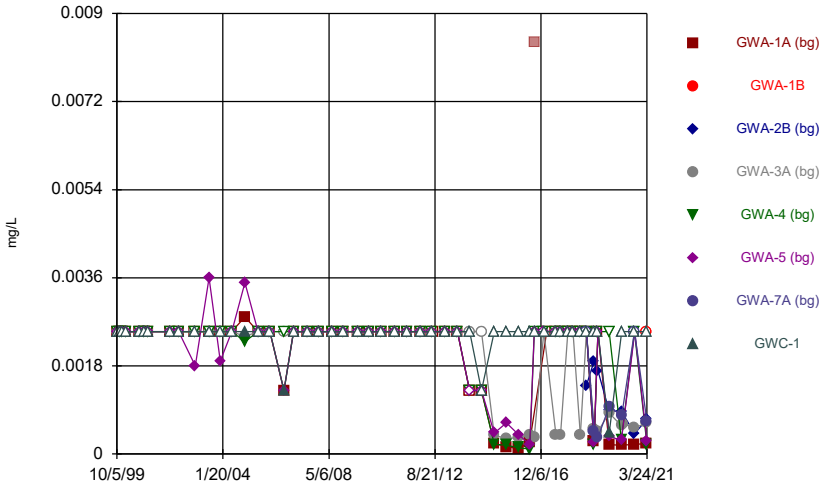


Constituent: Barium Analysis Run 5/17/2021 1:26 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

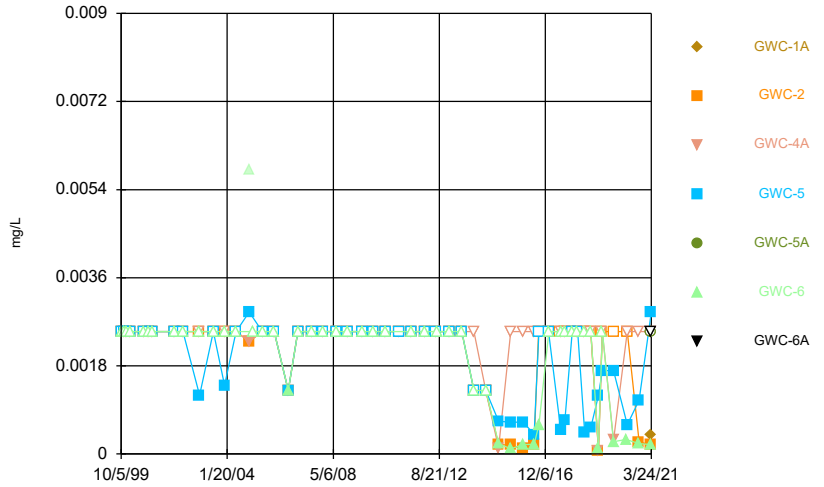


Constituent: Beryllium Analysis Run 5/17/2021 1:26 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

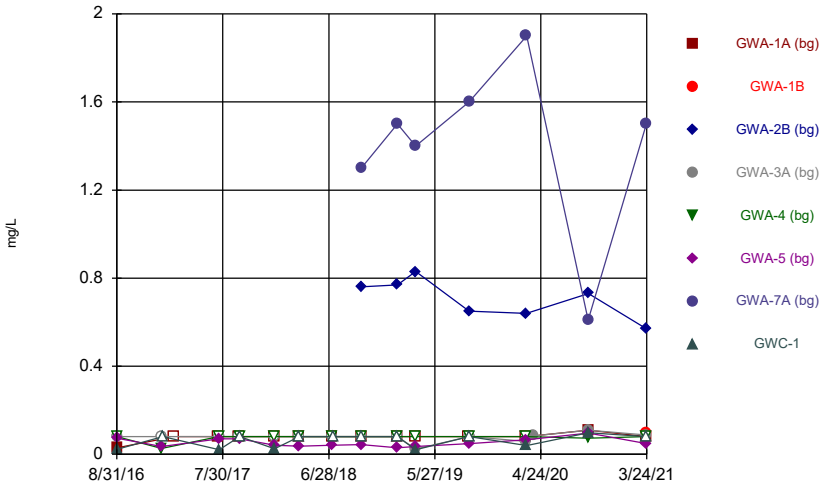


Constituent: Beryllium Analysis Run 5/17/2021 1:26 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
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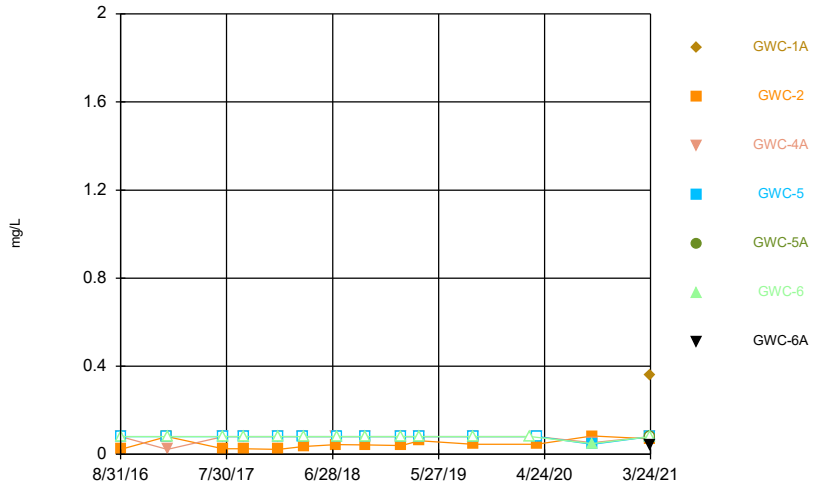
Time Series



Constituent: Boron Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

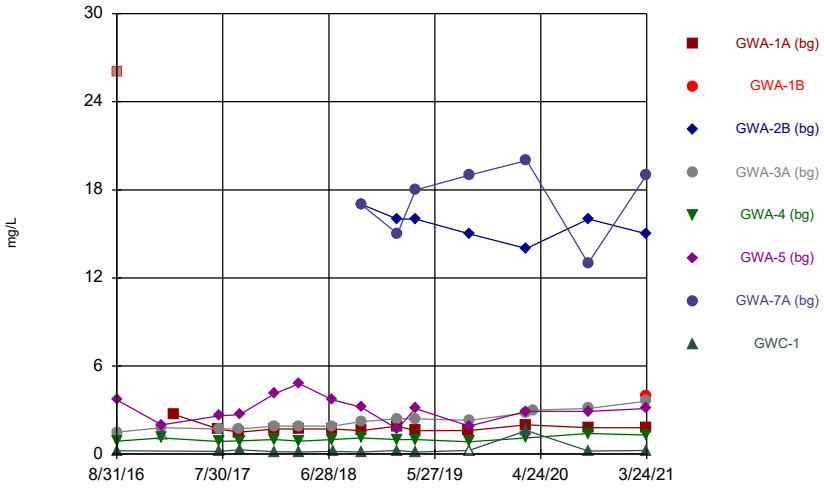
Time Series



Constituent: Boron Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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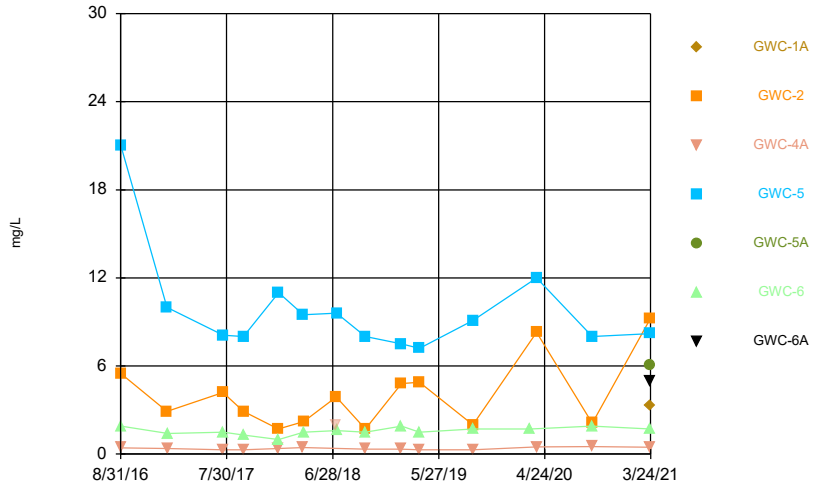
Time Series



Constituent: Calcium Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

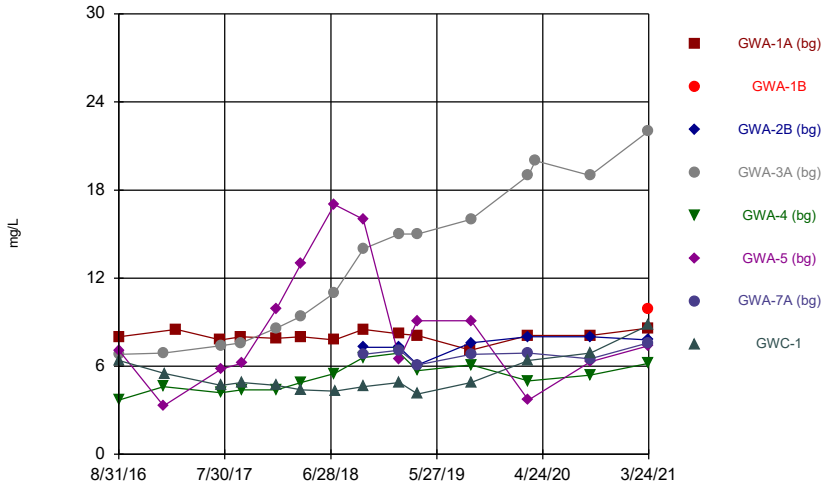
Time Series



Constituent: Calcium Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

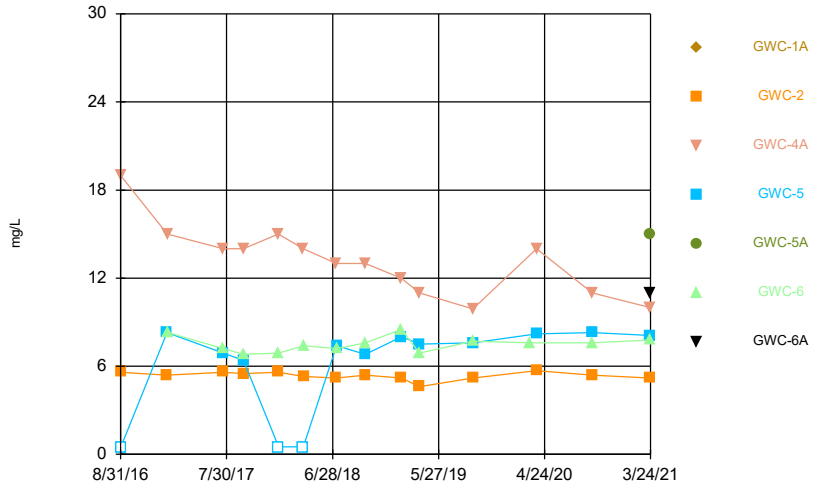
Time Series



Constituent: Chloride Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

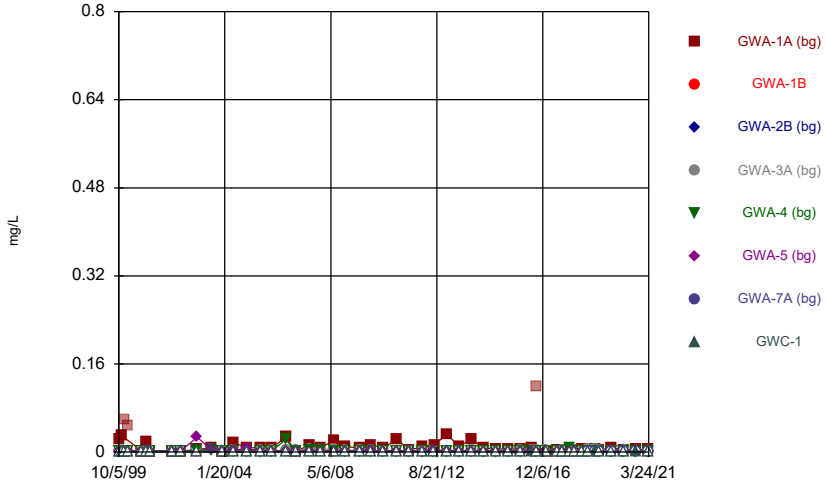
Time Series



Constituent: Chloride Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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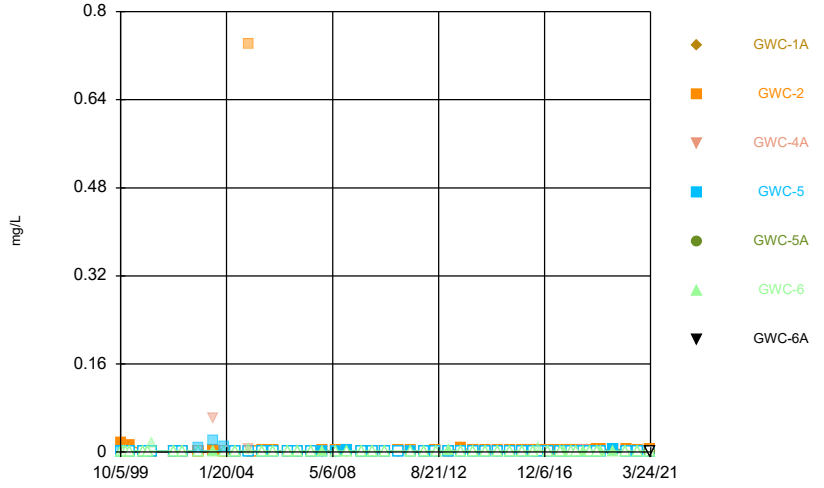
Time Series



Constituent: Chromium Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
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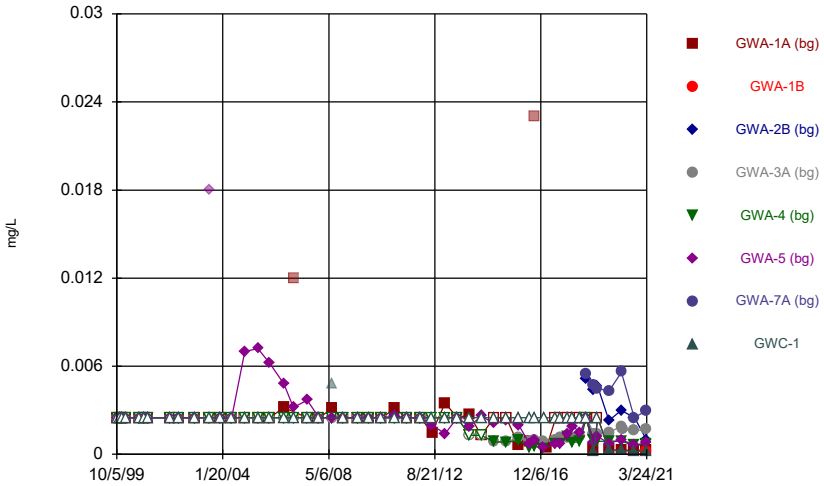
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Constituent: Chromium Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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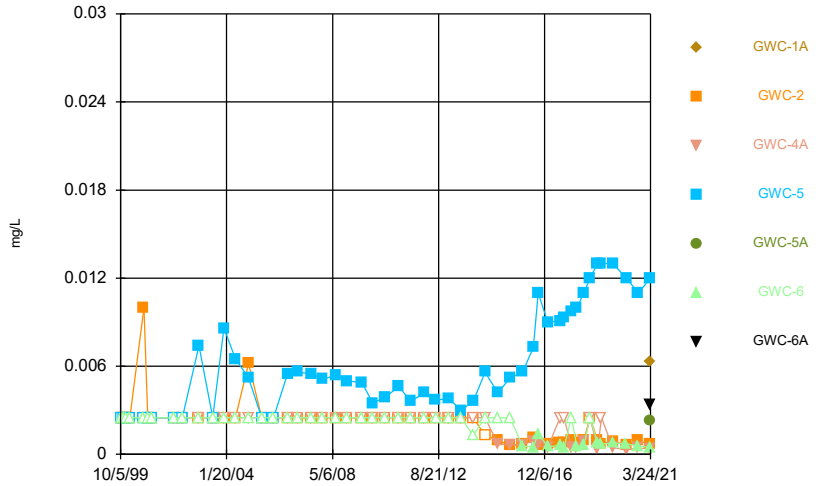
Time Series



Constituent: Cobalt Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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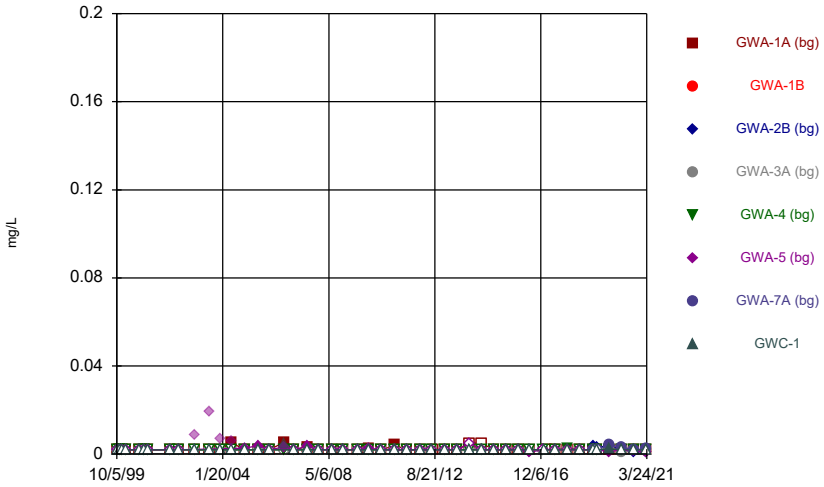
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Constituent: Cobalt Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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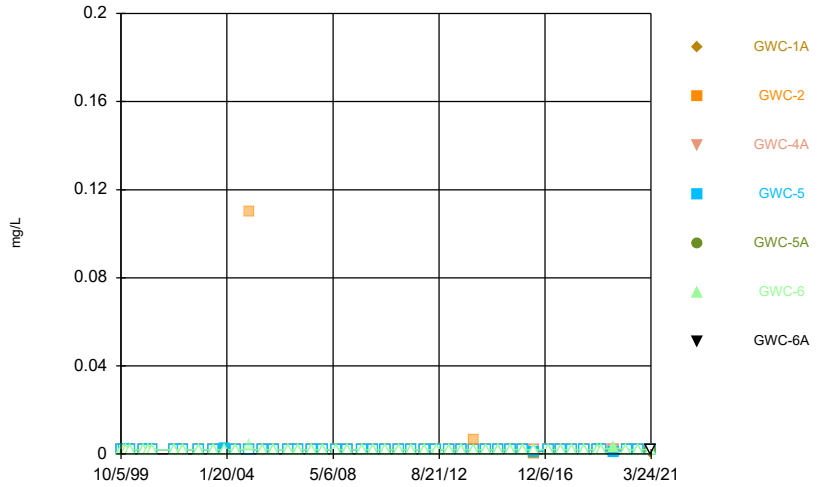
Time Series



Constituent: Copper Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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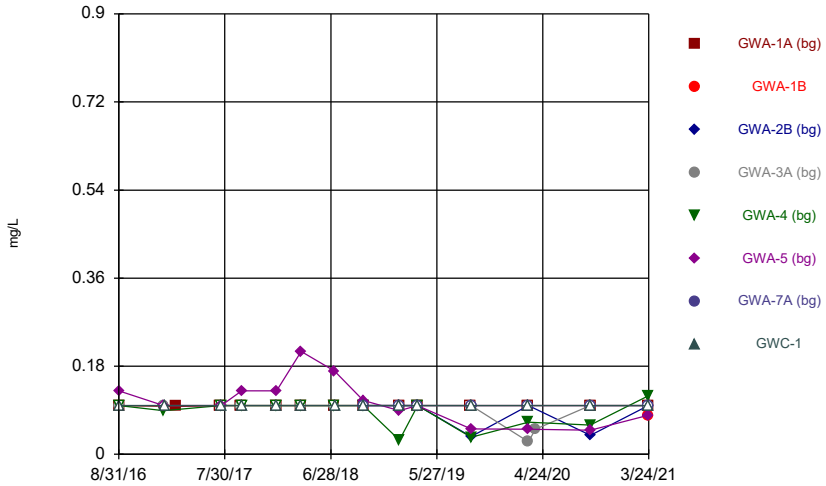
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Constituent: Copper Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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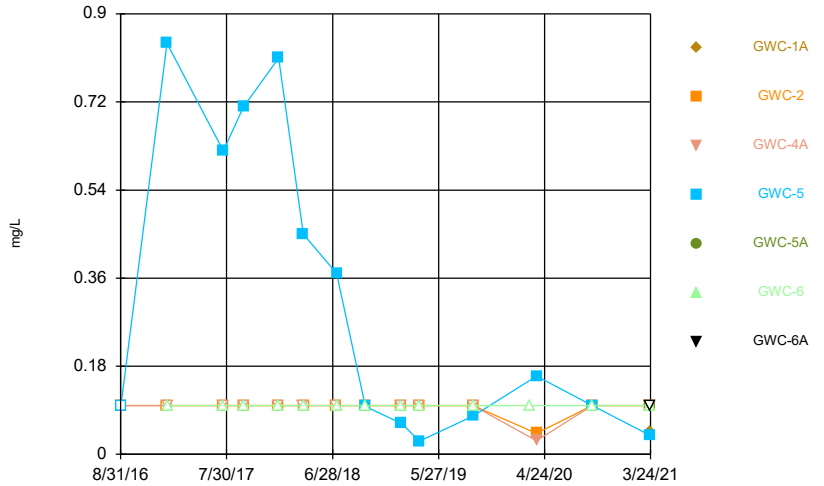
Time Series



Constituent: Fluoride Analysis Run 5/17/2021 1:27 PM View: Time Series
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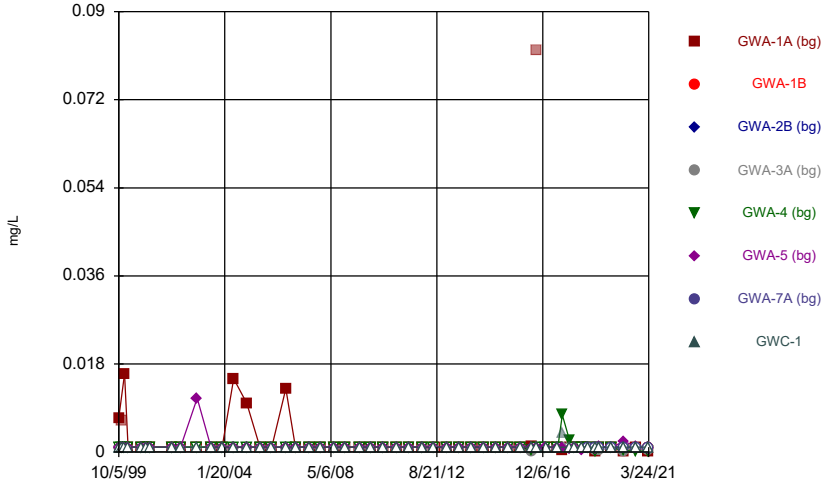
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Constituent: Fluoride Analysis Run 5/17/2021 1:27 PM View: Time Series
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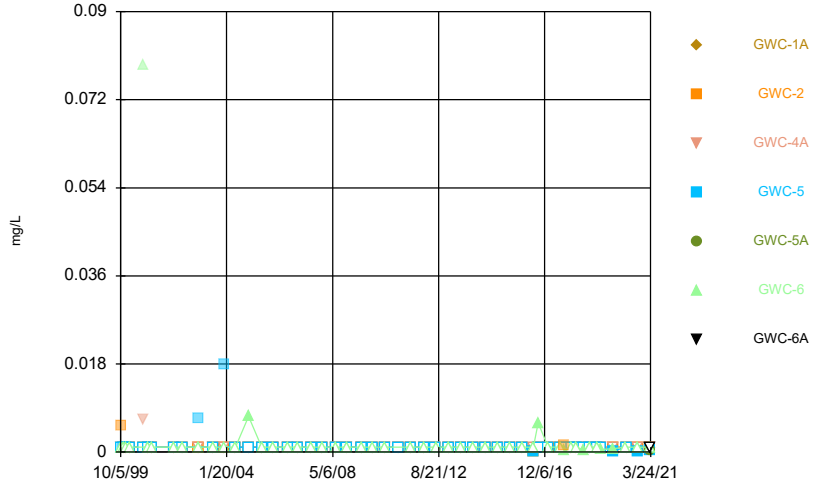
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Constituent: Lead Analysis Run 5/17/2021 1:27 PM View: Time Series
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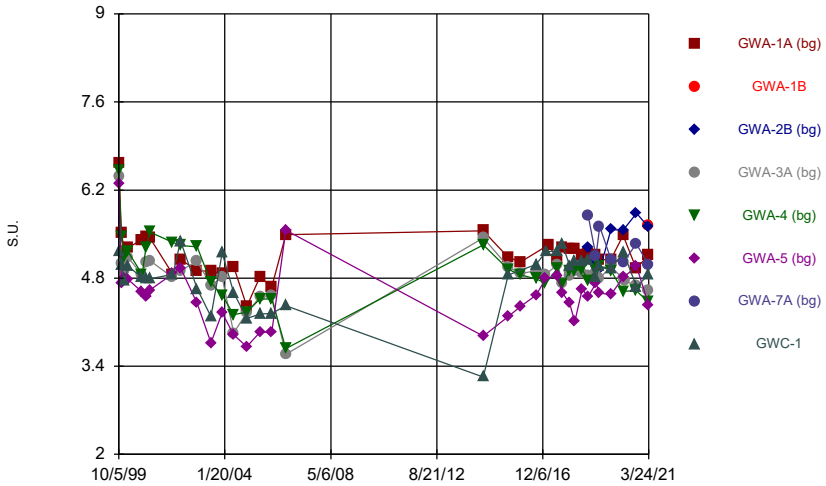
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Constituent: Lead Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

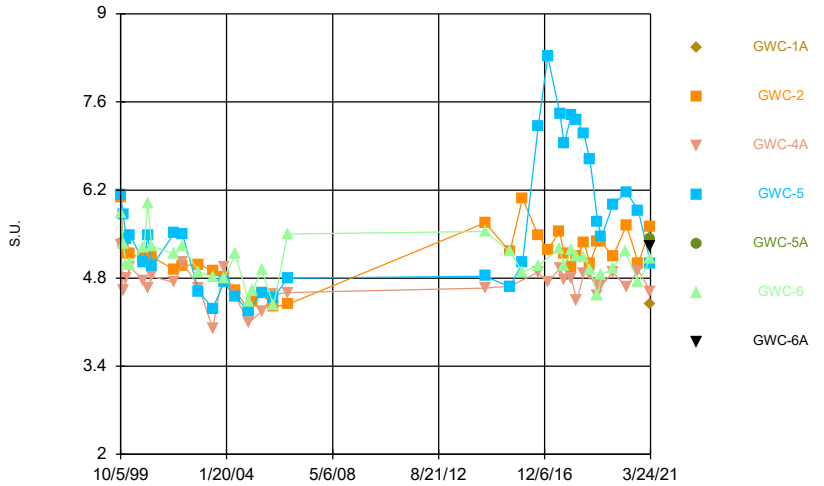
Time Series



Constituent: pH Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

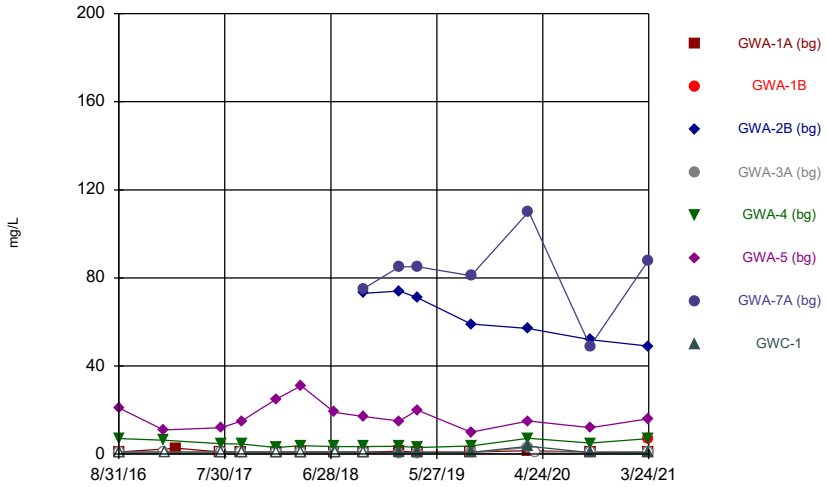
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Constituent: pH Analysis Run 5/17/2021 1:27 PM View: Time Series
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Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
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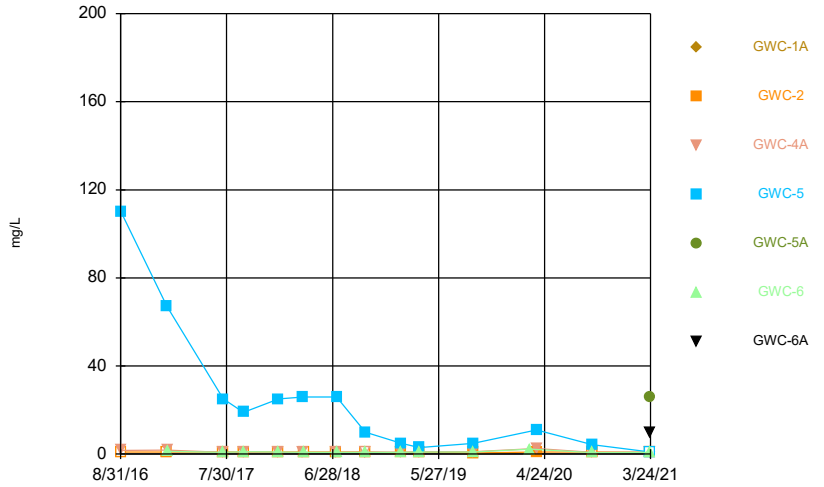
Time Series



Constituent: Sulfate Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

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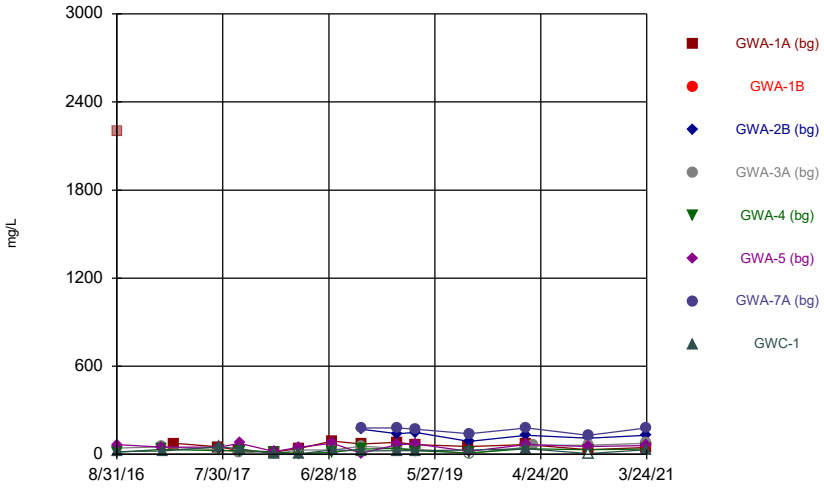
Time Series



Constituent: Sulfate Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

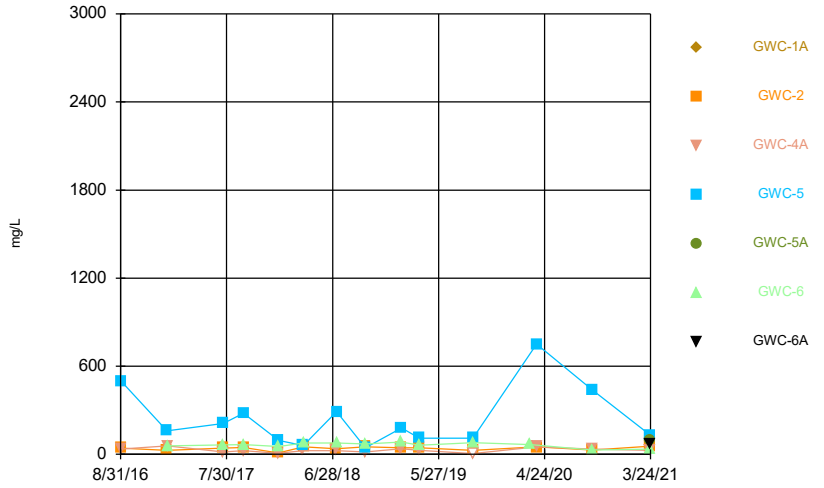
Time Series



Constituent: Total Dissolved Solids Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

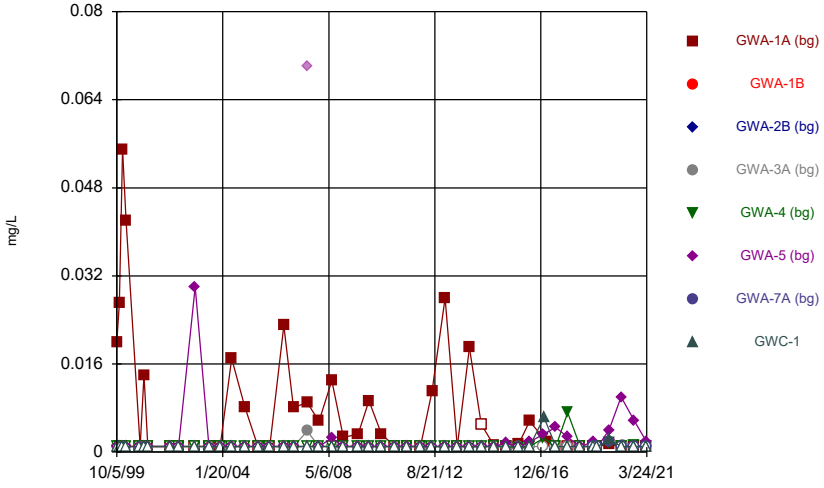
Time Series



Constituent: Total Dissolved Solids Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

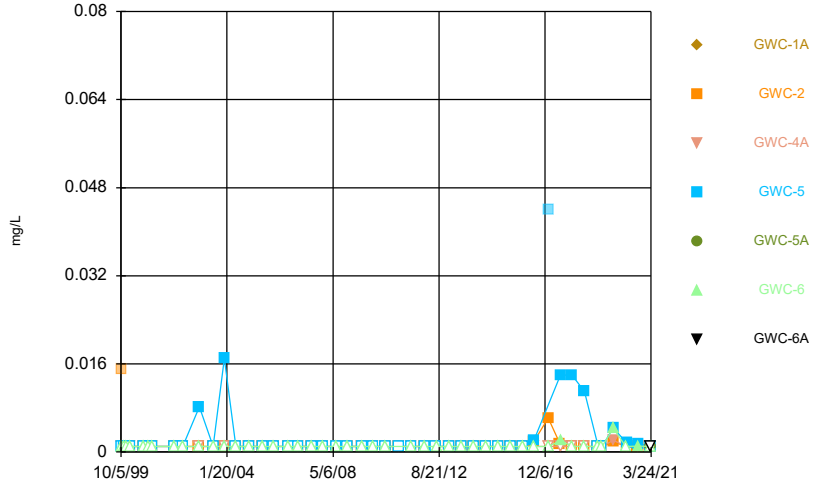
Time Series



Constituent: Vanadium Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

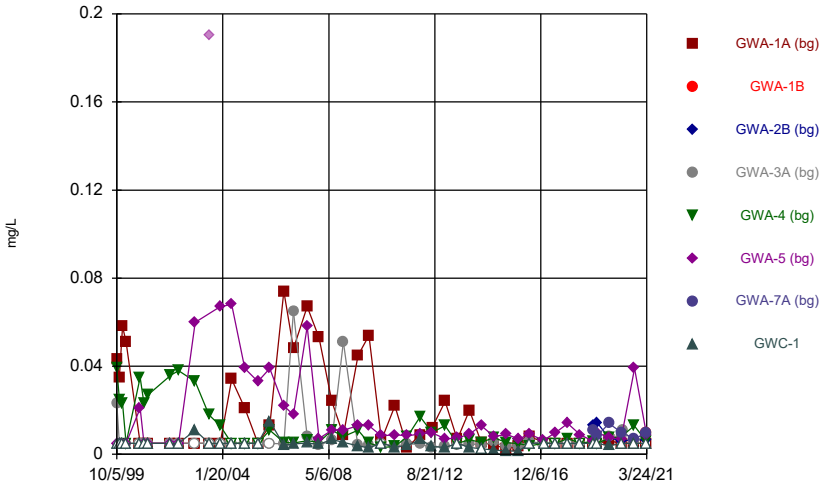
Time Series



Constituent: Vanadium Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

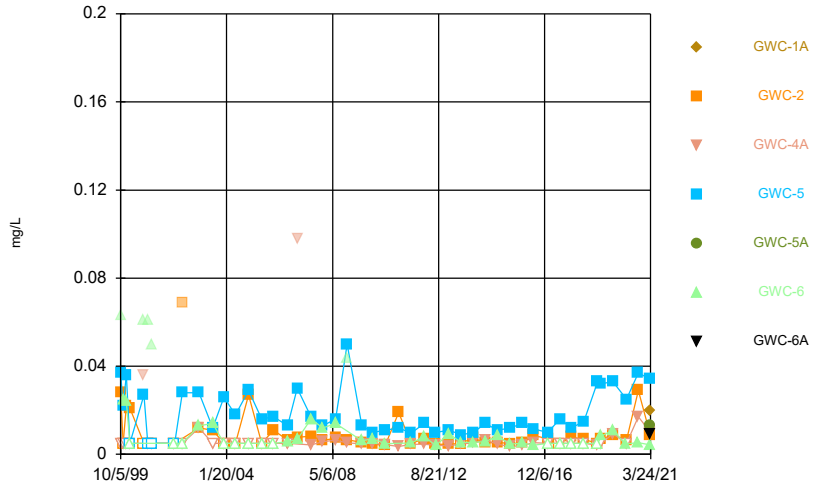
Time Series



Constituent: Zinc Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 5/17/2021 1:27 PM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Time Series

Constituent: Barium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	0.084			0.031	0.013	0.1		0.096	
11/12/1999	0.099			0.023	0.017	0.086		0.085	
12/29/1999	0.18			0.033	0.027	0.12		0.1	
2/17/2000	0.12			0.026	0.023	0.13		0.072	
9/13/2000	0.038			0.044	0.022	0.18		0.15	
11/10/2000	0.065			0.044	0.035	0.018		0.15	
1/4/2001	0.037			0.043	0.032	0.23		0.15	
12/11/2001	0.027			0.041	0.032	0.12		0.14	
4/4/2002	0.027			0.038	0.03	0.094		0.14	
12/6/2002	0.028			0.044	0.041	0.33		0.14	
6/28/2003	0.054			0.045	0.035	0.11		0.12	
12/13/2003	0.027			0.039	0.029	0.057		0.12	
5/28/2004	0.18			0.042	0.033	0.035		0.12	
12/10/2004	0.1			0.045	0.037	0.04		0.13	
6/24/2005	0.045			0.042	0.034	0.037		0.1	
12/13/2005	0.048			0.043	0.03	0.039		0.096	
7/12/2006	0.13			0.043	0.03	0.042		0.083	
12/1/2006	0.012			0.041	0.032	0.044		0.084	
6/21/2007	0.2			0.043	0.03	0.058		0.087	
12/15/2007	0.14			0.045	0.034	0.073		0.11	
6/21/2008					0.037			0.093	
6/22/2008	0.1			0.05		0.096			
12/6/2008				0.14	0.034	0.094		0.11	
12/7/2008	0.043								
7/10/2009				0.046					
7/11/2009	0.13				0.037	0.12		0.064	
12/22/2009						0.089			
12/23/2009	0.17			0.049	0.058			0.052	
6/23/2010				0.043	0.046	0.081		0.051	
6/24/2010	0.045								
1/8/2011				0.047	0.036	0.097		0.052	
1/9/2011	0.11								
7/10/2011				0.035	0.031	0.084		0.036	
7/11/2011	0.022								
1/19/2012				0.05	0.045				
1/20/2012	0.043					0.099		0.065	
7/12/2012				0.042	0.039	0.12		0.074	
7/13/2012	0.05								
1/21/2013	0.11			0.048	0.042	0.095		0.066	
7/20/2013	0.04			0.047	0.054	0.086		0.035	
1/17/2014	0.082			0.049	0.057	0.14		0.036	
7/12/2014	0.034			0.043	0.042	0.17		0.037	
1/15/2015				0.05	0.041				
1/16/2015	0.029					0.12		0.027	
7/15/2015	0.025			0.044	0.04	0.12		0.031	
1/16/2016	0.026			0.048	0.04	0.12		0.032	
6/22/2016	0.0374 (D)			0.0471 (D)	0.0453	0.0839		0.0323	
8/31/2016				0.043	0.041	0.093		0.019	
9/1/2016	0.86 (o)								
1/19/2017				0.052	0.052	0.079			
1/23/2017								0.023	
2/28/2017	0.027								

Time Series

Constituent: Barium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/17/2017	0.022								
7/18/2017				0.046	0.037				
7/19/2017						0.085		0.013	
9/20/2017	0.023			0.053					
9/21/2017					0.042	0.1		0.016	
1/8/2018	0.022								
1/9/2018				0.05	0.043	0.13		0.016	
3/27/2018	0.023			0.054	0.039	0.18			
3/28/2018								0.014	
7/10/2018	0.024			0.056	0.043	0.14 (o)			
7/11/2018								0.016	
10/8/2018	0.03		0.049		0.042	0.11	0.14		
10/9/2018				0.061				0.015	
1/30/2019	0.024		0.041	0.071	0.04	0.079	0.1	0.018	
3/27/2019	0.021					0.12			
3/28/2019			0.035	0.068	0.041		0.1	0.014	
9/11/2019	0.022								
9/12/2019			0.049	0.073	0.044	0.086	0.077	0.016	
3/10/2020	0.018		0.047	0.082	0.058	0.081			
3/11/2020							0.067	0.027	
4/2/2020				0.088					
9/21/2020	0.023			0.083	0.052		0.11		
9/22/2020			0.049			0.078		0.022	
3/23/2021	0.023	0.021	0.044	0.093			0.048		
3/24/2021					0.052	0.096		0.023	0.29

Time Series

Constituent: Barium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	0.097	0.095	0.47		0.017	
11/12/1999	0.057	0.063	0.27		0.031	
12/29/1999	0.084	0.066	0.19		0.039	
2/17/2000	0.079	0.023	0.28		0.031	
9/13/2000	0.06	0.056	0.29		0.043	
11/10/2000	0.062	0.059	0.24		0.044	
1/4/2001	0.064	0.079	0.24		0.071	
12/11/2001	0.057	0.049	0.21		0.042	
4/4/2002	0.06	0.048	0.21		0.043	
12/6/2002	0.072	0.1	0.28		0.046	
6/28/2003	0.066	0.036	0.27		0.038	
12/13/2003	0.063	0.031	0.38		0.035	
5/28/2004	0.067	0.038	0.28		0.037	
12/10/2004	0.075	0.041	0.25		0.043	
6/24/2005	0.071	0.028	0.23		0.044	
12/13/2005	0.068	0.025	0.28		0.045	
7/12/2006	0.058	0.033	0.24		0.037	
12/1/2006	0.063	0.051	0.019 (o)		0.044	
6/21/2007	0.071	0.052	0.19		0.037	
12/15/2007	0.068	0.062	0.18		0.042	
6/21/2008		0.065	0.19			
6/22/2008	0.057				0.04	
12/6/2008	0.058	0.056				
12/7/2008			0.25		0.12 (o)	
7/11/2009	0.05	0.059	0.23		0.038	
12/23/2009	0.05	0.067	0.17		0.04	
6/23/2010	0.083	0.084	0.22			
6/24/2010					0.035	
1/8/2011	0.057	0.053	0.17			
7/10/2011	0.046	0.043	0.13			
7/11/2011					0.03	
1/20/2012	0.055	0.054	0.15		0.039	
7/12/2012	0.045	0.053	0.13			
7/13/2012					0.04	
1/21/2013	0.045	0.053	0.13		0.045	
7/20/2013	0.079	0.052	0.18		0.043	
1/17/2014	0.084	0.063	0.24		0.045	
7/11/2014		0.068	0.26			
7/12/2014	0.065				0.036	
1/15/2015	0.067					
1/16/2015		0.059	0.19		0.044	
7/15/2015	0.049	0.045	0.26		0.038	
1/16/2016			0.21		0.047	
1/17/2016	0.09	0.052				
6/22/2016	0.0806	0.0528				
6/23/2016			0.491		0.0393	
8/31/2016	0.057	0.037				
9/1/2016			0.47		0.075	
1/24/2017	0.06		0.42			
1/25/2017		0.034				
1/27/2017					0.046	
7/19/2017	0.06					

Time Series

Constituent: Barium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
7/20/2017		0.028	0.47		0.045	
9/21/2017	0.063	0.032	0.48			
9/22/2017					0.04	
1/9/2018	0.059	0.033				
1/10/2018			0.68		0.027	
3/28/2018		0.037	0.6			
3/29/2018	0.06				0.044	
7/10/2018	0.073	0.065				
7/11/2018			0.64		0.051	
10/9/2018	0.057	0.029	0.56		0.041	
1/30/2019		0.027				
1/31/2019	0.067		0.45		0.053	
3/28/2019	0.064	0.028	0.45		0.045	
9/12/2019	0.06	0.026	0.59		0.052	
3/11/2020					0.048	
3/31/2020	0.077	0.036	0.67			
9/22/2020	0.061	0.031	0.51		0.051	
3/23/2021	0.083					0.098
3/24/2021		0.031	0.5	0.055	0.044	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
11/12/1999	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/29/1999	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
2/17/2000	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
9/13/2000	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
11/10/2000	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
1/4/2001	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/11/2001	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
4/4/2002	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/6/2002	<0.0025			<0.0025	<0.0025	0.0018		<0.0025	
6/28/2003	<0.0025			<0.0025	<0.0025	0.0036		<0.0025	
12/13/2003	<0.0025			<0.0025	<0.0025	0.0019		<0.0025	
5/28/2004	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/10/2004	0.0028			0.0024	0.0023	0.0035		0.0025	
6/24/2005	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/13/2005	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
7/12/2006	0.0013			<0.0025	<0.0025	0.0013		0.0013	
12/1/2006	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
6/21/2007	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/15/2007	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
6/21/2008					<0.0025			<0.0025	
6/22/2008	<0.0025			<0.0025		<0.0025			
12/6/2008				<0.0025	<0.0025	<0.0025		<0.0025	
12/7/2008	<0.0025								
7/10/2009				<0.0025					
7/11/2009	<0.0025				<0.0025	<0.0025		<0.0025	
12/22/2009						<0.0025			
12/23/2009	<0.0025			<0.0025	<0.0025			<0.0025	
6/23/2010				<0.0025	<0.0025	<0.0025		<0.0025	
6/24/2010	<0.0025								
1/8/2011				<0.0025	<0.0025	<0.0025		<0.0025	
1/9/2011	<0.0025								
7/10/2011				<0.0025	<0.0025	<0.0025		<0.0025	
7/11/2011	<0.0025								
1/19/2012				<0.0025	<0.0025				
1/20/2012	<0.0025					<0.0025		<0.0025	
7/12/2012				<0.0025	<0.0025	<0.0025		<0.0025	
7/13/2012	<0.0025								
1/21/2013	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
7/20/2013	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
1/17/2014	<0.0013 (J)			<0.0025	<0.0013 (J)	<0.0013 (J)		<0.0025	
7/12/2014	<0.0013 (J)			<0.0025	<0.0013 (J)	<0.0013 (J)		<0.0013 (J)	
1/15/2015				0.00039 (J)	0.0002 (J)				
1/16/2015	0.00022 (J)					0.00043 (J)		<0.0025	
7/15/2015	0.00015 (J)			0.00031 (J)	0.00018 (J)	0.00064 (J)		<0.0025	
1/16/2016	0.00011 (J)			0.00034 (J)	0.00013 (J)	0.00039 (J)		<0.0025	
6/22/2016	0.00025 (JD)			0.0004 (J)	0.0001 (J)	0.0002 (J)		<0.0025	
8/31/2016				0.00035 (J)	<0.0025	<0.0025		<0.0025	
9/1/2016	0.0084 (o)								
1/19/2017				<0.0025	<0.0025	<0.0025			
1/23/2017								<0.0025	
2/28/2017	<0.0025								

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/17/2017	<0.0025								
7/18/2017				0.00038 (J)	<0.0025				
7/19/2017						<0.0025		<0.0025	
9/20/2017	<0.0025			0.00039 (J)					
9/21/2017					<0.0025	<0.0025		<0.0025	
1/8/2018	<0.0025								
1/9/2018				<0.0025	<0.0025	<0.0025		<0.0025	
3/27/2018	<0.0025			<0.0025	<0.0025	<0.0025			
3/28/2018								<0.0025	
7/10/2018	<0.0025			0.00038 (J)	<0.0025	<0.0025			
7/11/2018								<0.0025	
10/8/2018	<0.0025		0.0014 (J)		<0.0025	<0.0025	<0.0025		
10/9/2018				<0.0025				<0.0025	
1/30/2019	0.00026 (J)		0.0019 (J)	0.00051 (J)	0.00019 (J)	0.00024 (J)	0.00047 (J)	<0.0025	
3/27/2019	<0.0025					<0.0025			
3/28/2019			0.0017 (J)	0.00046 (J)	<0.0025		0.00034 (J)	<0.0025	
9/11/2019	0.00019 (J)								
9/12/2019			0.00088 (J)	0.00084 (J)	<0.0025	0.00036 (J)	0.00097 (J)	0.00043 (J)	
3/10/2020	0.00018 (J)		0.00087 (J)	0.00058 (J)	0.00029 (J)	0.00028 (J)			
3/11/2020							0.00078 (J)	<0.0025	
4/2/2020				0.00062 (J)					
9/21/2020	0.0002 (J)			0.00054 (J)	<0.0025		<0.0025		
9/22/2020			0.00042 (J)			<0.0025		<0.0025	
3/23/2021	0.00021 (J)	<0.0025	0.00071 (J)	0.00063 (J)			0.00066 (J)		
3/24/2021					0.00019 (J)	0.00026 (J)		<0.0025	0.00039 (J)

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	<0.0025	<0.0025	<0.0025		<0.0025	
11/12/1999	<0.0025	<0.0025	<0.0025		<0.0025	
12/29/1999	<0.0025	<0.0025	<0.0025		<0.0025	
2/17/2000	<0.0025	<0.0025	<0.0025		<0.0025	
9/13/2000	<0.0025	<0.0025	<0.0025		<0.0025	
11/10/2000	<0.0025	<0.0025	<0.0025		<0.0025	
1/4/2001	<0.0025	<0.0025	<0.0025		<0.0025	
12/11/2001	<0.0025	<0.0025	<0.0025		<0.0025	
4/4/2002	<0.0025	<0.0025	<0.0025		<0.0025	
12/6/2002	<0.0025	<0.0025	0.0012		<0.0025	
6/28/2003	<0.0025	<0.0025	<0.0025		<0.0025	
12/13/2003	<0.0025	<0.0025	0.0014		<0.0025	
5/28/2004	<0.0025	<0.0025	<0.0025		<0.0025	
12/10/2004	0.0023	0.0023	0.0029		0.0058 (o)	
2/5/2005					<0.0025	
6/24/2005	<0.0025	<0.0025	<0.0025		<0.0025	
12/13/2005	<0.0025	<0.0025	<0.0025		<0.0025	
7/12/2006	0.0013	0.0013	0.0013		0.0013	
12/1/2006	<0.0025	<0.0025	<0.0025		<0.0025	
6/21/2007	<0.0025	<0.0025	<0.0025		<0.0025	
12/15/2007	<0.0025	<0.0025	<0.0025		<0.0025	
6/21/2008		<0.0025	<0.0025			
6/22/2008	<0.0025				<0.0025	
12/6/2008	<0.0025	<0.0025				
12/7/2008			<0.0025		<0.0025	
7/11/2009	<0.0025	<0.0025	<0.0025		<0.0025	
12/23/2009	<0.0025	<0.0025	<0.0025		<0.0025	
6/23/2010	<0.0025	<0.0025	<0.0025			
6/24/2010					<0.0025	
1/8/2011	<0.0025	<0.0025	<0.0025			
7/10/2011	<0.0025	<0.0025	<0.0025			
7/11/2011					<0.0025	
1/20/2012	<0.0025	<0.0025	<0.0025		<0.0025	
7/12/2012	<0.0025	<0.0025	<0.0025			
7/13/2012					<0.0025	
1/21/2013	<0.0025	<0.0025	<0.0025		<0.0025	
7/20/2013	<0.0025	<0.0025	<0.0025		<0.0025	
1/17/2014	<0.0013 (J)	<0.0025	<0.0013 (J)		<0.0013 (J)	
7/11/2014		<0.0013 (J)	<0.0013 (J)			
7/12/2014	<0.0013 (J)				<0.0013 (J)	
1/15/2015	0.00019 (J)					
1/16/2015		0.00012 (J)	0.00067 (J)		0.00021 (J)	
7/15/2015	0.00018 (J)	<0.0025	0.00065 (J)		0.00011 (J)	
1/16/2016			0.00065 (J)		0.00019 (J)	
1/17/2016	0.00011 (J)	<0.0025				
6/22/2016	0.0002 (J)	<0.0025				
6/23/2016			0.0004 (J)		0.0002 (J)	
8/31/2016	<0.0025	<0.0025				
9/1/2016			<0.0025		0.0006 (J)	
1/24/2017	<0.0025		<0.0025			
1/25/2017		<0.0025				
1/27/2017					<0.0025	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
7/19/2017	<0.0025					
7/20/2017		<0.0025	0.00049 (J)		<0.0025	
9/21/2017	<0.0025	<0.0025	0.00068 (J)			
9/22/2017					<0.0025	
1/9/2018	<0.0025	<0.0025				
1/10/2018			<0.0025		<0.0025	
3/28/2018		<0.0025	<0.0025			
3/29/2018	<0.0025				<0.0025	
7/10/2018	<0.0025	<0.0025				
7/11/2018			0.00043 (J)		<0.0025	
10/9/2018	<0.0025	<0.0025	0.00054 (J)		<0.0025	
1/30/2019		7E-05 (J)				
1/31/2019	6.5E-05 (J)		0.0012 (J)		0.00012 (J)	
3/28/2019	<0.0025	<0.0025	0.0017 (J)		<0.0025	
9/12/2019	<0.0025	0.00028 (J)	0.0017		0.00025 (J)	
3/11/2020					0.0003 (J)	
3/31/2020	<0.0025	<0.0025	0.0006 (J)			
9/22/2020	0.00025 (J)	<0.0025	0.0011 (J)		0.00021 (J)	
3/23/2021	0.00018 (J)					<0.0025
3/24/2021		<0.0025	0.0029	<0.0025	0.00019 (J)	

Time Series

Constituent: Boron (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
8/31/2016				<0.08	<0.08	0.073		0.023 (J)	
9/1/2016	0.029 (J)								
1/19/2017				<0.08	0.027 (J)	0.036 (J)			
1/23/2017								<0.08	
2/28/2017	<0.08								
7/17/2017	<0.08								
7/18/2017				<0.08	<0.08				
7/19/2017						0.07		0.021 (J)	
9/20/2017	<0.08			<0.08					
9/21/2017					<0.08	0.07		<0.08	
1/8/2018	<0.08								
1/9/2018				<0.08	<0.08	0.042 (J)		0.025 (J)	
3/27/2018	<0.08			<0.08	<0.08	0.037 (J)			
3/28/2018								<0.08	
7/10/2018	<0.08			<0.08	<0.08	0.042 (J)			
7/11/2018								<0.08	
10/8/2018	<0.08		0.76		<0.08	0.044 (J)	1.3		
10/9/2018				<0.08				<0.08	
1/30/2019	<0.08		0.77	<0.08	<0.08	0.03 (J)	1.5	<0.08	
3/27/2019	<0.08					0.036 (J)			
3/28/2019			0.83	0.024 (J)	<0.08		1.4	0.021 (J)	
9/11/2019	<0.08								
9/12/2019			0.65	<0.08	<0.08	0.048 (J)	1.6	<0.08	
3/10/2020	<0.08		0.64	0.059 (J)	<0.08	0.066 (J)			
3/11/2020							1.9	0.04 (J)	
4/2/2020				0.084					
9/21/2020	0.11			0.11	0.073 (J)		0.61		
9/22/2020			0.73			0.097		0.098	
3/23/2021	<0.08	0.1	0.57	0.088			1.5		
3/24/2021					<0.08	0.048 (J)		<0.08	0.36

Time Series

Constituent: Boron (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
8/31/2016	0.023 (J)	<0.08				
9/1/2016			<0.08		<0.08	
1/24/2017	<0.08		<0.08			
1/25/2017		0.023 (J)				
1/27/2017					<0.08	
7/19/2017	0.026 (J)					
7/20/2017		<0.08	<0.08		<0.08	
9/21/2017	0.025 (J)	<0.08	<0.08			
9/22/2017					<0.08	
1/9/2018	0.023 (J)	<0.08				
1/10/2018			<0.08		<0.08	
3/28/2018		<0.08	<0.08			
3/29/2018	0.035 (J)				<0.08	
7/10/2018	0.044 (J)	<0.08				
7/11/2018			<0.08		<0.08	
10/9/2018	0.043 (J)	<0.08	<0.08		<0.08	
1/30/2019		<0.08				
1/31/2019	0.04 (J)		<0.08		<0.08	
3/28/2019	0.062	<0.08	<0.08		<0.08	
9/12/2019	0.045 (J)	<0.08	<0.08		<0.08	
3/11/2020					<0.08	
3/31/2020	0.046 (J)	<0.08	<0.08			
9/22/2020	0.083	0.053 (J)	0.045 (J)		0.048 (J)	
3/23/2021	0.07 (J)					0.043 (J)
3/24/2021		<0.08	<0.08	<0.08	<0.08	

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
8/31/2016				1.5	0.88	3.7		0.22 (J)	
9/1/2016	26 (o)								
1/19/2017				1.8	1.1	2			
1/23/2017								1.3 (o)	
2/28/2017	2.7								
7/17/2017	1.7								
7/18/2017				1.7	0.86				
7/19/2017						2.6		0.19 (J)	
9/20/2017	1.5			1.7					
9/21/2017					0.9	2.7		0.3	
1/8/2018	1.7								
1/9/2018				1.9	1	4.1		0.16 (J)	
3/27/2018	1.7			1.9	0.89	4.8			
3/28/2018								0.14 (J)	
7/10/2018	1.7			1.9	0.99	3.7			
7/11/2018								0.18 (J)	
10/8/2018	1.6		17		1.1	3.2	17		
10/9/2018				2.2				0.13 (J)	
1/30/2019	1.9		16	2.4	1	1.7	15	0.24 (J)	
3/27/2019	1.6					3.1			
3/28/2019			16	2.4	0.98		18	0.15 (J)	
9/11/2019	1.6								
9/12/2019			15	2.3	0.84	1.9	19	<0.5 (D)	
3/10/2020	2		14	2.8	1.1	2.9			
3/11/2020							20	1.6	
4/2/2020				3					
9/21/2020	1.8			3.1	1.4		13		
9/22/2020			16			2.9		0.21 (J)	
3/23/2021	1.8	4	15	3.6			19		
3/24/2021					1.3	3.1		0.25 (J)	3.3

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
8/31/2016	5.5	0.42				
9/1/2016			21		1.9	
1/24/2017	2.9		10			
1/25/2017		0.37				
1/27/2017					1.4	
7/19/2017	4.2					
7/20/2017		0.29	8.1		1.5	
9/21/2017	2.9	0.3	8			
9/22/2017					1.3	
1/9/2018	1.7	0.38				
1/10/2018			11		1	
3/28/2018		0.44	9.5			
3/29/2018	2.2				1.5	
7/10/2018	3.9	2 (o)				
7/11/2018			9.6		1.6	
10/9/2018	1.7	0.34	8		1.5	
1/30/2019		0.34				
1/31/2019	4.8		7.5		1.9	
3/28/2019	4.9	0.3	7.2		1.5	
9/12/2019	2	0.3 (J)	9.1		1.7	
3/11/2020					1.7	
3/31/2020	8.3	0.48 (J)	12			
9/22/2020	2.1	0.51	8		1.9	
3/23/2021	9.2					5
3/24/2021		0.46 (J)	8.2	6.1	1.7	

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
8/31/2016				6.8	3.7	7.1		6.4	
9/1/2016	8								
1/19/2017				6.9	4.6	3.3			
1/23/2017								5.5	
2/28/2017	8.5								
7/17/2017	7.8								
7/18/2017				7.4	4.2				
7/19/2017						5.8		4.7	
9/20/2017	8			7.6					
9/21/2017					4.4	6.2		4.9	
1/8/2018	7.9								
1/9/2018				8.6	4.4	9.9		4.7	
3/27/2018	8			9.4	4.9	13			
3/28/2018								4.4	
7/10/2018	7.8			11	5.5	17			
7/11/2018								4.3	
10/8/2018	8.5		7.3		6.6	16	6.8		
10/9/2018				14				4.6	
1/30/2019	8.2		7.3	15	6.9	6.5	7.1	4.9	
3/27/2019	8.1					9.1			
3/28/2019			6.1	15	5.7		6.1	4.1	
9/11/2019	7.1								
9/12/2019			7.6	16	6.1	9.1	6.8	4.9	
3/10/2020	8.1		8	19	5	3.7			
3/11/2020							6.9	6.4	
4/2/2020				20					
9/21/2020	8.1			19	5.4		6.5		
9/22/2020			8			6.3		6.9	
3/23/2021	8.6	9.9	7.8	22			7.6		
3/24/2021					6.2	7.4		8.8	15

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
8/31/2016	5.6	19				
9/1/2016			<1			
1/24/2017	5.4		8.3			
1/25/2017		15				
1/27/2017					8.3	
7/19/2017	5.6					
7/20/2017		14	6.9		7.2	
9/21/2017	5.5	14	6.4			
9/22/2017					6.8	
1/9/2018	5.6	15				
1/10/2018			<1		6.9	
3/28/2018		14	<1			
3/29/2018	5.3				7.4	
7/10/2018	5.2	13				
7/11/2018			7.4		7.2	
10/9/2018	5.4	13	6.8		7.6	
1/30/2019		12				
1/31/2019	5.2		8		8.5	
3/28/2019	4.6	11	7.5		6.9	
9/12/2019	5.2	9.9	7.6		7.7	
3/11/2020					7.6	
3/31/2020	5.7	14	8.2			
9/22/2020	5.4	11	8.3		7.6	
3/23/2021	5.2					11
3/24/2021		10	8.1	15	7.8	

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	0.023			<0.002	<0.002	<0.002		<0.002	
11/12/1999	0.03			<0.002	<0.002	<0.002		<0.002	
12/29/1999	0.059 (o)			<0.002	<0.002	<0.002		<0.002	
2/17/2000	0.048 (o)			<0.002	<0.002	<0.002		<0.002	
9/13/2000	<0.002			<0.002	<0.002	<0.002		<0.002	
11/10/2000	0.018			<0.002	<0.002	<0.002		<0.002	
1/4/2001	<0.002			<0.002	<0.002	<0.002		<0.002	
12/11/2001	<0.002			<0.002	<0.002	<0.002		<0.002	
4/4/2002	<0.002			<0.002	<0.002	<0.002		<0.002	
12/6/2002	0.0046			<0.002	0.0037	0.027		<0.002	
6/28/2003	0.0082			0.0053	0.0039	0.0051		0.007 (o)	
12/13/2003	<0.002			<0.002	<0.002	<0.002		<0.002	
5/28/2004	0.016			0.0027	<0.002	0.0031		<0.002	
12/10/2004	0.0087			0.004	<0.002	0.0067		<0.002	
6/24/2005	0.0069			0.0031	<0.002	<0.002		<0.002	
12/13/2005	0.0075			0.0031	<0.002	<0.002		<0.002	
7/12/2006	0.027			0.0025	0.023	<0.002		<0.002	
12/1/2006	<0.002			0.0037	0.0017	<0.002		<0.002	
6/21/2007	0.012			0.0053	0.0027	0.0021		<0.002	
12/15/2007	0.0085			0.0044	0.0026	0.0022		<0.002	
6/21/2008					0.0021			<0.002	
6/22/2008	0.021			0.0059		0.0019			
12/6/2008				0.0031	<0.002	<0.002		<0.002	
12/7/2008	0.01								
7/10/2009				0.0029					
7/11/2009	0.0073				<0.002	<0.002		<0.002	
12/22/2009						0.0032			
12/23/2009	0.013			0.0025	<0.002			<0.002	
6/23/2010				0.0013	<0.002	<0.002		<0.002	
6/24/2010	0.0076								
1/8/2011				0.0017	<0.002	0.0019		<0.002	
1/9/2011	0.023								
7/10/2011				<0.002	<0.002	<0.002		<0.002	
7/11/2011	0.0042								
1/19/2012				<0.002	<0.002				
1/20/2012	0.009					<0.002		<0.002	
7/12/2012				<0.002	<0.002	0.0044		<0.002	
7/13/2012	0.013								
1/21/2013	0.032			0.0014	<0.002	<0.002		<0.002	
7/20/2013	0.01			0.0021	<0.002	0.0017		<0.002	
1/17/2014	0.024			0.0023	<0.002	<0.0013 (J)		<0.002	
7/12/2014	0.0069			<0.0013 (J)	<0.002	0.0014		<0.002	
1/15/2015				<0.002	<0.002				
1/16/2015	0.0064					0.0011 (J)		<0.002	
7/15/2015	0.0051			<0.002	<0.002	0.0016		<0.002	
1/16/2016	0.0066			0.0025	<0.002	<0.002		<0.002	
6/22/2016	0.00815 (D)			0.00255 (JD)	0.0005 (J)	0.002 (J)		0.0008 (J)	
8/31/2016				0.0042	<0.002	0.002 (J)		<0.002	
9/1/2016	0.12 (o)								
1/19/2017				0.0039	<0.002	0.002 (J)			
1/23/2017								<0.002	
2/28/2017	0.0012 (J)								

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/17/2017	0.003								
7/18/2017				0.0018 (J)	<0.002				
7/19/2017						0.0017 (J)		<0.002	
9/20/2017	0.0025			0.0026					
9/21/2017					<0.002	0.0021 (J)		<0.002	
1/8/2018	0.0038								
1/9/2018				0.0038	0.0087	0.0019 (J)		<0.002	
3/27/2018	0.0044			0.0037	<0.002	<0.002			
3/28/2018								<0.002	
7/10/2018	0.0045			0.0022 (J)	<0.002	0.0012 (J)			
7/11/2018								<0.002	
10/8/2018	0.0054		<0.002		<0.002	0.0015 (J)	<0.002		
10/9/2018				0.0047				<0.002	
1/30/2019	0.0061		0.003	0.005	0.00088 (J)	0.0014 (J)	<0.002	0.0024 (J)	
3/27/2019	0.0044					<0.002			
3/28/2019			0.0017 (J)	0.0037	<0.002		<0.002	<0.002	
9/11/2019	0.0076								
9/12/2019			<0.002	<0.002	<0.002	0.0032	<0.002	<0.002	
3/10/2020	0.0041		<0.002	<0.002	<0.002	0.0031			
3/11/2020							<0.002	<0.002	
4/2/2020				0.0031					
9/21/2020	0.0049			<0.002	<0.002		<0.002		
9/22/2020			<0.002			0.0017 (J)		0.0017 (J)	
3/23/2021	0.0047	<0.002	<0.002	0.0022			<0.002		
3/24/2021					<0.002	<0.002		<0.002	<0.002

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	0.017	<0.002	<0.002		<0.002	
11/12/1999	<0.002	<0.002	<0.002		<0.002	
12/29/1999	0.011	<0.002	<0.002		<0.002	
2/17/2000	0.013	<0.002	<0.002		<0.002	
9/13/2000	<0.002	<0.002	<0.002		<0.002	
11/10/2000	<0.002	<0.002	<0.002		<0.002	
1/4/2001	<0.002	<0.002	<0.002		0.016 (o)	
12/11/2001	<0.002	<0.002	<0.002		<0.002	
4/4/2002	<0.002	<0.002	<0.002		<0.002	
12/6/2002	<0.002	<0.002	0.008 (o)		<0.002	
6/28/2003	0.0027	0.061 (o)	0.021 (o)		0.0021	
12/13/2003	<0.002	<0.002	0.011 (o)		<0.002	
5/28/2004	<0.002	<0.002	<0.002		<0.002	
12/10/2004	0.74 (o)	0.0059 (o)	<0.002		0.0046 (o)	
2/5/2005	<0.002					
6/24/2005	0.0023	<0.002	<0.002		<0.002	
12/13/2005	0.0031	<0.002	<0.002		<0.002	
7/12/2006	0.0016	<0.002	<0.002		<0.002	
12/1/2006	0.0022	<0.002	<0.002		<0.002	
6/21/2007	0.002	<0.002	<0.002		<0.002	
12/15/2007	0.0029	<0.002	0.002		0.0016	
6/21/2008		<0.002	0.0017			
6/22/2008	0.0023				<0.002	
12/6/2008	0.0023	<0.002				
12/7/2008			0.0025		<0.002	
7/11/2009	0.0015	<0.002	<0.002		<0.002	
12/23/2009	0.0014	<0.002	<0.002		<0.002	
6/23/2010	0.0018	<0.002	<0.002			
6/24/2010					<0.002	
1/8/2011	0.0033	<0.002	<0.002			
7/10/2011	0.0028	<0.002	0.0013			
7/11/2011					<0.002	
1/20/2012	<0.002	<0.002	<0.002		<0.002	
7/12/2012	0.0025	<0.002	<0.002			
7/13/2012					<0.002	
1/21/2013	0.0022	<0.002	<0.002		0.0025	
7/20/2013	0.0075	<0.002	<0.002		<0.002	
1/17/2014	0.0039	<0.002	<0.002		<0.002	
7/11/2014		<0.002	<0.002			
7/12/2014	0.0031				<0.002	
1/15/2015	0.0026					
1/16/2015		<0.002	<0.002		<0.002	
7/15/2015	0.0032	<0.002	<0.002		<0.002	
1/16/2016			<0.002		<0.002	
1/17/2016	0.0029	<0.002				
6/22/2016	0.0036 (J)	<0.002				
6/23/2016			<0.002		<0.002	
8/31/2016	0.0027	<0.002				
9/1/2016			<0.002		0.0069 (o)	
1/24/2017	0.0034		<0.002			
1/25/2017		<0.002 (D)				
1/27/2017					<0.002 (D)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
7/19/2017	0.0028					
7/20/2017		<0.002	<0.002		<0.002	
9/21/2017	0.0035	<0.002	<0.002			
9/22/2017					0.0015 (J)	
1/9/2018	0.003	<0.002				
1/10/2018			<0.002		<0.002	
3/28/2018		0.0019 (J)	<0.002			
3/29/2018	0.0032				<0.002	
7/10/2018	0.0033	0.0029				
7/11/2018			<0.002		0.0011 (J)	
10/9/2018	0.0039	<0.002	<0.002		<0.002	
1/30/2019		<0.002				
1/31/2019	0.0061		<0.002		<0.002	
3/28/2019	0.0049	<0.002	<0.002		0.0019 (J)	
9/12/2019	0.0048	0.0028	0.0051		0.0022	
3/11/2020					<0.002	
3/31/2020	0.005	<0.002	<0.002			
9/22/2020	0.0036	<0.002	<0.002		<0.002	
3/23/2021	0.0048					<0.002
3/24/2021		<0.002	<0.002	<0.002	<0.002	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
11/12/1999	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/29/1999	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
2/17/2000	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
9/13/2000	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
11/10/2000	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
1/4/2001	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/11/2001	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
4/4/2002	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/6/2002	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
6/28/2003	<0.0025			<0.0025	<0.0025	0.018 (o)		<0.0025	
12/13/2003	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
5/28/2004	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
12/10/2004	<0.0025			<0.0025	<0.0025	0.007		<0.0025	
6/24/2005	<0.0025			<0.0025	<0.0025	0.0072		<0.0025	
12/13/2005	<0.0025			<0.0025	<0.0025	0.0062		<0.0025	
7/12/2006	0.0032			<0.0025	<0.0025	0.0048		<0.0025	
12/1/2006	0.012 (o)			<0.0025	<0.0025	0.0032		<0.0025	
6/21/2007	<0.0025			0.0025	<0.0025	0.0037		<0.0025	
12/15/2007	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
6/21/2008					<0.0025			0.0048 (o)	
6/22/2008	0.0031			<0.0025		0.0025			
12/6/2008				<0.0025	<0.0025	0.0025		<0.0025	
12/7/2008	<0.0025								
7/10/2009				<0.0025					
7/11/2009	<0.0025				<0.0025	<0.0025		<0.0025	
12/22/2009						0.0025			
12/23/2009	<0.0025			<0.0025	<0.0025			<0.0025	
6/23/2010				<0.0025	<0.0025	<0.0025		<0.0025	
6/24/2010	<0.0025								
1/8/2011				<0.0025	<0.0025	0.0026		<0.0025	
1/9/2011	0.0031								
7/10/2011				<0.0025	<0.0025	<0.0025		<0.0025	
7/11/2011	<0.0025								
1/19/2012				<0.0025	<0.0025				
1/20/2012	<0.0025					<0.0025		<0.0025	
7/12/2012				<0.0025	<0.0025	0.002		<0.0025	
7/13/2012	0.0015								
1/21/2013	0.0035			<0.0025	<0.0025	0.0014		<0.0025	
7/20/2013	<0.0025			<0.0025	<0.0025	<0.0025		<0.0025	
1/17/2014	0.0027			<0.0013 (J)	<0.0013 (J)	0.0019		<0.0025	
7/12/2014	<0.0013 (J)			<0.0013 (J)	<0.0013 (J)	0.0026		<0.0025	
1/15/2015				0.00086 (J)	0.00084 (J)				
1/16/2015	<0.0025					0.0021		<0.0025	
7/15/2015	<0.0025			0.00087 (J)	0.00083 (J)	0.0023		<0.0025	
1/16/2016	0.00059 (J)			0.0011 (J)	0.00092 (J)	0.002		<0.0025	
6/22/2016	0.00085 (JD)			0.0009 (J)	0.0005 (J)	0.0007 (J)		<0.0025	
8/31/2016				0.00095 (J)	0.00055 (J)	0.001 (J)		<0.0025	
9/1/2016	0.023 (o)								
1/19/2017				0.00087 (J)	0.00041 (J)	0.00046 (J)			
1/23/2017								<0.0025	
2/28/2017	0.00048 (J)								

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/17/2017	<0.0025								
7/18/2017				0.001 (J)	0.0007 (J)				
7/19/2017						0.00069 (J)		<0.0025	
9/20/2017	<0.0025			0.0011 (J)					
9/21/2017					0.00073 (J)	0.00073 (J)		<0.0025	
1/8/2018	<0.0025								
1/9/2018				0.0011 (J)	0.0012 (J)	0.0014 (J)		<0.0025	
3/27/2018	<0.0025			0.0011 (J)	0.00081 (J)	0.0019 (J)			
3/28/2018								<0.0025	
7/10/2018	<0.0025			0.0012 (J)	0.00086 (J)	0.0015 (J)			
7/11/2018								<0.0025	
10/8/2018	<0.0025		0.0051		<0.0025	<0.0025	0.0055		
10/9/2018				<0.0025				<0.0025	
1/30/2019	0.00038 (J)		0.0044	0.0014 (J)	0.00092 (J)	0.00076 (J)	0.0047	0.00023 (J)	
3/27/2019	<0.0025					0.0012 (J)			
3/28/2019			0.0046	0.0014 (J)	0.00089 (J)		0.0045	<0.0025	
9/11/2019	0.00032 (J)								
9/12/2019			0.0023	0.0015	0.00091	0.00074	0.0043	0.00027 (J)	
3/10/2020	0.00028 (J)		0.003	0.0019	0.0009	0.00099			
3/11/2020							0.0056	0.00026 (J)	
4/2/2020				0.0017 (J)					
9/21/2020	0.0003 (J)			0.0016 (J)	0.00059 (J)		0.0025		
9/22/2020			<0.0025			0.00064 (J)		0.00021 (J)	
3/23/2021	0.00028 (J)	0.00019 (J)	0.00096 (J)	0.0017 (J)			0.003		
3/24/2021					0.00069 (J)	0.00077 (J)		0.0002 (J)	0.0063

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	<0.0025	<0.0025	<0.0025		<0.0025	
11/12/1999	<0.0025	<0.0025	<0.0025		<0.0025	
12/29/1999	<0.0025	<0.0025	<0.0025		<0.0025	
2/17/2000	<0.0025	<0.0025	<0.0025		<0.0025	
9/13/2000	0.01	<0.0025	<0.0025		<0.0025	
11/10/2000	<0.0025	<0.0025	<0.0025		<0.0025	
1/4/2001	<0.0025	<0.0025	<0.0025		<0.0025	
12/11/2001	<0.0025	<0.0025	<0.0025		<0.0025	
4/4/2002	<0.0025	<0.0025	<0.0025		<0.0025	
12/6/2002	<0.0025	<0.0025	0.0074		<0.0025	
6/28/2003	<0.0025	<0.0025	<0.0025		<0.0025	
12/13/2003	<0.0025	<0.0025	0.0086		<0.0025	
5/28/2004	<0.0025	<0.0025	0.0065		<0.0025	
12/10/2004	0.0062	<0.0025	0.0052		<0.0025	
6/24/2005	<0.0025	<0.0025	<0.0025		<0.0025	
12/13/2005	<0.0025	<0.0025	<0.0025		<0.0025	
7/12/2006	<0.0025	<0.0025	0.0055		<0.0025	
12/1/2006	<0.0025	<0.0025	0.0056		<0.0025	
6/21/2007	<0.0025	<0.0025	0.0055		<0.0025	
12/15/2007	<0.0025	<0.0025	0.0051		<0.0025	
6/21/2008		0.0025	0.0054			
6/22/2008	<0.0025				<0.0025	
12/6/2008	<0.0025	<0.0025				
12/7/2008			0.005		<0.0025	
7/11/2009	<0.0025	<0.0025	0.0049		<0.0025	
12/23/2009	<0.0025	<0.0025	0.0035		<0.0025	
6/23/2010	<0.0025	<0.0025	0.0039			
6/24/2010					<0.0025	
1/8/2011	<0.0025	<0.0025	0.0046			
1/9/2011					<0.0025	
7/10/2011	<0.0025	<0.0025	0.0036			
7/11/2011					<0.0025	
1/20/2012	<0.0025	<0.0025	0.0042		<0.0025	
7/12/2012	<0.0025	<0.0025	0.0037			
7/13/2012					<0.0025	
1/21/2013	<0.0025	<0.0025	0.0038		<0.0025	
7/20/2013	<0.0025	<0.0025	0.003		<0.0025	
1/17/2014	<0.0025	<0.0025	0.0036		<0.0013 (J)	
7/11/2014		<0.0025	0.0056			
7/12/2014	<0.0013 (J)				<0.0025	
1/15/2015	0.00096 (J)					
1/16/2015		0.00071 (J)	0.0042		<0.0025	
7/15/2015	0.0006 (J)	0.00064 (J)	0.0052		<0.0025	
1/16/2016			0.0056		0.00055 (J)	
1/17/2016	0.00069 (J)	0.00066 (J)				
6/22/2016	0.0011 (J)	0.0009 (J)				
6/23/2016			0.0073 (J)		0.0005 (J)	
8/31/2016	0.0006 (J)	0.0006 (J)				
9/1/2016			0.011		0.0014 (J)	
1/24/2017	0.00067 (J)		0.009			
1/25/2017		0.00047 (J)				
1/27/2017					0.00052 (J)	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
7/19/2017	0.00079 (J)					
7/20/2017		<0.0025	0.0091		0.00062 (J)	
9/21/2017	0.00077 (J)	<0.0025	0.0093			
9/22/2017					0.00048 (J)	
1/9/2018	0.00092 (J)	0.00048 (J)				
1/10/2018			0.0097		<0.0025	
3/28/2018		0.00048 (J)	0.01			
3/29/2018	0.0008 (J)				0.00052 (J)	
7/10/2018	0.00097 (J)	0.00084 (J)				
7/11/2018			0.011		0.00064 (J)	
10/9/2018	<0.0025	<0.0025	0.012		<0.0025	
1/30/2019		0.00038 (J)				
1/31/2019	0.00092 (J)		0.013		0.00076 (J)	
3/28/2019	0.00072 (J)	<0.0025	0.013		0.0007 (J)	
9/12/2019	0.0009	0.00044 (J)	0.013		0.00077	
3/11/2020					0.00073	
3/31/2020	0.00061 (J)	0.00033 (J)	0.012			
9/22/2020	0.00092 (J)	0.00042 (J)	0.011		0.00058 (J)	
3/23/2021	0.00069 (J)					0.0034
3/24/2021		0.00037 (J)	0.012	0.0023 (J)	0.00046 (J)	

Time Series

Constituent: Copper (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	<0.002			<0.002	<0.002	<0.002		<0.002	
11/12/1999	<0.002			<0.002	<0.002	<0.002		<0.002	
12/29/1999	<0.002			<0.002	<0.002	<0.002		<0.002	
2/17/2000	<0.002			<0.002	<0.002	<0.002		<0.002	
9/13/2000	<0.002			<0.002	<0.002	<0.002		<0.002	
11/10/2000	<0.002			<0.002	<0.002	<0.002		<0.002	
1/4/2001	<0.002			<0.002	<0.002	<0.002		<0.002	
12/11/2001	<0.002			<0.002	<0.002	<0.002		<0.002	
4/4/2002	<0.002			<0.002	<0.002	<0.002		<0.002	
12/6/2002	<0.002			<0.002	<0.002	0.0089 (o)		<0.002	
6/28/2003	<0.002			<0.002	<0.002	0.019 (o)		<0.002	
12/13/2003	<0.002			<0.002	<0.002	0.0067 (o)		<0.002	
5/28/2004	0.0052			<0.002	<0.002	0.0057 (o)		<0.002	
12/10/2004	<0.002			<0.002	<0.002	0.0027		<0.002	
6/24/2005	<0.002			<0.002	<0.002	0.0038		<0.002	
12/13/2005	<0.002			<0.002	<0.002	<0.002		<0.002	
7/12/2006	0.0055			<0.002	<0.002	0.0033		0.0047 (o)	
12/1/2006	<0.002			<0.002	<0.002	<0.002		<0.002	
6/21/2007	0.0032			<0.002	<0.002	0.0035		<0.002	
12/15/2007	<0.002			<0.002	<0.002	<0.002		<0.002	
6/21/2008					<0.002			<0.002	
6/22/2008	<0.002			<0.002		<0.002			
12/6/2008				<0.002	<0.002	<0.002		<0.002	
12/7/2008	<0.002								
7/10/2009				<0.002					
7/11/2009	<0.002				<0.002	<0.002		<0.002	
12/22/2009						0.0025			
12/23/2009	0.0025			<0.002	<0.002			<0.002	
6/23/2010				<0.002	<0.002	<0.002		<0.002	
6/24/2010	<0.002								
1/8/2011				<0.002	<0.002	<0.002		<0.002	
1/9/2011	0.004								
7/10/2011				<0.002	<0.002	<0.002		<0.002	
7/11/2011	<0.002								
1/19/2012				<0.002	<0.002				
1/20/2012	<0.002					<0.002		<0.002	
7/12/2012				<0.002	<0.002	<0.002		<0.002	
7/13/2012	<0.002								
1/21/2013	<0.002			<0.002	<0.002	<0.002		<0.002	
7/20/2013	<0.002			<0.002	<0.002	<0.002		<0.002	
1/17/2014	<0.005 (J)			<0.002	<0.002	<0.005 (J)		<0.002	
7/12/2014	<0.005 (J)			<0.002	<0.002	<0.002		<0.002	
1/15/2015				<0.002	<0.002				
1/16/2015	<0.002					<0.002		<0.002	
7/15/2015	<0.002			<0.002	<0.002	<0.002		<0.002	
1/16/2016	<0.002			<0.002	<0.002	<0.002		<0.002	
6/22/2016	0.002 (JD)			0.00205 (JD)	<0.002	0.001		<0.002	
1/19/2017				<0.002	<0.002	<0.002			
1/23/2017								<0.002	
2/28/2017	<0.002								
7/17/2017	<0.002								
7/18/2017				<0.002	<0.002				

Time Series

Constituent: Copper (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/19/2017						<0.002		<0.002	
1/8/2018	<0.002								
1/9/2018				<0.002	0.0025	<0.002		<0.002	
7/10/2018	<0.002			<0.002	<0.002	<0.002			
7/11/2018								<0.002	
1/30/2019	<0.002		0.0035	<0.002	<0.002	<0.002	0.0018 (J)	<0.002	
3/27/2019	<0.002					<0.002			
3/28/2019			0.0031	<0.002	<0.002		<0.002	<0.002	
9/11/2019	<0.002								
9/12/2019			0.0038	0.0024	0.0022	0.0011 (J)	0.0041	0.0024	
3/10/2020	<0.002		0.0021	0.00082 (J)	<0.002	0.0019 (J)			
3/11/2020							0.0032	<0.002	
4/2/2020				0.0019 (J)					
9/21/2020	<0.002			<0.002	<0.002		0.0018 (J)		
9/22/2020			0.00096 (J)			0.0013 (J)		<0.002	
3/23/2021	<0.002	0.0015 (J)	0.0011 (J)	<0.002			0.0027		
3/24/2021					<0.002	0.00077 (J)		<0.002	0.001 (J)

Time Series

Constituent: Copper (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	<0.002	<0.002	<0.002		<0.002	
11/12/1999	<0.002	<0.002	<0.002		<0.002	
12/29/1999	<0.002	<0.002	<0.002		<0.002	
2/17/2000	<0.002	<0.002	<0.002		<0.002	
9/13/2000	<0.002	<0.002	<0.002		<0.002	
11/10/2000	<0.002	<0.002	<0.002		<0.002	
1/4/2001	<0.002	<0.002	<0.002		<0.002	
12/11/2001	<0.002	<0.002	<0.002		<0.002	
4/4/2002	<0.002	<0.002	<0.002		<0.002	
12/6/2002	<0.002	<0.002	<0.002		<0.002	
6/28/2003	<0.002	<0.002	<0.002		<0.002	
12/13/2003	<0.002	<0.002	0.0026		<0.002	
5/28/2004	<0.002	<0.002	<0.002		<0.002	
12/10/2004	0.11 (o)	<0.002	<0.002		0.0044 (o)	
6/24/2005	<0.002	<0.002	<0.002		<0.002	
12/13/2005	<0.002	<0.002	<0.002		<0.002	
7/12/2006	<0.002	<0.002	<0.002		<0.002	
12/1/2006	<0.002	<0.002	<0.002		<0.002	
6/21/2007	<0.002	<0.002	<0.002		<0.002	
12/15/2007	<0.002	<0.002	<0.002		<0.002	
6/21/2008		<0.002	<0.002			
6/22/2008	<0.002				<0.002	
12/6/2008	<0.002	<0.002				
12/7/2008			<0.002		<0.002	
7/11/2009	<0.002	<0.002	<0.002		<0.002	
12/23/2009	<0.002	<0.002	<0.002		<0.002	
6/23/2010	<0.002	<0.002	<0.002			
6/24/2010					<0.002	
1/8/2011	<0.002	<0.002	<0.002			
1/9/2011					<0.002	
7/10/2011	<0.002	<0.002	<0.002			
7/11/2011					<0.002	
1/20/2012	<0.002	<0.002	<0.002		<0.002	
7/12/2012	<0.002	<0.002	<0.002			
7/13/2012					<0.002	
1/21/2013	<0.002	<0.002	<0.002		<0.002	
7/20/2013	<0.002	<0.002	<0.002		<0.002	
1/17/2014	0.0065 (o)	<0.002	<0.002		<0.002	
7/11/2014		<0.002	<0.002			
7/12/2014	<0.002				<0.002	
1/15/2015	<0.002					
1/16/2015		<0.002	<0.002		<0.002	
7/15/2015	<0.002	<0.002	<0.002		<0.002	
1/16/2016			<0.002		<0.002	
1/17/2016	<0.002	<0.002				
6/22/2016	0.0005 (J)	<0.002				
6/23/2016			0.0007 (J)		<0.002	
1/24/2017	<0.002		<0.002			
1/25/2017		<0.002				
1/27/2017					<0.002	
7/19/2017	<0.002					
7/20/2017		<0.002	<0.002		<0.002	

Time Series

Constituent: Copper (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
1/9/2018	<0.002	<0.002				
1/10/2018			<0.002		<0.002	
7/10/2018	<0.002	<0.002				
7/11/2018			<0.002		<0.002	
1/30/2019		<0.002				
1/31/2019	<0.002		<0.002		<0.002	
3/28/2019	<0.002	<0.002	<0.002		<0.002	
9/12/2019	0.002	<0.002	0.00084 (J)		0.003	
3/11/2020					<0.002	
3/31/2020	<0.002	<0.002	<0.002			
9/22/2020	<0.002	<0.002	<0.002		<0.002	
3/23/2021	<0.002					<0.002
3/24/2021		<0.002	<0.002	<0.002	<0.002	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
8/31/2016				<0.1	<0.1	0.13 (J)		<0.1	
9/1/2016	<0.1								
1/19/2017				<0.1	0.089 (J)	<0.1			
1/23/2017								<0.1	
2/28/2017	0.098 (J)								
7/17/2017	<0.1								
7/18/2017				<0.1	<0.1				
7/19/2017						<0.1		<0.1	
9/20/2017	<0.1			<0.1					
9/21/2017					<0.1	0.13 (J)		<0.1	
1/8/2018	<0.1								
1/9/2018				<0.1	<0.1	0.13 (J)		<0.1	
3/27/2018	<0.1			<0.1	<0.1	0.21			
3/28/2018								<0.1	
7/10/2018	<0.1			<0.1	<0.1	0.17 (J)			
7/11/2018								<0.1	
10/8/2018	<0.1		<0.1		<0.1	0.11 (J)	<0.1		
10/9/2018				<0.1				<0.1	
1/30/2019	<0.1		<0.1	<0.1	0.029 (J)	0.089 (J)	<0.1	<0.1	
3/27/2019	<0.1					0.1 (J)			
3/28/2019			<0.1	<0.1	<0.1		<0.1	<0.1	
9/11/2019	<0.1								
9/12/2019			0.036 (J)	<0.1	0.035 (J)	0.052 (J)	<0.1	<0.1	
3/10/2020	<0.1		<0.1	0.026 (J)	0.066 (J)	0.051 (J)			
3/11/2020							<0.1	<0.1	
4/2/2020				0.051 (J)					
9/21/2020	<0.1			<0.1	0.06 (J)		<0.1		
9/22/2020			0.039 (J)			0.049 (J)		<0.1	
3/23/2021	<0.1	0.079 (J)	<0.1	<0.1			<0.1		
3/24/2021					0.12	0.08 (J)		<0.1	0.046 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
8/31/2016	<0.1	<0.1				
9/1/2016			<0.1			
1/24/2017	<0.1		0.84			
1/25/2017		<0.1				
1/27/2017					<0.1	
7/19/2017	<0.1					
7/20/2017		<0.1	0.62		<0.1	
9/21/2017	<0.1	<0.1	0.71			
9/22/2017					<0.1	
1/9/2018	<0.1	<0.1				
1/10/2018			0.81		<0.1	
3/28/2018		<0.1	0.45			
3/29/2018	<0.1				<0.1	
7/10/2018	<0.1	<0.1				
7/11/2018			0.37		<0.1	
10/9/2018	<0.1	<0.1	0.098 (J)		<0.1	
1/30/2019		<0.1				
1/31/2019	<0.1		0.063 (J)		<0.1	
3/28/2019	<0.1	<0.1	0.027 (J)		<0.1	
9/12/2019	<0.1	<0.1	0.078 (J)		<0.1	
3/11/2020					<0.1	
3/31/2020	0.043 (J)	0.028 (J)	0.16			
9/22/2020	<0.1	<0.1	0.1		<0.1	
3/23/2021	<0.1					<0.1
3/24/2021		<0.1	0.038 (J)	<0.1	<0.1	

Time Series

Constituent: Lead (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	0.007			<0.001	<0.001	<0.001		<0.001	
11/12/1999	0.0063 (o)			<0.001	<0.001	<0.001		<0.001	
12/29/1999	0.016			<0.001	<0.001	<0.001		<0.001	
2/17/2000	<0.001			<0.001	<0.001	<0.001		<0.001	
9/13/2000	<0.001			<0.001	<0.001	<0.001		<0.001	
11/10/2000	<0.001			<0.001	<0.001	<0.001		<0.001	
1/4/2001	<0.001			<0.001	<0.001	<0.001		<0.001	
12/11/2001	<0.001			<0.001	<0.001	<0.001		<0.001	
4/4/2002	<0.001			<0.001	<0.001	<0.001		<0.001	
12/6/2002	<0.001			<0.001	<0.001	0.011		<0.001	
6/28/2003	<0.001			<0.001	<0.001	<0.001		<0.001	
12/13/2003	<0.001			<0.001	<0.001	<0.001		<0.001	
5/28/2004	0.015			<0.001	<0.001	<0.001		<0.001	
12/10/2004	0.01			<0.001	<0.001	<0.001		<0.001	
6/24/2005	<0.001			<0.001	<0.001	<0.001		<0.001	
12/13/2005	<0.001			<0.001	<0.001	<0.001		<0.001	
7/12/2006	0.013			<0.001	<0.001	<0.001		<0.001	
12/1/2006	<0.001			<0.001	<0.001	<0.001		<0.001	
6/21/2007	<0.001			<0.001	<0.001	<0.001		<0.001	
12/15/2007	<0.001			<0.001	<0.001	<0.001		<0.001	
6/21/2008					<0.001			<0.001	
6/22/2008	<0.001			<0.001		<0.001			
12/6/2008				<0.001	<0.001	<0.001		<0.001	
12/7/2008	<0.001								
7/10/2009				<0.001					
7/11/2009	<0.001				<0.001	<0.001		<0.001	
12/22/2009						<0.001			
12/23/2009	<0.001			<0.001	<0.001			<0.001	
6/23/2010				<0.001	<0.001	<0.001		<0.001	
6/24/2010	<0.001								
1/8/2011				<0.001	<0.001	<0.001		<0.001	
1/9/2011	<0.001								
7/10/2011				<0.001	<0.001	<0.001		<0.001	
7/11/2011	<0.001								
1/19/2012				<0.001	<0.001				
1/20/2012	<0.001					<0.001		<0.001	
7/12/2012				<0.001	<0.001	<0.001		<0.001	
7/13/2012	<0.001								
1/21/2013	<0.001			<0.001	<0.001	<0.001		<0.001	
7/20/2013	<0.001			<0.001	<0.001	<0.001		<0.001	
1/17/2014	<0.001			<0.001	<0.001	<0.001		<0.001	
7/12/2014	<0.001			<0.001	<0.001	<0.001		<0.001	
1/15/2015				<0.001	<0.001				
1/16/2015	<0.001					<0.001		<0.001	
7/15/2015	<0.001			<0.001	<0.001	<0.001		<0.001	
1/16/2016	<0.001			<0.001	<0.001	<0.001		<0.001	
6/22/2016	0.00125 (JD)			0.00025 (JD)	0.0003 (J)	0.001 (J)		<0.001	
8/31/2016				<0.001	<0.001	0.00099 (J)		<0.001	
9/1/2016	0.082 (o)								
1/19/2017				<0.001	<0.001	0.001 (J)			
1/23/2017								<0.001	
2/28/2017	<0.001								

Time Series

Constituent: Lead (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/17/2017	<0.001								
7/18/2017				<0.001	<0.001				
7/19/2017						0.00081 (J)		<0.001	
9/20/2017	0.00035 (J)			<0.001					
9/21/2017					0.0076	0.00086 (J)		0.004 (o)	
1/8/2018	<0.001								
1/9/2018				<0.001	0.0023	0.00059 (J)		<0.001	
3/27/2018	<0.001			<0.001	<0.001	<0.001			
3/28/2018								<0.001	
7/10/2018	<0.001			<0.001	<0.001	0.00045 (J)			
7/11/2018								<0.001	
10/8/2018	<0.001		<0.001		<0.001	<0.001	<0.001		
10/9/2018				<0.001				<0.001	
1/30/2019	0.00021 (J)		0.00028 (J)	0.00034 (J)	0.00013 (J)	0.00064 (J)	<0.001	<0.001	
3/27/2019	<0.001					0.0012 (J)			
3/28/2019			<0.001	0.00038 (J)	<0.001		<0.001	<0.001	
9/11/2019	<0.001								
9/12/2019			<0.001	<0.001	<0.001	0.00082 (J)	<0.001	<0.001	
3/10/2020	0.00015 (J)		<0.001	0.00013 (J)	0.00031 (J)	0.0022			
3/11/2020							<0.001	<0.001	
4/2/2020				0.00062 (J)					
9/21/2020	<0.001			<0.001	0.00025 (J)		<0.001		
9/22/2020			<0.001			0.0012		<0.001	
3/23/2021	0.00017 (J)	<0.001	<0.001	0.00029 (J)			<0.001		
3/24/2021					0.00021 (J)	0.00066 (J)		<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	0.0054 (o)	<0.001	<0.001		<0.001	
11/12/1999	<0.001	<0.001	<0.001		<0.001	
12/29/1999	<0.001	<0.001	<0.001		<0.001	
2/17/2000	<0.001	<0.001	<0.001		<0.001	
9/13/2000	<0.001	0.0067 (o)	<0.001		0.079 (o)	
11/10/2000	<0.001	<0.001	<0.001		<0.001	
1/4/2001	<0.001	<0.001	<0.001		<0.001	
12/11/2001	<0.001	<0.001	<0.001		<0.001	
4/4/2002	<0.001	<0.001	<0.001		<0.001	
12/6/2002	<0.001	<0.001	0.007 (o)		<0.001	
6/28/2003	<0.001	<0.001	<0.001		<0.001	
12/13/2003	<0.001	<0.001	0.018 (o)		<0.001	
5/28/2004	<0.001	<0.001	<0.001		<0.001	
12/10/2004	<0.001	<0.001	<0.001		0.0073	
6/24/2005	<0.001	<0.001	<0.001		<0.001	
12/13/2005	<0.001	<0.001	<0.001		<0.001	
7/12/2006	<0.001	<0.001	<0.001		<0.001	
12/1/2006	<0.001	<0.001	<0.001		<0.001	
6/21/2007	<0.001	<0.001	<0.001		<0.001	
12/15/2007	<0.001	<0.001	<0.001		<0.001	
6/21/2008		<0.001	<0.001			
6/22/2008	<0.001				<0.001	
12/6/2008	<0.001	<0.001				
12/7/2008			<0.001		<0.001	
7/11/2009	<0.001	<0.001	<0.001		<0.001	
12/23/2009	<0.001	<0.001	<0.001		<0.001	
6/23/2010	<0.001	<0.001	<0.001			
6/24/2010					<0.001	
1/8/2011	<0.001	<0.001	<0.001			
7/10/2011	<0.001	<0.001	<0.001			
7/11/2011					<0.001	
1/20/2012	<0.001	<0.001	<0.001		<0.001	
7/12/2012	<0.001	<0.001	<0.001			
7/13/2012					<0.001	
1/21/2013	<0.001	<0.001	<0.001		<0.001	
7/20/2013	<0.001	<0.001	<0.001		<0.001	
1/17/2014	<0.001	<0.001	<0.001		<0.001	
7/11/2014		<0.001	<0.001			
7/12/2014	<0.001				<0.001	
1/15/2015	<0.001					
1/16/2015		<0.001	<0.001		<0.001	
7/15/2015	<0.001	<0.001	<0.001		<0.001	
1/16/2016			<0.001		<0.001	
1/17/2016	<0.001	<0.001				
6/22/2016	0.0001 (J)	<0.001				
6/23/2016			0.0001 (J)		<0.001	
8/31/2016	<0.001	<0.001				
9/1/2016			<0.001		0.006	
1/24/2017	<0.001		<0.001			
1/25/2017		<0.001 (D)				
1/27/2017					<0.001 (D)	
7/19/2017	<0.001					

Time Series

Constituent: Lead (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
7/20/2017		<0.001	<0.001		<0.001	
9/21/2017	0.0014 (o)	<0.001	<0.001			
9/22/2017					0.00042 (J)	
1/9/2018	<0.001	<0.001				
1/10/2018			<0.001		<0.001	
3/28/2018		<0.001	<0.001			
3/29/2018	<0.001				<0.001	
7/10/2018	<0.001	<0.001				
7/11/2018			<0.001		0.00037 (J)	
10/9/2018	<0.001	<0.001	<0.001		<0.001	
1/30/2019		<0.001				
1/31/2019	<0.001		<0.001		<0.001	
3/28/2019	<0.001	<0.001	<0.001		0.00052 (J)	
9/12/2019	<0.001	<0.001	0.00024 (J)		0.00065 (J)	
3/11/2020					<0.001	
3/31/2020	<0.001	<0.001	<0.001			
9/22/2020	<0.001	<0.001	0.00013 (J)		<0.001	
3/23/2021	<0.001					<0.001
3/24/2021		<0.001	0.00034 (J)	0.0003 (J)	<0.001	

Time Series

Constituent: pH (S.U.) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	6.63			6.42	6.51	6.3		5.23	
11/12/1999	5.51			5.03	5.46	4.72		5.02	
12/29/1999	5.23			4.92	5.13	4.8		4.75	
2/17/2000	5.29			5.13	5.22	4.78		4.99	
9/13/2000	5.41			4.85	4.86	4.58		4.81	
11/10/2000	5.47			5.05	5.29	4.5		4.79	
1/4/2001	5.44			5.08	5.53	4.61		4.79	
12/11/2001	4.86			4.81	5.37	4.87		4.86	
4/4/2002	5.1			4.92	5.32	4.96		5.39	
12/6/2002	4.917 (D)			5.07 (D)	5.3 (D)	4.4 (D)		4.63	
6/28/2003	4.91			4.69	4.73	3.77		4.19	
12/13/2003	4.87			4.81	4.53	4.25		5.2	
5/28/2004	4.98			3.93	4.22	3.9		4.57	
12/10/2004	4.35			4.25	4.26	3.71		4.16	
6/24/2005	4.82			4.5	4.47	3.94		4.23	
12/13/2005	4.66			4.52	4.47	3.94		4.24	
7/12/2006	5.49			3.59	3.68	5.56		4.36	
7/11/2014	5.55								
7/12/2014				5.44	5.33	3.88		3.23	
7/15/2015	5.13			4.98	4.94	4.19		4.85	
1/16/2016	5.06			4.87	4.85	4.35			
8/31/2016				4.92	4.79	4.53		5.02	
1/19/2017				4.86	4.72	4.79			
1/23/2017								5.22	
2/28/2017	5.33								
7/17/2017	5.09								
7/18/2017				5.02	4.96				
7/19/2017						4.83		5.23	
9/20/2017	5.29			4.72					
9/21/2017					4.7	4.57		5.34	
1/8/2018	5.26			4.92					
1/9/2018				4.83	4.91	4.4		5	
3/27/2018	5.27			4.91	4.92	4.11			
3/28/2018								5.08	
7/10/2018	5.17			4.87	4.94	4.62			
7/11/2018								5.07	
10/8/2018	5.18		5.29	4.84	4.76	4.51	5.79		
10/9/2018								5.1	
1/30/2019	5.17		5.08	4.88	4.94	4.72	5.15	4.81	
3/27/2019	5.09					4.56			
3/28/2019			4.93	4.8	4.99		5.62	4.99	
9/11/2019	5.1								
9/12/2019			5.57	4.99	4.92	4.54	5.1	4.95	
3/10/2020	5.48		5.56	4.79	4.59	4.81			
3/11/2020							5.05	5.21	
4/2/2020				4.75					
9/21/2020	4.95			4.69	4.6		5.35		
9/22/2020			5.83			4.99		4.66	
3/23/2021	5.17	5.63	5.61	4.6			5.01		
3/24/2021					4.42	4.37		4.86	4.38

Time Series

Constituent: pH (S.U.) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	6.08	5.33	6.13		5.84	
11/12/1999	5.35	4.6	5.81		5.34	
12/29/1999	5.19	4.8	5.43		5.01	
2/17/2000	5.18	4.98	5.49		5.04	
9/13/2000	5.13	4.75	5.05		5.29	
11/10/2000	5.2	4.65	5.48		5.99	
1/4/2001	5.14	4.83	4.99		5.31	
12/11/2001	4.93	4.73	5.52		5.18	
4/4/2002	5	5.05	5.5		5.31	
12/6/2002	5.02	4.65 (D)	4.58 (D)		4.9 (D)	
6/28/2003	4.92	4	4.32		4.82	
12/13/2003	4.82	4.97	4.73		4.8	
5/28/2004	4.6	4.51	4.5		5.18	
12/10/2004	4.29	4.09	4.28		4.43	
2/5/2005	4.43				4.6	
6/24/2005	4.56	4.27	4.56		4.93	
12/13/2005	4.34	4.54	4.49		4.36	
7/12/2006	4.38	4.57	4.8		5.5	
7/11/2014		4.64	4.83		5.54	
7/12/2014	5.68					
7/15/2015	5.22	4.67	4.66		5.22	
1/16/2016			5.05		4.9	
1/17/2016	6.07					
8/31/2016	5.49	4.89				
9/1/2016			7.21		5	
1/24/2017	5.25		8.32			
1/25/2017		4.73				
7/19/2017	5.54				5.27	
7/20/2017		4.96	7.41			
9/21/2017	5.19	4.78	6.94		4.99	
1/9/2018	4.97	4.79	7.39		5.25	
3/28/2018		4.44	7.31		5.14	
3/29/2018	5.15					
7/10/2018	5.37	4.88			5.13	
7/11/2018			7.09			
10/9/2018	5.04	4.85	6.68		4.93	
1/29/2019		4.7				
1/30/2019		4.52			4.52	
1/31/2019	5.38		5.69		4.52	
3/28/2019	5.38	4.68	5.46		4.85	
9/12/2019	5.14	4.89	5.96		4.96	
3/11/2020					5.23	
3/31/2020	5.64	4.66	6.17			
9/22/2020	5.04	4.92	5.87		4.73	
3/23/2021	5.61					5.31
3/24/2021		4.59	5.04	5.42	5.11	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
8/31/2016				<1	7	21		<1	
9/1/2016	<1								
1/19/2017				<1	6.3	11			
1/23/2017								<1	
2/28/2017	2.7								
7/17/2017	<1								
7/18/2017				<1	4.7				
7/19/2017						12		<1	
9/20/2017	<1			<1					
9/21/2017					4.5	15		<1	
1/8/2018	<1								
1/9/2018				<1	3	25		<1	
3/27/2018	<1			<1	3.8	31			
3/28/2018								<1	
7/10/2018	<1			<1	3.4	19			
7/11/2018								<1	
10/8/2018	<1		73		3.4	17	75		
10/9/2018				<1				<1	
1/30/2019	1.2		74	0.41 (J)	3.5	15	85	0.58 (J)	
3/27/2019	<1					20			
3/28/2019			71	0.44 (J)	3		85	0.67 (J)	
9/11/2019	<1								
9/12/2019			59	0.69 (J)	3.7	10	81	0.78 (J)	
3/10/2020	1.5		57	3	7.2	15			
3/11/2020							110	3.5	
4/2/2020				<1					
9/21/2020	<1			<1	5		49		
9/22/2020			52			12		0.63 (J)	
3/23/2021	<1	6.8	49	<1			88		
3/24/2021					7	16		0.77 (J)	1

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
8/31/2016	<1	1.7				
9/1/2016			110			
1/24/2017	<1		67			
1/25/2017		1.8				
1/27/2017					1.2	
7/19/2017	<1					
7/20/2017		0.83 (J)	25		0.84 (J)	
9/21/2017	<1	1.1	19			
9/22/2017					1.1	
1/9/2018	<1	0.79 (J)				
1/10/2018			25		0.95 (J)	
3/28/2018		0.79 (J)	26			
3/29/2018	<1				0.78 (J)	
7/10/2018	<1	0.76 (J)				
7/11/2018			26		0.78 (J)	
10/9/2018	<1	<1	10		0.79 (J)	
1/30/2019		0.9 (J)				
1/31/2019	0.57 (J)		4.8		0.86 (J)	
3/28/2019	<1	1.1	3		0.96 (J)	
9/12/2019	0.43 (J)	1.1	4.9		1	
3/11/2020					2.2	
3/31/2020	1	2.5	11			
9/22/2020	<1	0.76 (J)	4.3		0.59 (J)	
3/23/2021	0.8 (J)					10
3/24/2021		<1	<1	26	0.76 (J)	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
8/31/2016				42 (D)	14 (D)	66 (D)		18 (D)	
9/1/2016	2200 (o)								
1/19/2017				52 (D)	34 (D)	48 (D)			
1/23/2017								22 (D)	
2/28/2017	74 (D)								
7/17/2017	50								
7/18/2017				32	26				
7/19/2017						48		52	
9/20/2017	26			16					
9/21/2017					24	76		38	
1/8/2018	16								
1/9/2018				4 (J)	16	18		4 (J)	
3/27/2018	40			30	<10	48			
3/28/2018								4 (J)	
7/10/2018	90			30	14	76			
7/11/2018								32	
10/8/2018	70		170		36	8	180		
10/9/2018				56				22	
1/30/2019	82		140	41	40	67	180	24	
3/27/2019	66					70			
3/28/2019			150	36	24		170	25	
9/11/2019	53								
9/12/2019			89	<10	10	20	140	29	
3/10/2020	67		130	49	39	67			
3/11/2020							180	37	
4/2/2020				61					
9/21/2020	31			61	31		130		
9/22/2020			110			53		<10	
3/23/2021	47	63	130	76			180		
3/24/2021					36	60		32	59

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
8/31/2016	42 (D)	36 (D)				
9/1/2016			500 (D)			
1/24/2017	28 (D)		160 (D)			
1/25/2017		58 (D)				
1/27/2017					58 (D)	
7/19/2017	42					
7/20/2017		16	210		64	
9/21/2017	46	24	280			
9/22/2017					66	
1/9/2018	10	8				
1/10/2018			94		54	
3/28/2018		26	60			
3/29/2018	52				78	
7/10/2018	38	26				
7/11/2018			290		78	
10/9/2018	52	16	44		70	
1/30/2019		37				
1/31/2019	45		180		84	
3/28/2019	45	28	110		62	
9/12/2019	28	<10	110		80	
3/11/2020					67	
3/31/2020	50	52	750			
9/22/2020	30	36	440		30	
3/23/2021	56					71
3/24/2021		27	130	97	36	

Time Series

Constituent: Vanadium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	0.02			<0.001	<0.001	<0.001		<0.001	
11/12/1999	0.027			<0.001	<0.001	<0.001		<0.001	
12/29/1999	0.055			<0.001	<0.001	<0.001		<0.001	
2/17/2000	0.042			<0.001	<0.001	<0.001		<0.001	
9/13/2000	<0.001			<0.001	<0.001	<0.001		<0.001	
11/10/2000	0.014			<0.001	<0.001	<0.001		<0.001	
1/4/2001	<0.001			<0.001	<0.001	<0.001		<0.001	
12/11/2001	<0.001			<0.001	<0.001	<0.001		<0.001	
4/4/2002	<0.001			<0.001	<0.001	<0.001		<0.001	
12/6/2002	<0.001			<0.001	<0.001	0.03		<0.001	
6/28/2003	<0.001			<0.001	<0.001	<0.001		<0.001	
12/13/2003	<0.001			<0.001	<0.001	<0.001		<0.001	
5/28/2004	0.017			<0.001	<0.001	<0.001		<0.001	
12/10/2004	0.0082			<0.001	<0.001	<0.001		<0.001	
6/24/2005	<0.001			<0.001	<0.001	<0.001		<0.001	
12/13/2005	<0.001			<0.001	<0.001	<0.001		<0.001	
7/12/2006	0.023			<0.001	<0.001	<0.001		<0.001	
12/1/2006	0.0081			<0.001	<0.001	<0.001		<0.001	
6/21/2007	0.009			0.0038	<0.001	0.07 (o)		<0.001	
12/15/2007	0.0056			<0.001	<0.001	<0.001		<0.001	
6/21/2008					<0.001			<0.001	
6/22/2008	0.013			<0.001		0.0026			
12/6/2008				<0.001	<0.001	<0.001		<0.001	
12/7/2008	0.0027								
7/10/2009				<0.001					
7/11/2009	0.0032				<0.001	<0.001		<0.001	
12/22/2009						<0.001			
12/23/2009	0.0093			<0.001	<0.001			<0.001	
6/23/2010				<0.001	<0.001	<0.001		<0.001	
6/24/2010	0.0033								
1/8/2011				<0.001	<0.001	<0.001		<0.001	
1/9/2011	<0.001								
7/10/2011				<0.001	<0.001	<0.001		<0.001	
7/11/2011	<0.001								
1/19/2012				<0.001	<0.001				
1/20/2012	<0.001					<0.001		<0.001	
7/12/2012				<0.001	<0.001	<0.001		<0.001	
7/13/2012	0.011								
1/21/2013	0.028			<0.001	<0.001	<0.001		<0.001	
7/20/2013	<0.001			<0.001	<0.001	<0.001		<0.001	
1/17/2014	0.019			<0.001	<0.001	<0.001		<0.001	
7/12/2014	<0.005 (J)			<0.001	<0.001	<0.001		<0.001	
1/15/2015				<0.001	<0.001				
1/16/2015	0.0012 (J)					0.0011 (J)		<0.001	
7/15/2015	<0.001			<0.001	<0.001	0.0016 (J)		<0.001	
1/16/2016	0.0015 (J)			0.0011 (J)	0.00082 (J)	<0.001		<0.001	
6/22/2016	0.0056 (D)			<0.001	<0.001	0.0018 (J)		<0.001	
1/19/2017				<0.001	0.0025	0.0033			
1/23/2017								0.0063	
2/28/2017	0.0019 (J)								
7/17/2017	<0.001								
7/18/2017				<0.001	<0.001				

Time Series

Constituent: Vanadium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/19/2017						0.0045		<0.001	
1/8/2018	<0.001								
1/9/2018				<0.001	0.0072	0.0027		<0.001	
7/10/2018	<0.001			<0.001	<0.001	<0.001			
7/11/2018								<0.001	
1/30/2019	<0.001		<0.001	<0.001	<0.001	0.0019 (J)	<0.001	<0.001	
3/27/2019	<0.001					<0.001			
3/28/2019			<0.001	<0.001	<0.001		<0.001	<0.001	
9/11/2019	0.0014								
9/12/2019			0.0021	0.002	0.0017	0.004	0.002	0.0023	
3/10/2020	<0.001		<0.001	<0.001	<0.001	0.01			
3/11/2020							<0.001	<0.001	
4/2/2020				0.0013					
9/21/2020	<0.001			<0.001	0.0012		<0.001		
9/22/2020			<0.001			0.0056		<0.001	
3/23/2021	<0.001	<0.001	<0.001	<0.001			<0.001		
3/24/2021					<0.001	0.0018		<0.001	<0.001

Time Series

Constituent: Vanadium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	0.015 (o)	<0.001	<0.001		<0.001	
11/12/1999	<0.001	<0.001	<0.001		<0.001	
12/29/1999	<0.001	<0.001	<0.001		<0.001	
2/17/2000	<0.001	<0.001	<0.001		<0.001	
9/13/2000	<0.001	<0.001	<0.001		<0.001	
11/10/2000	<0.001	<0.001	<0.001		<0.001	
1/4/2001	<0.001	<0.001	<0.001		<0.001	
12/11/2001	<0.001	<0.001	<0.001		<0.001	
4/4/2002	<0.001	<0.001	<0.001		<0.001	
12/6/2002	<0.001	<0.001	0.0082		<0.001	
6/28/2003	<0.001	<0.001	<0.001		<0.001	
12/13/2003	<0.001	<0.001	0.017		<0.001	
5/28/2004	<0.001	<0.001	<0.001		<0.001	
12/10/2004	<0.001	<0.001	<0.001		<0.001	
6/24/2005	<0.001	<0.001	<0.001		<0.001	
12/13/2005	<0.001	<0.001	<0.001		<0.001	
7/12/2006	<0.001	<0.001	<0.001		<0.001	
12/1/2006	<0.001	<0.001	<0.001		<0.001	
6/21/2007	<0.001	<0.001	<0.001		<0.001	
12/15/2007	<0.001	<0.001	<0.001		<0.001	
6/21/2008		<0.001	<0.001			
6/22/2008	<0.001				<0.001	
12/6/2008	<0.001	<0.001				
12/7/2008			<0.001		<0.001	
7/11/2009	<0.001	<0.001	<0.001		<0.001	
12/23/2009	<0.001	<0.001	<0.001		<0.001	
6/23/2010	<0.001	<0.001	<0.001			
6/24/2010					<0.001	
1/8/2011	<0.001	<0.001	<0.001			
7/10/2011	<0.001	<0.001	<0.001			
7/11/2011					<0.001	
1/20/2012	<0.001	<0.001	<0.001		<0.001	
7/12/2012	<0.001	<0.001	<0.001			
7/13/2012					<0.001	
1/21/2013	<0.001	<0.001	<0.001		<0.001	
7/20/2013	<0.001	<0.001	<0.001		<0.001	
1/17/2014	<0.001	<0.001	<0.001		<0.001	
7/11/2014		<0.001	<0.001			
7/12/2014	<0.001				<0.001	
1/15/2015	<0.001					
1/16/2015		<0.001	<0.001		<0.001	
7/15/2015	<0.001	<0.001	<0.001		<0.001	
1/16/2016			<0.001		<0.001	
1/17/2016	<0.001	<0.001				
6/22/2016	0.0019 (J)	<0.001				
6/23/2016			0.0021 (J)		<0.001	
1/24/2017	0.0062		0.044 (o)			
1/25/2017		<0.001				
1/27/2017					<0.001	
7/19/2017	0.0015 (J)					
7/20/2017		<0.001	0.014		0.0021 (J)	
1/9/2018	<0.001	<0.001				

Time Series

Constituent: Vanadium (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
1/10/2018			0.014		<0.001	
7/10/2018	<0.001	<0.001				
7/11/2018			0.011 (J)		<0.001	
1/30/2019		<0.001				
1/31/2019	<0.001		<0.001		<0.001	
3/28/2019	<0.001	<0.001	<0.001		<0.001	
9/12/2019	0.0018	0.0021	0.0044		0.0043	
3/11/2020					<0.001	
3/31/2020	<0.001	<0.001	0.0016			
9/22/2020	<0.001	<0.001	0.0015		0.0011	
3/23/2021	<0.001					<0.001
3/24/2021		<0.001	<0.001	<0.001	<0.001	

Time Series

Constituent: Zinc (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
10/5/1999	0.043			0.023	0.039	<0.005		<0.005	
11/12/1999	0.035			<0.005	0.025	<0.005		<0.005	
12/29/1999	0.058			<0.005	0.023	<0.005		<0.005	
2/17/2000	0.051			<0.005	<0.005	<0.005		<0.005	
9/13/2000	<0.005			<0.005	0.035	0.021		<0.005	
11/10/2000	<0.005			<0.005	0.023	<0.005		<0.005	
1/4/2001	<0.005			<0.005	0.027	<0.005		<0.005	
12/11/2001	<0.005			<0.005	0.036	<0.005		<0.005	
4/4/2002	<0.005			<0.005	0.038	<0.005		<0.005	
12/6/2002	<0.005			<0.005	0.033	0.06		0.011	
6/28/2003	<0.005			<0.005	0.018	0.19 (o)		<0.005	
12/13/2003	<0.005			<0.005	0.013	0.067		<0.005	
5/28/2004	0.034			<0.005	<0.005	0.068		<0.005	
12/10/2004	0.021			<0.005	<0.005	0.039		<0.005	
6/24/2005	<0.005			<0.005	<0.005	0.033		<0.005	
12/13/2005	0.013			<0.005	0.011	0.039		0.015	
7/12/2006	0.074			0.0047	0.0055	0.022		0.0042	
12/1/2006	0.048			0.065	0.0052	0.018		0.0047	
6/21/2007	0.067			0.008	0.0062	0.058		0.0052	
12/15/2007	0.053			0.0043	0.0055	0.0072		0.0046	
6/21/2008					0.011			0.0067	
6/22/2008	0.024			0.0062		0.011			
12/6/2008				0.051	0.008	0.011		0.0054	
12/7/2008	0.0087								
7/10/2009				0.0043					
7/11/2009	0.045				0.011	0.013		0.0038	
12/22/2009						0.013			
12/23/2009	0.054			0.0039	0.0051			0.0029	
6/23/2010				<0.005	0.0031	0.0084		<0.005	
6/24/2010	0.0065								
1/8/2011				0.0037	0.0035	0.0089		0.0032	
1/9/2011	0.022								
7/10/2011				0.0047	0.0081	0.0084		0.004	
7/11/2011	0.0032								
1/19/2012				0.0045	0.017				
1/20/2012	0.0089					0.0094		0.0067	
7/12/2012				0.0033	0.01	0.0098		0.0036	
7/13/2012	0.012								
1/21/2013	0.024			0.0038	0.013	0.007		0.0031	
7/20/2013	0.0068			0.004	<0.005	0.0074		<0.005	
1/17/2014	0.02			0.005	0.0066	0.0092		0.0031	
7/12/2014	0.0055			0.004	0.0054	0.013		<0.0025 (J)	
1/15/2015				0.0056	0.0076				
1/16/2015	0.0043					0.0081		0.002 (J)	
7/15/2015	0.0026			0.0034	0.0053	0.009		0.0015 (J)	
1/16/2016	0.0035			0.0038	0.0048	0.007		0.0015 (J)	
6/22/2016	0.00805 (JD)			0.00575 (JD)	0.0038 (J)	0.0091 (J)		<0.005	
1/19/2017				<0.005	<0.005	0.0065 (J)			
1/23/2017								<0.005	
2/28/2017	<0.005								
7/17/2017	<0.005								
7/18/2017				<0.005	<0.005				

Time Series

Constituent: Zinc (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-1B	GWA-2B (bg)	GWA-3A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWA-7A (bg)	GWC-1	GWC-1A
7/19/2017						0.0099 (J)		<0.005	
1/8/2018	<0.005								
1/9/2018				<0.005	0.0072 (J)	0.014 (J)		<0.005	
7/10/2018	<0.005			<0.005	<0.005	0.0089 (J)			
7/11/2018								<0.005	
1/30/2019	<0.005		0.013 (J)	0.0058 (J)	0.006 (J)	0.0057 (J)	0.011 (J)	<0.005	
3/27/2019	<0.005					0.01 (J)			
3/28/2019			0.014 (J)	<0.005	<0.005		0.0086 (J)	<0.005	
9/11/2019	0.0062								
9/12/2019			0.0075	0.0081	0.0073	0.0074	0.014	0.0039 (J)	
3/10/2020	<0.005		0.0061	0.0079	0.0079	0.0071			
3/11/2020							0.0099	<0.005	
4/2/2020				0.011					
9/21/2020	<0.005			0.0055	0.013		0.007		
9/22/2020			0.0066			0.039		<0.005	
3/23/2021	<0.005	0.0098	0.0066	0.0092			0.0096		
3/24/2021					0.0058	0.0085		<0.005	0.02

Time Series

Constituent: Zinc (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
10/5/1999	0.028	<0.005	0.037		0.063 (o)	
11/12/1999	<0.005	<0.005	0.022		0.025	
12/29/1999	0.022	<0.005	0.036		0.024	
2/17/2000	0.021	<0.005	<0.005		<0.005	
9/13/2000	<0.005	0.036 (o)	0.027		0.061 (o)	
11/10/2000	<0.005	<0.005	<0.005		0.061 (o)	
1/4/2001	<0.005	<0.005	<0.005		0.05 (o)	
12/11/2001	<0.005	<0.005	<0.005		<0.005	
4/4/2002	0.069 (o)	<0.005	0.028		<0.005	
12/6/2002	0.012	0.012	0.028		0.013	
6/28/2003	0.011	<0.005	0.012		0.014	
12/13/2003	<0.005	<0.005	0.026		<0.005	
5/28/2004	<0.005	<0.005	0.018		<0.005	
12/10/2004	0.027	<0.005	0.029		<0.005	
6/24/2005	<0.005	<0.005	0.016		<0.005	
12/13/2005	0.011	<0.005	0.017		<0.005	
7/12/2006	0.0064	<0.005	0.013		0.0057	
12/1/2006	0.0077	0.098 (o)	0.03		0.0068	
6/21/2007	0.0082	0.0043	0.017		0.016	
12/15/2007	0.0063	0.0057	0.013		0.012	
6/21/2008		0.0064	0.016			
6/22/2008	0.0074				0.014	
12/6/2008	0.0066	0.0052				
12/7/2008			0.05		0.044 (o)	
7/11/2009	0.0054	0.0049	0.013		0.0062	
12/23/2009	0.0046	0.005	0.01		0.007	
6/23/2010	0.0041	0.0044	0.011			
6/24/2010					0.0049	
1/8/2011	0.019	0.0036	0.012			
7/10/2011	0.005	0.0046	0.0096			
7/11/2011					0.0052	
1/20/2012	0.007	0.0045	0.014		0.0081	
7/12/2012	0.0045	0.0041	0.01			
7/13/2012					0.004	
1/21/2013	0.0045	0.0038	0.011		0.0093	
7/20/2013	<0.005	0.0047	0.0089		0.0054	
1/17/2014	0.0075	0.0051	0.0098		0.0054	
7/11/2014		0.0066	0.014			
7/12/2014	0.0051				0.0057	
1/15/2015	0.0054					
1/16/2015		0.0046	0.011		0.0084	
7/15/2015	0.0049	0.0036	0.012		0.0046	
1/16/2016			0.014		0.0051	
1/17/2016	0.0051	0.004				
6/22/2016	0.0087 (J)	0.0053 (J)				
6/23/2016			0.0116		0.0041 (J)	
1/24/2017	0.0071 (J)		0.01 (J)			
1/25/2017		<0.005				
1/27/2017					<0.005	
7/19/2017	<0.005					
7/20/2017		<0.005	0.016 (J)		<0.005	
1/9/2018	0.0079 (J)	<0.005				

Time Series

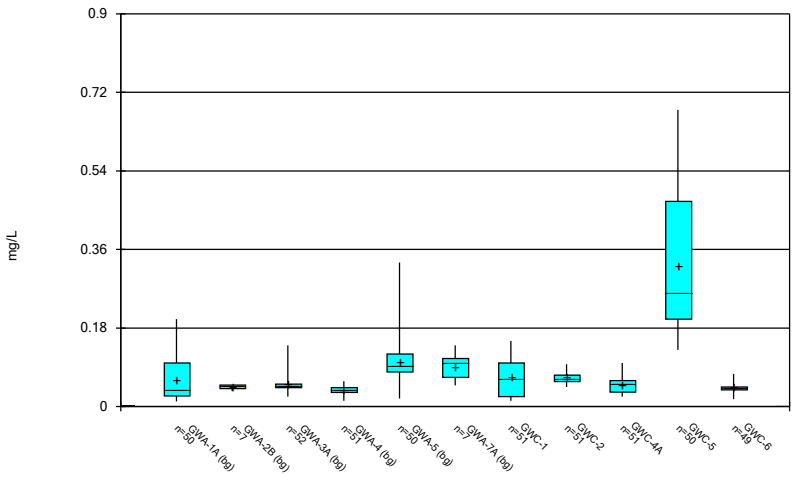
Constituent: Zinc (mg/L) Analysis Run 5/17/2021 2:35 PM View: Time Series

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWC-4A	GWC-5	GWC-5A	GWC-6	GWC-6A
1/10/2018			0.012 (J)		<0.005	
7/10/2018	0.0067 (J)	<0.005				
7/11/2018			0.015 (J)		<0.005	
1/30/2019		0.0042 (J)				
1/31/2019	<0.005		0.033		<0.005	
3/28/2019	0.0069 (J)	<0.005	0.032		0.0084 (J)	
9/12/2019	0.0089	0.0093	0.033		0.011	
3/11/2020					0.0047 (J)	
3/31/2020	0.0065	<0.005	0.025			
9/22/2020	0.029	0.017	0.037		0.0053	
3/23/2021	0.0085					0.0091
3/24/2021		0.01	0.034	0.013	0.0043 (J)	

FIGURE B.

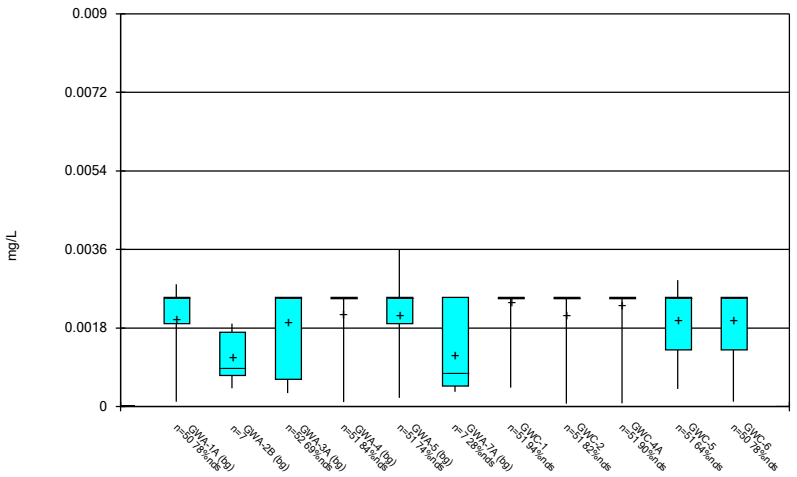
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

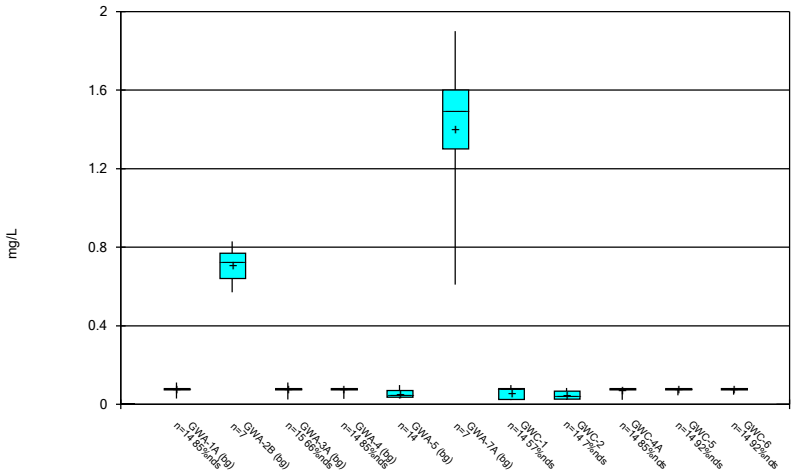
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

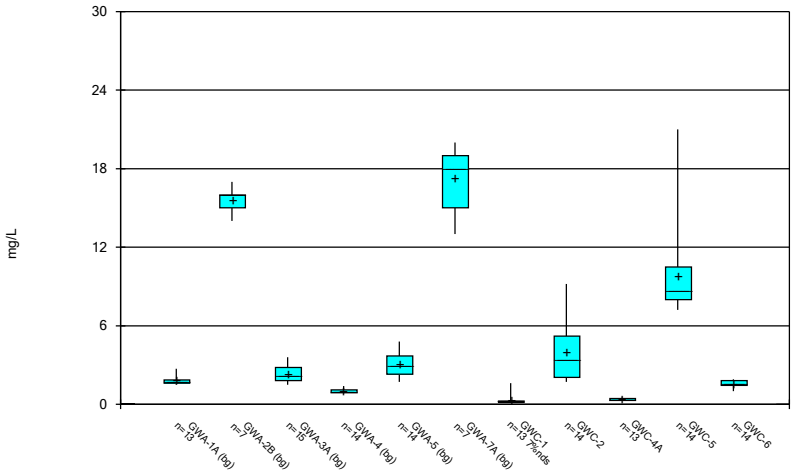
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

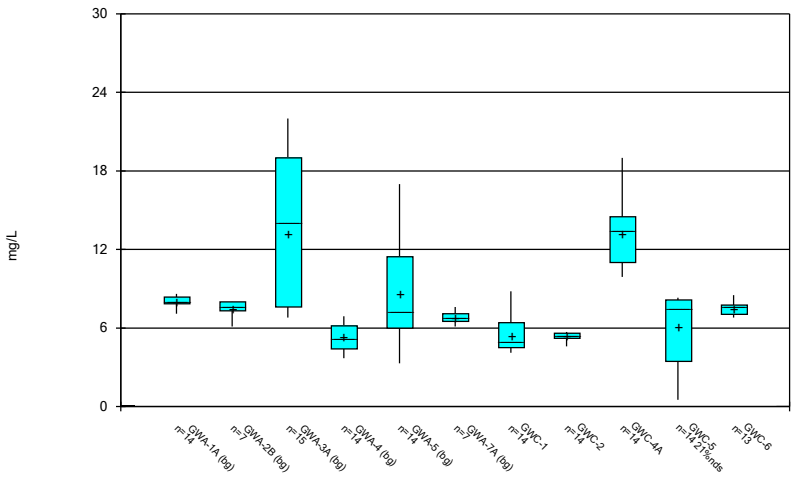
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

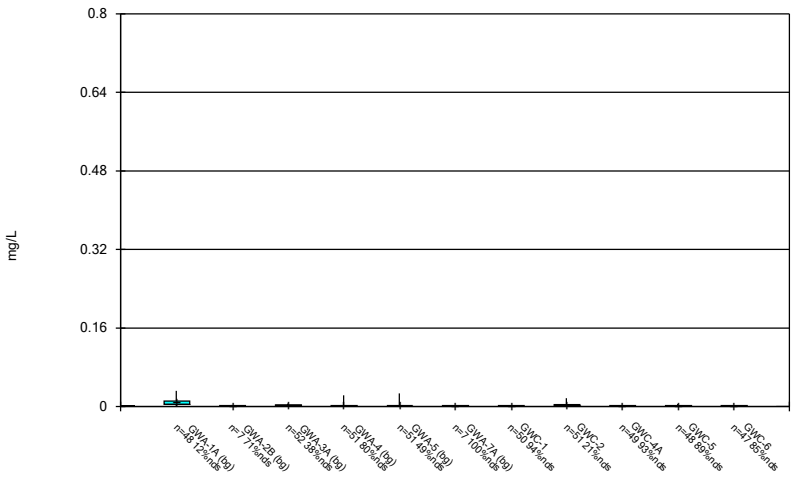
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

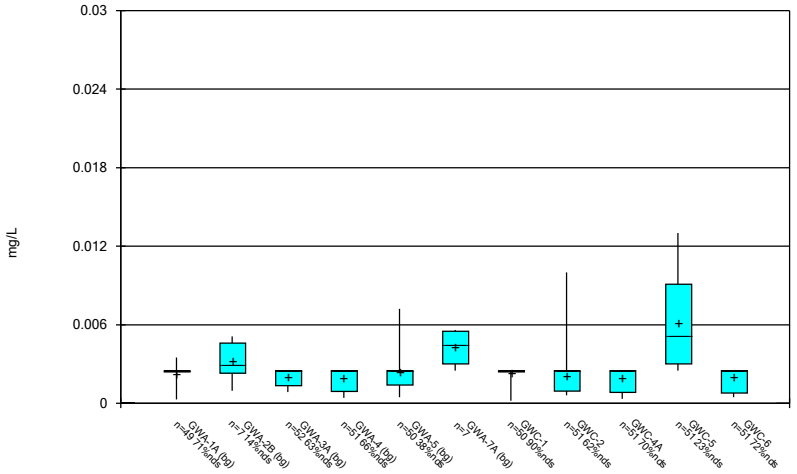
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

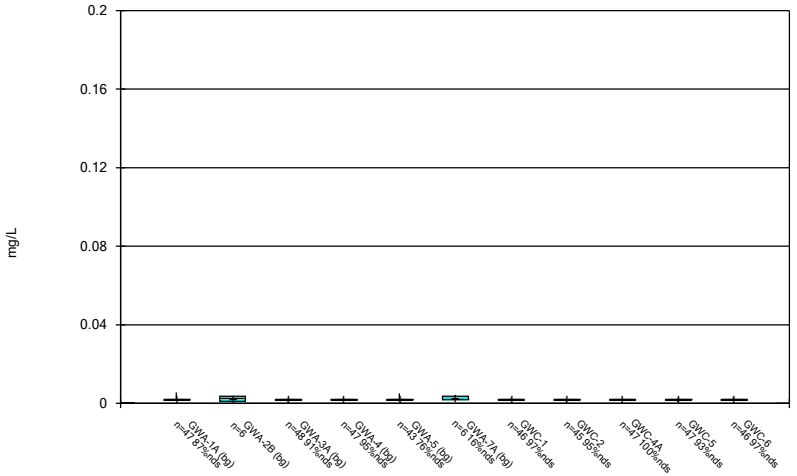
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

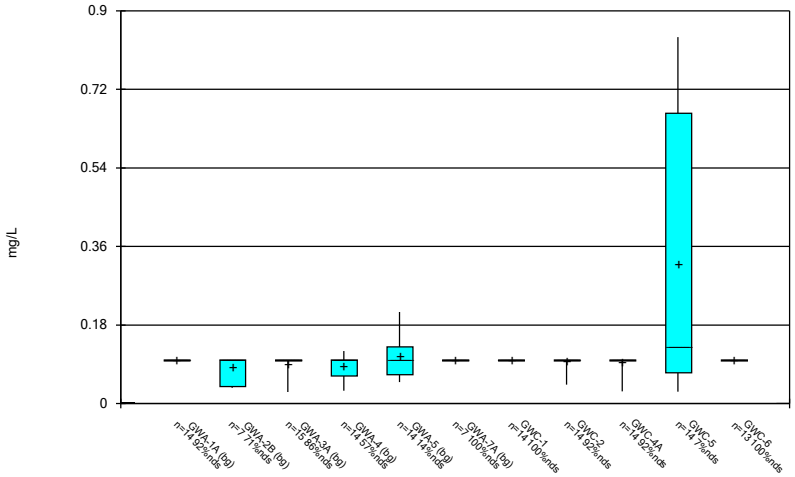
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Copper Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

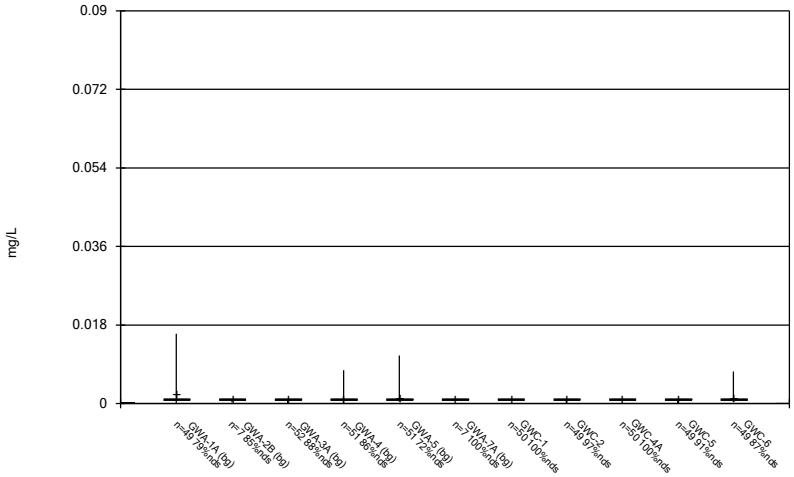
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

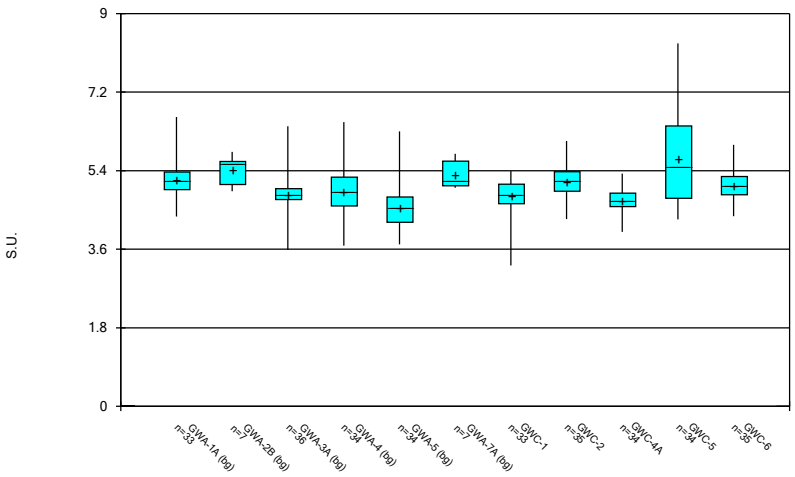
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

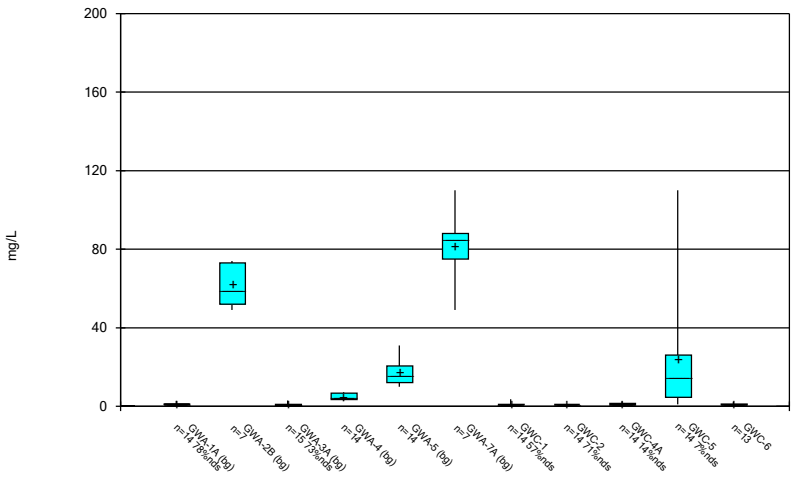
Box & Whiskers Plot



Constituent: pH Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

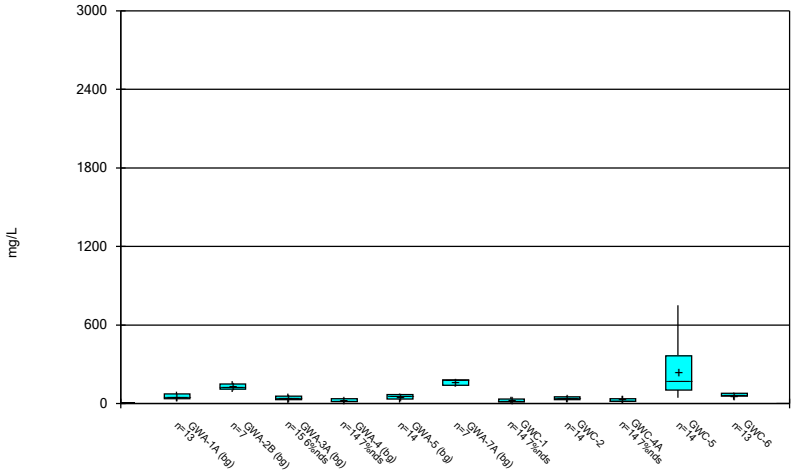
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

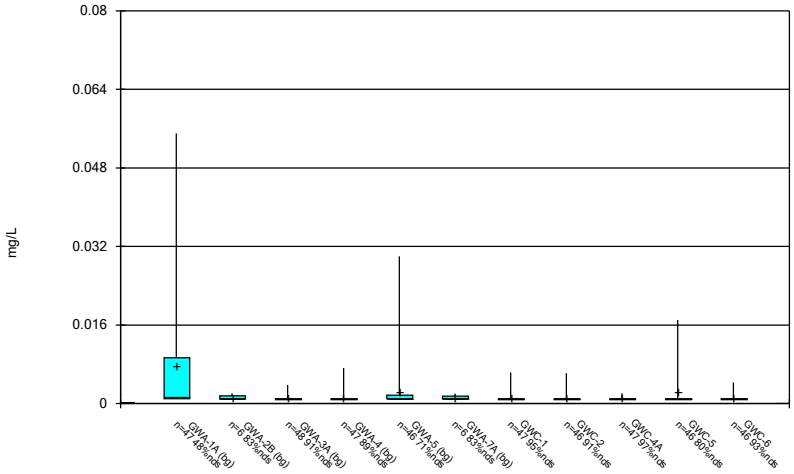
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

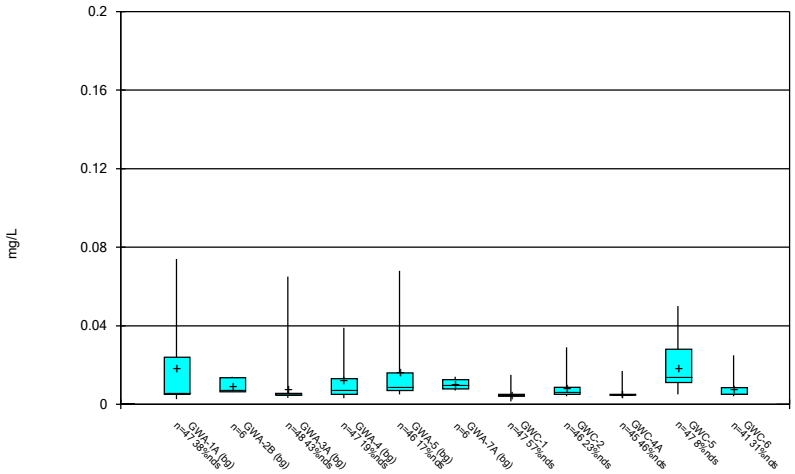
Box & Whiskers Plot



Constituent: Vanadium Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Zinc Analysis Run 5/16/2021 10:27 AM View: Time Series
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

FIGURE C.

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWA-1A Barium (mg/L)	GWA-5 Barium (mg/L)	GWC-5 Barium (mg/L)	GWC-6 Barium (mg/L)	GWA-1A Beryllium (mg/L)	GWC-6 Beryllium (mg/L)	GWA-1A Calcium (mg/L)	GWC-1 Calcium (mg/L)	GWC-4A Calcium (mg/L)	GWA-1A Chromium (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										0.059 (o)
2/17/2000										0.048 (o)
9/13/2000										
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002										
6/28/2003										
12/13/2003										
5/28/2004										
12/10/2004						0.0058 (o)				
7/12/2006										
12/1/2006			0.019 (o)							
6/21/2007										
6/21/2008										
12/7/2008				0.12 (o)						
1/17/2014										
9/1/2016	0.86 (o)				0.0084 (o)		26 (o)			0.12 (o)
1/23/2017								1.3 (o)		
1/24/2017										
9/21/2017										
7/10/2018		0.14 (o)							2 (o)	

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWC-1 Chromium (mg/L)	GWC-2 Chromium (mg/L)	GWC-4A Chromium (mg/L)	GWC-5 Chromium (mg/L)	GWC-6 Chromium (mg/L)	GWA-1A Cobalt (mg/L)	GWA-5 Cobalt (mg/L)	GWC-1 Cobalt (mg/L)	GWA-5 Copper (mg/L)	GWC-1 Copper (mg/L)
10/5/1999										
11/12/1999										
12/29/1999										
2/17/2000										
9/13/2000										
11/10/2000										
1/4/2001					0.016 (o)					
4/4/2002										
12/6/2002				0.008 (o)					0.0089 (o)	
6/28/2003	0.007 (o)		0.061 (o)	0.021 (o)			0.018 (o)		0.019 (o)	
12/13/2003				0.011 (o)					0.0067 (o)	
5/28/2004									0.0057 (o)	
12/10/2004		0.74 (o)	0.0059 (o)		0.0046 (o)					
7/12/2006										0.0047 (o)
12/1/2006						0.012 (o)				
6/21/2007										
6/21/2008								0.0048 (o)		
12/7/2008										
1/17/2014										
9/1/2016					0.0069 (o)	0.023 (o)				
1/23/2017										
1/24/2017										
9/21/2017										
7/10/2018										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWC-2 Copper (mg/L)	GWC-6 Copper (mg/L)	GWA-1A Lead (mg/L)	GWC-1 Lead (mg/L)	GWC-2 Lead (mg/L)	GWC-4A Lead (mg/L)	GWC-5 Lead (mg/L)	GWC-6 Lead (mg/L)	GWA-1A Total Dissolved Solids (mg/L)	GWA-5 Vanadium (mg/L)
10/5/1999					0.0054 (o)					
11/12/1999			0.0063 (o)							
12/29/1999										
2/17/2000										
9/13/2000						0.0067 (o)		0.079 (o)		
11/10/2000										
1/4/2001										
4/4/2002										
12/6/2002							0.007 (o)			
6/28/2003										
12/13/2003							0.018 (o)			
5/28/2004										
12/10/2004	0.11 (o)	0.0044 (o)								
7/12/2006										
12/1/2006										
6/21/2007										0.07 (o)
6/21/2008										
12/7/2008										
1/17/2014	0.0065 (o)									
9/1/2016			0.082 (o)						2200 (o)	
1/23/2017										
1/24/2017										
9/21/2017				0.004 (o)	0.0014 (o)					
7/10/2018										

Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:22 AM

	GWC-2 Vanadium (mg/L)	GWC-5 Vanadium (mg/L)	GWA-5 Zinc (mg/L)	GWC-2 Zinc (mg/L)	GWC-4A Zinc (mg/L)	GWC-6 Zinc (mg/L)
10/5/1999	0.015 (o)					0.063 (o)
11/12/1999						
12/29/1999						
2/17/2000						
9/13/2000					0.036 (o)	0.061 (o)
11/10/2000						0.061 (o)
1/4/2001						0.05 (o)
4/4/2002				0.069 (o)		
12/6/2002						
6/28/2003			0.19 (o)			
12/13/2003						
5/28/2004						
12/10/2004						
7/12/2006						
12/1/2006					0.098 (o)	
6/21/2007						
6/21/2008						
12/7/2008						0.044 (o)
1/17/2014						
9/1/2016						
1/23/2017						
1/24/2017		0.044 (o)				
9/21/2017						
7/10/2018						

Outlier Analysis - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/12/2021, 8:39 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Barium (mg/L)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**0.18,0.18,0.18,0.18,0.12,0.12,0.12,0.12,0.12,0.12**	**n/a w/combined bg**	**NP (n)**	**NaN**	**219**	**0.06695**	**0.06917**	**unknown**	**ChiSquared**
pH (S.U.)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**6.63,6.42,6.51,6.3**	**n/a w/combined bg**	**NP (n)**	**NaN**	**151**	**4.91**	**0.5049**	**unknown**	**ChiSquared**
Total Dissolved Solids (mg/L)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**2200**	**n/a w/combined bg**	**NP (nrm)**	**NaN**	**71**	**93.71**	**258.2**	**unknown**	**ShapiroFrancia**
Zinc (mg/L)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**0.043,0.035,0.035,0.058,0.058,0.051,0.051,0.034,0**	**n/a w/combined bg**	**NP (n)**	**NaN**	**201**	**0.01478**	**0.01939**	**unknown**	**ChiSquared**

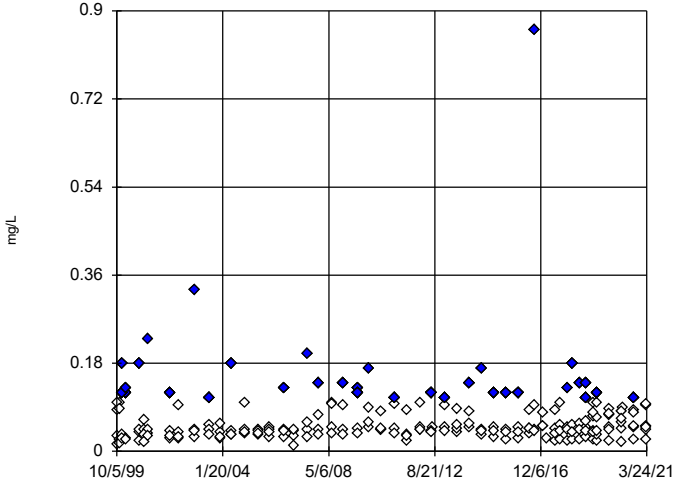
Outlier Analysis - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/12/2021, 8:39 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Barium (mg/L)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**0.18,0.18,0.18,0.18,0.12,0.12,0.12,0.12,0.12,0.12**	**n/a w/combined bg**	**NP (n)**	**NaN**	**219**	**0.06695**	**0.06917**	**unknown**	**ChiSquared**
Beryllium (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (n)	NaN	219	0.000...	0.0008338	unknown	ChiSquared
Boron (mg/L)	GWA-1A,GWA-2B,GWA...	No	n/a	n/a w/combined bg	NP (nrm)	NaN	71	0.2382	0.4524	unknown	ShapiroFrancia
Calcium (mg/L)	GWA-1A,GWA-2B,GWA...	No	n/a	n/a w/combined bg	NP (nrm)	NaN	71	5.215	6.388	unknown	ShapiroFrancia
Chloride (mg/L)	GWA-1A,GWA-2B,GWA...	No	n/a	n/a w/combined bg	NP (nrm)	NaN	71	8.511	4.039	unknown	ShapiroFrancia
Chromium (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (n)	NaN	219	0.005159	0.01054	unknown	ChiSquared
Cobalt (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (n)	NaN	219	0.002493	0.00253	unknown	ChiSquared
Copper (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (n)	NaN	201	0.003461	0.003509	unknown	ChiSquared
Fluoride (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (nrm)	NaN	71	0.07818	0.03543	unknown	ShapiroFrancia
Lead (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (n)	NaN	219	0.00388	0.006073	unknown	ChiSquared
pH (S.U.)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**6.63,6.42,6.51,6.3**	**n/a w/combined bg**	**NP (n)**	**NaN**	**151**	**4.91**	**0.5049**	**unknown**	**ChiSquared**
Sulfate (mg/L)	GWA-1A,GWA-2B,GWA...	No	n/a	n/a w/combined bg	NP (nrm)	NaN	71	18.77	28.39	unknown	ShapiroFrancia
Total Dissolved Solids (mg/L)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**2200**	**n/a w/combined bg**	**NP (nrm)**	**NaN**	**71**	**93.71**	**258.2**	**unknown**	**ShapiroFrancia**
Vanadium (mg/L)	GWA-1A,GWA-2B,GWA...	n/a	n/a	n/a w/combined bg	NP (n)	NaN	201	0.004344	0.007866	unknown	ChiSquared
Zinc (mg/L)	**GWA-1A,GWA-2B,GWA...**	**Yes**	**0.043,0.035,0.035,0.058,0.058,0.051,0.051,0.034,0**	**n/a w/combined bg**	**NP (n)**	**NaN**	**201**	**0.01478**	**0.01939**	**unknown**	**ChiSquared**

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 219

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^6 transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.107, low cutoff = -0.1019, based on IQR multiplier of 3.

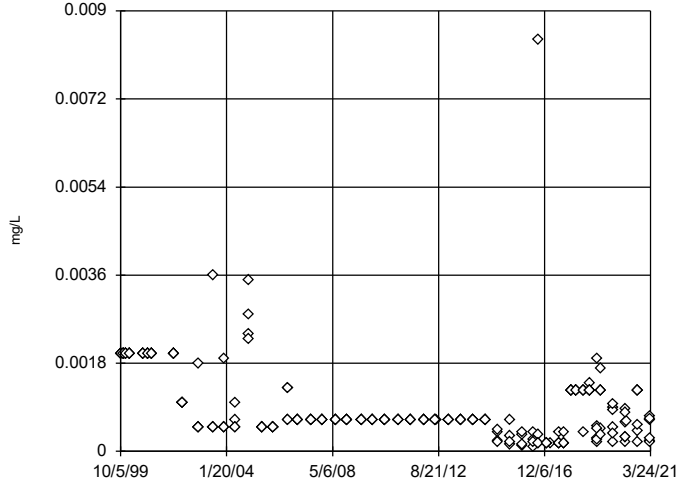
Constituent: Barium Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 219

No outliers found.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^5 transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

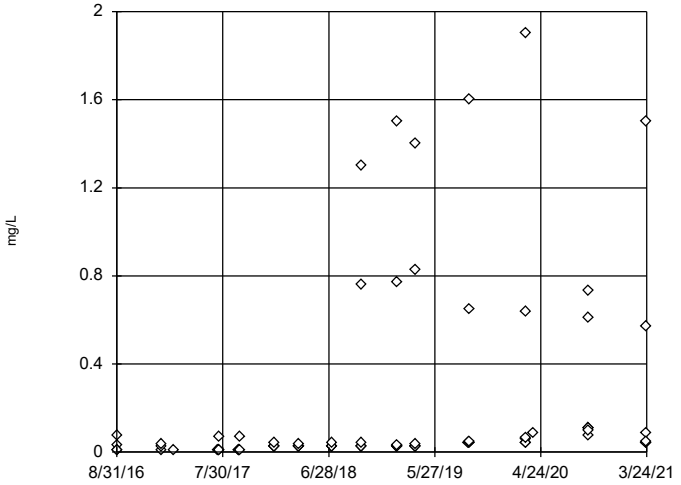
Constituent: Beryllium Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 71

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.1 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 3.838, low cutoff = 0.0005732, based on IQR multiplier of 3.

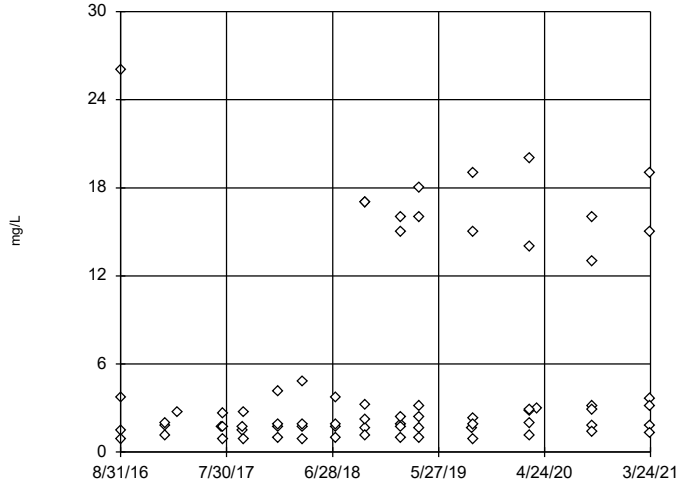
Constituent: Boron Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 71

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.1 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

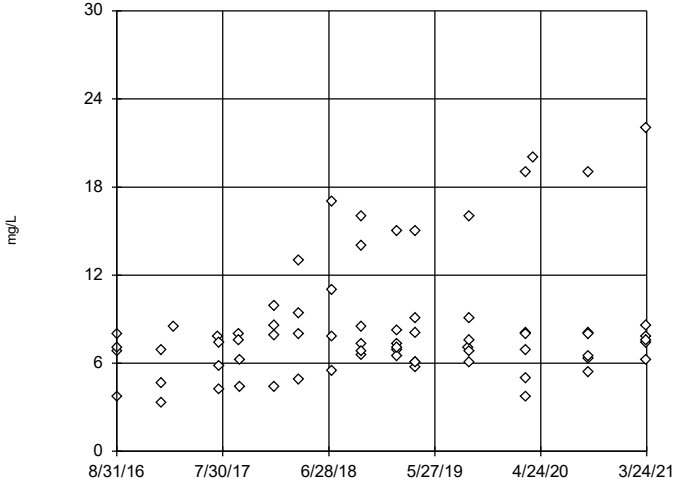
High cutoff = 45.76, low cutoff = 0.1294, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 71

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.1 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 22.95, low cutoff = 2.323, based on IQR multiplier of 3.

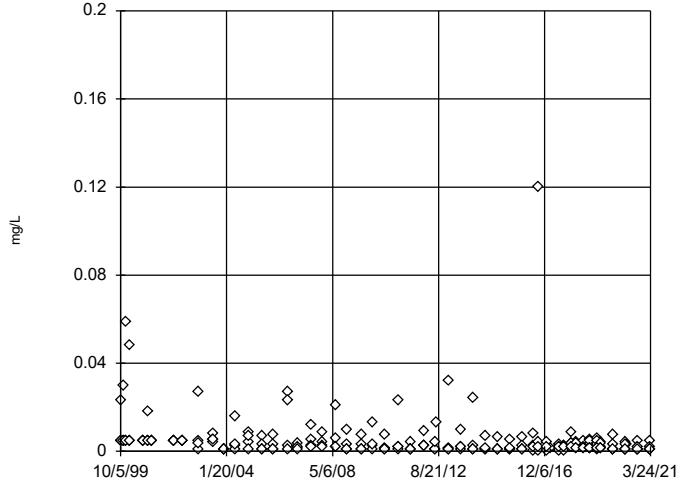
Constituent: Chloride Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 219

No outliers found.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^6 transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

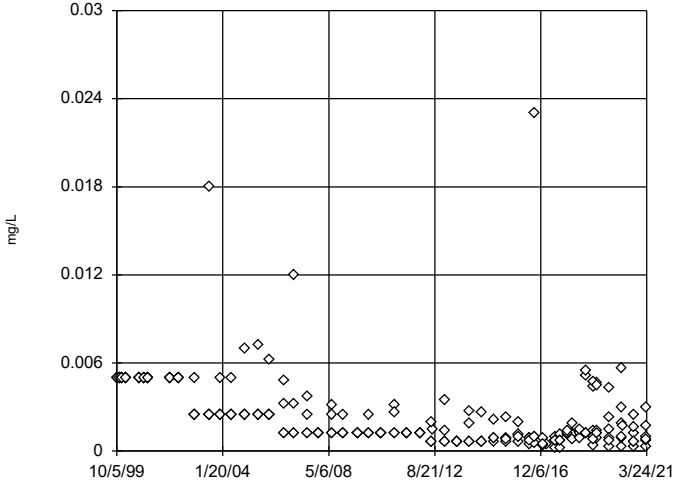
Constituent: Chromium Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 219

No outliers found.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^5 transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

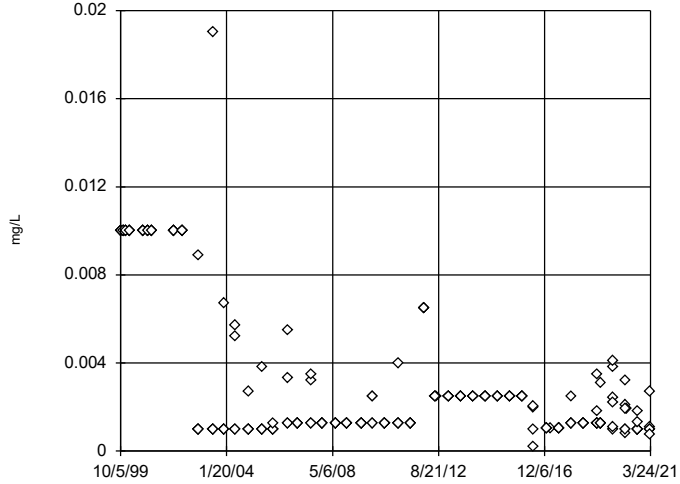
Constituent: Cobalt Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 201

No outliers found.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^6 transformed to achieve best W statistic (graph shown in original units).

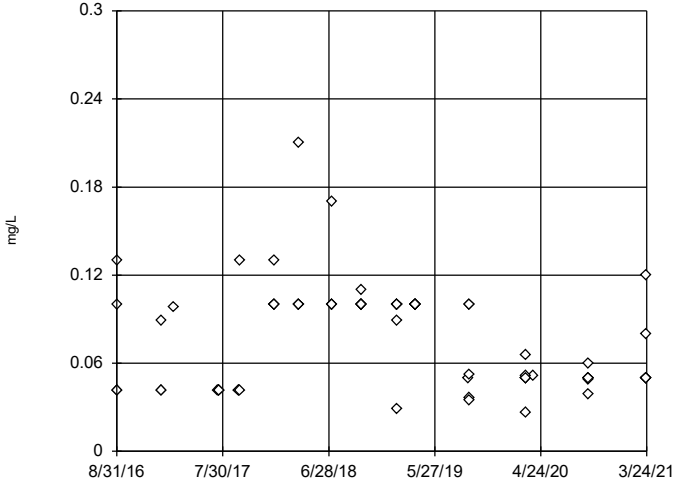
The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Copper Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 71

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.1 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

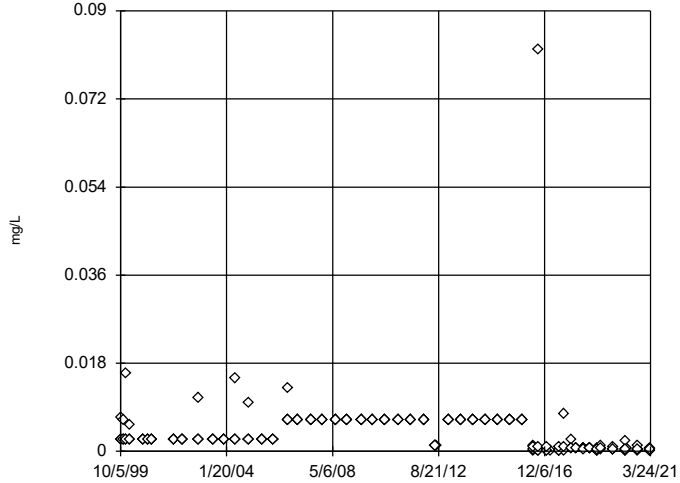
Constituent: Fluoride Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 219

No outliers found.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^4 transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

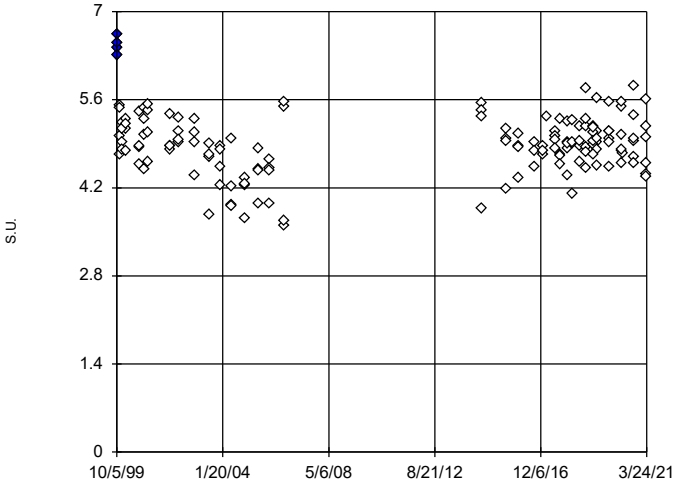
Constituent: Lead Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 151

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^6 transformed to achieve best W statistic (graph shown in original units).

High cutoff = 6.012, low cutoff = -5.138, based on IQR multiplier of 3.

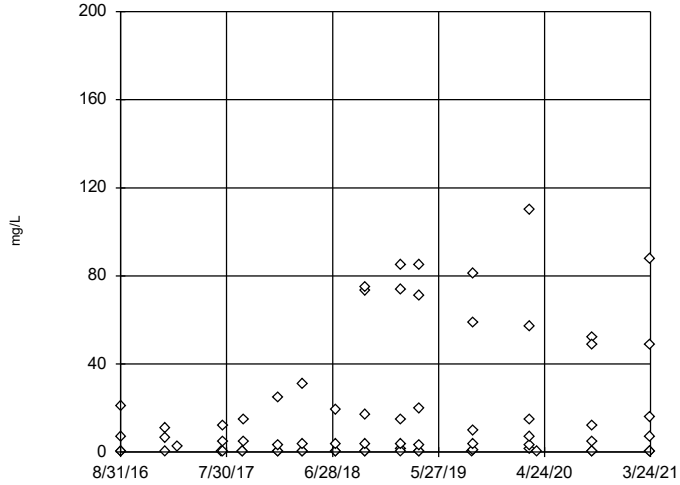
Constituent: pH Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 71

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.1 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

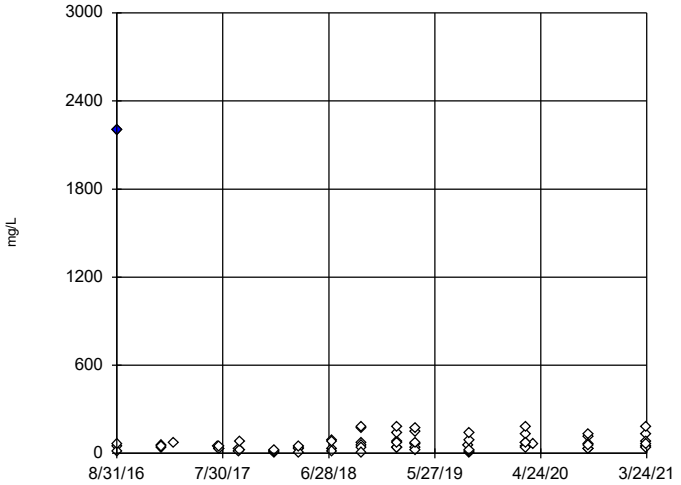
High cutoff = 1280000, low cutoff = 0.000007813, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 71

Outlier is drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.1 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

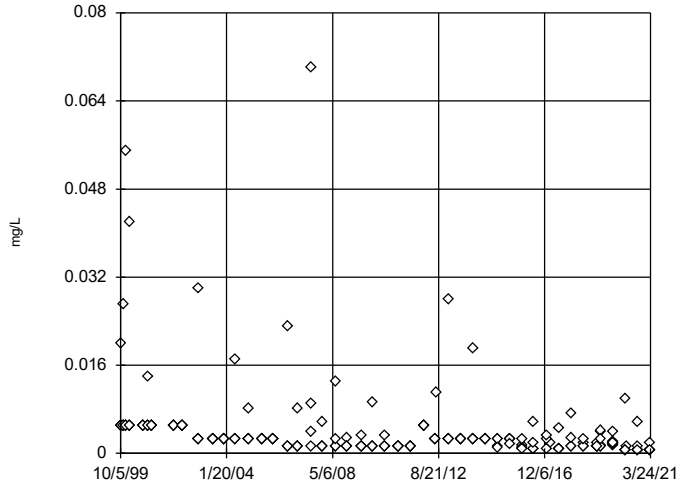
High cutoff = 1236, low cutoff = 1.845, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 201

No outliers found.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^6 transformed to achieve best W statistic (graph shown in original units).

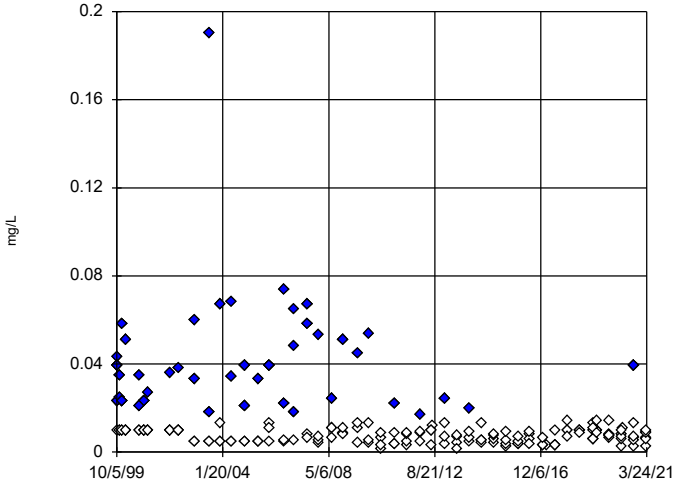
The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Vanadium Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Tukey's Outlier Screening, Pooled Background

GWA-1A,GWA-2B,GWA-3A,GWA-4,GWA-5,GWA-...



n = 201

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the maximum sample size was exceeded.

Data were x^6 transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.01637, low cutoff = -0.0156, based on IQR multiplier of 3.

Constituent: Zinc Analysis Run 5/12/2021 8:38 PM

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

FIGURE D.

Federal Interwell Prediction Limits - All Results (No Significant)

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:03 AM

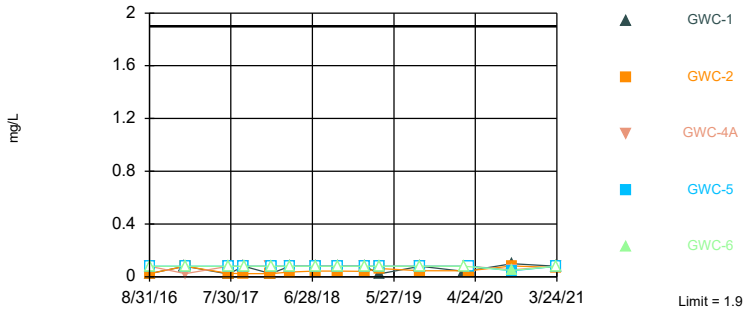
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	1.9	n/a	3/23/2021	0.07J	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-4A	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-5	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-6	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	20	n/a	3/24/2021	0.25J	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2	20	n/a	3/23/2021	9.2	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-4A	20	n/a	3/24/2021	0.46J	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-5	20	n/a	3/24/2021	8.2	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-6	20	n/a	3/24/2021	1.7	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	22	n/a	3/24/2021	8.8	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2	22	n/a	3/23/2021	5.2	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-4A	22	n/a	3/24/2021	10	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-5	22	n/a	3/24/2021	8.1	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-6	22	n/a	3/24/2021	7.8	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-1	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-2	0.21	n/a	3/23/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-4A	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-5	0.21	n/a	3/24/2021	0.038J	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-6	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
pH (S.U.)	GWC-1	6.63	3.59	3/24/2021	4.86	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-2	6.63	3.59	3/23/2021	5.61	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-4A	6.63	3.59	3/24/2021	4.59	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-5	6.63	3.59	3/24/2021	5.04	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-6	6.63	3.59	3/24/2021	5.11	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1	110	n/a	3/24/2021	0.77J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2	110	n/a	3/23/2021	0.8J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-4A	110	n/a	3/24/2021	1ND	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-5	110	n/a	3/24/2021	1ND	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-6	110	n/a	3/24/2021	0.76J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	164.9	n/a	3/24/2021	32	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	164.9	n/a	3/23/2021	56	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-4A	164.9	n/a	3/24/2021	27	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-5	164.9	n/a	3/24/2021	130	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-6	164.9	n/a	3/24/2021	36	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 71 background values. 47.89% NDs. Annual per-constituent alpha = 0.003785. Individual comparison alpha = 0.0003792 (1 of 2). Comparing 5 points to limit.

Constituent: Boron Analysis Run 5/16/2021 9:48 AM View: Federal PLs

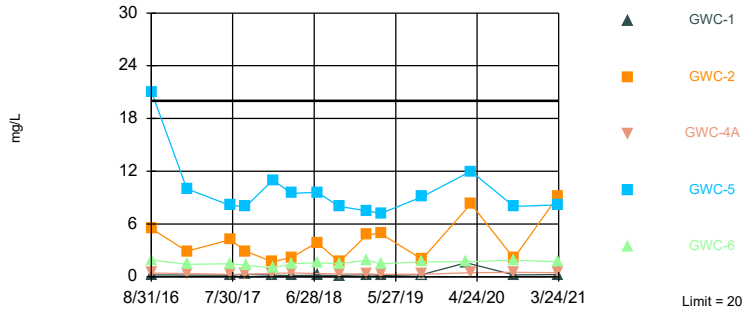
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.003874. Individual comparison alpha = 0.0003881 (1 of 2). Comparing 5 points to limit.

Constituent: Calcium Analysis Run 5/16/2021 9:48 AM View: Federal PLs

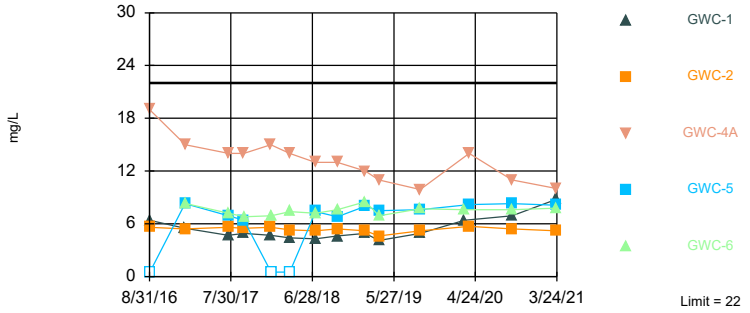
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 71 background values. Annual per-constituent alpha = 0.003785. Individual comparison alpha = 0.0003792 (1 of 2). Comparing 5 points to limit.

Constituent: Chloride Analysis Run 5/16/2021 9:48 AM View: Federal PLs

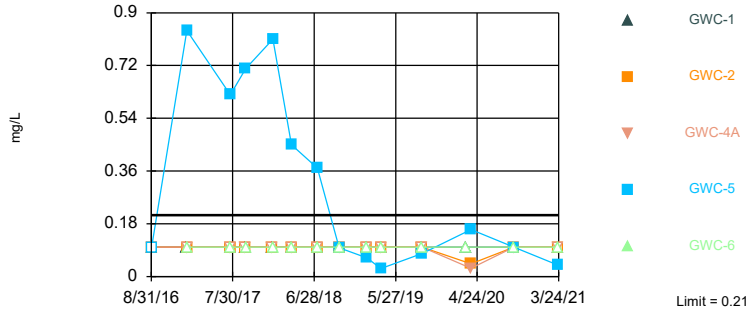
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 71 background values. 67.61% NDs. Annual per-constituent alpha = 0.003785. Individual comparison alpha = 0.0003792 (1 of 2). Comparing 5 points to limit.

Constituent: Fluoride Analysis Run 5/16/2021 9:48 AM View: Federal PLs

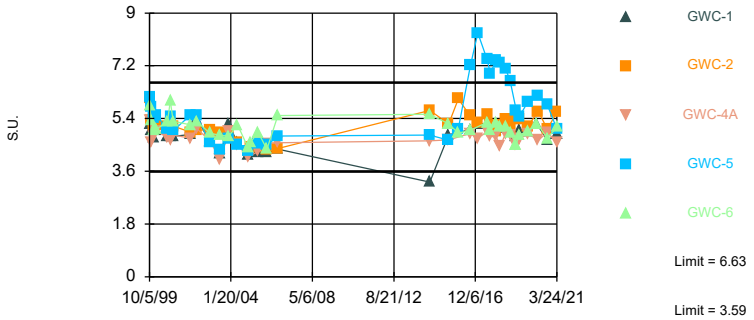
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 151 background values. Annual per-constituent alpha = 0.001739. Individual comparison alpha = 0.0001739 (1 of 2). Comparing 5 points to limit.

Constituent: pH Analysis Run 5/16/2021 9:48 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

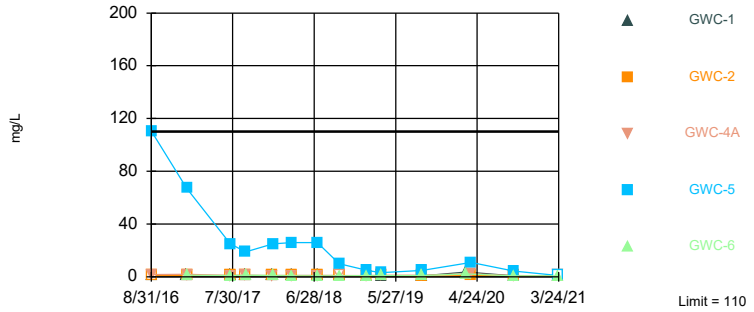
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 71 background values. 30.99% NDs. Annual per-constituent alpha = 0.003785. Individual comparison alpha = 0.0003792 (1 of 2). Comparing 5 points to limit.

Constituent: Sulfate Analysis Run 5/16/2021 9:48 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

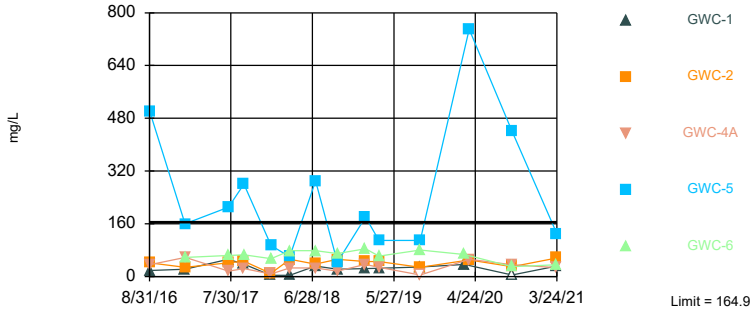
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=7.414, Std. Dev.=2.97, n=70, 2.857% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9671, critical = 0.952. Kappa = 1.828 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/16/2021 9:48 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-2	GWA-3A (bg)	GWA-5 (bg)	GWC-1	GWC-4A	GWA-4 (bg)	GWC-5	GWC-6	GWA-1A (bg)
8/31/2016	0.023 (J)	<0.08	0.073	0.023 (J)	<0.08	<0.08			
9/1/2016							<0.08	<0.08	0.029 (J)
1/19/2017		<0.08	0.036 (J)			0.027 (J)			
1/23/2017				<0.08					
1/24/2017	<0.08						<0.08		
1/25/2017					0.023 (J)				
1/27/2017								<0.08	
2/28/2017									<0.08
7/17/2017									<0.08
7/18/2017		<0.08				<0.08			
7/19/2017	0.026 (J)		0.07	0.021 (J)					
7/20/2017					<0.08		<0.08	<0.08	
9/20/2017		<0.08							<0.08
9/21/2017	0.025 (J)		0.07	<0.08	<0.08	<0.08	<0.08		
9/22/2017								<0.08	
1/8/2018									<0.08
1/9/2018	0.023 (J)	<0.08	0.042 (J)	0.025 (J)	<0.08	<0.08			
1/10/2018							<0.08	<0.08	
3/27/2018		<0.08	0.037 (J)			<0.08			<0.08
3/28/2018				<0.08	<0.08		<0.08		
3/29/2018	0.035 (J)							<0.08	
7/10/2018	0.044 (J)	<0.08	0.042 (J)		<0.08	<0.08			<0.08
7/11/2018				<0.08			<0.08	<0.08	
10/8/2018			0.044 (J)			<0.08			<0.08
10/9/2018	0.043 (J)	<0.08		<0.08	<0.08		<0.08	<0.08	
1/30/2019		<0.08	0.03 (J)	<0.08	<0.08	<0.08			<0.08
1/31/2019	0.04 (J)						<0.08	<0.08	
3/27/2019			0.036 (J)						<0.08
3/28/2019	0.062	0.024 (J)		0.021 (J)	<0.08	<0.08	<0.08	<0.08	
9/11/2019									<0.08
9/12/2019	0.045 (J)	<0.08	0.048 (J)	<0.08	<0.08	<0.08	<0.08	<0.08	
3/10/2020		0.059 (J)	0.066 (J)			<0.08			<0.08
3/11/2020				0.04 (J)				<0.08	
3/31/2020	0.046 (J)				<0.08		<0.08		
4/2/2020		0.084							
9/21/2020		0.11				0.073 (J)			0.11
9/22/2020	0.083		0.097	0.098	0.053 (J)		0.045 (J)	0.048 (J)	
3/23/2021	0.07 (J)	0.088							<0.08
3/24/2021			0.048 (J)	<0.08	<0.08	<0.08	<0.08	<0.08	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	0.76	1.3
10/9/2018		
1/30/2019	0.77	1.5
1/31/2019		
3/27/2019		
3/28/2019	0.83	1.4
9/11/2019		
9/12/2019	0.65	1.6
3/10/2020	0.64	
3/11/2020		1.9
3/31/2020		
4/2/2020		
9/21/2020		0.61
9/22/2020	0.73	
3/23/2021	0.57	1.5
3/24/2021		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWC-1	GWA-5 (bg)	GWA-3A (bg)	GWC-2	GWA-4 (bg)	GWC-4A	GWC-6	GWC-5	GWA-1A (bg)
8/31/2016	0.22 (J)	3.7	1.5	5.5	0.88	0.42			
9/1/2016							1.9	21	26 (o)
1/19/2017		2	1.8		1.1				
1/23/2017	1.3 (o)								
1/24/2017				2.9				10	
1/25/2017						0.37			
1/27/2017							1.4		
2/28/2017									2.7
7/17/2017									1.7
7/18/2017			1.7		0.86				
7/19/2017	0.19 (J)	2.6		4.2					
7/20/2017						0.29	1.5	8.1	
9/20/2017			1.7						1.5
9/21/2017	0.3	2.7		2.9	0.9	0.3		8	
9/22/2017							1.3		
1/8/2018									1.7
1/9/2018	0.16 (J)	4.1	1.9	1.7	1	0.38			
1/10/2018							1	11	
3/27/2018		4.8	1.9		0.89				1.7
3/28/2018	0.14 (J)					0.44		9.5	
3/29/2018				2.2			1.5		
7/10/2018		3.7	1.9	3.9	0.99	2 (o)			1.7
7/11/2018	0.18 (J)						1.6	9.6	
10/8/2018		3.2			1.1				1.6
10/9/2018	0.13 (J)		2.2	1.7		0.34	1.5	8	
1/30/2019	0.24 (J)	1.7	2.4		1	0.34			1.9
1/31/2019				4.8			1.9	7.5	
3/27/2019		3.1							1.6
3/28/2019	0.15 (J)		2.4	4.9	0.98	0.3	1.5	7.2	
9/11/2019									1.6
9/12/2019	<0.5 (D)	1.9	2.3	2	0.84	0.3 (J)	1.7	9.1	
3/10/2020		2.9	2.8		1.1				2
3/11/2020	1.6						1.7		
3/31/2020				8.3		0.48 (J)		12	
4/2/2020			3						
9/21/2020			3.1		1.4				1.8
9/22/2020	0.21 (J)	2.9		2.1		0.51	1.9	8	
3/23/2021			3.6	9.2					1.8
3/24/2021	0.25 (J)	3.1			1.3	0.46 (J)	1.7	8.2	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	17	17
10/9/2018		
1/30/2019	15	16
1/31/2019		
3/27/2019		
3/28/2019	18	16
9/11/2019		
9/12/2019	19	15
3/10/2020		14
3/11/2020	20	
3/31/2020		
4/2/2020		
9/21/2020	13	
9/22/2020		16
3/23/2021	19	15
3/24/2021		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A (bg)	GWA-4 (bg)	GWC-1	GWA-5 (bg)	GWC-2	GWC-4A	GWC-5	GWA-1A (bg)	GWC-6
8/31/2016	6.8	3.7	6.4	7.1	5.6	19			
9/1/2016							<1	8	
1/19/2017	6.9	4.6		3.3					
1/23/2017			5.5						
1/24/2017					5.4		8.3		
1/25/2017						15			
1/27/2017									8.3
2/28/2017								8.5	
7/17/2017								7.8	
7/18/2017	7.4	4.2							
7/19/2017			4.7	5.8	5.6				
7/20/2017						14	6.9		7.2
9/20/2017	7.6							8	
9/21/2017		4.4	4.9	6.2	5.5	14	6.4		
9/22/2017									6.8
1/8/2018								7.9	
1/9/2018	8.6	4.4	4.7	9.9	5.6	15			
1/10/2018							<1		6.9
3/27/2018	9.4	4.9		13				8	
3/28/2018			4.4			14	<1		
3/29/2018					5.3				7.4
7/10/2018	11	5.5		17	5.2	13		7.8	
7/11/2018			4.3				7.4		7.2
10/8/2018		6.6		16				8.5	
10/9/2018	14		4.6		5.4	13	6.8		7.6
1/30/2019	15	6.9	4.9	6.5		12		8.2	
1/31/2019					5.2		8		8.5
3/27/2019				9.1				8.1	
3/28/2019	15	5.7	4.1		4.6	11	7.5		6.9
9/11/2019								7.1	
9/12/2019	16	6.1	4.9	9.1	5.2	9.9	7.6		7.7
3/10/2020	19	5		3.7				8.1	
3/11/2020			6.4						7.6
3/31/2020					5.7	14	8.2		
4/2/2020	20								
9/21/2020	19	5.4						8.1	
9/22/2020			6.9	6.3	5.4	11	8.3		7.6
3/23/2021	22				5.2			8.6	
3/24/2021		6.2	8.8	7.4		10	8.1		7.8

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	7.3	6.8
10/9/2018		
1/30/2019	7.3	7.1
1/31/2019		
3/27/2019		
3/28/2019	6.1	6.1
9/11/2019		
9/12/2019	7.6	6.8
3/10/2020	8	
3/11/2020		6.9
3/31/2020		
4/2/2020		
9/21/2020		6.5
9/22/2020	8	
3/23/2021	7.8	7.6
3/24/2021		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A (bg)	GWA-4 (bg)	GWC-1	GWA-5 (bg)	GWC-2	GWC-4A	GWC-5	GWA-1A (bg)	GWC-6
8/31/2016	<0.1	<0.1	<0.1	0.13 (J)	<0.1	<0.1			
9/1/2016							<0.1	<0.1	
1/19/2017	<0.1	0.089 (J)		<0.1					
1/23/2017			<0.1						
1/24/2017					<0.1		0.84		
1/25/2017						<0.1			
1/27/2017									<0.1
2/28/2017								0.098 (J)	
7/17/2017								<0.1	
7/18/2017	<0.1	<0.1							
7/19/2017			<0.1	<0.1	<0.1				
7/20/2017						<0.1	0.62		<0.1
9/20/2017	<0.1							<0.1	
9/21/2017		<0.1	<0.1	0.13 (J)	<0.1	<0.1	0.71		
9/22/2017									<0.1
1/8/2018								<0.1	
1/9/2018	<0.1	<0.1	<0.1	0.13 (J)	<0.1	<0.1			
1/10/2018							0.81		<0.1
3/27/2018	<0.1	<0.1		0.21				<0.1	
3/28/2018			<0.1			<0.1	0.45		
3/29/2018					<0.1				<0.1
7/10/2018	<0.1	<0.1		0.17 (J)	<0.1	<0.1		<0.1	
7/11/2018			<0.1				0.37		<0.1
10/8/2018		<0.1		0.11 (J)				<0.1	
10/9/2018	<0.1		<0.1		<0.1	<0.1	0.098 (J)		<0.1
1/30/2019	<0.1	0.029 (J)	<0.1	0.089 (J)		<0.1		<0.1	
1/31/2019					<0.1		0.063 (J)		<0.1
3/27/2019				0.1 (J)				<0.1	
3/28/2019	<0.1	<0.1	<0.1		<0.1	<0.1	0.027 (J)		<0.1
9/11/2019								<0.1	
9/12/2019	<0.1	0.035 (J)	<0.1	0.052 (J)	<0.1	<0.1	0.078 (J)		<0.1
3/10/2020	0.026 (J)	0.066 (J)		0.051 (J)				<0.1	
3/11/2020			<0.1						<0.1
3/31/2020					0.043 (J)	0.028 (J)	0.16		
4/2/2020	0.051 (J)								
9/21/2020	<0.1	0.06 (J)						<0.1	
9/22/2020			<0.1	0.049 (J)	<0.1	<0.1	0.1		<0.1
3/23/2021	<0.1				<0.1			<0.1	
3/24/2021		0.12	<0.1	0.08 (J)		<0.1	0.038 (J)		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	<0.1	<0.1
10/9/2018		
1/30/2019	<0.1	<0.1
1/31/2019		
3/27/2019		
3/28/2019	<0.1	<0.1
9/11/2019		
9/12/2019	0.036 (J)	<0.1
3/10/2020	<0.1	
3/11/2020		<0.1
3/31/2020		
4/2/2020		
9/21/2020		<0.1
9/22/2020	0.039 (J)	
3/23/2021	<0.1	<0.1
3/24/2021		

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-1	GWC-2	GWA-3A (bg)	GWC-4A	GWC-5	GWC-6	GWA-5 (bg)
10/5/1999	6.63	6.51	5.23	6.08	6.42	5.33	6.13	5.84	6.3
11/12/1999	5.51	5.46	5.02	5.35	5.03	4.6	5.81	5.34	4.72
12/29/1999	5.23	5.13	4.75	5.19	4.92	4.8	5.43	5.01	4.8
2/17/2000	5.29	5.22	4.99	5.18	5.13	4.98	5.49	5.04	4.78
9/13/2000	5.41	4.86	4.81	5.13	4.85	4.75	5.05	5.29	4.58
11/10/2000	5.47	5.29	4.79	5.2	5.05	4.65	5.48	5.99	4.5
1/4/2001	5.44	5.53	4.79	5.14	5.08	4.83	4.99	5.31	4.61
12/11/2001	4.86	5.37	4.86	4.93	4.81	4.73	5.52	5.18	4.87
4/4/2002	5.1	5.32	5.39	5	4.92	5.05	5.5	5.31	4.96
12/6/2002	4.917 (D)	5.3 (D)	4.63	5.02	5.07 (D)	4.65 (D)	4.58 (D)	4.9 (D)	4.4 (D)
6/28/2003	4.91	4.73	4.19	4.92	4.69	4	4.32	4.82	3.77
12/13/2003	4.87	4.53	5.2	4.82	4.81	4.97	4.73	4.8	4.25
5/28/2004	4.98	4.22	4.57	4.6	3.93	4.51	4.5	5.18	3.9
12/10/2004	4.35	4.26	4.16	4.29	4.25	4.09	4.28	4.43	3.71
2/5/2005				4.43				4.6	
6/24/2005	4.82	4.47	4.23	4.56	4.5	4.27	4.56	4.93	3.94
12/13/2005	4.66	4.47	4.24	4.34	4.52	4.54	4.49	4.36	3.94
7/12/2006	5.49	3.68	4.36	4.38	3.59	4.57	4.8	5.5	5.56
7/11/2014	5.55					4.64	4.83	5.54	
7/12/2014		5.33	3.23	5.68	5.44				3.88
7/15/2015	5.13	4.94	4.85	5.22	4.98	4.67	4.66	5.22	4.19
1/16/2016	5.06	4.85			4.87		5.05	4.9	4.35
1/17/2016				6.07					
8/31/2016		4.79	5.02	5.49	4.92	4.89			4.53
9/1/2016							7.21	5	
1/19/2017		4.72			4.86				4.79
1/23/2017			5.22						
1/24/2017				5.25			8.32		
1/25/2017						4.73			
2/28/2017	5.33								
7/17/2017	5.09								
7/18/2017		4.96			5.02				
7/19/2017			5.23	5.54				5.27	4.83
7/20/2017						4.96	7.41		
9/20/2017	5.29				4.72				
9/21/2017		4.7	5.34	5.19		4.78	6.94	4.99	4.57
1/8/2018	5.26				4.92				
1/9/2018		4.91	5	4.97	4.83	4.79	7.39	5.25	4.4
3/27/2018	5.27	4.92			4.91				4.11
3/28/2018			5.08			4.44	7.31	5.14	
3/29/2018				5.15					
7/10/2018	5.17	4.94		5.37	4.87	4.88		5.13	4.62
7/11/2018			5.07				7.09		
10/8/2018	5.18	4.76			4.84				4.51
10/9/2018			5.1	5.04		4.85	6.68	4.93	
1/29/2019						4.7			
1/30/2019	5.17	4.94	4.81		4.88	4.52		4.52	4.72
1/31/2019				5.38			5.69	4.52	
3/27/2019	5.09								4.56
3/28/2019		4.99	4.99	5.38	4.8	4.68	5.46	4.85	
9/11/2019	5.1								
9/12/2019		4.92	4.95	5.14	4.99	4.89	5.96	4.96	4.54

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-1	GWC-2	GWA-3A (bg)	GWC-4A	GWC-5	GWC-6	GWA-5 (bg)
3/10/2020	5.48	4.59			4.79				4.81
3/11/2020			5.21					5.23	
3/31/2020				5.64		4.66	6.17		
4/2/2020					4.75				
9/21/2020	4.95	4.6			4.69				
9/22/2020			4.66	5.04		4.92	5.87	4.73	4.99
3/23/2021	5.17			5.61	4.6				
3/24/2021		4.42	4.86			4.59	5.04	5.11	4.37

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
2/5/2005		
6/24/2005		
12/13/2005		
7/12/2006		
7/11/2014		
7/12/2014		
7/15/2015		
1/16/2016		
1/17/2016		
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
1/8/2018		
1/9/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	5.29	5.79
10/9/2018		
1/29/2019		
1/30/2019	5.08	5.15
1/31/2019		
3/27/2019		
3/28/2019	4.93	5.62
9/11/2019		
9/12/2019	5.57	5.1

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
3/10/2020	5.56	
3/11/2020		5.05
3/31/2020		
4/2/2020		
9/21/2020		5.35
9/22/2020	5.83	
3/23/2021	5.61	5.01
3/24/2021		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-3A (bg)	GWA-4 (bg)	GWC-1	GWA-5 (bg)	GWC-2	GWC-4A	GWC-5	GWA-1A (bg)	GWC-6
8/31/2016	<1	7	<1	21	<1	1.7			
9/1/2016							110	<1	
1/19/2017	<1	6.3		11					
1/23/2017			<1						
1/24/2017					<1		67		
1/25/2017						1.8			
1/27/2017									1.2
2/28/2017								2.7	
7/17/2017								<1	
7/18/2017	<1	4.7							
7/19/2017			<1	12	<1				
7/20/2017						0.83 (J)	25		0.84 (J)
9/20/2017	<1							<1	
9/21/2017		4.5	<1	15	<1	1.1	19		
9/22/2017									1.1
1/8/2018								<1	
1/9/2018	<1	3	<1	25	<1	0.79 (J)			
1/10/2018							25		0.95 (J)
3/27/2018	<1	3.8		31				<1	
3/28/2018			<1			0.79 (J)	26		
3/29/2018					<1				0.78 (J)
7/10/2018	<1	3.4		19	<1	0.76 (J)		<1	
7/11/2018			<1				26		0.78 (J)
10/8/2018		3.4		17				<1	
10/9/2018	<1		<1		<1	<1	10		0.79 (J)
1/30/2019	0.41 (J)	3.5	0.58 (J)	15		0.9 (J)		1.2	
1/31/2019					0.57 (J)		4.8		0.86 (J)
3/27/2019				20				<1	
3/28/2019	0.44 (J)	3	0.67 (J)		<1	1.1	3		0.96 (J)
9/11/2019								<1	
9/12/2019	0.69 (J)	3.7	0.78 (J)	10	0.43 (J)	1.1	4.9		1
3/10/2020	3	7.2		15				1.5	
3/11/2020			3.5						2.2
3/31/2020					1	2.5	11		
4/2/2020	<1								
9/21/2020	<1	5						<1	
9/22/2020			0.63 (J)	12	<1	0.76 (J)	4.3		0.59 (J)
3/23/2021	<1				0.8 (J)			<1	
3/24/2021		7	0.77 (J)	16		<1	<1		0.76 (J)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	73	75
10/9/2018		
1/30/2019	74	85
1/31/2019		
3/27/2019		
3/28/2019	71	85
9/11/2019		
9/12/2019	59	81
3/10/2020	57	
3/11/2020		110
3/31/2020		
4/2/2020		
9/21/2020		49
9/22/2020	52	
3/23/2021	49	88
3/24/2021		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-4 (bg)	GWA-3A (bg)	GWC-4A	GWA-5 (bg)	GWC-2	GWC-1	GWC-5	GWC-6	GWA-1A (bg)
8/31/2016	14 (D)	42 (D)	36 (D)	66 (D)	42 (D)	18 (D)			
9/1/2016							500 (D)		2200 (o)
1/19/2017	34 (D)	52 (D)		48 (D)					
1/23/2017						22 (D)			
1/24/2017					28 (D)		160 (D)		
1/25/2017			58 (D)						
1/27/2017								58 (D)	
2/28/2017									74 (D)
7/17/2017									50
7/18/2017	26	32							
7/19/2017				48	42	52			
7/20/2017			16				210	64	
9/20/2017		16							26
9/21/2017	24		24	76	46	38	280		
9/22/2017								66	
1/8/2018									16
1/9/2018	16	4 (J)	8	18	10	4 (J)			
1/10/2018							94	54	
3/27/2018	<10	30		48					40
3/28/2018			26			4 (J)	60		
3/29/2018					52			78	
7/10/2018	14	30	26	76	38				90
7/11/2018						32	290	78	
10/8/2018	36			8					70
10/9/2018		56	16		52	22	44	70	
1/30/2019	40	41	37	67		24			82
1/31/2019					45		180	84	
3/27/2019				70					66
3/28/2019	24	36	28		45	25	110	62	
9/11/2019									53
9/12/2019	10	<10	<10	20	28	29	110	80	
3/10/2020	39	49		67					67
3/11/2020						37		67	
3/31/2020			52		50		750		
4/2/2020		61							
9/21/2020	31	61							31
9/22/2020			36	53	30	<10	440	30	
3/23/2021		76			56				47
3/24/2021	36		27	60		32	130	36	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/16/2021 10:03 AM View: Federal PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
8/31/2016		
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	180	170
10/9/2018		
1/30/2019	180	140
1/31/2019		
3/27/2019		
3/28/2019	170	150
9/11/2019		
9/12/2019	140	89
3/10/2020		130
3/11/2020	180	
3/31/2020		
4/2/2020		
9/21/2020	130	
9/22/2020		110
3/23/2021	180	130
3/24/2021		

Federal Intrawell Prediction Limits - All Results (No Significant)

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	1.9	n/a	3/23/2021	0.07J	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-4A	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-5	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-6	1.9	n/a	3/24/2021	0.08ND	No	71	n/a	n/a	47.89	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	20	n/a	3/24/2021	0.25J	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2	20	n/a	3/23/2021	9.2	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-4A	20	n/a	3/24/2021	0.46J	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-5	20	n/a	3/24/2021	8.2	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-6	20	n/a	3/24/2021	1.7	No	70	n/a	n/a	0	n/a	n/a	0.0003881	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	22	n/a	3/24/2021	8.8	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2	22	n/a	3/23/2021	5.2	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-4A	22	n/a	3/24/2021	10	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-5	22	n/a	3/24/2021	8.1	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-6	22	n/a	3/24/2021	7.8	No	71	n/a	n/a	0	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-1	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-2	0.21	n/a	3/23/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-4A	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-5	0.21	n/a	3/24/2021	0.038J	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-6	0.21	n/a	3/24/2021	0.1ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
pH (S.U.)	GWC-1	6.63	3.59	3/24/2021	4.86	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-2	6.63	3.59	3/23/2021	5.61	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-4A	6.63	3.59	3/24/2021	4.59	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-5	6.63	3.59	3/24/2021	5.04	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
pH (S.U.)	GWC-6	6.63	3.59	3/24/2021	5.11	No	151	n/a	n/a	0	n/a	n/a	0.0001739	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1	110	n/a	3/24/2021	0.77J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2	110	n/a	3/23/2021	0.8J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-4A	110	n/a	3/24/2021	1ND	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-5	110	n/a	3/24/2021	1ND	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-6	110	n/a	3/24/2021	0.76J	No	71	n/a	n/a	30.99	n/a	n/a	0.0003792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	164.9	n/a	3/24/2021	32	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	164.9	n/a	3/23/2021	56	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-4A	164.9	n/a	3/24/2021	27	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-5	164.9	n/a	3/24/2021	130	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-6	164.9	n/a	3/24/2021	36	No	70	7.414	2.97	2.857	None	sqrt(x)	0.001504	Param Inter 1 of 2

FIGURE E.

State Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:59 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	**GWC-5**	**0.33**	**n/a**	**3/24/2021**	**0.5**	**Yes**	**217**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0000492**	**NP Inter (normality) 1 of 2**
Cobalt (mg/L)	**GWC-5**	**0.0072**	**n/a**	**3/24/2021**	**0.012**	**Yes**	**216**	**n/a**	**n/a**	**56.48**	**n/a**	**n/a**	**0.0000492**	**NP Inter (NDs) 1 of 2**

State Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 10:59 AM

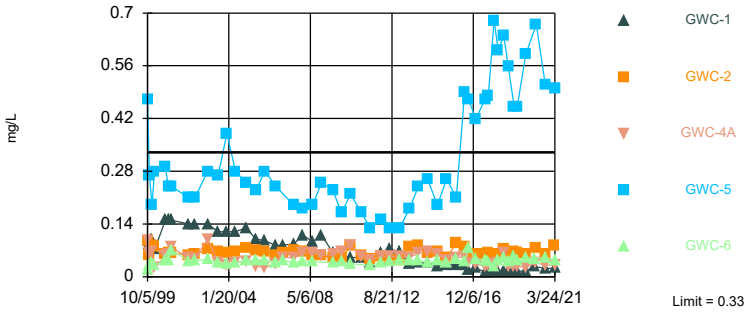
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	GWC-1	0.33	n/a	3/24/2021	0.023	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.33	n/a	3/23/2021	0.083	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-4A	0.33	n/a	3/24/2021	0.031	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Barium (mg/L)	**GWC-5**	**0.33**	**n/a**	**3/24/2021**	**0.5**	**Yes**	**217**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0000492**	**NP Inter (normality) 1 of 2**
Barium (mg/L)	GWC-6	0.33	n/a	3/24/2021	0.044	No	217	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Beryllium (mg/L)	GWC-1	0.0036	n/a	3/24/2021	0.0025ND	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-2	0.0036	n/a	3/23/2021	0.00018J	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-4A	0.0036	n/a	3/24/2021	0.0025ND	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-5	0.0036	n/a	3/24/2021	0.0029	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Beryllium (mg/L)	GWC-6	0.0036	n/a	3/24/2021	0.00019J	No	218	n/a	n/a	72.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-2	0.032	n/a	3/23/2021	0.0048	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-4A	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-5	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWC-6	0.032	n/a	3/24/2021	0.002ND	No	216	n/a	n/a	48.15	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Cobalt (mg/L)	GWC-1	0.0072	n/a	3/24/2021	0.0002J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	GWC-2	0.0072	n/a	3/23/2021	0.00069J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	GWC-4A	0.0072	n/a	3/24/2021	0.00037J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	**GWC-5**	**0.0072**	**n/a**	**3/24/2021**	**0.012**	**Yes**	**216**	**n/a**	**n/a**	**56.48**	**n/a**	**n/a**	**0.0000492**	**NP Inter (NDs) 1 of 2**
Cobalt (mg/L)	GWC-6	0.0072	n/a	3/24/2021	0.00046J	No	216	n/a	n/a	56.48	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-1	0.0055	n/a	3/24/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-2	0.0055	n/a	3/23/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-5	0.0055	n/a	3/24/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Copper (mg/L)	GWC-6	0.0055	n/a	3/24/2021	0.002ND	No	197	n/a	n/a	83.25	n/a	n/a	0.00005092	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.016	n/a	3/23/2021	0.001ND	No	217	n/a	n/a	82.49	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-5	0.016	n/a	3/24/2021	0.00034J	No	217	n/a	n/a	82.49	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-6	0.016	n/a	3/24/2021	0.001ND	No	217	n/a	n/a	82.49	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.055	n/a	3/23/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-4A	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-5	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-6	0.055	n/a	3/24/2021	0.001ND	No	200	n/a	n/a	76	n/a	n/a	0.0000492	NP Inter (NDs) 1 of 2
Zinc (mg/L)	GWC-1	0.074	n/a	3/24/2021	0.005ND	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.074	n/a	3/23/2021	0.0085	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-4A	0.074	n/a	3/24/2021	0.01	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-5	0.074	n/a	3/24/2021	0.034	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-6	0.074	n/a	3/24/2021	0.0043J	No	200	n/a	n/a	28	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2

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Exceeds Limit: GWC-5

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 217 background values. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 5 points to limit.

Constituent: Barium Analysis Run 5/16/2021 10:57 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

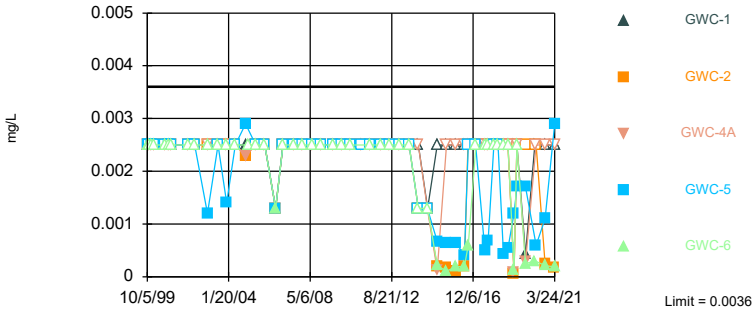
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 218 background values. 72.48% NDs. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 5 points to limit.

Constituent: Beryllium Analysis Run 5/16/2021 10:57 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

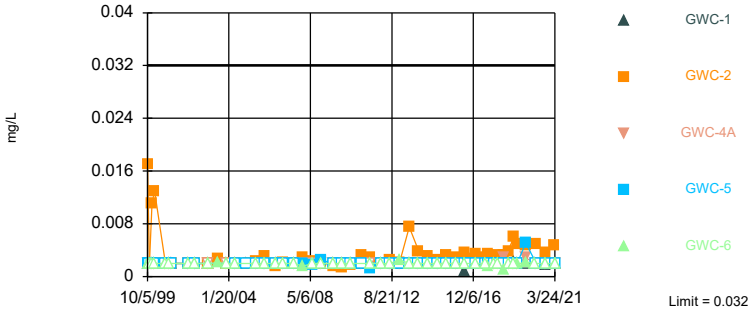
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 216 background values. 48.15% NDs. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 5 points to limit.

Constituent: Chromium Analysis Run 5/16/2021 10:57 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

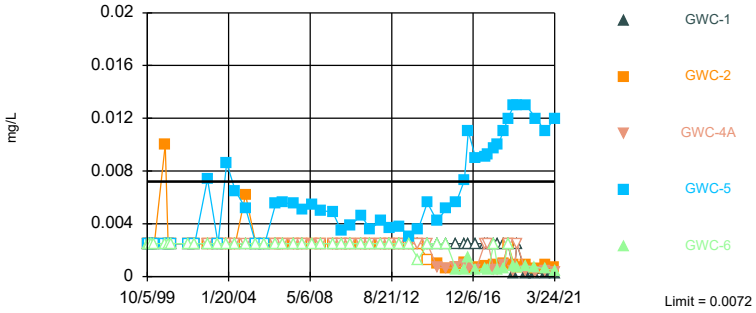
Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Exceeds Limit: GWC-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 216 background values. 56.48% NDs. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 5 points to limit.

Constituent: Cobalt Analysis Run 5/16/2021 10:57 AM View: State PLs

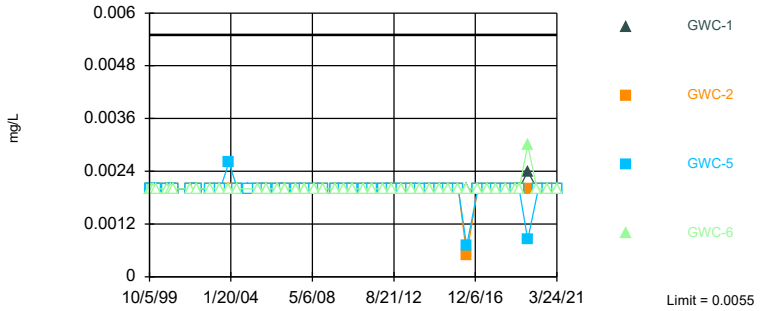
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 197 background values. 83.25% NDs. Annual per-constituent alpha = 0.000509. Individual comparison alpha = 0.00005092 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

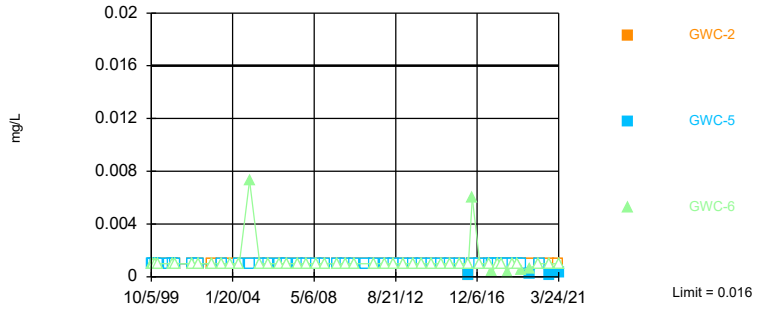
Constituent: Copper Analysis Run 5/16/2021 10:57 AM View: State PLs
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 217 background values. 82.49% NDs. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 3 points to limit. Assumes 2 future values.

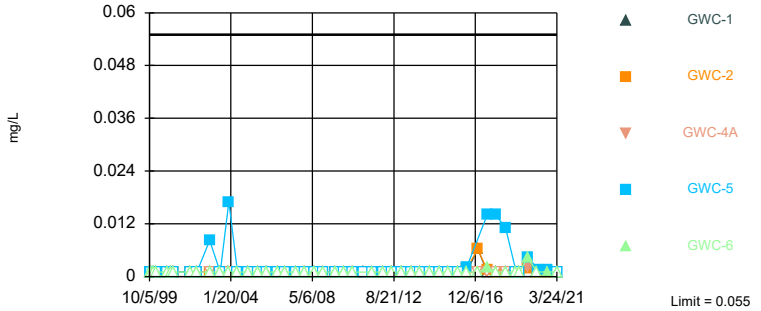
Constituent: Lead Analysis Run 5/16/2021 10:57 AM View: State PLs
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 200 background values. 76% NDs. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 5 points to limit.

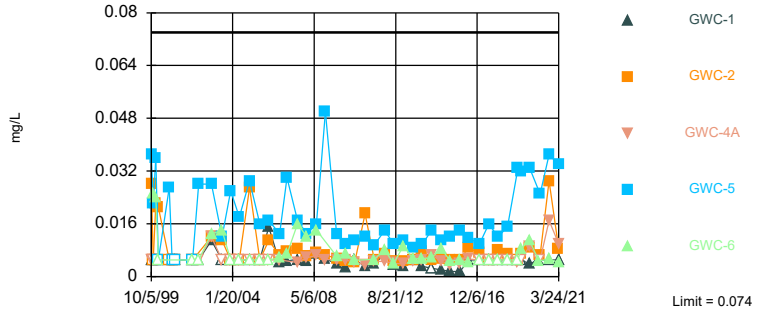
Constituent: Vanadium Analysis Run 5/16/2021 10:57 AM View: State PLs
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 200 background values. 28% NDs. Annual per-constituent alpha = 0.0004919. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 5 points to limit.

Constituent: Zinc Analysis Run 5/16/2021 10:57 AM View: State PLs
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-2	GWC-4A	GWA-3A (bg)	GWC-5	GWC-6	GWA-5 (bg)
10/5/1999	0.084	0.096	0.013	0.097	0.095	0.031	0.47	0.017	0.1
11/12/1999	0.099	0.085	0.017	0.057	0.063	0.023	0.27	0.031	0.086
12/29/1999	0.18	0.1	0.027	0.084	0.066	0.033	0.19	0.039	0.12
2/17/2000	0.12	0.072	0.023	0.079	0.023	0.026	0.28	0.031	0.13
9/13/2000	0.038	0.15	0.022	0.06	0.056	0.044	0.29	0.043	0.18
11/10/2000	0.065	0.15	0.035	0.062	0.059	0.044	0.24	0.044	0.018
1/4/2001	0.037	0.15	0.032	0.064	0.079	0.043	0.24	0.071	0.23
12/11/2001	0.027	0.14	0.032	0.057	0.049	0.041	0.21	0.042	0.12
4/4/2002	0.027	0.14	0.03	0.06	0.048	0.038	0.21	0.043	0.094
12/6/2002	0.028	0.14	0.041	0.072	0.1	0.044	0.28	0.046	0.33
6/28/2003	0.054	0.12	0.035	0.066	0.036	0.045	0.27	0.038	0.11
12/13/2003	0.027	0.12	0.029	0.063	0.031	0.039	0.38	0.035	0.057
5/28/2004	0.18	0.12	0.033	0.067	0.038	0.042	0.28	0.037	0.035
12/10/2004	0.1	0.13	0.037	0.075	0.041	0.045	0.25	0.043	0.04
6/24/2005	0.045	0.1	0.034	0.071	0.028	0.042	0.23	0.044	0.037
12/13/2005	0.048	0.096	0.03	0.068	0.025	0.043	0.28	0.045	0.039
7/12/2006	0.13	0.083	0.03	0.058	0.033	0.043	0.24	0.037	0.042
12/1/2006	0.012	0.084	0.032	0.063	0.051	0.041	0.019 (o)	0.044	0.044
6/21/2007	0.2	0.087	0.03	0.071	0.052	0.043	0.19	0.037	0.058
12/15/2007	0.14	0.11	0.034	0.068	0.062	0.045	0.18	0.042	0.073
6/21/2008		0.093	0.037		0.065		0.19		
6/22/2008	0.1			0.057		0.05		0.04	0.096
12/6/2008		0.11	0.034	0.058	0.056	0.14			0.094
12/7/2008	0.043						0.25	0.12 (o)	
7/10/2009						0.046			
7/11/2009	0.13	0.064	0.037	0.05	0.059		0.23	0.038	0.12
12/22/2009									0.089
12/23/2009	0.17	0.052	0.058	0.05	0.067	0.049	0.17	0.04	
6/23/2010		0.051	0.046	0.083	0.084	0.043	0.22		0.081
6/24/2010	0.045							0.035	
1/8/2011		0.052	0.036	0.057	0.053	0.047	0.17		0.097
1/9/2011	0.11								
7/10/2011		0.036	0.031	0.046	0.043	0.035	0.13		0.084
7/11/2011	0.022							0.03	
1/19/2012			0.045			0.05			
1/20/2012	0.043	0.065		0.055	0.054		0.15	0.039	0.099
7/12/2012		0.074	0.039	0.045	0.053	0.042	0.13		0.12
7/13/2012	0.05							0.04	
1/21/2013	0.11	0.066	0.042	0.045	0.053	0.048	0.13	0.045	0.095
7/20/2013	0.04	0.035	0.054	0.079	0.052	0.047	0.18	0.043	0.086
1/17/2014	0.082	0.036	0.057	0.084	0.063	0.049	0.24	0.045	0.14
7/11/2014					0.068		0.26		
7/12/2014	0.034	0.037	0.042	0.065		0.043		0.036	0.17
1/15/2015			0.041	0.067		0.05			
1/16/2015	0.029	0.027			0.059		0.19	0.044	0.12
7/15/2015	0.025	0.031	0.04	0.049	0.045	0.044	0.26	0.038	0.12
1/16/2016	0.026	0.032	0.04			0.048	0.21	0.047	0.12
1/17/2016				0.09	0.052				
6/22/2016	0.0374 (D)	0.0323	0.0453	0.0806	0.0528	0.0471 (D)			0.0839
6/23/2016							0.491	0.0393	
8/31/2016		0.019	0.041	0.057	0.037	0.043			0.093
9/1/2016	0.86 (o)						0.47	0.075	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-2	GWC-4A	GWA-3A (bg)	GWC-5	GWC-6	GWA-5 (bg)
1/19/2017			0.052			0.052			0.079
1/23/2017		0.023							
1/24/2017				0.06			0.42		
1/25/2017					0.034				
1/27/2017								0.046	
2/28/2017	0.027								
7/17/2017	0.022								
7/18/2017			0.037			0.046			
7/19/2017		0.013		0.06					0.085
7/20/2017					0.028		0.47	0.045	
9/20/2017	0.023					0.053			
9/21/2017		0.016	0.042	0.063	0.032		0.48		0.1
9/22/2017								0.04	
1/8/2018	0.022								
1/9/2018		0.016	0.043	0.059	0.033	0.05			0.13
1/10/2018							0.68	0.027	
3/27/2018	0.023		0.039			0.054			0.18
3/28/2018		0.014			0.037		0.6		
3/29/2018				0.06				0.044	
7/10/2018	0.024		0.043	0.073	0.065	0.056			0.14 (o)
7/11/2018		0.016					0.64	0.051	
10/8/2018	0.03		0.042						0.11
10/9/2018		0.015		0.057	0.029	0.061	0.56	0.041	
1/30/2019	0.024	0.018	0.04		0.027	0.071			0.079
1/31/2019				0.067			0.45	0.053	
3/27/2019	0.021								0.12
3/28/2019		0.014	0.041	0.064	0.028	0.068	0.45	0.045	
9/11/2019	0.022								
9/12/2019		0.016	0.044	0.06	0.026	0.073	0.59	0.052	0.086
3/10/2020	0.018		0.058			0.082			0.081
3/11/2020		0.027						0.048	
3/31/2020				0.077	0.036		0.67		
4/2/2020						0.088			
9/21/2020	0.023		0.052			0.083			
9/22/2020		0.022		0.061	0.031		0.51	0.051	0.078
3/23/2021	0.023			0.083		0.093			
3/24/2021		0.023	0.052		0.031		0.5	0.044	0.096

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
6/24/2005		
12/13/2005		
7/12/2006		
12/1/2006		
6/21/2007		
12/15/2007		
6/21/2008		
6/22/2008		
12/6/2008		
12/7/2008		
7/10/2009		
7/11/2009		
12/22/2009		
12/23/2009		
6/23/2010		
6/24/2010		
1/8/2011		
1/9/2011		
7/10/2011		
7/11/2011		
1/19/2012		
1/20/2012		
7/12/2012		
7/13/2012		
1/21/2013		
7/20/2013		
1/17/2014		
7/11/2014		
7/12/2014		
1/15/2015		
1/16/2015		
7/15/2015		
1/16/2016		
1/17/2016		
6/22/2016		
6/23/2016		
8/31/2016		
9/1/2016		

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	0.14	0.049
10/9/2018		
1/30/2019	0.1	0.041
1/31/2019		
3/27/2019		
3/28/2019	0.1	0.035
9/11/2019		
9/12/2019	0.077	0.049
3/10/2020		0.047
3/11/2020	0.067	
3/31/2020		
4/2/2020		
9/21/2020	0.11	
9/22/2020		0.049
3/23/2021	0.048	0.044
3/24/2021		

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-2	GWC-4A	GWA-3A (bg)	GWC-5	GWC-6	GWA-5 (bg)
10/5/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/12/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/29/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2/17/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/10/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/4/2001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/11/2001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
4/4/2002	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/6/2002	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0012	<0.0025	0.0018
6/28/2003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0036
12/13/2003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0014	<0.0025	0.0019
5/28/2004	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/10/2004	0.0028	0.0025	0.0023	0.0023	0.0023	0.0024	0.0029	0.0058 (o)	0.0035
2/5/2005								<0.0025	
6/24/2005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/13/2005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/12/2006	0.0013	0.0013	<0.0025	0.0013	0.0013	<0.0025	0.0013	0.0013	0.0013
12/1/2006	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
6/21/2007	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/15/2007	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
6/21/2008		<0.0025	<0.0025		<0.0025		<0.0025		
6/22/2008	<0.0025			<0.0025		<0.0025		<0.0025	<0.0025
12/6/2008		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			<0.0025
12/7/2008	<0.0025						<0.0025	<0.0025	
7/10/2009						<0.0025			
7/11/2009	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
12/22/2009									<0.0025
12/23/2009	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
6/23/2010		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
6/24/2010	<0.0025							<0.0025	
1/8/2011		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/9/2011	<0.0025								
7/10/2011		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/11/2011	<0.0025							<0.0025	
1/19/2012			<0.0025			<0.0025			
1/20/2012	<0.0025	<0.0025		<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
7/12/2012		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2012	<0.0025							<0.0025	
1/21/2013	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/20/2013	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/17/2014	<0.0013 (J)	<0.0025	<0.0013 (J)	<0.0013 (J)	<0.0025	<0.0025	<0.0013 (J)	<0.0013 (J)	<0.0013 (J)
7/11/2014					<0.0013 (J)		<0.0013 (J)		
7/12/2014	<0.0013 (J)	<0.0013 (J)	<0.0013 (J)	<0.0013 (J)		<0.0025		<0.0013 (J)	<0.0013 (J)
1/15/2015			0.0002 (J)	0.00019 (J)		0.00039 (J)			
1/16/2015	0.00022 (J)	<0.0025			0.00012 (J)		0.00067 (J)	0.00021 (J)	0.00043 (J)
7/15/2015	0.00015 (J)	<0.0025	0.00018 (J)	0.00018 (J)	<0.0025	0.00031 (J)	0.00065 (J)	0.00011 (J)	0.00064 (J)
1/16/2016	0.00011 (J)	<0.0025	0.00013 (J)			0.00034 (J)	0.00065 (J)	0.00019 (J)	0.00039 (J)
1/17/2016				0.00011 (J)	<0.0025				
6/22/2016	0.00025 (JD)	<0.0025	0.0001 (J)	0.0002 (J)	<0.0025	0.0004 (J)			0.0002 (J)
6/23/2016							0.0004 (J)	0.0002 (J)	
8/31/2016		<0.0025	<0.0025	<0.0025	<0.0025	0.00035 (J)			<0.0025

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-2	GWC-4A	GWA-3A (bg)	GWC-5	GWC-6	GWA-5 (bg)
9/1/2016	0.0084 (o)						<0.0025	0.0006 (J)	
1/19/2017			<0.0025			<0.0025			<0.0025
1/23/2017		<0.0025							
1/24/2017				<0.0025			<0.0025		
1/25/2017					<0.0025				
1/27/2017								<0.0025	
2/28/2017	<0.0025								
7/17/2017	<0.0025								
7/18/2017			<0.0025			0.00038 (J)			
7/19/2017		<0.0025		<0.0025					<0.0025
7/20/2017					<0.0025		0.00049 (J)	<0.0025	
9/20/2017	<0.0025					0.00039 (J)			
9/21/2017		<0.0025	<0.0025	<0.0025	<0.0025		0.00068 (J)		<0.0025
9/22/2017								<0.0025	
1/8/2018	<0.0025								
1/9/2018		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			<0.0025
1/10/2018							<0.0025	<0.0025	
3/27/2018	<0.0025		<0.0025			<0.0025			<0.0025
3/28/2018		<0.0025			<0.0025		<0.0025		
3/29/2018				<0.0025				<0.0025	
7/10/2018	<0.0025		<0.0025	<0.0025	<0.0025	0.00038 (J)			<0.0025
7/11/2018		<0.0025					0.00043 (J)	<0.0025	
10/8/2018	<0.0025		<0.0025						<0.0025
10/9/2018		<0.0025		<0.0025	<0.0025	<0.0025	0.00054 (J)	<0.0025	
1/30/2019	0.00026 (J)	<0.0025	0.00019 (J)		7E-05 (J)	0.00051 (J)			0.00024 (J)
1/31/2019				6.5E-05 (J)			0.0012 (J)	0.00012 (J)	
3/27/2019	<0.0025								<0.0025
3/28/2019		<0.0025	<0.0025	<0.0025	<0.0025	0.00046 (J)	0.0017 (J)	<0.0025	
9/11/2019	0.00019 (J)								
9/12/2019		0.00043 (J)	<0.0025	<0.0025	0.00028 (J)	0.00084 (J)	0.0017	0.00025 (J)	0.00036 (J)
3/10/2020	0.00018 (J)		0.00029 (J)			0.00058 (J)			0.00028 (J)
3/11/2020		<0.0025						0.0003 (J)	
3/31/2020				<0.0025	<0.0025		0.0006 (J)		
4/2/2020						0.00062 (J)			
9/21/2020	0.0002 (J)		<0.0025			0.00054 (J)			
9/22/2020		<0.0025		0.00025 (J)	<0.0025		0.0011 (J)	0.00021 (J)	<0.0025
3/23/2021	0.00021 (J)			0.00018 (J)		0.00063 (J)			
3/24/2021		<0.0025	0.00019 (J)		<0.0025		0.0029	0.00019 (J)	0.00026 (J)

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
2/5/2005		
6/24/2005		
12/13/2005		
7/12/2006		
12/1/2006		
6/21/2007		
12/15/2007		
6/21/2008		
6/22/2008		
12/6/2008		
12/7/2008		
7/10/2009		
7/11/2009		
12/22/2009		
12/23/2009		
6/23/2010		
6/24/2010		
1/8/2011		
1/9/2011		
7/10/2011		
7/11/2011		
1/19/2012		
1/20/2012		
7/12/2012		
7/13/2012		
1/21/2013		
7/20/2013		
1/17/2014		
7/11/2014		
7/12/2014		
1/15/2015		
1/16/2015		
7/15/2015		
1/16/2016		
1/17/2016		
6/22/2016		
6/23/2016		
8/31/2016		

Prediction Limit

Constituent: Beryllium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	0.0014 (J)	<0.0025
10/9/2018		
1/30/2019	0.0019 (J)	0.00047 (J)
1/31/2019		
3/27/2019		
3/28/2019	0.0017 (J)	0.00034 (J)
9/11/2019		
9/12/2019	0.00088 (J)	0.00097 (J)
3/10/2020	0.00087 (J)	
3/11/2020		0.00078 (J)
3/31/2020		
4/2/2020		
9/21/2020		<0.0025
9/22/2020	0.00042 (J)	
3/23/2021	0.00071 (J)	0.00066 (J)
3/24/2021		

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-1	GWC-2	GWA-3A (bg)	GWC-4A	GWC-5	GWC-6	GWA-5 (bg)
10/5/1999	0.023	<0.002	<0.002	0.017	<0.002	<0.002	<0.002	<0.002	<0.002
11/12/1999	0.03	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/29/1999	0.059 (o)	<0.002	<0.002	0.011	<0.002	<0.002	<0.002	<0.002	<0.002
2/17/2000	0.048 (o)	<0.002	<0.002	0.013	<0.002	<0.002	<0.002	<0.002	<0.002
9/13/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/10/2000	0.018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/4/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.016 (o)	<0.002
12/11/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/6/2002	0.0046	0.0037	<0.002	<0.002	<0.002	<0.002	0.008 (o)	<0.002	0.027
6/28/2003	0.0082	0.0039	0.007 (o)	0.0027	0.0053	0.061 (o)	0.021 (o)	0.0021	0.0051
12/13/2003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.011 (o)	<0.002	<0.002
5/28/2004	0.016	<0.002	<0.002	<0.002	0.0027	<0.002	<0.002	<0.002	0.0031
12/10/2004	0.0087	<0.002	<0.002	0.74 (o)	0.004	0.0059 (o)	<0.002	0.0046 (o)	0.0067
2/5/2005				<0.002					
6/24/2005	0.0069	<0.002	<0.002	0.0023	0.0031	<0.002	<0.002	<0.002	<0.002
12/13/2005	0.0075	<0.002	<0.002	0.0031	0.0031	<0.002	<0.002	<0.002	<0.002
7/12/2006	0.027	0.023	<0.002	0.0016	0.0025	<0.002	<0.002	<0.002	<0.002
12/1/2006	<0.002	0.0017	<0.002	0.0022	0.0037	<0.002	<0.002	<0.002	<0.002
6/21/2007	0.012	0.0027	<0.002	0.002	0.0053	<0.002	<0.002	<0.002	0.0021
12/15/2007	0.0085	0.0026	<0.002	0.0029	0.0044	<0.002	0.002	0.0016	0.0022
6/21/2008		0.0021	<0.002			<0.002	0.0017		
6/22/2008	0.021			0.0023	0.0059			<0.002	0.0019
12/6/2008		<0.002	<0.002	0.0023	0.0031	<0.002			<0.002
12/7/2008	0.01						0.0025	<0.002	
7/10/2009					0.0029				
7/11/2009	0.0073	<0.002	<0.002	0.0015		<0.002	<0.002	<0.002	<0.002
12/22/2009									0.0032
12/23/2009	0.013	<0.002	<0.002	0.0014	0.0025	<0.002	<0.002	<0.002	
6/23/2010		<0.002	<0.002	0.0018	0.0013	<0.002	<0.002		<0.002
6/24/2010	0.0076							<0.002	
1/8/2011		<0.002	<0.002	0.0033	0.0017	<0.002	<0.002		0.0019
1/9/2011	0.023								
7/10/2011		<0.002	<0.002	0.0028	<0.002	<0.002	0.0013		<0.002
7/11/2011	0.0042							<0.002	
1/19/2012		<0.002			<0.002				
1/20/2012	0.009		<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
7/12/2012		<0.002	<0.002	0.0025	<0.002	<0.002	<0.002		0.0044
7/13/2012	0.013							<0.002	
1/21/2013	0.032	<0.002	<0.002	0.0022	0.0014	<0.002	<0.002	0.0025	<0.002
7/20/2013	0.01	<0.002	<0.002	0.0075	0.0021	<0.002	<0.002	<0.002	0.0017
1/17/2014	0.024	<0.002	<0.002	0.0039	0.0023	<0.002	<0.002	<0.002	<0.0013 (J)
7/11/2014						<0.002	<0.002		
7/12/2014	0.0069	<0.002	<0.002	0.0031	<0.0013 (J)			<0.002	0.0014
1/15/2015		<0.002		0.0026	<0.002				
1/16/2015	0.0064		<0.002			<0.002	<0.002	<0.002	0.0011 (J)
7/15/2015	0.0051	<0.002	<0.002	0.0032	<0.002	<0.002	<0.002	<0.002	0.0016
1/16/2016	0.0066	<0.002	<0.002		0.0025		<0.002	<0.002	<0.002
1/17/2016				0.0029		<0.002			
6/22/2016	0.00815 (D)	0.0005 (J)	0.0008 (J)	0.0036 (J)	0.00255 (JD)	<0.002			0.002 (J)
6/23/2016							<0.002	<0.002	
8/31/2016		<0.002	<0.002	0.0027	0.0042	<0.002			0.002 (J)

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-1	GWC-2	GWA-3A (bg)	GWC-4A	GWC-5	GWC-6	GWA-5 (bg)
9/1/2016	0.12 (o)						<0.002	0.0069 (o)	
1/19/2017		<0.002			0.0039				0.002 (J)
1/23/2017			<0.002						
1/24/2017				0.0034			<0.002		
1/25/2017						<0.002 (D)			
1/27/2017								<0.002 (D)	
2/28/2017	0.0012 (J)								
7/17/2017	0.003								
7/18/2017		<0.002			0.0018 (J)				
7/19/2017			<0.002	0.0028					0.0017 (J)
7/20/2017						<0.002	<0.002	<0.002	
9/20/2017	0.0025				0.0026				
9/21/2017		<0.002	<0.002	0.0035		<0.002	<0.002		0.0021 (J)
9/22/2017								0.0015 (J)	
1/8/2018	0.0038								
1/9/2018		0.0087	<0.002	0.003	0.0038	<0.002			0.0019 (J)
1/10/2018							<0.002	<0.002	
3/27/2018	0.0044	<0.002			0.0037				<0.002
3/28/2018			<0.002			0.0019 (J)	<0.002		
3/29/2018				0.0032				<0.002	
7/10/2018	0.0045	<0.002		0.0033	0.0022 (J)	0.0029			0.0012 (J)
7/11/2018			<0.002				<0.002	0.0011 (J)	
10/8/2018	0.0054	<0.002							0.0015 (J)
10/9/2018			<0.002	0.0039	0.0047	<0.002	<0.002	<0.002	
1/30/2019	0.0061	0.00088 (J)	0.0024 (J)		0.005	<0.002			0.0014 (J)
1/31/2019				0.0061			<0.002	<0.002	
3/27/2019	0.0044								<0.002
3/28/2019		<0.002	<0.002	0.0049	0.0037	<0.002	<0.002	0.0019 (J)	
9/11/2019	0.0076								
9/12/2019		<0.002	<0.002	0.0048	<0.002	0.0028	0.0051	0.0022	0.0032
3/10/2020	0.0041	<0.002			<0.002				0.0031
3/11/2020			<0.002					<0.002	
3/31/2020				0.005		<0.002	<0.002		
4/2/2020					0.0031				
9/21/2020	0.0049	<0.002			<0.002				
9/22/2020			0.0017 (J)	0.0036		<0.002	<0.002	<0.002	0.0017 (J)
3/23/2021	0.0047			0.0048	0.0022				
3/24/2021		<0.002	<0.002			<0.002	<0.002	<0.002	<0.002

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
2/5/2005		
6/24/2005		
12/13/2005		
7/12/2006		
12/1/2006		
6/21/2007		
12/15/2007		
6/21/2008		
6/22/2008		
12/6/2008		
12/7/2008		
7/10/2009		
7/11/2009		
12/22/2009		
12/23/2009		
6/23/2010		
6/24/2010		
1/8/2011		
1/9/2011		
7/10/2011		
7/11/2011		
1/19/2012		
1/20/2012		
7/12/2012		
7/13/2012		
1/21/2013		
7/20/2013		
1/17/2014		
7/11/2014		
7/12/2014		
1/15/2015		
1/16/2015		
7/15/2015		
1/16/2016		
1/17/2016		
6/22/2016		
6/23/2016		
8/31/2016		

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-7A (bg)	GWA-2B (bg)
9/1/2016		
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	<0.002	<0.002
10/9/2018		
1/30/2019	<0.002	0.003
1/31/2019		
3/27/2019		
3/28/2019	<0.002	0.0017 (J)
9/11/2019		
9/12/2019	<0.002	<0.002
3/10/2020		<0.002
3/11/2020	<0.002	
3/31/2020		
4/2/2020		
9/21/2020	<0.002	
9/22/2020		<0.002
3/23/2021	<0.002	<0.002
3/24/2021		

Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-2	GWA-3A (bg)	GWA-5 (bg)	GWA-4 (bg)	GWC-1	GWC-4A	GWC-5	GWC-6
10/5/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/12/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/29/1999	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2/17/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2000	<0.0025	0.01	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/10/2000	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/4/2001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/11/2001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
4/4/2002	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/6/2002	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0074	<0.0025
6/28/2003	<0.0025	<0.0025	<0.0025	0.018 (o)	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/13/2003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0086	<0.0025
5/28/2004	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0065	<0.0025
12/10/2004	<0.0025	0.0062	<0.0025	0.007	<0.0025	<0.0025	<0.0025	0.0052	<0.0025
6/24/2005	<0.0025	<0.0025	<0.0025	0.0072	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
12/13/2005	<0.0025	<0.0025	<0.0025	0.0062	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/12/2006	0.0032	<0.0025	<0.0025	0.0048	<0.0025	<0.0025	<0.0025	0.0055	<0.0025
12/1/2006	0.012 (o)	<0.0025	<0.0025	0.0032	<0.0025	<0.0025	<0.0025	0.0056	<0.0025
6/21/2007	<0.0025	<0.0025	0.0025	0.0037	<0.0025	<0.0025	<0.0025	0.0055	<0.0025
12/15/2007	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0051	<0.0025
6/21/2008					<0.0025	0.0048 (o)	0.0025	0.0054	
6/22/2008	0.0031	<0.0025	<0.0025	0.0025					<0.0025
12/6/2008		<0.0025	<0.0025	0.0025	<0.0025	<0.0025	<0.0025		
12/7/2008	<0.0025							0.005	<0.0025
7/10/2009			<0.0025						
7/11/2009	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	0.0049	<0.0025
12/22/2009				0.0025					
12/23/2009	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025	0.0035	<0.0025
6/23/2010		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0039	
6/24/2010	<0.0025								<0.0025
1/8/2011		<0.0025	<0.0025	0.0026	<0.0025	<0.0025	<0.0025	0.0046	
1/9/2011	0.0031								<0.0025
7/10/2011		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0036	
7/11/2011	<0.0025								<0.0025
1/19/2012			<0.0025		<0.0025				
1/20/2012	<0.0025	<0.0025		<0.0025		<0.0025	<0.0025	0.0042	<0.0025
7/12/2012		<0.0025	<0.0025	0.002	<0.0025	<0.0025	<0.0025	0.0037	
7/13/2012	0.0015								<0.0025
1/21/2013	0.0035	<0.0025	<0.0025	0.0014	<0.0025	<0.0025	<0.0025	0.0038	<0.0025
7/20/2013	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.003	<0.0025
1/17/2014	0.0027	<0.0025	<0.0013 (J)	0.0019	<0.0013 (J)	<0.0025	<0.0025	0.0036	<0.0013 (J)
7/11/2014							<0.0025	0.0056	
7/12/2014	<0.0013 (J)	<0.0013 (J)	<0.0013 (J)	0.0026	<0.0013 (J)	<0.0025			<0.0025
1/15/2015		0.00096 (J)	0.00086 (J)		0.00084 (J)				
1/16/2015	<0.0025			0.0021		<0.0025	0.00071 (J)	0.0042	<0.0025
7/15/2015	<0.0025	0.0006 (J)	0.00087 (J)	0.0023	0.00083 (J)	<0.0025	0.00064 (J)	0.0052	<0.0025
1/16/2016	0.00059 (J)		0.0011 (J)	0.002	0.00092 (J)	<0.0025		0.0056	0.00055 (J)
1/17/2016		0.00069 (J)					0.00066 (J)		
6/22/2016	0.00085 (JD)	0.0011 (J)	0.0009 (J)	0.0007 (J)	0.0005 (J)	<0.0025	0.0009 (J)		
6/23/2016								0.0073 (J)	0.0005 (J)
8/31/2016		0.0006 (J)	0.00095 (J)	0.001 (J)	0.00055 (J)	<0.0025	0.0006 (J)		
9/1/2016	0.023 (o)							0.011	0.0014 (J)

Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-2	GWA-3A (bg)	GWA-5 (bg)	GWA-4 (bg)	GWC-1	GWC-4A	GWC-5	GWC-6
1/19/2017			0.00087 (J)	0.00046 (J)	0.00041 (J)				
1/23/2017						<0.0025			
1/24/2017		0.00067 (J)						0.009	
1/25/2017							0.00047 (J)		
1/27/2017									0.00052 (J)
2/28/2017	0.00048 (J)								
7/17/2017	<0.0025								
7/18/2017			0.001 (J)		0.0007 (J)				
7/19/2017		0.00079 (J)		0.00069 (J)		<0.0025			
7/20/2017							<0.0025	0.0091	0.00062 (J)
9/20/2017	<0.0025		0.0011 (J)						
9/21/2017		0.00077 (J)		0.00073 (J)	0.00073 (J)	<0.0025	<0.0025	0.0093	
9/22/2017									0.00048 (J)
1/8/2018	<0.0025								
1/9/2018		0.00092 (J)	0.0011 (J)	0.0014 (J)	0.0012 (J)	<0.0025	0.00048 (J)		
1/10/2018								0.0097	<0.0025
3/27/2018	<0.0025		0.0011 (J)	0.0019 (J)	0.00081 (J)				
3/28/2018						<0.0025	0.00048 (J)	0.01	
3/29/2018		0.0008 (J)							0.00052 (J)
7/10/2018	<0.0025	0.00097 (J)	0.0012 (J)	0.0015 (J)	0.00086 (J)		0.00084 (J)		
7/11/2018						<0.0025		0.011	0.00064 (J)
10/8/2018	<0.0025			<0.0025	<0.0025				
10/9/2018		<0.0025	<0.0025			<0.0025	<0.0025	0.012	<0.0025
1/30/2019	0.00038 (J)		0.0014 (J)	0.00076 (J)	0.00092 (J)	0.00023 (J)	0.00038 (J)		
1/31/2019		0.00092 (J)						0.013	0.00076 (J)
3/27/2019	<0.0025			0.0012 (J)					
3/28/2019		0.00072 (J)	0.0014 (J)		0.00089 (J)	<0.0025	<0.0025	0.013	0.0007 (J)
9/11/2019	0.00032 (J)								
9/12/2019		0.0009	0.0015	0.00074	0.00091	0.00027 (J)	0.00044 (J)	0.013	0.00077
3/10/2020	0.00028 (J)		0.0019	0.00099	0.0009				
3/11/2020						0.00026 (J)			0.00073
3/31/2020		0.00061 (J)					0.00033 (J)	0.012	
4/2/2020			0.0017 (J)						
9/21/2020	0.0003 (J)		0.0016 (J)		0.00059 (J)				
9/22/2020		0.00092 (J)		0.00064 (J)		0.00021 (J)	0.00042 (J)	0.011	0.00058 (J)
3/23/2021	0.00028 (J)	0.00069 (J)	0.0017 (J)						
3/24/2021				0.00077 (J)	0.00069 (J)	0.0002 (J)	0.00037 (J)	0.012	0.00046 (J)

Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
6/24/2005		
12/13/2005		
7/12/2006		
12/1/2006		
6/21/2007		
12/15/2007		
6/21/2008		
6/22/2008		
12/6/2008		
12/7/2008		
7/10/2009		
7/11/2009		
12/22/2009		
12/23/2009		
6/23/2010		
6/24/2010		
1/8/2011		
1/9/2011		
7/10/2011		
7/11/2011		
1/19/2012		
1/20/2012		
7/12/2012		
7/13/2012		
1/21/2013		
7/20/2013		
1/17/2014		
7/11/2014		
7/12/2014		
1/15/2015		
1/16/2015		
7/15/2015		
1/16/2016		
1/17/2016		
6/22/2016		
6/23/2016		
8/31/2016		
9/1/2016		

Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
1/19/2017		
1/23/2017		
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
9/20/2017		
9/21/2017		
9/22/2017		
1/8/2018		
1/9/2018		
1/10/2018		
3/27/2018		
3/28/2018		
3/29/2018		
7/10/2018		
7/11/2018		
10/8/2018	0.0051	0.0055
10/9/2018		
1/30/2019	0.0044	0.0047
1/31/2019		
3/27/2019		
3/28/2019	0.0046	0.0045
9/11/2019		
9/12/2019	0.0023	0.0043
3/10/2020	0.003	
3/11/2020		0.0056
3/31/2020		
4/2/2020		
9/21/2020		0.0025
9/22/2020	<0.0025	
3/23/2021	0.00096 (J)	0.003
3/24/2021		

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-2	GWA-3A (bg)	GWC-6	GWC-5	GWA-5 (bg)	GWA-7A (bg)
10/5/1999	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
11/12/1999	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
12/29/1999	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
2/17/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
9/13/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
11/10/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
1/4/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
12/11/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
4/4/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
12/6/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0089 (o)	
6/28/2003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.019 (o)	
12/13/2003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0026	0.0067 (o)	
5/28/2004	0.0052	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0057 (o)	
12/10/2004	<0.002	<0.002	<0.002	0.11 (o)	<0.002	0.0044 (o)	<0.002	0.0027	
6/24/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0038	
12/13/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
7/12/2006	0.0055	0.0047 (o)	<0.002	<0.002	<0.002	<0.002	<0.002	0.0033	
12/1/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
6/21/2007	0.0032	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0035	
12/15/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
6/21/2008		<0.002	<0.002				<0.002		
6/22/2008	<0.002			<0.002	<0.002	<0.002		<0.002	
12/6/2008		<0.002	<0.002	<0.002	<0.002			<0.002	
12/7/2008	<0.002					<0.002	<0.002		
7/10/2009					<0.002				
7/11/2009	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	
12/22/2009								0.0025	
12/23/2009	0.0025	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
6/23/2010		<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	
6/24/2010	<0.002					<0.002			
1/8/2011		<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	
1/9/2011	0.004					<0.002			
7/10/2011		<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	
7/11/2011	<0.002					<0.002			
1/19/2012			<0.002		<0.002				
1/20/2012	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002	
7/12/2012		<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	
7/13/2012	<0.002					<0.002			
1/21/2013	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
7/20/2013	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
1/17/2014	<0.005 (J)	<0.002	<0.002	0.0065 (o)	<0.002	<0.002	<0.002	<0.005 (J)	
7/11/2014							<0.002		
7/12/2014	<0.005 (J)	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	
1/15/2015			<0.002	<0.002	<0.002				
1/16/2015	<0.002	<0.002				<0.002	<0.002	<0.002	
7/15/2015	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
1/16/2016	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	
1/17/2016				<0.002					
6/22/2016	0.002 (JD)	<0.002	<0.002	0.0005 (J)	0.00205 (JD)			0.001	
6/23/2016						<0.002	0.0007 (J)		
1/19/2017			<0.002		<0.002			<0.002	
1/23/2017		<0.002							

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-2	GWA-3A (bg)	GWC-6	GWC-5	GWA-5 (bg)	GWA-7A (bg)
1/24/2017				<0.002			<0.002		
1/27/2017						<0.002			
2/28/2017	<0.002								
7/17/2017	<0.002								
7/18/2017			<0.002		<0.002				
7/19/2017		<0.002		<0.002				<0.002	
7/20/2017						<0.002	<0.002		
1/8/2018	<0.002								
1/9/2018		<0.002	0.0025	<0.002	<0.002			<0.002	
1/10/2018						<0.002	<0.002		
7/10/2018	<0.002		<0.002	<0.002	<0.002			<0.002	
7/11/2018		<0.002				<0.002	<0.002		
1/30/2019	<0.002	<0.002	<0.002		<0.002			<0.002	0.0018 (J)
1/31/2019				<0.002		<0.002	<0.002		
3/27/2019	<0.002							<0.002	
3/28/2019		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002
9/11/2019	<0.002								
9/12/2019		0.0024	0.0022	0.002	0.0024	0.003	0.00084 (J)	0.0011 (J)	0.0041
3/10/2020	<0.002		<0.002		0.00082 (J)			0.0019 (J)	
3/11/2020		<0.002				<0.002			0.0032
3/31/2020				<0.002			<0.002		
4/2/2020					0.0019 (J)				
9/21/2020	<0.002		<0.002		<0.002				0.0018 (J)
9/22/2020		<0.002		<0.002		<0.002	<0.002	0.0013 (J)	
3/23/2021	<0.002			<0.002	<0.002				0.0027
3/24/2021		<0.002	<0.002			<0.002	<0.002	0.00077 (J)	

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)
10/5/1999	
11/12/1999	
12/29/1999	
2/17/2000	
9/13/2000	
11/10/2000	
1/4/2001	
12/11/2001	
4/4/2002	
12/6/2002	
6/28/2003	
12/13/2003	
5/28/2004	
12/10/2004	
6/24/2005	
12/13/2005	
7/12/2006	
12/1/2006	
6/21/2007	
12/15/2007	
6/21/2008	
6/22/2008	
12/6/2008	
12/7/2008	
7/10/2009	
7/11/2009	
12/22/2009	
12/23/2009	
6/23/2010	
6/24/2010	
1/8/2011	
1/9/2011	
7/10/2011	
7/11/2011	
1/19/2012	
1/20/2012	
7/12/2012	
7/13/2012	
1/21/2013	
7/20/2013	
1/17/2014	
7/11/2014	
7/12/2014	
1/15/2015	
1/16/2015	
7/15/2015	
1/16/2016	
1/17/2016	
6/22/2016	
6/23/2016	
1/19/2017	
1/23/2017	

Prediction Limit

Constituent: Copper (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)
1/24/2017	
1/27/2017	
2/28/2017	
7/17/2017	
7/18/2017	
7/19/2017	
7/20/2017	
1/8/2018	
1/9/2018	
1/10/2018	
7/10/2018	
7/11/2018	
1/30/2019	0.0035
1/31/2019	
3/27/2019	
3/28/2019	0.0031
9/11/2019	
9/12/2019	0.0038
3/10/2020	0.0021
3/11/2020	
3/31/2020	
4/2/2020	
9/21/2020	
9/22/2020	0.00096 (J)
3/23/2021	0.0011 (J)
3/24/2021	

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-5	GWA-3A (bg)	GWC-6	GWA-5 (bg)	GWC-2	GWA-7A (bg)	GWA-2B (bg)
10/5/1999	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	0.0054 (o)		
11/12/1999	0.0063 (o)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/29/1999	0.016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
2/17/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
9/13/2000	<0.001	<0.001	<0.001	<0.001	0.079 (o)	<0.001	<0.001		
11/10/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
1/4/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/11/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
4/4/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/6/2002	<0.001	<0.001	0.007 (o)	<0.001	<0.001	0.011	<0.001		
6/28/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/13/2003	<0.001	<0.001	0.018 (o)	<0.001	<0.001	<0.001	<0.001		
5/28/2004	0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/10/2004	0.01	<0.001	<0.001	<0.001	0.0073	<0.001	<0.001		
6/24/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/13/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
7/12/2006	0.013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/1/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
6/21/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
12/15/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
6/21/2008		<0.001	<0.001						
6/22/2008	<0.001			<0.001	<0.001	<0.001	<0.001		
12/6/2008		<0.001		<0.001		<0.001	<0.001		
12/7/2008	<0.001		<0.001		<0.001				
7/10/2009				<0.001					
7/11/2009	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		
12/22/2009						<0.001			
12/23/2009	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		
6/23/2010		<0.001	<0.001	<0.001		<0.001	<0.001		
6/24/2010	<0.001				<0.001				
1/8/2011		<0.001	<0.001	<0.001		<0.001	<0.001		
1/9/2011	<0.001								
7/10/2011		<0.001	<0.001	<0.001		<0.001	<0.001		
7/11/2011	<0.001				<0.001				
1/19/2012		<0.001		<0.001					
1/20/2012	<0.001		<0.001		<0.001	<0.001	<0.001		
7/12/2012		<0.001	<0.001	<0.001		<0.001	<0.001		
7/13/2012	<0.001				<0.001				
1/21/2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
7/20/2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
1/17/2014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
7/11/2014			<0.001						
7/12/2014	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		
1/15/2015		<0.001		<0.001			<0.001		
1/16/2015	<0.001		<0.001		<0.001	<0.001			
7/15/2015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
1/16/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
1/17/2016							<0.001		
6/22/2016	0.00125 (JD)	0.0003 (J)		0.00025 (JD)		0.001 (J)	0.0001 (J)		
6/23/2016			0.0001 (J)		<0.001				
8/31/2016		<0.001		<0.001		0.00099 (J)	<0.001		
9/1/2016	0.082 (o)		<0.001		0.006				

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWC-5	GWA-3A (bg)	GWC-6	GWA-5 (bg)	GWC-2	GWA-7A (bg)	GWA-2B (bg)
1/19/2017		<0.001		<0.001		0.001 (J)			
1/24/2017			<0.001				<0.001		
1/27/2017					<0.001 (D)				
2/28/2017	<0.001								
7/17/2017	<0.001								
7/18/2017		<0.001		<0.001					
7/19/2017						0.00081 (J)	<0.001		
7/20/2017			<0.001		<0.001				
9/20/2017	0.00035 (J)			<0.001					
9/21/2017		0.0076	<0.001			0.00086 (J)	0.0014 (o)		
9/22/2017					0.00042 (J)				
1/8/2018	<0.001								
1/9/2018		0.0023		<0.001		0.00059 (J)	<0.001		
1/10/2018			<0.001		<0.001				
3/27/2018	<0.001	<0.001		<0.001		<0.001			
3/28/2018			<0.001						
3/29/2018					<0.001		<0.001		
7/10/2018	<0.001	<0.001		<0.001		0.00045 (J)	<0.001		
7/11/2018			<0.001		0.00037 (J)				
10/8/2018	<0.001	<0.001				<0.001		<0.001	<0.001
10/9/2018			<0.001	<0.001	<0.001		<0.001		
1/30/2019	0.00021 (J)	0.00013 (J)		0.00034 (J)		0.00064 (J)		<0.001	0.00028 (J)
1/31/2019			<0.001		<0.001		<0.001		
3/27/2019	<0.001					0.0012 (J)			
3/28/2019		<0.001	<0.001	0.00038 (J)	0.00052 (J)		<0.001	<0.001	<0.001
9/11/2019	<0.001								
9/12/2019		<0.001	0.00024 (J)	<0.001	0.00065 (J)	0.00082 (J)	<0.001	<0.001	<0.001
3/10/2020	0.00015 (J)	0.00031 (J)		0.00013 (J)		0.0022			<0.001
3/11/2020					<0.001			<0.001	
3/31/2020			<0.001				<0.001		
4/2/2020				0.00062 (J)					
9/21/2020	<0.001	0.00025 (J)		<0.001				<0.001	
9/22/2020			0.00013 (J)		<0.001	0.0012	<0.001		<0.001
3/23/2021	0.00017 (J)			0.00029 (J)			<0.001	<0.001	<0.001
3/24/2021		0.00021 (J)	0.00034 (J)		<0.001	0.00066 (J)			

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-4A	GWA-3A (bg)	GWC-5	GWC-6	GWA-5 (bg)	GWC-2
10/5/1999	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.015 (o)
11/12/1999	0.027	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/29/1999	0.055	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/17/2000	0.042	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/13/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/10/2000	0.014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/4/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/11/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/6/2002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0082	<0.001	0.03	<0.001
6/28/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/13/2003	<0.001	<0.001	<0.001	<0.001	<0.001	0.017	<0.001	<0.001	<0.001
5/28/2004	0.017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/10/2004	0.0082	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/24/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/13/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/12/2006	0.023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/1/2006	0.0081	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2007	0.009	<0.001	<0.001	<0.001	0.0038	<0.001	<0.001	0.07 (o)	<0.001
12/15/2007	0.0056	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2008		<0.001	<0.001	<0.001		<0.001			
6/22/2008	0.013				<0.001		<0.001	0.0026	<0.001
12/6/2008		<0.001	<0.001	<0.001	<0.001			<0.001	<0.001
12/7/2008	0.0027					<0.001	<0.001		
7/10/2009					<0.001				
7/11/2009	0.0032	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
12/22/2009								<0.001	
12/23/2009	0.0093	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
6/23/2010		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
6/24/2010	0.0033						<0.001		
1/8/2011		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
1/9/2011	<0.001								
7/10/2011		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
7/11/2011	<0.001						<0.001		
1/19/2012			<0.001		<0.001				
1/20/2012	<0.001	<0.001		<0.001		<0.001	<0.001	<0.001	<0.001
7/12/2012		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
7/13/2012	0.011						<0.001		
1/21/2013	0.028	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/20/2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/17/2014	0.019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/11/2014				<0.001		<0.001			
7/12/2014	<0.005 (J)	<0.001	<0.001		<0.001		<0.001	<0.001	<0.001
1/15/2015			<0.001		<0.001				<0.001
1/16/2015	0.0012 (J)	<0.001		<0.001		<0.001	<0.001	0.0011 (J)	
7/15/2015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016 (J)	<0.001
1/16/2016	0.0015 (J)	<0.001	0.00082 (J)		0.0011 (J)	<0.001	<0.001	<0.001	
1/17/2016				<0.001					<0.001
6/22/2016	0.0081 (D)	<0.001	<0.001	<0.001	<0.001			0.0018 (J)	0.0019 (J)
6/23/2016						0.0021 (J)	<0.001		
1/19/2017			0.0025		<0.001			0.0033	
1/23/2017		0.0063							

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWC-1	GWA-4 (bg)	GWC-4A	GWA-3A (bg)	GWC-5	GWC-6	GWA-5 (bg)	GWC-2
1/24/2017						0.044 (o)			0.0062
1/25/2017				<0.001					
1/27/2017							<0.001		
2/28/2017	0.0019 (J)								
7/17/2017	<0.001								
7/18/2017			<0.001		<0.001				
7/19/2017		<0.001						0.0045	0.0015 (J)
7/20/2017				<0.001		0.014	0.0021 (J)		
1/8/2018	<0.001								
1/9/2018		<0.001	0.0072	<0.001	<0.001			0.0027	<0.001
1/10/2018						0.014	<0.001		
7/10/2018	<0.001		<0.001	<0.001	<0.001			<0.001	<0.001
7/11/2018		<0.001				0.011 (J)	<0.001		
1/30/2019	<0.001	<0.001	<0.001	<0.001	<0.001			0.0019 (J)	
1/31/2019						<0.001	<0.001		<0.001
3/27/2019	<0.001							<0.001	
3/28/2019		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
9/11/2019	0.0014								
9/12/2019		0.0023	0.0017	0.0021	0.002	0.0044	0.0043	0.004	0.0018
3/10/2020	<0.001		<0.001		<0.001			0.01	
3/11/2020		<0.001					<0.001		
3/31/2020				<0.001		0.0016			<0.001
4/2/2020					0.0013				
9/21/2020	<0.001		0.0012		<0.001				
9/22/2020		<0.001		<0.001		0.0015	0.0011	0.0056	<0.001
3/23/2021	<0.001				<0.001				<0.001
3/24/2021		<0.001	<0.001	<0.001		<0.001	<0.001	0.0018	

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
6/24/2005		
12/13/2005		
7/12/2006		
12/1/2006		
6/21/2007		
12/15/2007		
6/21/2008		
6/22/2008		
12/6/2008		
12/7/2008		
7/10/2009		
7/11/2009		
12/22/2009		
12/23/2009		
6/23/2010		
6/24/2010		
1/8/2011		
1/9/2011		
7/10/2011		
7/11/2011		
1/19/2012		
1/20/2012		
7/12/2012		
7/13/2012		
1/21/2013		
7/20/2013		
1/17/2014		
7/11/2014		
7/12/2014		
1/15/2015		
1/16/2015		
7/15/2015		
1/16/2016		
1/17/2016		
6/22/2016		
6/23/2016		
1/19/2017		
1/23/2017		

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
1/8/2018		
1/9/2018		
1/10/2018		
7/10/2018		
7/11/2018		
1/30/2019	<0.001	<0.001
1/31/2019		
3/27/2019		
3/28/2019	<0.001	<0.001
9/11/2019		
9/12/2019	0.0021	0.002
3/10/2020	<0.001	
3/11/2020		<0.001
3/31/2020		
4/2/2020		
9/21/2020		<0.001
9/22/2020	<0.001	
3/23/2021	<0.001	<0.001
3/24/2021		

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWC-1	GWC-2	GWC-4A	GWC-5	GWA-3A (bg)	GWC-6
10/5/1999	0.043	0.039	<0.005	<0.005	0.028	<0.005	0.037	0.023	0.063 (o)
11/12/1999	0.035	0.025	<0.005	<0.005	<0.005	<0.005	0.022	<0.005	0.025
12/29/1999	0.058	0.023	<0.005	<0.005	0.022	<0.005	0.036	<0.005	0.024
2/17/2000	0.051	<0.005	<0.005	<0.005	0.021	<0.005	<0.005	<0.005	<0.005
9/13/2000	<0.005	0.035	0.021	<0.005	<0.005	0.036 (o)	0.027	<0.005	0.061 (o)
11/10/2000	<0.005	0.023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.061 (o)
1/4/2001	<0.005	0.027	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.05 (o)
12/11/2001	<0.005	0.036	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2002	<0.005	0.038	<0.005	<0.005	0.069 (o)	<0.005	0.028	<0.005	<0.005
12/6/2002	<0.005	0.033	0.06	0.011	0.012	0.012	0.028	<0.005	0.013
6/28/2003	<0.005	0.018	0.19 (o)	<0.005	0.011	<0.005	0.012	<0.005	0.014
12/13/2003	<0.005	0.013	0.067	<0.005	<0.005	<0.005	0.026	<0.005	<0.005
5/28/2004	0.034	<0.005	0.068	<0.005	<0.005	<0.005	0.018	<0.005	<0.005
12/10/2004	0.021	<0.005	0.039	<0.005	0.027	<0.005	0.029	<0.005	<0.005
6/24/2005	<0.005	<0.005	0.033	<0.005	<0.005	<0.005	0.016	<0.005	<0.005
12/13/2005	0.013	0.011	0.039	0.015	0.011	<0.005	0.017	<0.005	<0.005
7/12/2006	0.074	0.0055	0.022	0.0042	0.0064	<0.005	0.013	0.0047	0.0057
12/1/2006	0.048	0.0052	0.018	0.0047	0.0077	0.098 (o)	0.03	0.065	0.0068
6/21/2007	0.067	0.0062	0.058	0.0052	0.0082	0.0043	0.017	0.008	0.016
12/15/2007	0.053	0.0055	0.0072	0.0046	0.0063	0.0057	0.013	0.0043	0.012
6/21/2008		0.011		0.0067		0.0064	0.016		
6/22/2008	0.024		0.011		0.0074			0.0062	0.014
12/6/2008		0.008	0.011	0.0054	0.0066	0.0052		0.051	
12/7/2008	0.0087						0.05		0.044 (o)
7/10/2009								0.0043	
7/11/2009	0.045	0.011	0.013	0.0038	0.0054	0.0049	0.013		0.0062
12/22/2009			0.013						
12/23/2009	0.054	0.0051		0.0029	0.0046	0.005	0.01	0.0039	0.007
6/23/2010		0.0031	0.0084	<0.005	0.0041	0.0044	0.011	<0.005	
6/24/2010	0.0065								0.0049
1/8/2011		0.0035	0.0089	0.0032	0.019	0.0036	0.012	0.0037	
1/9/2011	0.022								
7/10/2011		0.0081	0.0084	0.004	0.005	0.0046	0.0096	0.0047	
7/11/2011	0.0032								0.0052
1/19/2012		0.017						0.0045	
1/20/2012	0.0089		0.0094	0.0067	0.007	0.0045	0.014		0.0081
7/12/2012		0.01	0.0098	0.0036	0.0045	0.0041	0.01	0.0033	
7/13/2012	0.012								0.004
1/21/2013	0.024	0.013	0.007	0.0031	0.0045	0.0038	0.011	0.0038	0.0093
7/20/2013	0.0068	<0.005	0.0074	<0.005	<0.005	0.0047	0.0089	0.004	0.0054
1/17/2014	0.02	0.0066	0.0092	0.0031	0.0075	0.0051	0.0098	0.005	0.0054
7/11/2014						0.0066	0.014		
7/12/2014	0.0055	0.0054	0.013	<0.0025 (J)	0.0051			0.004	0.0057
1/15/2015		0.0076			0.0054			0.0056	
1/16/2015	0.0043		0.0081	0.002 (J)		0.0046	0.011		0.0084
7/15/2015	0.0026	0.0053	0.009	0.0015 (J)	0.0049	0.0036	0.012	0.0034	0.0046
1/16/2016	0.0035	0.0048	0.007	0.0015 (J)			0.014	0.0038	0.0051
1/17/2016					0.0051	0.004			
6/22/2016	0.00805 (JD)	0.0038 (J)	0.0091 (J)	<0.005	0.0087 (J)	0.0053 (J)		0.00575 (JD)	
6/23/2016							0.0116		0.0041 (J)
1/19/2017		<0.005	0.0065 (J)					<0.005	
1/23/2017				<0.005					

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-1A (bg)	GWA-4 (bg)	GWA-5 (bg)	GWC-1	GWC-2	GWC-4A	GWC-5	GWA-3A (bg)	GWC-6
1/24/2017					0.0071 (J)		0.01 (J)		
1/25/2017						<0.005			
1/27/2017									<0.005
2/28/2017	<0.005								
7/17/2017	<0.005								
7/18/2017		<0.005						<0.005	
7/19/2017			0.0099 (J)	<0.005	<0.005				
7/20/2017						<0.005	0.016 (J)		<0.005
1/8/2018	<0.005								
1/9/2018		0.0072 (J)	0.014 (J)	<0.005	0.0079 (J)	<0.005		<0.005	
1/10/2018							0.012 (J)		<0.005
7/10/2018	<0.005	<0.005	0.0089 (J)		0.0067 (J)	<0.005		<0.005	
7/11/2018				<0.005			0.015 (J)		<0.005
1/30/2019	<0.005	0.006 (J)	0.0057 (J)	<0.005		0.0042 (J)		0.0058 (J)	
1/31/2019					<0.005		0.033		<0.005
3/27/2019	<0.005		0.01 (J)						
3/28/2019		<0.005		<0.005	0.0069 (J)	<0.005	0.032	<0.005	0.0084 (J)
9/11/2019	0.0062								
9/12/2019		0.0073	0.0074	0.0039 (J)	0.0089	0.0093	0.033	0.0081	0.011
3/10/2020	<0.005	0.0079	0.0071					0.0079	
3/11/2020				<0.005					0.0047 (J)
3/31/2020					0.0065	<0.005	0.025		
4/2/2020								0.011	
9/21/2020	<0.005	0.013						0.0055	
9/22/2020			0.039	<0.005	0.029	0.017	0.037		0.0053
3/23/2021	<0.005				0.0085			0.0092	
3/24/2021		0.0058	0.0085	<0.005		0.01	0.034		0.0043 (J)

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
10/5/1999		
11/12/1999		
12/29/1999		
2/17/2000		
9/13/2000		
11/10/2000		
1/4/2001		
12/11/2001		
4/4/2002		
12/6/2002		
6/28/2003		
12/13/2003		
5/28/2004		
12/10/2004		
6/24/2005		
12/13/2005		
7/12/2006		
12/1/2006		
6/21/2007		
12/15/2007		
6/21/2008		
6/22/2008		
12/6/2008		
12/7/2008		
7/10/2009		
7/11/2009		
12/22/2009		
12/23/2009		
6/23/2010		
6/24/2010		
1/8/2011		
1/9/2011		
7/10/2011		
7/11/2011		
1/19/2012		
1/20/2012		
7/12/2012		
7/13/2012		
1/21/2013		
7/20/2013		
1/17/2014		
7/11/2014		
7/12/2014		
1/15/2015		
1/16/2015		
7/15/2015		
1/16/2016		
1/17/2016		
6/22/2016		
6/23/2016		
1/19/2017		
1/23/2017		

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 5/16/2021 10:59 AM View: State PLs

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

	GWA-2B (bg)	GWA-7A (bg)
1/24/2017		
1/25/2017		
1/27/2017		
2/28/2017		
7/17/2017		
7/18/2017		
7/19/2017		
7/20/2017		
1/8/2018		
1/9/2018		
1/10/2018		
7/10/2018		
7/11/2018		
1/30/2019	0.013 (J)	0.011 (J)
1/31/2019		
3/27/2019		
3/28/2019	0.014 (J)	0.0086 (J)
9/11/2019		
9/12/2019	0.0075	0.014
3/10/2020	0.0061	
3/11/2020		0.0099
3/31/2020		
4/2/2020		
9/21/2020		0.007
9/22/2020	0.0066	
3/23/2021	0.0066	0.0096
3/24/2021		

FIGURE F.

Trend Test Summary - State Prediction Limit Exceedances - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 11:20 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Barium (mg/L)	**GWA-1A (bg)**	**-0.002275**	**-4.514**	**-2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWA-3A (bg)**	**0.001167**	**6.747**	**2.58**	**Yes**	**52**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWA-4 (bg)**	**0.0009487**	**5.988**	**2.58**	**Yes**	**51**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWC-5**	**0.01148**	**2.58**	**2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-1A (bg)**	**0**	**-3.243**	**-2.58**	**Yes**	**49**	**71.43**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-3A (bg)**	**-2.5e-11**	**-4.492**	**-2.58**	**Yes**	**52**	**63.46**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-4 (bg)**	**-0.0000812**	**-5.612**	**-2.58**	**Yes**	**51**	**66.67**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-5 (bg)**	**-0.00008909**	**-5.265**	**-2.58**	**Yes**	**50**	**38**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWC-5**	**0.0002442**	**3.887**	**2.58**	**Yes**	**51**	**23.53**	**n/a**	**n/a**	**0.01**	**NP**

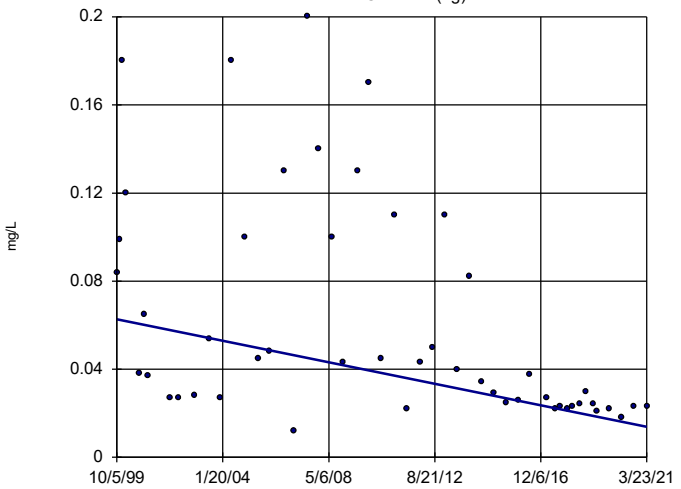
Trend Test Summary - State Prediction Limit Exceedances - All Results

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR Printed 5/16/2021, 11:20 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Barium (mg/L)	**GWA-1A (bg)**	**-0.002275**	**-4.514**	**-2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	GWA-2B (bg)	0	0	18	No	7	0	n/a	n/a	0.01	NP
Barium (mg/L)	**GWA-3A (bg)**	**0.001167**	**6.747**	**2.58**	**Yes**	**52**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	**GWA-4 (bg)**	**0.0009487**	**5.988**	**2.58**	**Yes**	**51**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Barium (mg/L)	GWA-5 (bg)	0.000465	0.6291	2.58	No	50	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-7A (bg)	-0.02614	-12	-18	No	7	0	n/a	n/a	0.01	NP
Barium (mg/L)	**GWC-5**	**0.01148**	**2.58**	**2.58**	**Yes**	**50**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-1A (bg)**	**0**	**-3.243**	**-2.58**	**Yes**	**49**	**71.43**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	GWA-2B (bg)	-0.001477	-15	-18	No	7	14.29	n/a	n/a	0.01	NP
Cobalt (mg/L)	**GWA-3A (bg)**	**-2.5e-11**	**-4.492**	**-2.58**	**Yes**	**52**	**63.46**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-4 (bg)**	**-0.0000812**	**-5.612**	**-2.58**	**Yes**	**51**	**66.67**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	**GWA-5 (bg)**	**-0.00008909**	**-5.265**	**-2.58**	**Yes**	**50**	**38**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	GWA-7A (bg)	-0.001017	-11	-18	No	7	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	**GWC-5**	**0.0002442**	**3.887**	**2.58**	**Yes**	**51**	**23.53**	**n/a**	**n/a**	**0.01**	**NP**

Sen's Slope Estimator

GWA-1A (bg)



n = 50

Slope = -0.002275 units per year.

Mann-Kendall normal approx. = -4.514
critical = -2.58

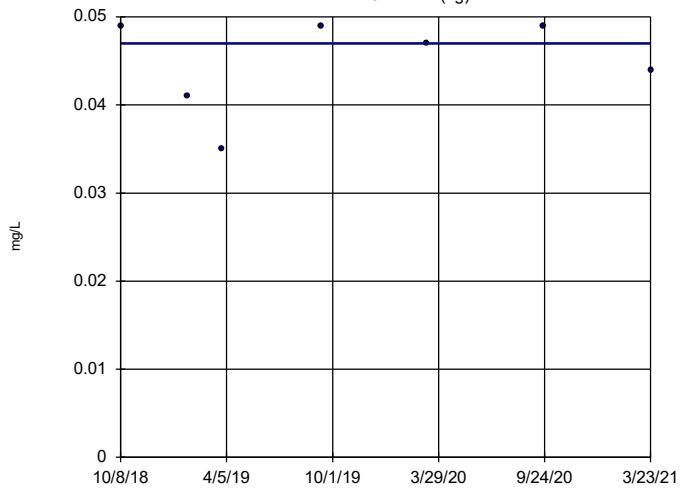
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWA-2B (bg)



n = 7

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 18

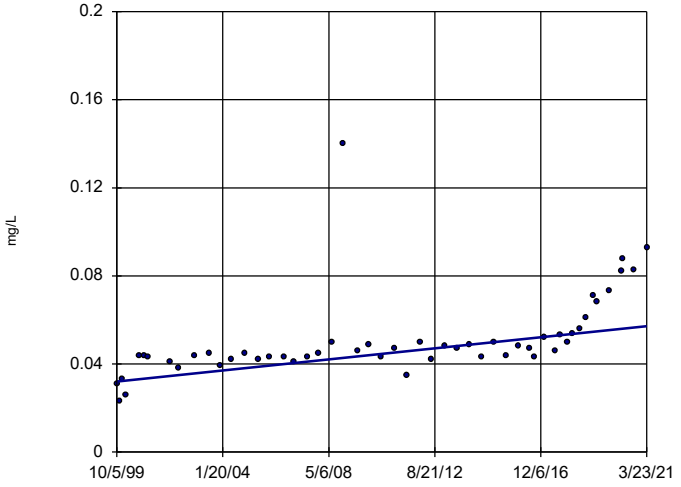
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWA-3A (bg)



n = 52

Slope = 0.001167 units per year.

Mann-Kendall normal approx. = 6.747
critical = 2.58

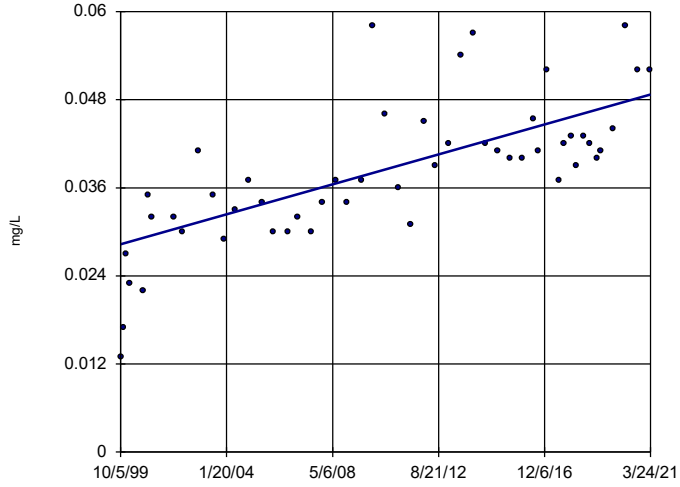
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWA-4 (bg)



n = 51

Slope = 0.0009487 units per year.

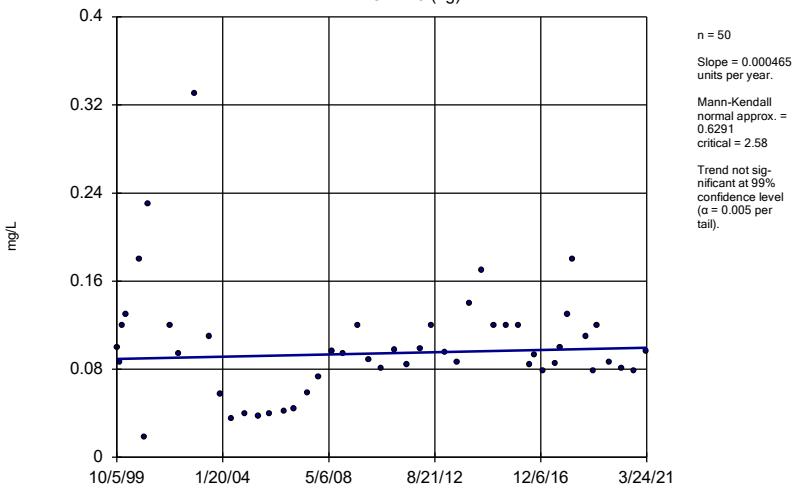
Mann-Kendall normal approx. = 5.988
critical = 2.58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sen's Slope Estimator

GWA-5 (bg)



n = 50

Slope = 0.000465 units per year.

Mann-Kendall normal approx. = 0.6291
critical = 2.58

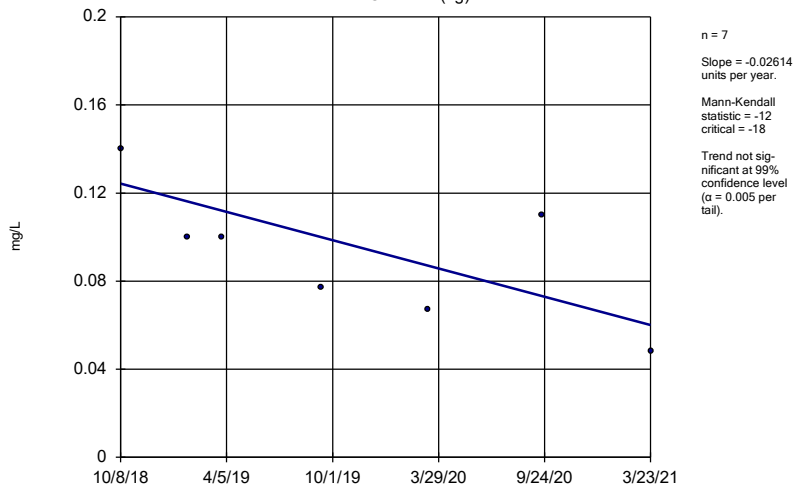
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWA-7A (bg)



n = 7

Slope = -0.02614 units per year.

Mann-Kendall statistic = -12
critical = -18

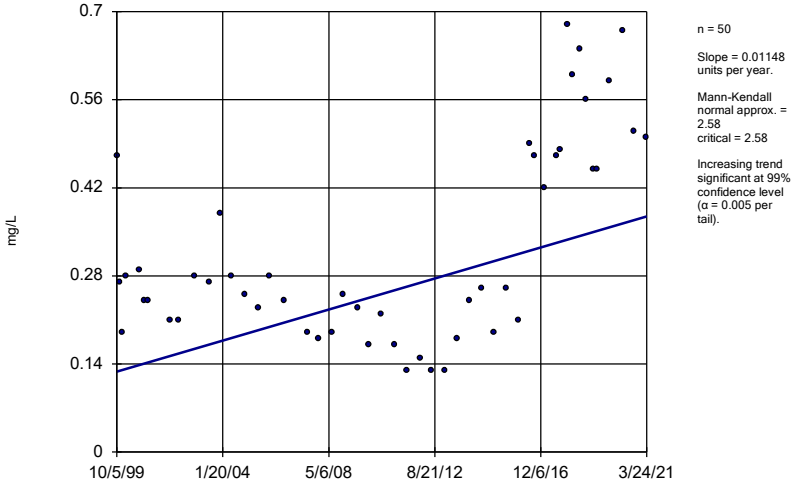
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWC-5



n = 50

Slope = 0.01148 units per year.

Mann-Kendall normal approx. = 2.58
critical = 2.58

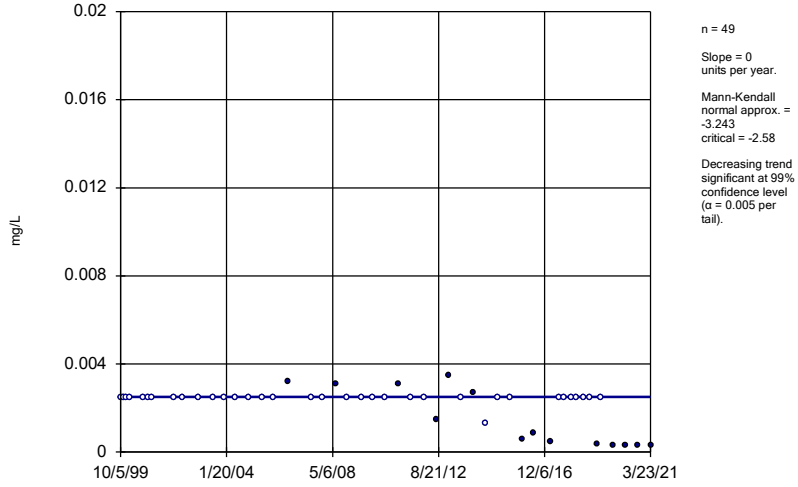
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-1A (bg)



n = 49

Slope = 0 units per year.

Mann-Kendall normal approx. = -3.243
critical = -2.58

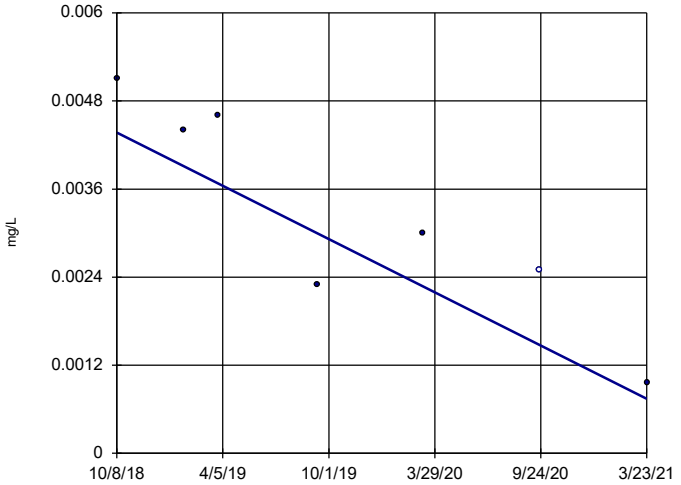
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-2B (bg)



n = 7

Slope = -0.001477 units per year.

Mann-Kendall statistic = -15
critical = -18

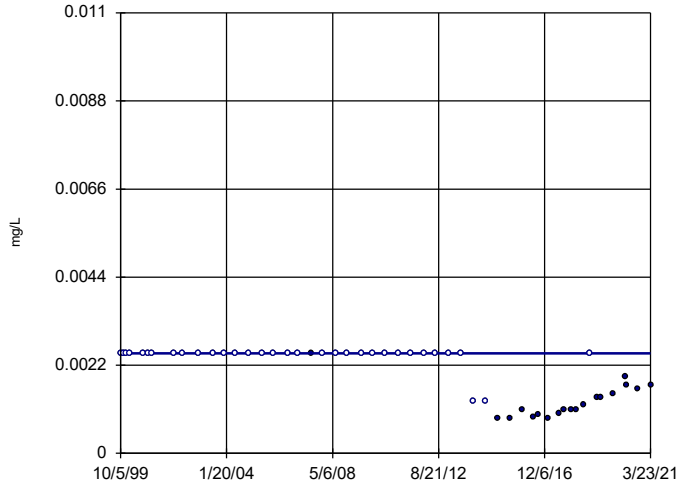
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-3A (bg)



n = 52

Slope = -2.5e-11 units per year.

Mann-Kendall normal approx. = -4.492
critical = -2.58

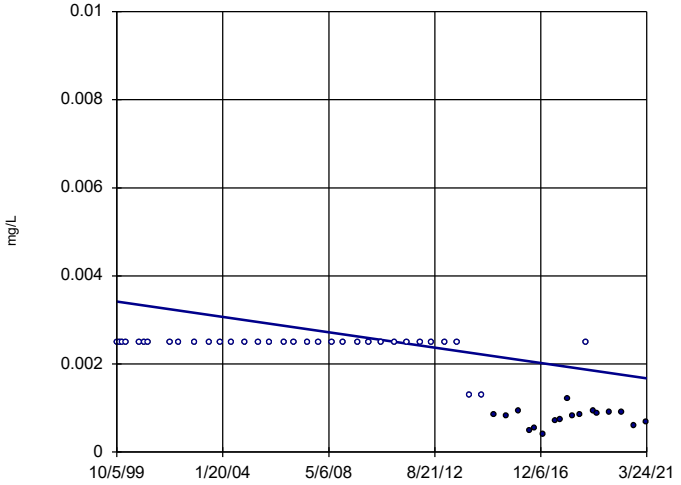
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-4 (bg)



n = 51

Slope = -0.0000812 units per year.

Mann-Kendall normal approx. = -5.612
critical = -2.58

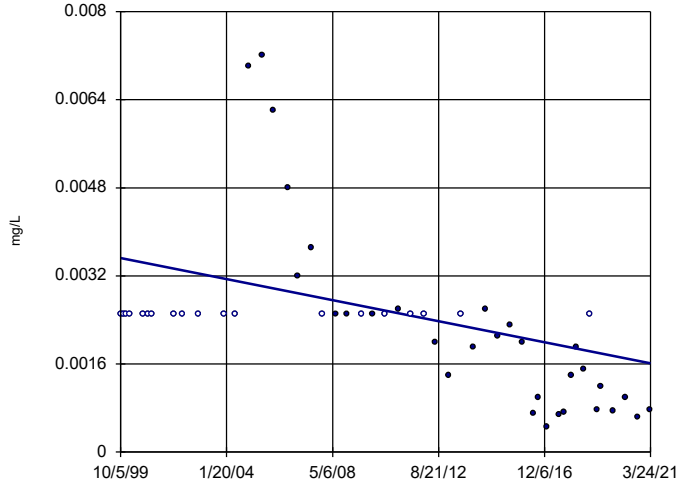
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-5 (bg)



n = 50

Slope = -0.00008909 units per year.

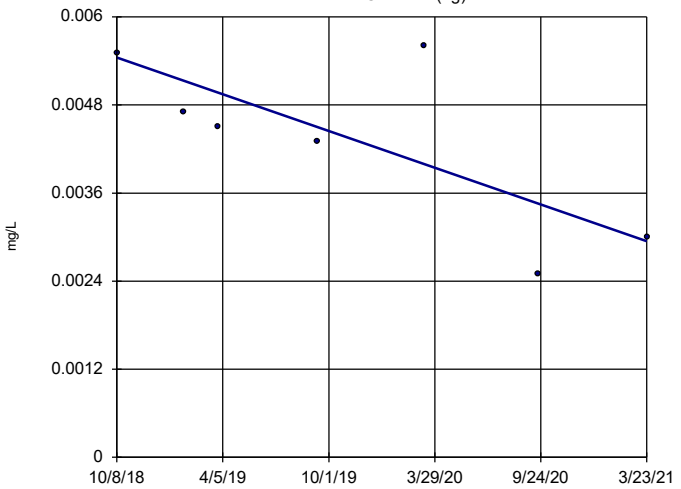
Mann-Kendall normal approx. = -5.265
critical = -2.58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sen's Slope Estimator

GWA-7A (bg)



n = 7

Slope = -0.001017 units per year.

Mann-Kendall statistic = -11
critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests

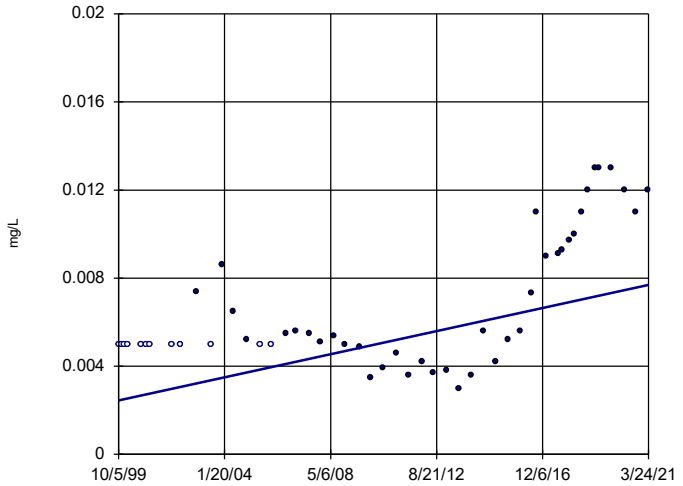
Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWC-5



n = 51

Slope = 0.0002442 units per year.

Mann-Kendall normal approx. = 3.887
critical = 2.58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/16/2021 11:19 AM View: Trend Tests

Plant McIntosh Client: Southern Company Data: McIntosh LF 3 CCR



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